

# **2017-2018 Health Sciences Bulletin**

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# Health Sciences Bulletin

**Welcome** to the Stony Brook University Health Sciences Bulletin Online. The online Bulletin is updated on a regular basis. Historical versions are archived once per year.

For general information about Admissions & Financial Aid for any of the schools within the health sciences, select [ADMISSIONS](#) in the above navigation, or select [REGULATIONS & PROCEDURES](#) for detailed information concerning degree requirements, policies and academic standards and more. [SCHOOLS](#) provides details on the 6 schools in the health sciences, as well as course descriptions. Printable PDF files of [courses](#) and [all other sections](#) are available.

## **Student Responsibility**

Students are responsible for reviewing, understanding, and abiding by the University's regulations, procedures, requirements, and deadlines as described in official publications including this Health Sciences Bulletin, the Student Handbook, and class schedules.

[Health Sciences Academic Calendar](#)

Need a past bulletin? [Click here](#)

# Academic Regulations and Procedures

## Overview

The academic regulations and procedures in this Bulletin apply to all students in the Health Sciences programs. Exceptions are noted where applicable. Regulations and procedures that are specific to a school or degree program are listed in the “School” or “Program” section of this Bulletin.

## Registration and Academic Records

Completion of registration (enrollment of coursework), in accordance with instructions issued by the [Health Sciences Office of Student Services](#), is a prerequisite to class attendance. Registration for all students is conducted each term by the University’s online student system, [SOLAR](#). Advance registration begins in November for the following spring and winter, and in April for the following summer and fall. Final registration takes place through the first 10 days of classes. Registration on or after the first day of classes will result in a late registration fee.

In exceptional circumstances, students may request late petition to enroll in coursework after day 10. If approved by the academic department and dean of the school. Late registration fees will be processed according to procedures implemented by the Bursar and Student Accounts Offices.

## Awards and Honors

### Awards and Honors

#### School Awards

A candidate for the bachelor’s degree may receive school or departmental awards for superior performance upon recommendation of the faculty of the school in which the student is enrolled.

#### Undergraduate Dean’s List

At the end of each semester, the dean of each academic undergraduate unit compiles a Dean’s List of undergraduate students who constitute approximately the top 20 percent of the class. Each full-time student must complete in that semester at least 12 credits for a letter grade (including S) and have no U’s, I’s, NR’s, NC’s, NF’s, Q’s or F’s. P grades are not considered to be letter grades. Part-time students must have earned at least six credits in a semester of letter graded work (not including S or P grades). The grade point cutoffs are: juniors 3.45, seniors 3.60 in the School of Health Technology and Management; juniors and seniors 3.60 in the School of Nursing; juniors and seniors 3.75 in the School of Social Welfare. Juniors must have earned a total of 57 credits; seniors must have 85 credits.

## Degrees with Distinction

Degrees with distinction are conferred on candidates for the bachelor of science degree who have completed at least 60 credits at Stony Brook, excluding special examination and waiver credit (or 43 credits for Registered Nurse Baccalaureate students), and who attain the requisite grade point average (determined by the school). The levels of distinction are summa cum laude, magna cum laude, and cum laude. Attainment of a degree with distinction is indicated on the student’s diploma and permanent academic record. The grade point cutoffs are as follows, for students in the School of Health Technology and Management, summa cum laude, 3.85; magna cum laude, 3.75; cum laude, 3.60; students in the School of Nursing, summa cum laude, 3.80; magna cum laude, 3.70; cum laude 3.60; students in the School of Social Welfare, summa cum laude 3.90, magna cum laude 3.80, cum laude 3.70.

## University Awards

The University pays tribute to its outstanding students through the conferring of awards, election to honorary societies and granting of departmental and University honors. The following University awards are presented each year:

The Ward Melville Valedictorian Award is named in honor of the first chairperson of the Stony Brook Council. Presented annually, it is the University’s most distinguished undergraduate honor and is presented to the graduating senior who has attained the highest academic average during four years at Stony Brook.

The William J. Sullivan Award is presented annually by the University in honor of Justice William J. Sullivan, late chairperson of the Stony Brook Council. It is the most prestigious service award the university presents to a graduating senior. The award represents the University’s recognition of particularly outstanding service contributions to the development of academic and student life on the campus.

The H. Lee Dennison Award, named in honor of Suffolk County’s first chief executive, is presented by the University to the graduating senior who entered Stony Brook as a transfer student, completed at least 60 credits of letter grades at Stony Brook, and attained the highest academic average in that work.

The Distinguished Community Service Award is presented annually by the Stony Brook Foundation to a graduating senior in recognition of particularly outstanding contributions to public service in the Long Island region.

The United University Professions Award is presented to that member of the graduating class who has most displayed an unselfish concern for the promotion and protection of human rights and values.

The Elizabeth D. Couey Alumni Association Award is presented by the Stony Brook Union Advisory Board and the Department of Student Union and Activities to a graduating senior who has exhibited outstanding contributions toward the improvement and growth of student services and programs and exemplifies Elizabeth Couey's unique qualities, which include the ability to listen with understanding, guide without boundaries, give and take with love, and grow with each passing day.

The Elisabeth Luce Moore Award in International and Religious Studies is given annually to a deserving student who demonstrates outstanding academic achievement and gives promise of contributions of unusual stature to the fostering of international understanding and/or the appreciation of religious values.

The Minorities in Medicine Award is presented annually by the Minorities in Medicine Organization to an outstanding African-American, Latino or Native American upper-division student who has demonstrated a commitment to pursuing a career in the health professions.

The Norma Mahoney Black and Hispanic Alumni Association Award is presented to an African-American, Latino or Native American graduating senior who has excelled in his or her studies and who has demonstrated a concern for the African-American, Native American and Latino communities.

The Single Parent Awards are presented to full-time students in their junior year who are single parents in need of financial assistance.

The Returning Student Award is presented by the University Association to an undergraduate who has successfully returned to college after years or decades away from higher education. The award recognizes academic excellence and service to the community beyond the campus.

## Honor Societies

Induction into an honorary society also acknowledges outstanding academic performance on the part of a student. Selection of students is based primarily on University records and recommendation (not on application). Some of the disciplinary national honor societies require application and have established criteria for eligibility. Interested students should approach the relevant department or program

Alpha Omega Alpha, a chapter of Alpha Omega Alpha, the national honor medical society, annually recognizes outstanding medical students, alumni and faculty.

Alpha Eta is a national honorary society for the allied health professionals. The Stony Brook chapter was established in 1982 to recognize and encourage scholarship in allied health.

Lambda Beta is a national honor society for the profession of respiratory care. The Stony Brook chapter in the School of Health Technology and Management was formed in 1987. The criteria for election include scholarship and community and professional service.

Lambda Tau is a national honor society for the profession of Clinical Laboratory Sciences. The Stony Brook Sigma Beta chapter in the School of Health Technology and Management

was formed in 1993. Eligibility is limited to no more than 15 percent of each class.

Phi Beta Kappa is a national honorary society devoted to the promotion of scholarly attainment in liberal arts and sciences. Election to Phi Beta Kappa is not only based on high grades.

Pi Theta Epsilon is a national honor society for the profession of occupational therapy. The Stony Brook chapter in the School of Health Technology and Management was established in 2001 to recognize high achievement in scholarship and research.

Sigma Theta Tau International Nursing Honor Society recognizes outstanding nursing students. The Kappa Gamma chapter in the School of Nursing was chartered in 1988.

Sigma Xi is a national honorary society for achievement in pure or applied scientific research. Any student associated with Stony Brook who has through research achievements shown a marked aptitude that is expected in due course to lead to the fulfillment of the requirements for full membership, may be nominated by a faculty member or department and elected as an associate member of Sigma Xi but also on breadth, balance and proportion in the candidates' programs.

The Sigma Tau chapter of Omicron Kappa Upsilon (OKU) was established at the School of Dental Medicine in 1977. Based on academic excellence, character references and service, the active members of the chapter may elect up to 12 percent of the graduating students each year to membership in this organization.

## Degree Requirements

### Degree Requirements

#### Requirements for the Bachelor of Science

Health Sciences candidates for the Bachelor of Science degree must satisfy all University graduation requirements, as well as the Health Sciences school requirements for the specific degree. At least 120 credit hours of passing work must have been completed for the Bachelor of Science degree. Each candidate must earn at least 39 credits in upper division courses (numbered 300 and higher) and have an overall cumulative grade point average of at least 2.00. Additional grade point average requirements for specific schools are described under each "School" section. Students advanced to the Bachelor of Science in Health Sciences program must complete the Stony Brook Curriculum (SBC) requirement.

The following groups of students will complete the general education requirements as defined by the Stony Brook Curriculum, commonly referred to as SBC.

- Freshmen who matriculate in the Fall of 2014 or later
- Transfer students who matriculate in the Spring of 2015 or later
- Students who matriculate in the School of Nursing Fall 2015 or later

- Students who matriculate in the School of Social Welfare Fall 2015 or later
- Students who matriculate in the Athletic Training major, Respiratory Care major, or Clinical Laboratory Sciences major in the Summer of 2016 or later
- All students matriculating at SUNY Korea
- Students who rematriculate in the Fall of 2014 or later

*Students who are not in the above groups will complete the D.E.C. D.E.C. requirements for each student are published in the bulletin that was current as of matriculation (or rematriculation).*

## the stony brook curriculum (sbc)

The Stony Brook Curriculum includes both breadth and depth of study, and ensures that students will learn skills necessary for life-long learning. Use the course search to search for courses that complete SBC learning objectives.

Through the general education curriculum, students will:

**DEMONSTRATE VERSATILITY** by showing proficiency in each of ten fundamental learning objectives:

- Explore and Understand the Fine and Performing Arts (ARTS)
- Engage Global Issues (GLO)
- Address Problems using Critical Analysis and the Methods of the Humanities (HUM)
- Communicate in a Human Language Other than English (LANG) (see Note)
- Master Quantitative Problem Solving (QPS)
- Understand, Observe, and Analyze Human Behavior and the Structure and Functioning of Society (SBS)
- Study the Natural World (SNW)
- Understand Technology (TECH)
- Understand the Political, Economic, Social, and Cultural History of the United States (USA)
- Write Effectively in English (WRT)

*Note: CEAS majors, the Athletic Training major, the Respiratory Care major, and the Clinical Laboratory Sciences major are exempt from the LANG learning objective. Students enrolled in the major in Social Work are exempt from the LANG learning objective, but are required to enroll in and pass with a letter grade of C or higher the first semester of an elementary foreign language course numbered 111, or satisfy through alternate methods (see *Communicate in a Human Language Other than English--LANG*).*

**EXPLORE INTERCONNECTEDNESS** by completing a course that examines significant relationships between Science or Technology and the Arts, Humanities, or Social Sciences (STAS).

**PURSUE DEEPER UNDERSTANDING** by completing advanced studies in three of four distinct areas of knowledge. A "+" sign in the abbreviations for these learning objectives signifies that most courses in this category will be relatively advanced courses at the 200- to 400-level. These learning objectives are:

- Experiential Learning (EXP+)
- Humanities and Fine Arts (HFA+)
- Social and Behavioral Sciences (SBS+)

- Science, Technology, Engineering, and Mathematics (STEM+)

**PREPARE FOR LIFE-LONG LEARNING** by taking (in most cases) courses which may also satisfy other SBC, major or other degree requirements.

- Practice and Respect Critical and Ethical Reasoning (CER)
- Evaluate and Synthesize Researched Information (ESI)
- Speak Effectively before an Audience (SPK)
- Write Effectively within One's Discipline (WRTD)

Students may reduce the number of courses needed to achieve the Stony Brook Curriculum learning objectives through university certified AP credit, courses certified in more than one area, challenge exams, on-campus placement tests, course waivers, and faculty-designed themed course clusters. In accordance with SUNY policy, at a minimum, students must complete at least 30 credits of General Education awarded by an institution of higher education. In order to satisfy the SBC learning objectives, a passing letter grade or a grade of S must be earned in the corresponding course. Recorded grades of P, NC, U or F will not satisfy SBC learning objectives. LANG, WRT, and QPS learning objectives must be passed with a grade of C or higher.

A detailed list of the courses and activities that fulfill these objectives may be found in the university undergraduate Bulletin. Many of the above requirements may be fulfilled as part of a student's major or minor.

Note on Courses Satisfying SBC learning objectives:

- A student's general education record may not be changed retroactively. The University may change the SBC category or learning objectives of a course, but for a particular student, the course will count only toward the requirement it fulfilled at the time the student took the course.
- For a number of semesters, the student population at Stony Brook University will include students who are pursuing either the Diversified Education Curriculum OR the Stony Brook Curriculum. Therefore, enrollment in a given course may include students pursuing either D.E.C. or SBC. To facilitate degree progress of both groups of students, a course may satisfy D.E.C., SBC or both. However, the DEC category of a course is not always equivalent to the SBC learning objectives. A course satisfies only the categories in D.E.C. or SBC as approved by the Stony Brook faculty.
- In order to satisfy the SBC learning objectives, a passing letter grade or a grade of S must be earned in the corresponding course. Recorded grades of P, NC, U or F will not satisfy SBC learning objectives. LANG, WRT, and QPS learning objectives must be passed with a grade of C or higher.
- The inclusion of an SBC abbreviation indicates whether a course is approved to satisfy one or more sets of SBC learning objectives. If an SBC abbreviation does not appear with the course entry in the Bulletin, that course may not be used to satisfy any SBC learning objectives.
- College courses taken while the student was in high school will be evaluated for applicability to SBC learning objectives.

- Transferred courses must carry at least three semester hours of credit to be applicable to any learning objective.

## transferred Undergraduate credits from other universities

Equivalent or transfer credit to fulfill general degree requirements is determined by the Health Sciences school to which the student has been admitted. Courses taught at the University which are appropriate to fulfill University requirements are listed in the University Bulletin. Some specific study areas and course levels are not accepted for this purpose by the schools of the Health Sciences programs. The student must discuss with a program advisor which courses are appropriate and will be acceptable to fulfill the general University requirements.

## Residence Requirement

For undergraduate students, the University residence requirement states that after the 57th credit, students must earn at least 36 credits at Stony Brook University. Exceptions for programmatic reasons are noted under applicable programs in this Bulletin.

## Double Degrees and Double Majors

Students at Stony Brook may pursue double majors and simultaneously earn bachelor's degrees from both the Health Sciences and a west campus college if they have been formally admitted to each unit and fulfill the criteria and requirements outlined below.

For double majors, the student must receive written approval from the dean of the Health Sciences school in which the student is enrolled and the west campus department or program involved.

For double degrees, written approval to undertake this curriculum must be obtained from the dean of the Health Sciences school in which the student is enrolled, subject to review and final authorization by the Office of Undergraduate Academic Affairs. The double degree may include either a Bachelor of Arts, a Bachelor of Science or a Bachelor of Engineering degree from a west campus program and a Bachelor of Science degree from the Health Sciences program. The double degree will be given only when:

1. A concentration in the second field has been completed in a time span greater than required for one degree, i.e., normally five years of full-time study; and
2. A candidate has competency in two essentially different areas of specialization, i.e. in a Health Sciences program and a specific major in a west campus program.

To earn credit towards a double degree, a student must fulfill the following requirements:

- Minimum total credits, 144
- Minimum liberal arts credits, 90
- Diversified education curriculum including the entry skill requirements of the University, the completion of which also satisfies the requirements of the Health Science program. Minimum of 36 Stony Brook liberal arts credits (of which at least 15 must be in upper-division courses)

- Minimum Health Sciences credits as determined by the department and school of the selected major Minimum quality point average and minimum unduplicated coursework as required for each degree. Only double degrees, not second majors, may be earned by students studying jointly in the Schools of Nursing or Social Welfare and a west campus college. Students in the School of Health Technology and Management may earn either a double degree or a second major. Since December 21, 2001, students studying for the Bachelor of Science in Health Sciences are no longer eligible to pursue a double degree. For a second major, all current guidelines and regulations apply, except that the distribution requirements are those currently in effect for Health Sciences programs.

The degree date for double degrees or second majors is determined by the latest completion date for each degree or each major program. The latter degree date is posted even if one degree or major program is completed earlier than the other.

Since December 21, 2001, students studying for the Bachelor of Science in Health Sciences are no longer eligible to pursue a double degree. For a double major, all current guidelines and regulations apply, except that the distribution requirements are those currently in effect for Health Sciences programs.

The degree date for double degrees or double majors is determined by the latest completion date for each degree or each major program. The latter degree date is posted even if one degree or major program is completed earlier than the other.

## Second Bachelor's Degree Program

A student who has received a bachelor's degree from Stony Brook or another accredited institution and who wishes to earn a second degree from a West Campus program must apply and be accepted as a matriculated student for the second baccalaureate. After completing the first degree, the student must earn at least 36 credits in residence at Stony Brook and complete a new major in a significantly different discipline. Of these 36 credits, 21 must be at the upper-division level (courses numbered 300 or higher), primarily from courses chosen for the major. Coursework completed for the first bachelor's degree, whether taken at Stony Brook or elsewhere, does not count toward completing these requirements. Sequential bachelor's degree students who wish to qualify for degrees with distinction must complete 55 credits in coursework at Stony Brook toward the second degree. All sequential bachelor's degree candidates must have completed, with a C or higher, courses judged equivalent to Stony Brook's general education requirements in English composition and mathematics or complete these courses at Stony Brook. For purposes of registration and academic standing, matriculated candidates for a second baccalaureate will be treated as seniors.

Students pursuing a Second Bachelors degree who matriculated prior to Spring 2015 are required to fulfill D.E.C. categories H, I, J, and K through coursework taken at Stony Brook University under the Second Bachelors degree

program. Prior DEC H, I, J, and K courses taken at Stony Brook University do not count toward the Second Bachelors degree program.

Second Bachelor's degree students who matriculated Spring 2015 or later are not required to satisfy SBC learning objectives outside of the requirements described above.

## Summer Study Elsewhere

To insure that projected courses will be fully acceptable for transfer credit, students planning to take summer courses elsewhere should discuss plans in advance with their Health Sciences academic advisors to obtain assistance in determining courses and their school equivalents. Appropriate transfer credit will be granted after the [Office of Student Services](#) receives an official transcript indicating that the student has completed the courses with an acceptable grade (C or higher).

## Requirements for Graduate Degrees

All candidates for East Campus degrees should consult the appropriate "School" section of this Bulletin.

### Graduate Student Residence and Matriculation Requirements

To be certified for a graduate degree, a student must have earned the equivalent of one year of full-time study in the school of enrollment.

The purpose of the residence requirement is to ensure that the graduate student participates in the professional life of the program beyond class attendance. Students must maintain matriculation by registering for at least one graduate credit course in research or independent study during each academic term for which they are maintaining matriculation.

To be eligible to receive a degree, a student must register for at least one graduate credit for the academic term in which the degree is conferred. This includes those graduate students who are not taking classes, but who use the library, laboratories or computer facilities; who are consulting with the faculty while working on their dissertation, clinical experience or independent study; and who are preparing for or taking required examinations. Students who hold graduate traineeships, research assistantships or fellowships must be registered as full-time students.

Graduate students who are supported on faculty research grants or assistantships, traineeships, and fellowships during the summer must be registered in approved courses in the summer session.

### Graduate Study Away from Campus

Normally it is expected that a graduate student's course of study and research will be conducted at the Health Sciences building under the direct guidance of the faculty of the program in which the degree is sought or at facilities close by such as [Brookhaven National Laboratory](#) and [Cold Spring Harbor Laboratory](#), hospitals and other health agencies on Long Island, or at libraries in New York City. However, there may be circumstances in which the student's work might be facilitated if it were done elsewhere. In such cases, the school

may give permission for the student to carry on work away from the campus.

Permission is ordinarily based on the following factors:

1. The reasons for the request;
2. The conditions under which the student's work away from campus is to be performed, supervised and evaluated;
3. The registration of the student as a graduate student in the school and payment of the necessary fees. A student who is supported by a stipend or grant from state funds, or from University-monitored federal and private sources, must be registered as a full-time student. If the student is employed elsewhere, in a position not under the University or Health Sciences jurisdiction, matriculation may be maintained by registering for at least one credit of research or independent study in each academic period;
4. Agreement by the dean of the school that permission for the student to do work away from the campus will not diminish the school's capability to fulfill its commitment;
5. An agreement from the institution where the student's work is to be performed, in which acceptance of responsibility for its supervision is made. In the case of archival research or field work, a statement of authorization for the student to use such resources must be obtained;
6. The approval of the student's academic advisor.

### Graduate Student Exchange Credits

When the special educational needs of a graduate student at one campus of the State University of New York can be served best by taking a course for credit at another institution in the system the student should obtain a statement from the dean of the school recommending admission of the student to take the desired course at the visited institution. The recommendation should state that the student has the prerequisites for the course and that, if the course is successfully completed, credit for it will be accepted toward the degree. The statement from the dean should then be sent to the graduate school of the visited institution, where it will be cleared with the instructor of the course and the chairman of the department concerned. When approval is obtained, the student will be admitted as a special student for purposes of taking the requested course. The student will pay appropriate tuition and fees at the visited institution. If the student has a waiver of tuition at his or her home institution, the waiver will be recognized by the visited institution. At the completion of the course, the visited institution will, upon request, send a transcript to the student's home institution. This exchange is restricted to courses not available at the home institution.

### Transferred Graduate Credits from Other Universities

Graduate candidates may petition the school to accept credits from another institution toward his or her degree. The school has the responsibility of deciding on the applicability of credits to the specific program. Normally, transfer credits will be limited to no more than six credits.

## Apply for Graduation

To qualify as a candidate for graduation, all students must apply online through the [SOLAR system](#). Deadlines are published in the [Health Sciences Academic Calendar](#). Students who miss the deadline dates noted in the Academic Calendar will not be included in the Commencement publications.

If a student applies for graduation and wishes to change the degree date or send diploma address the student must complete the Graduation Change Date Form available online and submitted to the Health Sciences Office of Student Services located in the Health Sciences Tower, Level 2, Rm. 271.

Diplomas take 4-6 weeks to receive after the degree has been completed and posted to the record.

# Grades and Academic Standards

## Grades & Academic Standards

### Assignment of Grades

Final grades are recorded in the fall at the end of the term and at the end of module session 3, and in the spring at the end of the term and at the end of module session 8, except in courses designated by the school as part of a grading sequence in which a final grade is given only after the sequence has been completed.

### Grading System

A letter grading system is used by the Schools of Health Technology and Management, Nursing, Social Welfare, Basic Sciences, Master of Public Health and Nutrition programs. The School of Dental Medicine uses the letter grading system, for all didactic and laboratory courses, including basic sciences courses, except those specifically identified by the school.

A Satisfactory/Unsatisfactory (S/U) and/or Satisfactory/Failure (S/F) grading system is used for selected courses in the Schools of Health Technology and Management, Nursing, Social Welfare and Graduate Program in Public Health and for all clinical courses and seminars in the School of Dental Medicine. The School of Dental Medicine also uses an honor grade of (H). The School of Medicine uses the Honors/Pass/Fail grading system as described in the School of Medicine section of this Bulletin.

The Schools of Health Technology and Management, Nursing, Social Welfare, Basic Science, Master of Public Health and Nutrition programs may use plus or minus grades for students of these schools.

Grades are assigned point values as follows:

A = 4.00 (superior work)  
 A- = 3.67  
 B+ = 3.33  
 B = 3.00 (good work)

B- = 2.67  
 C+ = 2.33  
 C = 2.00 (satisfactory work)  
 C- = 1.67  
 D+ = 1.33  
 D = 1.00 (minimum passing work)  
 F = 0.00 (failing work)  
 S = (indicates satisfactory work)  
 U = (indicates unsatisfactory work)

The letter grades D and D+ may not be assigned to graduate students in a graduate level course in the schools of Nursing, Social Welfare and Master of Public Health program. The following are also used in the grading system:

### Incompletes

Incompletes (I) may be given at the discretion of the instructor when a student is unable to complete all course requirements because of circumstances beyond his or her control. Incomplete (I) grades are used by the Health Sciences programs and the Schools of Medicine and Dental Medicine as described in the school section of this Bulletin. If a grade is not reported by the deadline date appearing in the academic calendar, or if the instructor does not extend the period for completing the course requirements, the grade of I will automatically be changed to U or I/F as appropriate. The grade of I/F will be averaged as F when computing the I/F or No Credit (NC) grade point average (GPA) or determining other aspects of the academic standing of the student. Under unusual circumstances, an instructor may extend the period for completing the course requirements. In such cases, the instructor must notify the Health Sciences Office of Student Services in writing of the new deadline.

### No Record

An instructor may assign a grade of No Record (NR) for students in the Schools of Health Technology and Management, Nursing, Social Welfare, Master of Public Health and Nutrition programs. The Schools of Dental Medicine and Medicine do not use the NR grade. The NR grade is assigned for students who have never (to the instructor's knowledge) participated in the course in any way, but appear on the final grade roster for the course.

Undergraduate grades of NR that have not been replaced by a final grade or by withdrawal (W) by the end of the ninth week of the fall semester (for spring NR grades) or by the end of the ninth week of the spring semester (for fall NR grades) will be converted to one of the following grades: N/F for letter graded course, N/U for courses graded S/U, or N/C for courses taken under the Graded/Pass/No Credit option (GPNC). The grade of N/F will be treated as a failure (F) for the purposes of academic standing and will be averaged as a failure (F) in the computation of the student's GPA.

### Graded/Pass/No Credit Option (GPNC)

Graded/Pass/No Credit Option (GPNC) may be used by undergraduates in the Schools of Social Welfare and Health Technology and Management for courses taken outside the school's program.

The following provisions reflect the intent of this option, which is to encourage students to explore other and sometimes less familiar areas of study.

1. The GPNC process requires students to select a threshold letter grade as the minimum acceptable grade for the course. If a student should achieve his/her minimum grade or higher, the achieved grade will be the final reported grade on the transcript and will be factored into the GPA. If a student should achieve a grade less than the threshold but higher than F, the final reported grade on the transcript will be P (Pass). If a student fails the course, the final reported grade on the transcript will be NC (No Credit).
2. Courses graded P or NC cannot be used to satisfy the Diversified Education Curriculum (D.E.C.) requirements or the Stony Brook Curriculum (SBC) learning objectives.
3. Courses graded P may be used to satisfy the university upper-division credit requirement.
4. Election of the GPNC option must be completed before the end of the ninth week of the semester as specified in the academic calendar at <http://www.stonybrook.edu/registrar>. After the date specified in the academic calendar, no changes either to or from the GPNC option may be made. Students may not petition to change a course to letter-graded after the deadline for changing courses to or from the GPNC option has passed.
5. The GPNC option may be elected only once for a given course. The GPNC option may be elected more than once per course (but only once per distinct course topic) in courses designated as repeatable for credit. See [link](#) for more information on repeatable courses.
6. Students may elect the GPNC option for no more than one course per term.
7. The Registrar does not communicate to the instructor of a course the names of students who elect the GPNC option.
8. Courses for which the grade of P or NC is recorded are not considered among the minimum of 12 credits required for a student to be on the Dean's List.
9. Majors and minors in the College of Arts and Sciences, the College of Business, the School of Marine and Atmospheric Sciences, and the School of Journalism have specific restrictions on the use of the GPNC option to satisfy their requirements. Refer to the specific major or minor requirements in the "Approved Majors, Minors, and Programs" chapter of this Bulletin for details. Students in the College of Engineering and Applied Sciences may not take any courses in the major, including technical electives, under the GPNC option. Only Open Electives may be taken under the GPNC option.
10. Certain courses may not be taken under the GPNC option, such as developmental courses, or courses with special grading bases such as S/U, or ABC/U. Courses not available for the GPNC option are noted in the Bulletin course descriptions and/or [here](#)

#### *Reserved/Registered*

A Reserved (R) grade is used by the Schools of Health Technology and Management, Medicine, Nursing and Social Welfare to indicate attendance during the first course in a

sequence for which a final grade will be assigned only at the completion of the second course in the sequence. R grades are not computed in the GPA.

### **Satisfactory/Unsatisfactory or Satisfactory/Failure**

A Satisfactory/Unsatisfactory (S/U) or Satisfactory/Failure (S/F) grading basis may be used by the Schools of Health Technology and Management, Nursing, Social Welfare and Master of Public Health Program in specially designated courses where finer grading distinctions are impractical, and an S/U or S/F grading policy is announced in the course description provided by the school. No other grades may be assigned in such courses and students may not elect to take such courses for P/NC. The School of Dental Medicine uses S/U grading and adds an Honors (H) grade for all clinical courses and seminars, and those specifically identified by the school. F grades are computed in the grade point average, S and U grades are not computed in the GPA.

### **Withdrawal**

A mark of W is recorded when the student withdraws from a course after the tenth class meeting for Undergraduate and Graduate students. The W is used to indicate that the student withdrew after the end of the add/drop period. The W is not calculated into the grade point average.

### **Grade Point Average**

For the purposes of determining grade point averages for the undergraduate and graduate students in the Health Sciences programs, letter grades with an assigned point value are included in the grade point average. To compute the cumulative grade point average, the number of points equivalent to the letter grade earned in a given course is multiplied by the number of credit hours for that course. The total number of points earned in all courses is then divided by the total number of credit hours for which the student has been enrolled. Only grades earned at the Stony Brook University are included in the grade point average.

Grades and courses appearing on the student's academic record at the time the degree is conferred, cannot be changed except in exceptional circumstances. Students will be permitted to graduate with the grade of F on the academic record in exceptional circumstances, and if permission is granted by the dean of the school.

### **Repeating/retaking Courses**

With the approval of the program director, a student may repeat or retake a course. All grades having assigned points and credit hours will be included in the grade point average, but a given course which has been repeated may be counted only once in satisfying degree requirements. Definition: Repeating-to take a course again that is marked as "may be repeated. Examples include topic's courses, teaching seminars or internships. Retaking-to take a course again that is not marked as "may be repeated".

## Academic Renewal Policy

Effective October 1997, students who have not been enrolled at the University for at least 10 consecutive semesters and/or have previously earned a degree or certificate from Stony Brook University, may be eligible for academic renewal. Under this policy, the student's cumulative grade point average and cumulative credit total will be calculated based on course grades earned as of the date of academic renewal, although the original grades and grade point average remain on the transcript. After academic renewal, students must earn 55 credits in residence to be considered for degrees with distinction. For eligibility requirements, see a representative in your Health Sciences school.

## degree progress report

The Degree Progress Report (available through Stony Brook's Academic Records System-SOLAR), at <http://www.stonybrook.edu/solar> ) evaluates and reports a student's progress toward fulfilling degree requirements. The report is designed to be a helpful advisory tool and is not an official evaluation of a student's progress. Note that students should consult the major and minor departments to help plan a course schedule that fulfills the requirements for the major or minor.

## Academic Standing

The academic standing of Health Sciences students is subject to the policies of the school in which the student is enrolled. Each school has a committee on academic standing which is advisory to the dean. Appeals from decision of deans are directed to the senior vice president for Health Sciences.

Similar procedures are followed in cases where academic dishonesty is alleged to have occurred. Refer to the academic standing requirements for each in subsequent "School" sections of this Bulletin.

## Academic Honesty

Intellectual honesty is the cornerstone of all academic and scholarly work; academic dishonesty is viewed as a serious matter. Detailed policies and procedures for hearings and other matters are provided in the "School" sections of this Bulletin.

# Policies

## Policies

### Change of Course Registration

During the first ten days of the term, undergraduate students may add or drop courses through the SOLAR system. After the tenth day of classes, changes in registration must be requested through the appropriate Health Sciences school. Students may drop a course after the tenth class day; however, a "W" (withdrawal) will be recorded on the transcript. Graduate students may add classes through the third week of classes; however, a "W" (withdrawal) will be recorded on the academic record if the student drops a class after the tenth day of class. After the start of classes, students who drop

classes or withdraw from the University will incur a percentage of tuition and fees; please see the [Bursar/Student Accounts](#) liability schedule.

## Course Load

Undergraduate full-time students must register for a minimum of 12 credits for the fall or spring academic term. A student who wishes to register for less than the number of credits required by the program need to secure approval from the academic program. Graduate full-time students will register for either 12 or 9 credit hours per term based on their academic level. Full-time status is a requirement for on-campus housing and most financial aid programs.

## Classification of Courses

The numbering system for course level ranges from 300 to 500 and above. All 300 and 400 level courses are upper-division courses. These are appropriate for and are generally taken by students in their junior and senior year of study. All 500-level courses and above are graduate courses.

## Auditing

Auditing refers to the practice of attending a course for informational instruction only. The privilege of auditing courses is limited to matriculated students and senior citizens. Courses offered through the Health Sciences programs cannot be taken on an audit basis.

Matriculated students who wish to audit a course must first obtain permission from the instructor. Senior citizens must arrange to audit courses through the [School of Professional Development](#). An auditor does not receive academic credit for the course, nor does the University maintain any record of the auditor's attendance in the course. After the end of the add/drop period, the student may not change status in a course from auditor to registered.

## ACADEMIC CREDIT BY EXAMINATION AND OTHER CREDIT OPTIONS

Programs in the Health Sciences will allow students to earn credit based on external standardized examinations such as AP, CLEP, IB, Regents College Examinations, and the University's own challenge examinations. Courses for which examinations are permitted are recommended by the faculty and approved by the dean. Credit by examination may not be used to satisfy the Stony Brook Curriculum learning objectives except as follows: AP credit can be used to satisfy many SBC learning objectives and the Health Sciences course distribution degree requirements. Credit by examination or other options does not count toward the University's residence requirement and cannot be used to satisfy total credits necessary to qualify for degrees with distinction.

Additional questions regarding academic credit by examination and other credit options should be directed to the advisor or to the Office of the Dean of the appropriate Health Sciences school.

## Withdrawal from the Health Sciences Programs

Withdrawal from an academic program, for any reason, will be recorded only when written notification is submitted to the [Health Sciences Office of Student Services](#) from an **authorized official** of a Health Sciences program, with documentation.

*Note: Non-attendance does not constitute an official withdrawal. Notification to the student's instructor does not constitute an official withdrawal. Non-payment of tuition and fees does not constitute an official withdrawal. A student who leaves a school without obtaining an official withdrawal may forfeit the prospect of readmission. If he/she leaves during an academic period without authorization, the student will be reported as having failed all courses. Withdrawal from the University does not relieve students from financial obligations.*

## Leave of Absence

At the time of withdrawal from the University, students have the option of indicating whether they intend to return. A leave of absence may be obtained for a specified time as determined by the school. Students should contact the school or department as soon as possible noting their desire to withdraw. Proper documents and authorization must be obtained from the academic program and dean, and submitted to the [Health Sciences Office of Student Services](#).

## Medical Leave of Absence

Most students who leave the Health Sciences programs for medical reasons do so voluntarily after discussions with medical advisors and an academic program dean. A request for a medical leave of absence is normally initiated by a student, approved by the dean of his or her school in consultation with the appropriate campus office, and entered on the University records by the [Health Sciences Office of Student Services](#).

The dean will indicate what documentation will be necessary to demonstrate readiness to resume studies in the Health Sciences program(s).

## Changing to the Colleges of Arts and Sciences, Engineering and Applied Sciences, College of Business, School of Journalism

Students enrolled in a Health Sciences school who wish to leave the Health Sciences school and pursue work in another college must see the appropriate dean in the Health Sciences school and complete a "Change of Enrollment Form" in order to withdraw from the Health Sciences program.

## Readmission to the Health Sciences

Students who have withdrawn or have been dismissed, and who wish to be readmitted, must apply for readmission through the appropriate Health Sciences school. If the student has attended another institution since leaving the Health Sciences school, an official transcript must be submitted. Each

school will determine readmission according to established policies.

## Transcripts

Dental and medical students must request official transcripts directly from their schools. Information concerning transcript requests is available on the [Registrar's website](#). Transcripts will be issued only if the student's financial record shows no outstanding obligation. Students also may view their unofficial transcripts using the [SOLAR](#) system. Official transcripts of work taken at other institutions, which have been presented for admission or evaluation of credit, cannot be copied or reissued. If a transcript of work is needed, it should be obtained directly from the appropriate institution.

## SOLAR System

Stony Brook's student online access system, the [SOLAR](#) system provides students with access to course information, semester class schedules, class registration, unofficial transcripts, financial aid, billing and payment information as well as links to other important sites such as academic calendars. Access is through the student's Stony Brook ID and password.

## Change of Address

Students must maintain an up-to-date home and mailing address through the [SOLAR](#) system. International students must report changes of address to the [Office of VISA and Immigration Services](#). Current and former employees of the University must make changes through [Human Resource Services](#).

## Change of Name

Students must report changes of name to the [Health Sciences Office of Student Services](#). To change your name you must complete the name change form, available on the [Registrar's website](#). For name changes you must provide two forms of documentation of the new name. Examples of documentation are: driver's license, passport, marriage certificate, court action documents, social security card or professional license. At least one document must be a photo identification. Current and former employees of the University must make changes through [Human Resource Services](#).

## Academic Notice

Students who are the subject of warnings, probation, dismissal, or termination will be notified in writing by their school. The notice will indicate the action which has occurred to cause a change in status; the duration of the status or the response required to modify the status; whether there is an appeal mechanism and its time limits; and who should be contacted for further information. If dismissal from a school is involved, the student will be advised of the date when he/she will become eligible for consideration for readmission.

## student educational records

The Federal Family Educational Rights and Privacy Act (FERPA) of 1974, as amended, sets out requirements designed to protect the privacy of students concerning their records maintained by the campus. FERPA affords students

certain rights with respect to their education records. These rights include:

- The right to inspect and review the student's education records within 45 days of the day the University receives a request for access.
- The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.
- The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent to school officials with legitimate educational interests, including but not limited to administrative, academic, or support personnel (including law enforcement and health services); University attorneys, auditors, or collection agents; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll.
- The right to file a complaint with the U.S. Department of Education concerning alleged failures by State University to comply with the requirements of FERPA. The Office's address is: Family Policy Compliance Office, U.S. Department of Education, Washington, D.C. 20202. In addition, Stony Brook University is authorized to release "directory information" concerning students. Directory information includes: Student's name, addresses (including email), telephone numbers, date and place of birth, major field of study, class, participation in officially recognized activities and sports, weight and height of members of athletic teams, likenesses used in University publications, dates of attendance, degrees and awards received, and previous institutions attended.

Currently enrolled students have the right to have this directory information withheld from the public if they so desire. Forms requesting the withholding of directory information are available at the Registrar's Office on the second floor of the Administration Building or in the Health Sciences Office of Student Services, Health Sciences Tower, Level 2, Rm. 271. At least 10 days should be allowed for processing of these requests.

Additional guidelines and procedures can be found on the [Registrar's website](#).

## HIPAA

All Health Sciences students are required to respect the confidential nature of all information that they have access to including the personal health information of patients. The Health Insurance Portability and Accountability Act (HIPAA) of 1996 provides significant new privacy protections for the health information of patients and research participants. Students in the Health Sciences programs are required to comply with the training requirements related to privacy and security provisions of HIPAA and to abide by the University's policies and procedures related to [HIPAA](#).

Information about HIPAA and training will be provided by the individual Health Sciences schools at orientation.

## Research Involving Human Subjects

Experiments conducted by Stony Brook personnel, on or off campus, in which human subjects are involved are required to be reviewed and approved by the campus Committee on Research Involving Human Subjects ([CORIHS](#)) before they can begin. This requirement extends to questionnaires, both written and oral, and other instruments of personal data collection. Application forms for approval of such experiments can be obtained from the Office of Research Compliance in the Office of the Vice President for Research. A faculty advisor is required for any student-conducted experiment involving human subjects. Standard operating procedures can be found [here](#).

## Research Involving Safety Considerations

Campus committees also review and approve projects involving safety concerns. These include the use of radioactive materials or devices that generate ionizing radiation and the use of recombinant DNA techniques or activities that may involve biologically or chemically hazardous materials. To request approval for such projects the appropriate forms are generally available in departmental offices. Questions may also be directed to the [Office of Research Compliance](#) in the Office of the Vice President for Research.

## Equivalent Opportunity/Religious Absences

Some students may be unable to attend classes on certain days because of religious beliefs. New York State Education Law Section 224-A provides:

1. No person shall be expelled from or be refused admission as a student to an institution of higher education for the reason that he or she is unable, because of religious beliefs, to attend classes or to participate in any examination, study, or work requirements on a particular day or days.
2. Any student in an institution of higher education who is unable, because of religious beliefs, to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination or any study or work requirements.
3. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school because of religious beliefs, an equivalent opportunity to make up any examination, study, or work requirements which he or she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to the student equivalent opportunity.
4. If registration, classes, examination, study, or work requirements are held on Friday after 4 p.m. or on Saturday, similar or makeup classes, examinations, study, or work

requirements or opportunity to register shall be made available on other days, where it is possible and practicable to do so. No special fees shall be charged to the student for these classes, examinations, study or work requirements or registration held on other days.

5. In effectuating the provisions of this section, it shall be the duty of the faculty and of the administrative officials of each institution of higher education to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any students because of their availing themselves of the provisions of this section.

6. Any student who is aggrieved by the alleged failure of any faculty or administrative officials to comply in good faith with the provisions of this section shall be entitled to maintain an action or proceeding in the Supreme Court of the county in which such institution of higher education is located for the enforcement of his or her rights under this section.

7. It shall be the responsibility of the administrative officials of each institution of higher education to give written notice to students of their rights under this section, informing them that each student who is absent from school, because of his or her religious beliefs, must be given an equivalent opportunity to register for classes or make up any examination, study, or work requirements which he or she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to such student such equivalent opportunity.

8. As used in this section, the term "institution of higher education" shall mean any institution of higher education, recognized and approved by the Regents of the University of the State of New York, which provides a course of study leading to the granting of a post-secondary degree or diploma. Such term shall not include any institution which is operated, supervised, or controlled by a church or by a religious or denominational organization whose educational programs are principally designed for the purpose of training ministers or other religious functionaries or for the purpose of propagating religious doctrines. As used in this section, the term "religious belief" shall mean beliefs associated with any corporation organized and operated exclusively for religious purposes, which is not disqualified for tax exemption under section 501 of the United States code. For more information, see the [Guide to Religious Holidays](#).

# Admissions Overview

## Overview

Admission to all Health Sciences programs is by formal application only and is selective as enrollment for each program is limited. Admissions to Health Sciences programs are conducted for the spring, summer or fall, depending on the program's annual starting date. Each school of the Health Sciences is responsible for determining its own admissions policy and for selecting its own students. Information about each school's admissions policy criteria and prerequisites can be found under that school's entry in this Bulletin. Admissions decisions in all programs are made independently of an applicant's ability to finance his or her own education. Students interested in applying for financial aid should refer to the Financial Info section in this Bulletin. Programs may require one or more interviews for all applicants who are seriously considered. Ordinarily, interviews are arranged at the program's rather than the applicant's request. Applicants are invited to interviews by telephone, email, or letter. Any further information about a specific program's interview policy and operation can be found in the school or program section in this Bulletin.

## Application Fees

### Application Fees

All applicants are required to pay a Stony Brook University application fee: \$50 for each undergraduate program, and \$100 for each Graduate, Advanced Certificate and Doctor of Nursing program. Application to some programs through a national application system may also require a supplemental application with a fee.

The application fee (with the exception of the supplemental fee) can be waived in some instances as indicated below:

#### Undergraduate Applicants

- Students who are graduating from SUNY and CUNY two-year colleges and are applying for the next academic term. Official transcript indicating associate degree and degree date are required.
- Transfer applicants, not graduating and currently enrolled in an EOP, HEOP, SEEK or College Discovery program. A letter from the EOP program director is required confirming current enrollment in the program and listing semesters of aid received (this is separate from a recommendation).
- Stony Brook students not graduating and currently enrolled in a matriculated, undergraduate program.

#### Graduate and Advanced Certificate Applicants

- Students currently enrolled in an EOP or HEOP program. A letter from the EOP program director confirming

enrollment in the program is required (this is separate from a recommendation).

Requesting a waiver of the application fee does not guarantee approval. The request will be reviewed and a final determination made by the Health Sciences Office of Student Services. If the fee waiver is not granted, payment of the fee is required. The application will not be processed until payment is received or the waiver approved. Upon submission of the application, applicants will receive information on how to check the status of the waiver request.

## Background Checks

### Student Criminal Background Checks

Please note, some Health Sciences programs require a criminal background check and students will not be allowed to attend classes unless the check is successfully completed. Additionally, students who are required to participate in a clinical experience are advised that some of the facilities they choose to select for their clinical placements may require students to submit to a criminal background check or drug screening as a prerequisite to a student's placement at that facility. Such background checks may include, but not be limited to, Social Security trace, criminal history, drug testing, fingerprinting and sex offender registries. Students placed in a facility requiring a background check and/or drug screening are personally responsible for obtaining the background check or drug screen (including cost unless the clinical site is willing to assume the cost) and may bear the responsibility of delivering the required documentation to the facility. It will be the decision of the clinical site to determine acceptance of students into its clinical training programs.

Students who choose not to be subjected to a background check may select, but will not be guaranteed acceptance to, an alternate clinical site, and may not be able to complete program requirements needed for graduation.

The Health Sciences schools will assume no responsibility for obtaining student background checks or drug tests, paying for the background checks or drug tests, evaluating the results of the background checks or drug tests, or for providing the information to the clinical placement sites.

## Pre-Application

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## Pre-Application advisement and applications

### Undergraduate and Graduate Programs

(BS, MS, MSW, MSW/JD, MPH, MHA, DPT, DNP, PhD)

The Health Sciences baccalaureate programs are upper-division programs. Please refer to Special Admissions in this section for more information regarding the lower-division Clinical Laboratory Sciences, Polysomnographic Technology, Respiratory Care and Health Science programs, which are available to freshmen. High school students interested in eventual enrollment in any of the upper-division baccalaureate programs must apply for admission to Stony Brook or to another college to complete their lower-division undergraduate work.

Admission to programs leading to a Doctor of Nursing Practice, Doctor of Physical Therapy, or master's degree in Health Administration, Nursing, Nutrition, Physician Assistant, Public Health, or Social Work is normally at entry level only. Credits accumulated in these or similar fields prior to matriculation will be evaluated on an individual basis to determine whether previous graduate work can be applied toward the degree at Stony Brook.

Physician Assistant (PA) applicants must apply online at [www.caspaonline.org](http://www.caspaonline.org). Physical Therapy (DPT) applicants must apply at [www.ptcas.org](http://www.ptcas.org). Occupational Therapy (OT) applicants must apply online at [www.otcas.org](http://www.otcas.org). Graduate Program in Public Health applicants must apply at [www.sophas.org](http://www.sophas.org) and related certificate programs must apply at <https://sophasexpress.unicas.com/applicant/login>. Master of Health Administration (MHA) must apply at <https://hampcas.liasoncas.com/applicant-ux/#/login>.

All other applicants must complete a Health Sciences Center application for the individual program(s) for which they are applying. Applications are available online: <http://www.stonybrook.edu/commcms/hsstudents/admissions/index.html>

All application support documents must be submitted to the Health Sciences Office of Student Services. Because program application deadlines are as early as October, applicants are advised to apply early in the fall preceding the date of intended enrollment.

Please contact the following for information:

Health Sciences Office of Student Services  
Health Sciences Tower Room 271, Level 2  
Stony Brook University  
Stony Brook, New York 11794-8276  
Tel: 631.444.2111  
Fax: 631.444.6035  
Email: [hscstudentservices@stonybrook.edu](mailto:hscstudentservices@stonybrook.edu)  
<http://www.stonybrook.edu/commcms/hsstudents/>

Academic advisement about prerequisites for admission and course and program content is available from each school. Please see the individual school section in this Bulletin. The following list identifies the contact phone number for academic advisement:

### SCHOOL OF HEALTH TECHNOLOGY AND MANAGEMENT (631) 444-2252

- Clinical Laboratory Sciences, BS
- Health Science, BS
- Polysomnographic Technology, BS
- Respiratory Care, BS
- Applied Health Informatics, MS
- Master of Health Administration, MHA
- Medical Molecular Biology, MS
- Occupational Therapy, MS
- Physical Therapy, DPT
- Physician Assistant (entry-level; post-professional onsite or online), MS

### SCHOOL OF NURSING

(631) 444-3200

- Baccalaureate Program, BS
- One-Year Accelerated Program, BS
- Registered Nurse Program, BS and BS/MS
- Graduate Program in Nursing (full-time and part-time options, onsite and online options), MS
- Doctor of Nursing Practice

### SCHOOL OF SOCIAL WELFARE

(631) 444-2138

- Baccalaureate Program, BS
- Graduate Program in Social Work, MSW
- Dual Degree in Social Work and Law, MSW/JD
- PhD Social Welfare

### GRADUATE PROGRAM IN PUBLIC HEALTH

(631) 444-2074

- Community Health, MPH
- Health Analytics, MPH
- Health Policy and Management, MPH

The Master of Public Health (MPH) program offers combined undergraduate to graduate programs (BS Applied Mathematics and Statistics/MPH, BA Earth and Space Science/MPH, BS Pharmacology/MPH, BA Women's Studies/MPH), graduate combined degrees (Master of Business Administration/MPH and Master of Arts in Public Policy/MPH) as well as concurrent programs (MD/MPH and MD/DDS). Please see the Graduate Program in Public Health section of this Bulletin for more details.

### GRADUATE PROGRAM IN NUTRITION

(631) 638-2132

- Nutrition, MS

## GRADUATE ADVANCED CERTIFICATE PROGRAMS

### SCHOOL OF HEALTH TECHNOLOGY AND MANAGEMENT

(631) 444-2252

- Disability Studies

**HEALTH COMMUNICATIONS**

(631) 444-2074

The Advanced Certificate in Health Communication is a joint program of the Graduate Program in Public Health and the College of Journalism.

**HEALTH EDUCATION AND PROMOTION**

(631) 444-2074

**HEALTH CARE MANAGEMENT**

(631) 444-3240, (631) 444-8812

The Advanced Certificate Program in Health Care Management is a joint program of the School of Health Technology and Management and the College Business.

**NUTRITION**

(631) 638-2132

**NURSING POST-MS**

The School of Nursing offers a Nurse Practitioner Certificate of Advanced Study in: Adult Health, Child Health, Midwifery, Neonatal Health, Women's Health or Psychiatric/Mental Health. Except for Adult Health, all programs are offered online only. Applicants for these programs should contact the School of Nursing Office of Student Affairs at (631) 444-3200.

**POSTGRADUATE STUDIES IN DENTISTRY**

The School of Dental Medicine offers advanced educational programs in dental anesthesiology, endodontics, orthodontics, periodontics, prosthodontics, general practice residency program (GPR), pediatric dentistry and dental care for the developmentally disabled.

Applicants for these programs should contact:  
School of Dental Medicine Office of Education  
150 Rockland Hall  
Stony Brook University  
Stony Brook, NY 11794-8709  
(631) 632-3745

**Graduate Studies in Basic Sciences (MS, PhD)**

For information and an application for the following graduate studies in the basic sciences, please contact the individual departments.

The Graduate School 2401  
Computer Science Building  
Stony Brook University  
Stony Brook, NY 11794-4433  
(631) 632-GRAD

**Anatomical Sciences**

PhD, Anatomical Sciences

**Molecular Genetics and Microbiology**

PhD, Molecular Genetics and Microbiology

PhD, Molecular and Cellular Pharmacology

**Physiology and Biophysics**

PhD, Physiology and Biophysics

**Oral Biology and Pathology**

PhD and MS, Oral Biology and Pathology

**Graduate Professional Programs in Medicine and Dental Medicine***(DDS, MD, MD/PhD)*

Admission to the programs in the School of Dental Medicine and School of Medicine is highly selective. Interested applicants should refer to the statements on admission in the school sections of this Bulletin. Academic advisement about prerequisites for admission and course and program content is available. It is recommended that applicants to the graduate professional program seek academic information early.

**SCHOOL OF DENTAL MEDICINE**

- Doctor of Dental Surgery, DDS

School of Dental Medicine Office of Education  
150 Rockland Hall  
Stony Brook University  
Stony Brook, NY 11794-8709  
(631) 632-8871

Deadline for applications: December 1  
Applicants to the School of Dental Medicine should visit [dentistry.stonybrookmedicine.edu](http://dentistry.stonybrookmedicine.edu) for information regarding the application process or call (631) 632-8871.

**SCHOOL OF MEDICINE**

- Doctor of Medicine, MD
- MD/PhD Program
- MD with Special Distinction in Research

School of Medicine Office of Admissions  
Level 4, HSC  
Stony Brook University  
Stony Brook, NY 11794-8434  
(631) 444-2113

Deadline for applications: December 1

**Special Admissions****Special Admissions****Deferred Admissions**

An applicant who is unable to enroll for the term specified in the admission letter may be able to receive approval to defer the offer of admission until the following academic year according to each school's policy. The applicant must submit a written request for a deferment of admission which will be reviewed by the appropriate academic program. A student who does not enroll within 12 months of the first day

of classes of the term of the original offer of admission must submit a new application and a new application fee.

## INTERNATIONAL STUDENTS

In addition to meeting the academic requirements for admission to a graduate or undergraduate program in the Health Sciences, international students are also expected to fulfill the following University and federal immigration and naturalization department regulations:

1. It is necessary to provide financial documentation, which indicates that the applicant's sponsor(s) has sufficient funding to pay for all educational and personal expenses while in the United States. The amount considered as sufficient funding may vary from year to year. For details, visit <http://stonybrook.edu/commcms/vis/>.
2. Official transcripts and records must be submitted as documentation of academic work. If transcripts are in a foreign language a certified English translation is required in addition to the original documents. All transcripts from a foreign country must also be evaluated by a certified agency in the United States, such as World Education Services ([www.wes.org](http://www.wes.org)) before starting the admission application process. Applicants to undergraduate programs must submit a course-by-course evaluation. Applicants to graduate programs may submit a document-by-document evaluation. Please note that the submission of official transcripts evaluated through the WES ICAP (International Credential Advantage Package) service is not required.
1. The TOEFL iBT Speak or IELTS Speak test is required for admission. A minimum score of 90 is required for the TOEFL iBT Speak and a minimum score of 7 for the IELTS Speak test. The Educational Testing Service of the College Entrance Examination Board administers the TOEFL iBT Speak. They are given several times each year at centers in all major cities of the world. The examination must be taken prior to the date for which admission is sought. For further information, contact Educational Testing Services, Princeton, NJ 08541-6151, 609-771-7100 or [www.toefl.org](http://www.toefl.org). Applicants may take the International English Language Testing System (IELTS Speak) tests instead of the TOEFL iBT Speak. Further information is available by contacting the IELTS web site, [www.ielts.org](http://www.ielts.org).
1. International students applying to the registered nurse program and to the graduate and advance certificate programs in the School of Nursing must submit their score on the Commission on Graduate of Foreign Nursing Schools (COGFNS) examination, see [www.cgfns.org](http://www.cgfns.org) for information. In addition, all accepted registered nurse and graduate students must be prepared to arrive in the United States in time to take the National Council Licensure Examination (NCLEX) the July preceding the September of admission to the school, see [www.ncsbn.org](http://www.ncsbn.org) for information.

For further information international students should email the Health Sciences Office of Student Services at [hscstudentservices@stonybrook.edu](mailto:hscstudentservices@stonybrook.edu).

## CLINICAL LABORATORY SCIENCES AND RESPIRATORY CARE FOUR-YEAR PROGRAMS

The Clinical Laboratory Sciences and Respiratory Care programs offer four-year programs that enable students to declare a lower-division major in Clinical Laboratory Sciences or Respiratory Care in the freshman year. During the freshman and sophomore years, lower-division majors must fulfill the entrance requirements for their respective upper-division programs.

## BACHELOR OF SCIENCE IN HEALTH SCIENCE PROGRAM

The Bachelor of Science in Health Science degree is designed to prepare students for entry in the clinical and non-clinical fields of healthcare. Students can eventually pursue a clinical degree if they determine it is an area they wish to pursue and relevant prerequisites are met. The curriculum requires students to receive a broad liberal arts education during their first three years. While many of the courses provide relevant education and information about healthcare, the intent is to graduate students who are both liberally educated and knowledgeable in health sciences. Students can be admitted as freshmen to the Bachelor of Science degree.

## SCHOLARS FOR MEDICINE

Stony Brook University offers an integrated eight-year program for students interested in attending medical school following their undergraduate degree. The Scholars for Medicine (SFM) track offers selected students in the Honors College, WISE Program or University Scholars Program an opportunity to complete a combined Bachelor's/MD course of study while participating in pre-medical classes and activities. Students accepted into any of these tracks are reserved a seat in Stony Brook University's School of Medicine upon graduation provided they complete all applicable program requirements.

## SCHOLARS FOR DENTAL MEDICINE

Stony Brook University offers an integrated eight-year program for students interested in attending dental school following their undergraduate degree. The Scholars for Dental Medicine program (SFDMM) offers selected students in the Honors College an opportunity to complete a combined Bachelor's/DDS course of study while participating in pre-dental school classes and activities. Students accepted into the program are reserved a seat in Stony Brook University's School of Dental Medicine upon graduation provided they complete all applicable program requirements.

## SCHOOL OF NURSING SCHOLARS PROGRAM

The School of Nursing Scholars Program offers a select number of students early assurance of a seat in the nursing program upon successful completion of core requirements and foundation courses. During freshman and sophomore year, Nursing Scholars will participate in lower division nursing

seminars and School of Nursing activities, and will develop relationships with faculty mentors and advisors.

## NON-DEGREE STUDY

Non-matriculated study on a part-time basis is available in some schools of the Health Sciences for individuals who may not be interested in or ready to pursue a degree. Non-matriculated students cannot be graduated in this status; however, courses and grades earned may be applied, on a limited basis, toward a degree program should a student subsequently be admitted as a matriculated student. Tuition and fees are the same as those for matriculated students. However, these students are ineligible for most financial aid programs. For more information about non-degree study, please contact the appropriate school.

## NON-CREDIT, NON-DEGREE PROGRAMS

The School of Health Technology and Management offers full-time non-degree programs such as Dietetic Internship, EMT-Paramedic, Phlebotomy, Medical Dosimetry, Anesthesia Technology, Radiologic Technology, Nuclear Medicine Technology, Healthcare Informatics, Environmental Health and others. Programs are subject to change depending on advances in healthcare and the prevailing needs of the profession. For information call (631) 444-2254.

# Student Health Policy

## Student Health Policy

The purpose of the student health policy is to ensure that all students meet the physical examination and health history requirements of the University and that students working in clinical settings meet the requirements of University healthcare facilities and clinical affiliates, as well as the state health code. This policy also complies with Public Health Law 2165, which requires all students in post-secondary education to be immunized against mumps, measles and rubella.

NYS Public Health Law 2167 requires institutions, including colleges and universities, to distribute information about meningococcal disease and vaccination to all students whether they live on or off campus.

All students admitted to Health Sciences programs are required to submit to the Student Health Service or the School of Nursing, as appropriate, documentation of the results of a physical examination, required laboratory tests and a record of immunizations. This information is submitted on a Student Health Form and Examination form provided to each student upon admission. The completed form must be on file before a student is allowed to start their coursework. The Registrar will block the registration of students who are not in compliance.

## Health Form

The appropriate Health Form for your course of study must be completed by a licensed practitioner prior to the start of

classes and returned to the address indicated on the form. Depending on the program of study, students will complete either the "Health Form–Health Sciences Center" for clinical programs or the "Health Form" for non-clinical programs.

The form has three parts: Health History, Physical Examination and Immunization History.

NYS Public Health Law 2165 requires that every student demonstrate proof of immunity against measles, mumps and rubella. Only students born before 1957 are exempt from this requirement.

In addition, as noted above, NYS Public Health Law 2167 requires institutions, including colleges and universities, to distribute information to students about meningococcal disease and vaccination to all students. Students must comply with this law by reading the required information about meningitis and completing the meningococcal vaccination response form, which will be available after being admitted.

## Required and Recommended Laboratory Test Results and Immunizations

Requirements vary by school. Students are responsible for the costs of the physical examination and immunizations.

## additional requirements

Students who receive clinical training are required to provide documentation of an annual health assessment following the requirements of University healthcare facilities and other clinical affiliates. The schools will provide to their students the Health Sciences Student Annual Health Assessment Form. Students must have the assessment completed by a private practitioner or the Student Health Service. Each school is responsible for monitoring student compliance before allowing a student to begin or continue clinical education. The school will refer students to the Student Health Service or to their personal practitioner if problems are identified as a result of the assessment.

Students who do not receive clinical training are exempted from the requirement of an annual health assessment.

Students injured while on clinical assignments will be evaluated and treated in accordance with the hospital's employee policy. Injuries must be reported to the school in writing by the student involved. In addition, the student must follow the policies and procedures concerning injuries/accidents at that institution. The schools will be responsible for recording any injuries and for monitoring student compliance with the recommendations/requirements for appropriate follow-up. Financial responsibility for emergency and follow-up care belongs to the student.

All Health Sciences students are required to comply with the training requirements related to privacy and security provisions of the Health Insurance Portability and Accountability Act (HIPAA) of 1996. This information will be provided by the individual schools at orientation.

# Transfer Credits

## Transfer Credits

### TRANSFER CREDIT POLICIES

#### Undergraduate

1. Transfer courses are evaluated individually.
  - Courses taken at institutions in the United States: Credits for all courses passed with a letter grade of C or higher at regionally accredited institutions or recognized by the Program on Noncollegiate Sponsored Instruction of the State of New York and recorded on official transcripts will be evaluated and may be accepted for applicability to specific Stony Brook University degree requirements. Credits for successfully completed courses from these institutions for which a grade equivalent to “P” or “S” was assigned may also be accepted. Credits for courses from institutions with other than regional accreditation are evaluated for transfer purposes on a case-by-case basis.
  - Courses taken at institutions outside the United States: College-level courses completed outside the United States and recorded on official transcripts will be evaluated for transfer credit, provided that the institution where the courses were taken is accredited by the Ministry of Education in that country. International transfer students who have completed college level courses outside the United States may be requested to submit proof of accreditation by the Ministry of Education or provide a WES (World Education Service) evaluation.
2. All academic courses successfully completed at a fully accredited college or university are transferable; however, the University reserves the right to determine what constitutes an academic course. Most baccalaureate degrees at Stony Brook require 120 credits. After earning 57 credits, the student must complete 36 credit hours at Stony Brook. The University will, therefore, accept a maximum of 84 transfer credits.
3. Graduates of SUNY or CUNY colleges who earned an Associate in Arts or Associate in Science degree prior to matriculation at Stony Brook University receive transfer credit for all credit completed as part of their associate degree requirements. Official proof of an A.A. or A.S. degree must be submitted before the start of classes.
4. Transfer credit is entered on the official University transcript. Grades received for transferred courses are not shown nor are they included in the calculation of the student’s cumulative grade point average at Stony Brook University.
5. Almost all credits earned at community and technical colleges are considered to be lower-division credit.
6. Transfer courses are reviewed individually by the Academic and Transfer Advising Services Office or the Health Sciences program advisor for their applicability toward fulfillment of general education requirements. Applicants who have completed college-level study at an institution outside of the United States will have their credits evaluated for application to the University’s

general education requirements by the Transfer Office or the Health Sciences program.

7. Courses satisfactorily completed elsewhere toward the intended major or needed to fulfill the 39 upper-division credits requirement must be evaluated by the appropriate academic department for specific applicability. No transferred course with a grade lower than C may be counted among the 39 upper-division credits required for graduation.
8. Courses taken at other universities and colleges in a technology curriculum will normally not be transferred as equivalents to engineering or applied sciences courses.
9. Credit may be given for courses taken in foreign secondary schools having a thirteenth-year equivalent to the first year of college. Students who have studied in such schools should consult the Undergraduate Admissions counselor for international students before seeking a departmental course evaluation.
10. Courses offered by regionally accredited colleges and completed while the student was in high school will be evaluated for transfer credit according to the guidelines in the Application of Transfer Credits to General Education Requirements of the [Undergraduate Bulletin](#).
11. International Baccalaureate: With its origins in Europe, the International Baccalaureate Program—now offered by some American high schools— leads to a diploma or certificates of examination. Stony Brook University will award six credits for International Baccalaureate higher-level exams with scores of 5 or better for year-long courses.
12. General Certificate of Education Advanced Level (A-Level): With its origins in the United Kingdom, the General Certificate of Education or GCE is a secondary-level academic qualification that continues to be a popular measure of academic aptitude in other countries, including Hong Kong, Pakistan, India, Nepal, Singapore, and Sri Lanka. Stony Brook University will award up to eight credits per subject for A-level (Advanced) exams in year long courses with grade equivalents of C or better.
13. Students will receive transfer credit for a maximum of four credits of 100-level physical education courses.
14. Advanced placement credit is granted to students who have taken the appropriate CEEB advanced placement examination and scored a 3 or higher.
15. Students must list on their application for admission all institutions attended after high school graduation. Those who fail to do so will not receive this transfer credit and may be subject to a range of possible disciplinary actions, including admission revocation and expulsion.

Students who would like additional information should consult the Academic and Transfer Advising office or the appropriate Health Science Program.

#### Graduate

Graduate candidates may petition the school to accept credits from another institution toward his or her degree. Each Health Sciences school has the responsibility of deciding on the applicability of credits to the specific program.

# Resources

## HEALTH SCIENCES OFFICE OF STUDENT SERVICES

The [Health Sciences Office of Student Services](#) (HS OSS) functions as an administrative liaison between and among the Health Sciences schools, and between various administrative offices. It assists the Schools of Health Technology and Management, Nursing, and Social Welfare, and in some cases, the Schools of Dental Medicine and Medicine, with the processes leading to admissions, registration, academic records, financial aid, and data reporting. It also functions in other supportive areas such as: Housing, degree certification, student employment, course validation, recruitment, and general advisement.

The HS OSS also provides direct service to students in the Health Sciences schools in many areas, including student activities, student government and general information about the Health Sciences schools and University programs and services. The office acts as an advocate for Health Sciences student needs in areas such as building facilities and University systems.

More information pertaining to these areas can be found in the appropriate sections of this Bulletin or by visiting the [office website](#). The HS OSS can be reached at (631) 444-2111. It is located in the Health Sciences Tower, Level 2, Room 271.

## Health Sciences Academic Calendar

Health Sciences courses may consist of one term or one or more module session codes as determined by each school. Terms are the traditional academic periods of August to December (fall) and January to May (spring); module session codes are academic periods of approximately five weeks in length.

The Health Sciences Bulletin lists the courses offered by each school. In addition, students are informed by their school of the academic period and, in the case of module session courses, the number of module sessions required for each course.

[Click here](#) for more information about the Health Sciences academic calendars.

## STONY BROOK MEDICINE

[Stony Brook Medicine](#) expresses the shared mission of research, clinical care and education – a mission embraced by faculty, staff, researchers and students. Stony Brook Medicine includes Stony Brook University Hospital, School of Dental Medicine, School of Health Technology and Management, School of Medicine, School of Nursing and School of Social Welfare, as well as outpatient care sites. The Health Sciences schools work in tandem with the research and clinical care teams to deliver the best ideas in medicine to patients.

## LONG ISLAND STATE VETERANS HOME

The [Long Island State Veterans Home](#), opened in October 1991, adds a unique healthcare facility to the Stony Brook campus. This 350-bed nursing facility was constructed to serve Long Island veterans' need for rehabilitation and skilled nursing care. It is one of the only University nursing homes in the United States in which the medical staff hold faculty appointments and the nurses and therapists work closely with faculty in their respective schools. The home provides state-of-the-art, long-term and intermediate-level care to veterans of the U.S. Armed Forces.

## CENTER FOR MEDICAL HUMANITIES, COMPASSIONATE CARE AND BIOETHICS

The [Center for Medical Humanities, Compassionate Care and Bioethics](#), situated in the Department of Family, Population and Preventive Medicine in the School of Medicine, was established in 2008. It is devoted to training medical students and health professionals and to conducting high-impact research and scholarship in the three thematic components reflected in its name.

The Center offers more than 30 courses in the medical school curriculum and has an MA track consisting of 10 courses. The Center is actively involved in clinical ethics across the medical center and in the third year clerkships, leads several major community initiatives and dialogues across eastern Long Island, and provides clinician support for the medical student's free clinic. The Center's educational and research programs are described in detail on its [website](#).

## Health Sciences Library

The [Health Sciences Library](#) is the largest health sciences library on Long Island and one of the best in New York State. Its collection of books, journals, reference works and electronic resources is developed in accordance with the teaching, research and patient care needs of six academic programs: Dental Medicine, Health Technology and Management, Medicine, Nursing, Public Health and Social Welfare. The Library's holdings and services support the various clinical and patient care activities of [Stony Brook Medicine](#) and the [Long Island State Veterans Home](#).

The Library is located on the third floor of the Health Sciences Center, easily accessible to faculty, staff, students and hospital personnel. The facilities offer a very welcoming environment for study and research, including the Barry S. Collier Learning Center, consisting of a fully equipped computer lab.

For more information about the Health Sciences Library, including hours of operation, please visit the [website](#).

## Other Library Resources

In addition to the Health Sciences Library, the campus has a number of libraries to support students' information needs. The main library on West Campus is [The Frank Melville, Jr. Library](#). In addition, there are three science branch libraries including Chemistry, Science and Engineering, and the [Marine and Atmospheric Sciences Information Center](#), which provide more specialized resources and services in their subject areas.

## Division of Laboratory Animal Resources

The [Division of Laboratory Animal Resources](#) provides teaching and research services to faculty and students. The facility is equipped to accommodate all types of biomedical research projects that require laboratory animals and has laboratory, classroom and seminar room space as well. Educational programs are arranged on need basis and as required by the National Institutes of Health Office for the Protection from Research Risk.

## Brookhaven National Laboratory

Brookhaven National Laboratory (BNL) is a multipurpose research laboratory housing large, state-of-the-art facilities such as RHIC, NSLS, NSLS-II (under construction) and the Center for Functional Nanomaterials. Stony Brook is a partner in [Brookhaven Science Associates \(BSA\)](#), managing the Laboratory for the U.S. Department of Energy. Located less than 20 miles from campus, BNL provides many opportunities for collaborative research efforts.

Being Brookhaven Lab's closest university neighbor, Stony Brook is the single largest user of BNL facilities. BNL and the University share an increasing number of joint faculty appointments.

## Clinical Affiliations

The Health Sciences and its schools have affiliations with many institutions and agencies. Three of these affiliations — [Nassau University Medical Center](#), NYU Winthrop Hospital and [Northport Veterans Affairs Medical Center](#) — continue to be major resources for the educational, research and clinical programs of the schools. For more information about these affiliations, please visit their websites.

# Financial Information

## Tuition and Fees

For information on tuition, fees and New York State residency visit [Bursar/Student Accounts](#).

## New York State Residency

As a University center of the State University of New York (SUNY), Stony Brook University is bound by the State policy regarding eligibility for the New York State Resident tuition rate.

The initial determination of residency is made at the time of admission to the University. Students with missing and/or conflicting information on their initial application to the University are initially coded as non-resident, pending verification of their residency status.

Students who indicate that they are residents of the state on their initial University application may be asked to complete a residency application to verify their status. Failure to complete this application can result in the student being charged at the non-resident tuition rate.

All students are encouraged to verify their tuition billing rate as soon as bills are posted. It is a student's responsibility to follow up with the Office of Student Accounts if they feel that their tuition billing rate is not correct. Such students must complete a Residency Application by the second week of classes in order to have their application considered for the current term. Residency Applications cannot be reviewed retroactively.

## Payment Procedures

Payment is made by check or credit card (MasterCard, Visa, American Express and Discover). Payments can be made online through SOLAR. Students receiving financial aid will have a deferment on their accounts equal to the amount of the award. Tuition, fees, health insurance, campus room and meal charges (not campus apartments) may be deferred.

Students making payment after the published due dates will be required to pay a late payment fee. Those students who register on or after the first day of classes in a given term will be required to pay a registration fee. The late registration period ends at the close of the second week of classes of each academic period. Students failing to meet financial obligations may be subject to additional fees/fines for collection agency charges.

Failure to satisfy their financial obligation in any given term will prevent students from receiving transcripts and diplomas, as well as being permitted to register for future terms and apply for on-campus housing. Delinquent accounts may be transferred to private collection agencies or the New York State Attorney General's Office for collection, and are subject to additional fee/fines and interest from the collection agency. Nonpayment does not constitute official withdrawal. Failure to attend classes will not relieve students of their financial obligation or entitle them to a refund. The date of official

withdrawal determines eligibility for any refunds in accordance with the University refund policy.

All students, after registering for classes, will be able to review their billing statement electronically on the Student On-Line Access to Records (SOLAR) system. No paper billing statement is printed or mailed. Students will be sent due date notifications through the SOLAR system and to their primary email address with the University. The SOLAR system is the primary method in which official communications regarding a student's account are sent, so it is important to check it often. Students who wish to register after the cut-off date will be required to make payment or properly defer their entire bill in order to register.

## Time Option Payment Plan (TOPP)

The University offers a Time Option Payment Plan (TOPP) that allows the student to make equal and consecutive payments throughout the semester. There is a processing fee to help defray the administrative expenses of the program. The Time Option Payment Plan is a semester-based program, and enrollment, if desired, must be completed each term. A nonrefundable processing fee is charged each term. For more information, please contact student accounts, (631) 632-2455 or [http://www.stonybrook.edu/commcms/bursar/billing\\_payment/topp](http://www.stonybrook.edu/commcms/bursar/billing_payment/topp). Enrollment is completed on SOLAR.

## Payment and Anticipated Aid

The electronic bill will list University charges less any anticipated aid. Anticipated aid is entered on the student's account only after the financial aid award process has been completed. Only charges for tuition, fees, campus room and meal charges (not charges for graduate campus apartments) may be covered by anticipated aid. The following types of awards may be considered "anticipated aid:"

- Federal Perkins Loan and Federal Supplemental Educational Opportunity Grant (SEOG)
- NYS Tuition Assistance/Regents Scholarship Awards
- Federal Pell Grants
- Federal Stafford Loans
- Educational Opportunity Program (EOP)
- Private scholarship if a letter from the donor organization is submitted to the Student Accounts Office prior to the billing due date

If the current bill does not reflect anticipated financial aid, the student must pay the amount due by the date indicated. If financial aid is received after the bill is paid, the student will be eligible for a refund. Failure to apply for financial aid in a timely manner does not relieve students from the obligation to meet all payment deadlines or late payment fees.

## HEALTH INSURANCE

Stony Brook University automatically bills all full-time, matriculated students for a health insurance plan.

This plan pays for most medically necessary bills, such as doctor visits, hospitalization, prescriptions, emergency room, lab testing, diagnostic testing, surgery, mental health counseling, etc. The plan covers students anywhere in the world, every day, no matter whether on campus or on semester breaks. All School of Medicine, School of Dental Medicine, School of Nursing, and other professional Health Sciences students are billed for an additional rider, which covers high costs of potential clinical incidents.

Students who are not citizens of the US and are not permanent residents are billed for the International Student Health Insurance Plan.

Students who already have a health insurance plan in place and do not wish to have the Stony Brook coverage must complete an insurance waiver on their SOLAR accounts by the due date. Waivers must be completed at the start of every academic year.

Students who are enrolled may also enroll dependents at an additional cost. Some part-time students may also be eligible for health insurance. For information and enrollment forms, you can call (631) 632-6054.

For additional information, visit [Student Health Services](#).

### Health Insurance For International Students

The State of New York requires all students who are not US citizens or permanent US residents to be enrolled in and billed for the International Student Health Insurance Plan. Some students may be eligible to request a waiver if they have alternate health insurance.

For information please contact the Student Health Insurance Office in the west campus by phone at (631) 632-6331 or via email [SHO-RSHIP@stonybrook.edu](mailto:SHO-RSHIP@stonybrook.edu).

## LIABILITY INSURANCE

Students admitted to most academic programs are required to purchase liability insurance prior to participating in clinical assignments. For more information, contact the appropriate Health Sciences school.

## CAMPUS RESIDENCES

For information, rates and fees, pictures and virtual tours of the facilities, visit <http://studentaffairs.stonybrook.edu/res>.

### Requests for Campus Housing

Only matriculated students are eligible for on-campus housing. Students currently enrolled in the Health Sciences programs, and Stony Brook students who are applying to any of the Health Sciences programs for the following fall have an opportunity to select housing accommodations in the spring. Students newly admitted to the Health Sciences programs from other educational institutions will be given information on applying for on-campus housing at the time they are accepted.

Housing is not guaranteed to transfers so applicants are encouraged to submit their request for housing as quickly as possible.

## OFF-CAMPUS HOUSING

An off-campus housing service is available to assist students in finding living arrangements off-campus. This service maintains up-to-date listings of available facilities to rent or share in the area. It also provides useful information about leases, transportation, the community, and safety guidelines.

For information visit <http://studentaffairs.stonybrook.edu/ocliving>.

## FOOD AND MEAL PLANS

Campus Dining Services offers students many different dining venues as well as meal plan options. For information about meal plans, rates, nutritional information, dining hours and other services visit <http://www.stonybrook.edu/commcms/campusdining>.

## EDUCATION-RELATED EXPENSES

These include primarily the estimated costs of transportation to clinical facilities, books and other instructional materials, equipment, and supplies. More information can be obtained from the different Health Sciences programs.

For information on text books, please visit <http://www.stonybrook.edu/commcms/bookstore/index.php>.

## TRANSPORTATION AND PARKING OPTIONS

Students are advised to take advantage of the public transportation network that services Stony Brook University to travel both on and off campus. The Stony Brook University Bus Service, which provides transportation on campus, and Suffolk Transit, which provides service to all local off-campus destinations, are both available for students to utilize. The Stony Brook University Bus Service is available free of charge and operates seven days a week throughout the calendar year. For specific schedule and destination information, please visit [www.stonybrook.edu/transportation](http://www.stonybrook.edu/transportation).

For students who travel to Stony Brook University via personal vehicle, limited parking is available in the Health Sciences, Hospital and Administration Parking Garages. A monthly Health Sciences Parking Garage card is available to qualified students for a fee, or students may park in the Hospital or Administration Parking Garages for a daily fee. Evening students may purchase a monthly evening Parking Garage card. Other surface parking options are available to students. For more information please visit [www.stonybrook.edu/parking](http://www.stonybrook.edu/parking).

All vehicles parked in surface parking lots must display a valid parking permit obtained through Parking Services.

The University Police Motorist Assistance Program provides assistance with common personal vehicle problems such as battery jumps, locked-in keys and empty gas tanks. For assistance or more information, please call [University Police](#)

at 333 from any on campus phone, or (631) 632-3333 from any off campus/cell phone.

## ALL REFUNDS

For additional information on the University Refund policy, contact the [Office of Student Accounts](#) at (631) 632-2455.

## TUITION AND FEES

Students who officially withdraw from Stony Brook University or reduce the number of credits for which they are registered may be entitled to a prorated refund of tuition or a prorated adjustment of tuition charges. Fee charges billed will not be removed or refunded after the first week of classes. For more information on withdrawals and refunds, visit the [Bursar/Student Accounts website](#).

The first day of classes is the day school officially begins based on the published academic calendar. Students attending evening classes that meet for the first time on the last day of the 100% refund period will have a one-day grace period to withdraw from the class and still be eligible for a full refund.

Tuition deposit refund requests must be made in writing and mailed to:

Student Accounts/Refund Unit  
254 Administration Building  
Stony Brook University  
Stony Brook, New York 11794-1301

Requests must be received (for Fall, by May 1) or 30 days after the offer of admission, whichever is later. There are no refunds of the tuition deposit after the first day of classes.

## HOUSING DEPOSIT

If a student no longer plans to reside on campus, he/she may request a partial refund of his/her housing deposit in accordance with the appropriate semester deadlines. There are no refunds of the housing deposit after the start of classes, regardless of whether or not the student is enrolled for the semester.

Applications for a partial refund of the housing deposit must be made in writing.

Fax the request to (631) 632-9211 or mail to:

Office of Campus Residences  
Mendelsohn Quad, Stony Brook University,  
Stony Brook, NY 11794-4444 or faxed to (631) 632-9211

For details visit: <http://www.stonybrook.edu/bursar/tuition>.

## MEAL PLAN

Students who withdraw from the University will be billed a prorated portion of the meal plan up to, and including, the official withdrawal date. Prorations are calculated on a weekly basis.

For information on cancelling a meal plan, call (631) 632-6517 or visit <http://www.stonybrook.edu/mealplan/>.

## WITHDRAWALS

The process of withdrawing from the University is a formal procedure which the student has the responsibility to initiate. Non attendance of classes does not classify as an official withdrawal and does not relieve the student of his or her financial obligation or entitle the student to a refund.

Students must contact their Health Sciences School to complete the necessary paperwork to withdraw from the University. Students requesting a review of tuition and fee liability must submit a separate written appeal to the Student Accounts Office with all appropriate documentation. A student withdrawing shall be responsible for payment of tuition and fees in accordance with Tuition & Fee Refund Schedule. A "W" is recorded on the academic transcript.

For information about requesting a refund, visit <http://www.stonybrook.edu/commcms/bursar/withdrawals/index.php>

## CANCELLATIONS

No grade is recorded on the academic transcript. A student who is given permission to cancel his or her registration shall be responsible for payments of tuition and all fees in accordance with the Tuition and Fee Refund schedule.

For more information visit <http://www.stonybrook.edu/bursar/tuition>

## DISMISSALS

A student who is dismissed for academic or disciplinary reasons prior to the end of an academic term shall be liable for tuition and fees due for the term according to the [Tuition and Fee Refund schedule](#).

## CHANGES IN ENROLLMENT AND FINANCIAL AID IMPLICATIONS

Financial aid recipients who are withdrawing from the University or changing their status from full-time to part-time must consult with a financial aid advisor regarding the impact of these actions on their financial aid awards. Federal regulations require a review of all student aid received in order to determine if the student is still eligible for the full amount. In case of a withdrawal, this determination is based on the withdrawal date as processed by the [Health Sciences Office of Student Services](#) and on the amount of time the student spent in academic attendance. After 60% of the semester has passed, students have earned 100% of the federal financial aid awarded to them. Please note that this federal refund calculation is separate and different from the refund calculation of institutional charges done by the Bursar's Office.

## FINANCIAL AID

Financial aid for Health Sciences students is divided into three basic categories: grants, loans, and employment opportunities. Grants, which include scholarships, do not have to be repaid; loans carry some form of interest payment and must be paid back to the lender; employment opportunities afford the student the chance to earn money while attending school. Some financial aid programs are administered by the University, others by federal and state agencies to which the student applies directly.

## Eligibility

The purpose of the University's financial aid program is primarily to provide assistance to those students whose families cannot help them meet the cost of their education, and secondarily to ease the burden for those families more able to assist. For federal aid programs, students are classified as dependent or independent.

To be independent for the federal aid programs, a student needs to meet one of the following conditions: be at least 24 years old by December 31 of the award year; married; a graduate or professional student; a veteran; an orphan or ward of the court; or have legal dependents other than a spouse. For other conditions, please visit [www.stonybrook.edu/finaid](http://www.stonybrook.edu/finaid).

Aid from most of the programs discussed in the section below is awarded on the basis of financial need. Financial need is the difference between the cost of attendance as determined by the Institution and the Expected Family Contribution (EFC) which is based on information provided by the student and his or her family on the Free Application for Federal Student Aid (FAFSA). The EFC is based on a formula established by Congress. The cost of attendance includes the cost of tuition and fees, room and board, and allowance for books, supplies, transportation and personal expenses. Costs related to child care and/or a disability can also be included. In addition to financial need and specific program eligibility, receipt of financial aid from the Federal aid programs is based on the following conditions: being a U.S. citizen or eligible noncitizen; be matriculated into a degree program; register with Selective Service, if required; satisfactory academic progress; not being in default on educational loans or owing a refund to a state or federal financial aid program; and certain drug-related convictions. Even in cases where the aid has already been awarded, it will be necessary to cancel the awards when the University is informed that the student does not meet one of these conditions. The financial aid "package" is the term used to designate the total financial aid a student receives.

For most Health Sciences students, loans will be recommended in the package since they will be the primary source of aid used to meet educational expenses. For this reason, it is critical for students to understand the terms and conditions of any loan program before applying, since interest rates, deferments, and repayment obligations vary among the different loan programs. Students should also carefully plan their academic year expenses and resources to determine the amount of loan funds they will need.

Satisfactory academic progress must be maintained for continued eligibility for financial aid. Stony Brook University measures academic progress each term. Eligibility for assistance from the Federal Work Study Program, the Stafford Loans, Perkins Loan, SEOG and Pell Grant programs is contingent on candidates meeting specific quality and quantity academic standards. Recipients of federal student financial aid must complete degree requirements within a stated time frame. New York State Education Department's requirements are described in the TAP section. Specifics on academic progress as a condition of federal student aid eligibility is available at [www.stonybrook.edu/finaid](http://www.stonybrook.edu/finaid).

## Application for Financial Aid

To apply for federal financial aid, students must submit required forms and information each year by the announced deadline. The complete application file consists of the following documents:

- Free Application for Federal Student Aid (FAFSA); students may file either the FAFSA or Renewal FAFSA online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov) beginning October 1.
- Other documents as requested by the financial aid administrator, including copies of students' and parents' tax transcripts, proof of non-taxable income (Social Security, social services benefits) and others.

Students will be automatically offered Summer financial aid if they are registered for at least 6 credits for Summer and have completed a FAFSA for the current academic year.

FAFSA information will be transmitted electronically to Stony Brook if the applicant included the institution's Title IV school code (002838) on the FAFSA. Upon receipt of the data, the file is reviewed and a SOLAR message will be sent to the student. This SOLAR message will list all the federal awards and possibly a TAP estimate for which the student may be eligible.

Students may be selected for verification. If a student's application is selected, he or she will be requested to provide additional documentation, such as tax transcripts, to substantiate the accuracy of the information on the FAFSA. Corrections are made, if necessary.

Students are strongly advised to file for financial aid by February 15 of each year to ensure that their awards are posted on their student account as "anticipated aid" by the beginning of classes. Otherwise, they will be liable for late tuition payment fees. Students who apply after the deadline will be given lower priority for aid.

Students can view up-to-date financial aid and billing information by accessing SOLAR.

## SPECIAL FUNDS FOR HEALTH SCIENCES STUDENTS

Health Sciences students may qualify for a number of scholarship programs such as the National Health Service Corps Scholarship Program and the Indian Health Service Scholarship Program. Information about these and other funds can be obtained at the offices of the different Health Sciences programs.

Other programs available to students in specific fields of the Health Sciences are: the W. Berghardt Turner Fellowship for graduate students in the Schools of Social Welfare, Nursing and Medicine; the National Health Service Corps Scholarship Program for undergraduate students in physician assistant and graduate students in nursing and dentistry.

Many scholarships are available to health professionals through private foundations and governmental agencies to which the student must apply directly. Online information for scholarship searches can be found [here](#).

## FEDERAL PELL GRANT

Funded by the federal government, this grant is available to matriculated undergraduate students enrolled in their first baccalaureate program for at least one credit. Application for the Pell Grant is made by completing the FAFSA. After processing, additional documents such as tax forms may be requested from the student's family to determine eligibility for the Pell award.

## FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (FSEOG)

This grant is funded by the federal government and is available to undergraduates with very high financial need. The amount of the award is based on the student's financial need and the availability of funds to the University. The FSEOG program is limited at Stony Brook. Application for FSEOG is made by completing the FAFSA.

## TUITION ASSISTANCE PROGRAM (TAP)

This state-funded grant is for full-time matriculated undergraduate New York State residents. Awards from this program apply only toward tuition. TAP award amounts are based on New York State net taxable income. Independent status under the state definition for TAP may be different from the federal programs. For more information about TAP visit the Office of the Registrar website [www.stonybrook.edu/registrar/tap](http://www.stonybrook.edu/registrar/tap).

## PART-TIME TAP PROGRAM

Part-time students at approved schools in New York State who were first-time, full-time freshmen in 2006-07 may be eligible for Part-Time TAP to help them pay for college beginning in 2007-08. Part-Time TAP is a grant and does not have to be paid back. Part-Time TAP is not the same as Aid for Part-Time Study.

To be eligible for Part-Time TAP, a student must be a first-time freshman in the 2006-07 academic year or thereafter; have earned 12 credits or more in each of the two consecutive semesters, for a minimum total of 24 credits earned and maintain a minimum of a "C" average.

## AID PROGRAM FOR PART-TIME STUDY (APTS)

This is a New York State-funded grant available to undergraduate matriculated part-time students who are enrolled for at least three credits and not more than 11 credits per semester. The student must be a New York State resident, maintain good academic standing and have a family income within the program guidelines. The APTS grant pays tuition up to a total of \$1,000 per semester.

A special APTS application form is available at [www.stonybrook.edu/finaid/forms](http://www.stonybrook.edu/finaid/forms). The student should also submit copies of his or her and parent(s) previous year state and federal tax forms.

## VETERANS ADMINISTRATION EDUCATIONAL BENEFITS (VA)

Interested students should contact the [Veterans Affairs Office](#), Room 348, Administration Building. Please call (631) 632-6701 for an appointment.

## EDUCATIONAL OPPORTUNITY PROGRAM (EOP/AIM)

The EOP is an educational program available to undergraduate students. Applicants must be New York State residents who are economically and educationally disadvantaged according to state guidelines. Selection of eligible applicants, generally in the freshman year, is conducted by the University's Office of Undergraduate Admissions.

Since all undergraduate programs at the Health Sciences are at the upper-division level, students applying for EOP must have been enrolled in an equivalent program during their freshman or sophomore year, such as College Discovery, EOP, HEOP or SEEK. A letter from the previous program director is necessary in order to consider the student's eligibility for EOP at the Health Sciences programs. Students also need to complete the FAFSA. The average award is \$900 in addition to a book stipend at the beginning of each term.

## GRADUATE TUITION WAIVER PROGRAM FOR FORMER EOP STUDENTS (GW)

Funded by the State University of New York, this program can provide money for tuition to former EOP, SEEK or HEOP students who are New York State residents and enrolled for 12 credits at Stony Brook in a first graduate or professional degree program.

## GRADUATE TUITION WAIVER PROGRAM FOR ECONOMICALLY DISADVANTAGED STUDENTS (DW)

This program, funded by the State University of New York, provides up to a full waiver of tuition for students who qualify according to the current year EOP economic eligibility criteria and the federal methodology of needs analysis. This is a need-based tuition waiver program available to New York State residents enrolled as full-time students at Stony Brook in a first professional degree program in the School of Medicine and School of Dental Medicine. Awards range from \$100 per semester to full tuition minus any award received for tuition only. Funds for the program are limited.

## NATIONAL HEALTH SERVICE CORPS SCHOLARSHIPS (NHSC)

Full-time students enrolled in the physician assistant program, nurse practitioner, midwifery, medicine and dental medicine are eligible to apply for the National Health Service Corps (NHSC). The program pays tuition and fees, a monthly stipend for living expenses and an allowance for reasonable educational expenses. Applicants must agree to practice their

profession in designated areas of the country as determined by NHSC and must be committed to primary healthcare practice.

The application deadline is usually in March. For more information visit [www.nhsc.hrsa.gov](http://www.nhsc.hrsa.gov).

## **NURSE CORPS SCHOLARSHIP PROGRAM**

The Nurse Corps Scholarship Program, sponsored by the U.S. Department of Health and Human Services, awards scholarships to individuals for attendance at Schools of Nursing. The scholarship consists of payment for tuition, fees, other reasonable educational costs and a monthly support stipend. In return, the students agree to provide a minimum of two years of full-time clinical service at a healthcare facility with a critical shortage of nurses. [Click here](#) for an application and information.

## **STATE AID TO NATIVES PROGRAM**

Funded by New York State, the State Aid to Native Americans Program award is available for enrolled members of a New York State Native American Indian tribe or their children. The student must maintain good academic standing and be a resident of New York State. Applications and information are available from the Native American Education Unit. Information can be found at [www.hesc.ny.gov](http://www.hesc.ny.gov).

## **NEW YORK STATE AID**

For information on all New York State awards, visit [www.hesc.ny.gov](http://www.hesc.ny.gov) for additional information.

## **LOANS**

A loan is money you borrow and must pay back with interest.

If you decide to take out a loan, make sure you understand who is making the loan and the terms and conditions of the loan. Student loans may come from the federal government or from private sources such as a bank. Loans made by the federal government, called federal student loans, usually offer borrowers lower interest rates and have more flexible repayment options than loans from banks or other private sources.

There are yearly and lifetime aggregate amounts for federal student loans. If necessary, a student can secure additional funds for their educational expenses through private educational loan programs. To qualify for these loans, the borrower must have a favorable credit history and provide information about income and credit obligations. In some cases, a co-signer is required.

For additional information about types of loans and amounts, visit [www.stonybrook.edu/finaid](http://www.stonybrook.edu/finaid).

## **REPAYMENT, DEFERMENT, FORBEARANCE AND LOAN FORGIVENESS**

For information on repayment, deferment, forbearance and loan forgiveness visit [studentaid.ed.gov](http://studentaid.ed.gov).

## **FEDERAL WORK STUDY PROGRAM (FWS) AND FWS COMMUNITY SERVICE**

This is a federally funded, part-time work program available to graduate and undergraduate students who demonstrate financial need. The amount of the award is based on the student's financial need, the availability of funds to the University, the number of hours that the student can work per week and the current pay rate. Some employment opportunities are available through FWS Community Service for eligible students.

Application for Federal Work Study is made by completing the FAFSA. For more information visit the Career Center website [career.stonybrook.edu](http://career.stonybrook.edu).

## **STUDENT EMPLOYMENT**

Students not eligible for FWS funds can work on campus under the student employment program. Job listings are available on the Career Center website [career.stonybrook.edu](http://career.stonybrook.edu).

Jobs are also announced in campus newspapers and on bulletin boards. To be eligible, a student must be matriculated and enrolled for at least six credits.

## **FACULTY STUDENT ASSOCIATION**

The [www.stonybrook.edu/fsa](http://www.stonybrook.edu/fsa) operates many different auxiliary business services and programs for the campus, such as dining, bookstores, and the campus ID office, and employs close to 500 students. For information and job listings visit <http://www.stonybrook.edu/commcms/fsa/jobs/index.php>.

# Health Sciences Schools

## School of Social Welfare

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## Mission and Goals

### Mission Statement

The Stony Brook University School of Social Welfare's mission statement is:

The School of Social Welfare is committed to building a more equitable society based on the values of human dignity, inclusiveness, diversity, equality, and on economic, environmental and social justice.

By advancing knowledge, engaging in systematic inquiry, and developing professional skills, we prepare students for social work practice with individuals, families, groups, organizations, communities and governments in a global context. The School teaches a person-in-environment perspective, community advocacy, therapeutic intervention, individual and group empowerment, and the affirmation of strengths as a means of promoting individual and social change. As an integral part of our student-centered and evidence informed pedagogy, we prepare students to identify and analyze the nature and extent of structural inequality. We focus in particular, on social welfare leadership as a pathway to enhance emotional, psychological and social well-being. We work closely with the university and greater community to fulfill this mission.

We recognize that structural inequality exists in multiple and overlapping layers of discrimination including class, race, ethnicity, gender, gender identity and expression, sexual orientation, religion, age and disability, among others. We therefore seek to remediate the impact of interpersonal and historical trauma, to foster human relationships that are grounded in social justice; human dignity and mutual respect; to develop new and just organizational forms; to transform already existing structures to reflect values that affirm and enhance human dignity and social diversity; and to identify new ways to influence social, economic and political systems to equitably distribute power, resources, rights and freedom.

### 1. Program Goals

The goals of the MSW program are to:

Goal 1: Prepare advanced generalist practitioners who demonstrate ability to use their knowledge, values, and skills to work at the micro, mezzo, and macro levels of practice within local, national and global contexts;

Goal 2: Educate graduates to utilize social justice and human rights frameworks in their work and to embrace social action practice;

Goal 3: Inspire graduates who lead efforts to improve health and wellness in the lives of all people and to create a more just and life-affirming society.

Goal 4: Promote the ability of graduates to engage in critical, self-reflective and ethical practice;

Goal 5: Develop practitioners who utilize strengths-based, person-in-environment and empowerment approaches in all their work that are informed by a respect for human dignity, diversity, and inclusiveness; and

Goal 6: Educate practitioners who are able to engage in research-informed practice models and who are able to contribute to the creation of knowledge in the field of Social Work by engaging in practice-informed research processes.

The goals for our MSW program are clearly derived from our mission statement, and reflect the values, emphases, and perspectives articulated there. The first goal purposefully aligns with our stated premise to educate for all systems levels of practice in local, national, and global contexts. The second goal emphasizes the importance of social justice and human rights frameworks in our graduates' ability to embrace social action. The third goal is an expression of our commitment to leadership in improving health and wellness for both individuals and in the society—this affirms our commitment to social and environmental justice as well as a reflection of our location within a health sciences infrastructure. Our fourth goal reflects the importance of social workers practicing ethically and from a value base. Our fifth goal expresses a commitment to compel graduates to use frameworks that are informed by human dignity, diversity and inclusiveness. Our sixth goal commits us to educate practitioners who seek and utilize knowledge in their work at all levels.

### 1. CSWE Competency Framework

The Council on Social Work Education (CSWE), the accrediting body for schools of social work, has identified core competencies for social work education. These competencies guide and inform curriculum and course content.

1. Demonstrate Ethical and Professional Behavior
2. Engage Diversity and Difference in Practice
3. Advance Human Rights and Social, Economic, and Environmental Justice
4. Engage in Practice-Informed Research and Research-Informed Practice
5. Engage in Policy Practice
6. Engage with Individuals, Families, Groups, Organizations, and Communities
7. Assess Individuals, Families, Groups, Organizations, and Communities
8. Intervene with Individuals, Families, Groups, Organizations, and Communities

### 9. Evaluate Practice with Individuals, Families Groups, Organizations, and Communities

Each competency is represented by a set of *practice behaviors* at the Foundation and Advanced levels of the curriculum. The practice behaviors will be used in various forms of assessment to determine the degree to which students have achieved competency in these nine (9) areas. Overall assessment is reported, in aggregate, on the school's website.

## PROGRAMS

The Stony Brook University School of Social Welfare was established in 1970 and has been continuously accredited by the Council on Social Work Education since 1973. The School is located within a rich interdisciplinary environment, one of six schools within the Health Sciences campus of the University, along with the Schools of Medicine, Dental Medicine, Nursing, Health Technology and Management, and a new School of Pharmacy and Pharmaceutical Sciences.

The School offers the BSW, MSW, and PhD degrees on the Stony Brook University campus in Stony Brook, New York on Long Island, and has an extension center MSW program in New York City. The New York City program is offered at the SUNY College of Optometry, the only public Optometry College in New York State. Currently, the School has an enrollment of 100 BSW students, 536 MSW students, and 33 PhD students. The BSW program is a generalist practice program informed by a human rights framework. The MSW program offers a single concentration in Advanced Generalist Practice.

The MSW and BSW programs of the School are accredited by the Council on Social Work Education.

The MSW program is registered with the New York State Education Department as qualifying for the LMSW and LCSW credentials.

## Field Education

Field and class work are integral parts of a single educational experience. A well-rounded education in social welfare is best obtained by the integration of theory and practice. Therefore, in the first year of field education (HWC 500-501) students must be enrolled concurrently in the required social work practice course (HWC 513-514). In the second year of field education (HWC 502-503) students must be enrolled in HWC 515/516-517/518. Thirty-three weeks of field education are required each academic year (i.e. at a minimum of 14 hours per week). Requirements for graduation include a minimum of 16 credits in field education.

Field education experiences are available in a broad range of human service programs that meet the needs of individuals, families, groups, and communities. Practicum sites are located throughout Nassau and Suffolk counties, and the greater metropolitan New York area.

Typically graduate students must complete a minimum of 16 credits of field education that are accrued each year at the rate of 4 credits per term, that is, 14 hours per week over a 33-week academic year. Advanced Standing students are

required to complete 21 hours per week over a 33-week academic year, 6 credits per term. Field education typically takes place Monday through Friday during the day and early evening. Some placements accept blocks time of less than 7 hours per day, but no placement will be arranged with blocks of less than 4 to 5 hours at a time. Placements that offer all evening and/or Saturday hours are few and therefore students should be prepared to offer day hours for placement purposes.

Students are evaluated for field education by their ability to achieve competence as defined for generalist and advanced generalist practice. The School has developed a set of behaviors that comprise each competency, and students are evaluated on each behavior of each competency. Additional criteria for Performance in Field Education are described in the Undergraduate Student Field Manual and the Graduate Field Manual. Students are evaluated according to the competency level they are expected to attain (first year MSW field internships and advanced generalist competencies for the second year MSW field internship).

The Field Education Department provides field instructors with Performance Expectations as a tool to guide their efforts to assess and evaluate student learning. The expectations are organized according to the nine Competencies and by expectations for generalist and advanced field education expectations. The Performance Expectations reflect behaviors that should be accomplished by the end of each semester and guide teaching, assignments, and skill development as an ongoing process. Student are expected to develop and strengthen competency throughout their field placement with the goal to achieve competency at their level of study.

The School requires written evaluations at the end of each semester. The written evaluation should reflect prior discussions between field instructor and student and describe progress on achieving competency and areas for further development. The field instructor is responsible for completing the evaluation. The student must be given the opportunity to read the evaluation. The field instructor and student then discuss it and may agree on changes. Both sign the completed evaluation, and students may write an addendum.

The completed evaluation is submitted to the Office of Field Education.

An evaluation is completed at the end of each semester of field education. Students are rated on each behavior, and these scores are added together for a score on each competency. Each of the evaluations (Generalist and Advanced Generalist) use the same rating scale ranging from: N/A – NEVER discussed in supervision or NEVER assigned; IP (1) – Insufficient Progress: Has little understanding of the competency; rarely demonstrates the behavior but has had multiple opportunities to demonstrate; UP (2) – Uneven Progress: Demonstrates a beginning understanding of the competency and struggles with implementation of the behavior in their work; IC (3) – Increased Consistency: Shows evidence of understanding the competence required and continues to strengthen consistency by applying behaviors in their work; C (4) – Competence: Understands the competency required and is consistent in applying the behaviors in their work; and OC (5) – Outstanding: Demonstrates an exceptional ability to effectively integrate the behavior into their practice.

The student who fails to master the competency is rated with a 1 as Insufficient Progress. The student who is beginning to gain an understanding of the competency behaviors receives a 2 or uneven progress. Those that are becoming more consistent in applying behaviors in their work receive a 3 or increased consistency and those that are consistent in their application receive a 4 or competency. For those students that show an exceptional ability they receive a 5 or outstanding. The School expects students to perform at the competency level (4) for each competency by the end of the academic year. As described in AS 4.0 Assessment the Field Evaluation is one of the instruments by which Stony Brook School of Social Welfare measures student competency.

Each evaluation has a section for a description of the tasks and assignments. Included in the evaluation is an overall statement completed by the field instructor about the student's abilities, growth and areas of continued work. The student is expected to contribute to the assessment of his/her learning and to develop objectives for future professional development.

The student completes the page entitled Student's Self-Evaluation of the Field Learning Experience providing them with the opportunity to rate their learning experience at their placement site. They rate their participation in learning, their overall growth through the academic term, and their progress in developing a professional identity.

The School assumes responsibility for final decisions on educational matters. Field faculty assign grades for field education after the evaluations have been received based on a review of the evaluation and discussion with liaison.

In the MSW program Field Education (HWC 500 - HWC 503) is graded Satisfactory (S), or Fail (F). A Fail grade in Field Education automatically places a student on probation; the student may not advance to the next semester's Field and Practice courses, and the matter is referred to the Academic Standing Committee. Reserved (R) grade is used where the time requirement has not been met, or where there is serious question regarding a student's performance, or more time is needed before a definitive decision regarding a grade can be made or when an evaluation has not been submitted.

## Field Education and Practicum Sites in New York State Utilized by the School of Social Welfare

### ACCESSO/ACCESS

Alternatives East End  
 Angelo J. Melillo Center  
 BOCES-Eastern Suffolk  
 BOCES-Nassau  
 BOCES-Western Suffolk  
 BOCES II  
 Brentwood Union Free School District  
 Brighter Tomorrows  
 Bronx Health and Human Services Development Corporation  
 Brookhaven Memorial Hospital  
 Brookhaven Youth Bureau  
 Cancer Care  
 Catholic Charities  
 Center Moriches School District  
 Central Islip Union Free School District

Central Nassau Guidance and Counseling Services  
 Circulo de la Hispanidad  
 Clinical Care Associates  
 Clubhouse of Suffolk  
 Coalition of Child Abuse and Neglect  
 Colonial Youth and Family Services  
 Community Housing Innovations  
 Community Programs Center of Long Island  
 Concern for Mental Health  
 Covenant House  
 Creedmoor Psychiatric Center  
 Developmental Disabilities Institute  
 EAC Suffolk County  
 East Hampton Union Free School District  
 East Islip School District  
 Eastern Long Island Hospital  
 Eastport South Manor School District  
 Elmhurst Hospital Center  
 Empire Justice Center, Touro Law School  
 Family and Children's Association  
 Family Service League of Suffolk County  
 Farmingdale School District  
 Federation of Organizations  
 FECS  
 Flushing Jewish Community Council  
 Fordham Tremont Community Mental Health  
 Forest Hills Community House  
 Glengariff Health Care Center  
 Good Samaritan Hospital  
 Gurwin Geriatric Center  
 Half Hollow Hills School District  
 Hands Accross Long Island  
 Hauppauge Union Free School District  
 HELP Suffolk  
 HELP USA  
 Hempstead High School Team Center  
 Hispanic Counseling Center, Inc.  
 Hofstra University  
 Holliswood Hospital  
 Hope for Youth  
 Hope House Ministries  
 Hospice Care Network  
 Hospice of the South Shore  
 Huntington Youth Bureau  
 Interfaith Hospital  
 Isabella Nursing Home  
 Island Nursing and Rehabilitation Center  
 Islip School District  
 J-CAPP, Inc.  
 Jewish Association of Services for the Aged  
 Jewish Board of Family and Children's Services, Inc.  
 John Foley Skilled Nursing Facility  
 John T. Mather Memorial Hospital  
 Out-Patient Services  
 Partial Hospitalization Program  
 Kings County Hospital  
 Legal Aid Society of Nassau  
 LIAAC  
 Lindenhurst Public Schools  
 Littleflower Children's Services  
 Long Beach Reach  
 Long Beach School District  
 Long Island Crisis Center

Long Island Head Injury Association  
 Long Island Head Start  
 Long Island Minority AIDS Coalition  
 Long Island State Veterans Home  
 Long Island University, CW Post Campus  
 Student Counseling Services  
 Longwood Central School District  
 Madonna Heights  
 Maryhaven Center of Hope  
 Medgar Evers College  
 Mental Health Association of Nassau County  
 Mental Health Association of Suffolk County  
 Mercy Center Ministries  
 Mercy Medical Center Family Counseling Services  
 Montefiore Medical Center  
 Mount Sinai School District  
 Multiple Sclerosis Society, Long Island Chapter  
 Nassau/Suffolk Law Services Committee, Inc.  
 Nassau University Medical Center  
 New York City Administration for Children's Services  
 New York City Department of the Homeless  
 New York Institute of Technology  
 North Shore Child and Family Guidance Center  
 North Shore University-Long Island Jewish Medical Centers  
 Oceanside Counseling Center  
 Options for Community Living, Inc.  
 Outreach Development Corporation  
 Palladia  
 Partnership with Children  
 Patchogue-Medford School District  
 Peconic Bay Medical Center  
 Pederson Krag Center  
 Phase Piggy Back  
 Phoenix House  
 Pilgrim Psychiatric Center  
 Public School 132 All the Way Program  
 Quality Consortium  
 Queens Children's Psychiatric Center  
 Ride for Life  
 Riverhead Central School District  
 Sachem Central School District  
 Safe Space  
 Sagamore Children's Psychiatric Center  
 Salvation Army  
 Samaritan Village  
 Samuel Field YM-YWHA  
 Sayville Project  
 SCO Family of Services  
 Seaford Center, Inc.  
 Self Help Community Services  
 Silvercrest Extended Care Facility  
 Smithhaven Ministries  
 Smithtown School District  
 South Huntington School District  
 South Oaks Hospital  
 South Shore Child Guidance  
 Southside Hospital  
 St. Catherine of Sienna Medical Center  
 St. Charles Hospital and Rehabilitation Center  
 St. Johnland Day Health Services  
 St. Johnland Nursing Home  
 St. Joseph's Village  
 Stony Brook University

Admissions Office  
 Career Placement Office  
 CARES for KIDS  
 Child Welfare Training Program  
 Commuter Student Services Office  
 Dean of Students Office  
 Disability Support Services  
 Employee Assistance Program  
 International Services  
 Medical Center  
 Office of Diversity, Affirmative Action and Equal Opportunity  
 Residential Programs  
 Student Health Services  
 Suburban Housing and Prevention  
 Suffolk County Brentwood Family Health Center  
 Brentwood Mental Health Center  
 Department of Aging  
 Department of Health Services  
 Department of Probation  
 Department of Social Services  
 Family Drug Court  
 Farmingville Mental Health Clinic  
 Human Rights Commission  
 Jail  
 Wellness Project  
 Suffolk County Coalition Against Domestic Violence  
 Suffolk County Perinatal Coalition  
 Suffolk Jewish Community Center  
 Suffolk Network on Adolescent Pregnancy  
 The Light House, Inc.  
 Three Village School District  
 Timothy Hill Children's Ranch  
 Town of East Hampton Department of Human Services  
 Town of Huntington Drug and Alcohol  
 Town of Huntington Youth Bureau  
 Town of Smithtown Youth Services  
 Uniondale School District  
 United Way of Long Island  
 Urban Justice Center  
 University College at Old Westbury  
 Student Counseling Services  
 Veteran's Administration Medical Center  
 Victims Information Bureau of Suffolk County  
 Village of Rockville Centre, Sandel Center  
 Wantagh School District  
 Westbury School District  
 West Islip Schools  
 Westhampton Beach School District  
 William Floyd Union Free School District  
 Women's Center of Huntington  
 YMCA Family Services  
 Young Adult Institute  
 Youth and Family Counseling Program of Islip  
 Youth Environmental Services, Inc.

## Admissions

The criteria for admission to the graduate and undergraduate programs include academic achievement, commitment and concern for social justice and social change, involvement in social welfare and social change activities, and demonstrated potential for successful completion of the program.

Applicants to the undergraduate program must have completed 57 credits as well as having met general University requirements.

Applicants to the graduate program must hold a Bachelor's degree.

Applicants with a cumulative grade point average of less than 2.5 will not be considered for admission to the graduate and undergraduate programs.

Applications are accepted for admission only for the fall semester. The Priority Deadline for applications is March 1st. The deadline for all applications is May 1st.

Forty-three percent of applicants to the MSW program are accepted; 45 percent are accepted to the BSW program.

Ninety-five percent of enrolled MSW students and 98 percent of enrolled BSW students complete the requirements for the degree. A survey of MSW graduates indicated that 90 percent of those responding to the questionnaire were employed in social work and 85 percent had obtained employment within three months of graduation.

## Financial Information

Applications and inquiries about financial aid should be made through the [Health Sciences Office of Student Services](#). For more information, refer to [FINANCIAL INFORMATION](#) in this Bulletin.

## Scholarship Awards and Programs

The School distributes information and/or applications for various scholarships and awards as soon as they become available. Incoming and/or continuing students are eligible for the following scholarships. The school recommends selected students to the appropriate scholarship committee.

### Hy Frankel Award

This award, established and funded by the Hy Frankel Fund in Law, is an annual award of \$3,000, given to a graduating student who is committed to combining law and social welfare to advocate and promote the well-being of children, families and communities.

### Sylvia Cutts Memorial Scholarship

This scholarship, established and funded by the Cutts family, is offered in memory of Sylvia Cutts, a former student in the School of Social Welfare and sister of one of the School's founders. The scholarship is awarded to one financially needy African-American woman. The recipient receives \$500.

### W. Burghardt Turner Fellowship

This award, funded by the SUNY Fellowship Program for Underrepresented Graduate Students, is for incoming underrepresented students who have demonstrated very high academic achievement. It provides full tuition and a stipend for two full years of study. The stipend is \$10,000 each year for two years. Applicants interested in being considered for this scholarship must submit December 15. Applicants being considered for this fellowship will need to submit an additional essay upon notification by the school.

## Policies

### Academic Integrity and Professional Performance

The Stony Brook University School of Social Welfare requires its students to behave in accordance with the Student Conduct Codes of Stony Brook University and the School of Social Welfare, including the School's Technical Standards and Academic Expectations. Students are also expected to embrace the NASW Code of Ethics during the course of their professional education.

Academic and Professional Standards apply to the academic program, field education placements and all activities related to students' participation in the program and/or as members of the university community. Students are expected to maintain conduct that is in accordance with these standards of practice, the field education agency, and the professional regulations of the State of New York. Students who engage in activities that are contrary to these standards are subject to review and possible disciplinary action by the School of Social Welfare and the University.

The School has set forth professional standards, alcohol, drug and gambling policies, academic dishonesty policies, and social media policies. Finally, we have established policies for grading and performance in Field Education.

#### A. Stony Brook University Student Conduct Code

The *University Student Conduct Code and Campus Policies* document states:

"Regulations make it possible for people to live together and function in an orderly way, protecting the rights of the community while respecting the rights of each individual. You should be able to carry on your daily business safely, peacefully, and productively while you are here; these rules and regulations have been designed to accomplish that goal. For all students, the Student Conduct Code supports compliance with the state and federal laws related to drugs, alcohol, weapons, discrimination, sexual assault or abuse, and racial, sexual, or sexual preference harassment."

All students of Stony Brook University are expected to know the provisions of and to comply with the *University Student Conduct Code* available as a downloadable document at (<http://studentaffairs.stonybrook.edu/ucs/conduct.shtml>). Information regarding campus regulations and disciplinary proceedings as well as procedures for filing a complaint, contact the university hearing officer in the Office of University Community Standards Room 347, Administration Building or call (631) 632-6705.

#### B. School of Social Welfare Student Conduct Code

The regulations set forth in this document apply to the academic program, field education placements and all activities related to students' participation in the program and/or as members of the university community.

Students are expected to maintain conduct that is in accordance with standards of practice defined by the School of Social Welfare, Stony Brook University, the field education

agency and the professional regulations of the State of New York. Students who engage in activities that are contrary to these standards will be subject to review and possible disciplinary action by the School of Social Welfare and the University.

### I. Professional Standards

A. While enrolled in the School of Social Welfare students shall:

1. maintain high standards of personal conduct;
2. not engage in discrimination against any person or group on the basis of race, color, sex, sexual orientation, age, religion, national origin, marital status, political belief, mental or physical handicap, or any other personal characteristic, condition, or status;
3. treat everyone with whom the student comes in contact with respect, courtesy, and fairness;
4. act with consideration for the interest, character and reputation of others;
5. represent accurately and fairly the qualifications, views and findings of colleagues and use appropriate channels to express judgments on these matters;
6. respect the privacy and right to confidentiality of clients and colleagues;
7. behave in accordance with agency policies and procedures;
8. behave in accordance with school and university policies; and
9. adhere to all school and university procedures.

Professional misconduct includes but is not limited to the following:

No student shall:

1. assault, threaten, harass, haze or otherwise physically, verbally, psychologically or sexually abuse, demean, ridicule or attempt to intimidate any other person connected with the university, at the field agency or in the conduct of any other activity related to the student's enrollment in the school; this includes but is not limited to bias related acts of assault or abuse, the dissemination of material (including on social media) that ridicules or demeans individuals or groups and any acts which interfere with the rights of others;
2. participate in, condone, or be associated with dishonesty, fraud, deceit, or misrepresentation;
3. misrepresent professional qualifications, education, experience, or affiliations;
4. exploit professional relationships for personal gain;
5. exploit relationships with clients for personal advantage;
6. engage in personal and/or sexual activities with clients including on social media;
7. conceal information or activities that affect the safety and well-being of clients;
8. carry a weapon on university, school or agency premises;
9. misrepresent his/her role as a student to an institution, client or to the public at large so as to mislead them in their expectations of the student's competencies and/or limitations;

10. be habitually absent or late to assigned agency, habitually leave early or fail to notify the agency of intended absence;
11. engage in commercial activities/solicitation without clearance from the person(s) or body(ies) duly authorized by the President of the University or Field Agency Director to review such activities;
12. practice and/or participate in any school academic or non-academic activity while under the influence of alcohol or drugs or mental disability not appropriately controlled;
13. delegate his/her duties to an unauthorized person;
14. falsify client or institutional records; and
15. fail to follow the University guidelines regarding the use of human subjects or laboratory animals in research or experimentation.

### II. Alcohol/Drug and Gambling Policy

1. The consumption of alcohol or possession of an open container of alcohol is prohibited in campus public areas.
2. No student is permitted to sell, possess or use substances defined by New York State and/or Federal Law as illegal or controlled, on University grounds, in the field agency or while engaged in activities related to his/her enrollment in the program.
3. No student is permitted to attend class or field or engage in any activity related to the student's enrollment in the program while under the influence of alcohol or drugs.
4. No student will possess and/or introduce to the campus, and/or the field agency, or while engaged in any activity related to his/her enrollment in the program any drug paraphernalia including, but not limited to: bong, water pipes, roach clips or hypodermic needles (not established to be specifically for the administration of prescribed medications).
5. No student shall gamble for money or other valuables on University or field agency property or in any University facility.

### III. Academic Dishonesty

Academic dishonesty includes but is not limited to:

- cheating on course or proficiency examinations by the use of books, notes, or other aids when these are not permitted, or by copying from other students;
- submission of similar papers or projects in more than one course without permission of the instructors;
- collusion: two or more students helping each other on an examination or assignment, unless specifically permitted by the instructors;
- use of substitutes, sitting in for another student at an examination, or permitting someone else to sit in for oneself;
- plagiarism: submission of another's work as one's own original work without proper acknowledgement of the source;
- falsifying documents or records related to credit, grades, change of status forms (e.g. adds and drops), and other academic matters;
- altering an examination or a paper after it has been graded, for the purpose of fraudulently requesting a revision of the grade;

- use of unauthorized materials for an exam or project (e.g. use of calculators or notes on an examination where they have been prohibited); and
- theft, concealment, destruction, or inappropriate modification of classroom or other instructional material; e.g., posted exams, library materials, laboratory supplies, computer programs and outputs.

### 1. Social Media Policy

When enrolled in the School and placed in a human service organization the student will come into contact with many individuals who utilize social media for various reasons. Students must be aware of the ways that people can get information about them, connect with them and learn about their family and friends. It is important to look at social media not only from a personal perspective but from a professional one. The professional image extends beyond the physical setting of the field agency. Clients and staff of the agency will be able to view students as they present themselves through social media. Students should be guided by social work values and ethics and this responsibility extends to the virtual world and technological world.

Students are advised to follow the following guidelines in use of social media:

1. Socializing with peers in a social setting may result in pictures and references taken within the context of a relaxed and friendly atmosphere that are posted by a friend who has not set his or her profile to private.
  2. Identity relevant information that can be easily disseminated through social network sites and then shared with large and unknown numbers people and groups – including clients, employees (current or future) colleagues and professional peers.
  3. Sharing content and statements on-line may fall into the category of unprofessional behavior and can reflect poorly on the student, affiliated institutions, and the profession, as well as damaging client relationships;
  4. As social work students you should follow the NASW Code of Ethics. The Code responds to some of the issues we face as we use social media.
- Section 1.06 “Social workers should not engage in dual or multiple relationships with clients or former clients in which there is a risk of exploitation or potential harm to the client.” *This may apply to “friending” or accepting friend requests;*
  - Section 1.07(a) “Social workers should respect clients’ right to privacy. Social workers should not solicit private information from clients unless it is essential to providing services or conducting social work evaluation or research. “ *This may apply to conducting online searches about clients;*
  - Section 107(m) “Social workers should take precautions to ensure and maintain the confidentiality of information transmitted to other parties through the use of computers, electronic mail, facsimile machines, telephones and telephone answering machines, and other electronic or computer technology. Disclosure of identifying information should be avoided whenever possible.” *Make sure there is confidentiality at both the sender and receiver end;*

- Section 4.06(a) “Social workers should make clear distinctions between statements made and actions engaged in as a private individual and as a representative of the social work profession, a professional social work organization, or the social worker’s employing agency.” *Clearly separate your identity as an individual from your identity as professional, or in connection with your placement agency, as appropriate when commenting/ posting on blogs, social media sites. Protect relevant personal information that can be shared with others.*

### C. School of Social Welfare Technical Standards

Technical Standards are non-academic standards to which each student must adhere to successfully complete the program. The standards were developed collaboratively by the School of Social Welfare and the Office of Disability Support Services at SBU. They include behavioral, professional and intellectual standards. Technical standards must be met with or without accommodations.

Stony Brook University’s School of Social Welfare is committed to a program of excellence. Students in our program are expected to possess and demonstrate certain attributes, abilities and behaviors necessary for success in our program. Students are expected to meet these standards both in the classroom and in their field placements with or without reasonable accommodation for disability. Stony Brook University (SBU) complies with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. All applicants and students are held to the same technical and academic standards of admissions and training. If a prospective student who is otherwise qualified requires a reasonable accommodation, they should contact Disability Support Services at SBU.

Communication Skills – Students must be able to communicate effectively in all forms of communication including oral, written and listening with or without reasonable accommodations. Students must be able to express themselves at a professional level by demonstrating their ability to express their ideas and thoughts clearly and concisely utilizing language appropriately. Students must have the ability to comprehend English so they are able to understand and integrate the content presented in the program. In a field placement students must be able to record information accurately and clearly, communicate effectively and sensitively. Students must also be able to communicate effectively with other members of a treatment team and provide accurate information in internship settings.

Acceptance of Diversity – Students must demonstrate that they accept all people regardless of race, culture, gender, socio-economic status, national origin, age, abilities, sexual orientation, religion, and value systems. Students must respect differences and must demonstrate empathy showing a willingness to understand other’s values, ways of life, and worldviews.

Self-Awareness – Students must demonstrate a willingness to engage in reflective thinking. The student must be able to reflect on their own life experiences and how these affect their work with clients, communities and organizations. Students must be willing and able to change behaviors that interfere with their practice.

**Cognitive Skills** – Students must demonstrate long and short-term memory, integration of theoretical frameworks and classroom knowledge with social work practice, conceptual analysis, deductive and inductive reasoning, and problem solving skills.

**Integrity** – The School of Social Welfare adopts the University's Code of Conduct, The School of Social Welfare's Student Conduct Code and the NASW Code of Ethics as the standards for the School of Social Welfare. Students must adhere to each of these codes while in the classroom and in field internships.

**Professional Behavior** - Students must behave in a manner that is consistent with the ethics of the social work profession. Students must be punctual, dependable, follow appropriate dress code and be willing and able to receive supervision and constructive criticism. Professional behavior also assumes that students do not have personal issues that impede performance either in the classroom, in field placement or other collegial settings. Students, who are actively impaired psychologically, emotionally, mentally and/or have distorted thought processes and/or are actively abusing illegal or legal substances, cannot fully participate in class or in a field education placement.

**Interpersonal Skills** – Students must demonstrate the interpersonal skills needed to relate effectively to other students, faculty, staff, clients, and other professionals. These skills include but are not limited to compassion, altruism, integrity, honesty, and respect for others.

**Motor Abilities** – Students must have sufficient motor abilities to attend class and field placement with or without technical accommodation.

**Sensory Abilities** – Student must have the ability through his/her senses to participate in classes and field placements. Students must acquire, integrate and apply data through use of their senses with or without technical accommodation.

#### **D. School of Social Welfare Academic Expectations**

The School of Social Welfare sets guidelines for the creation of a community of learning based upon a culture of collaboration and respect that honors rights, safety, and the dignity and worth of each person. In addition, as part of an academic institution, and in preparation for professional practice, the School of Social Welfare holds the following expectations.

- Members of Faculty facilitate your learning. The School of Social Welfare seeks to prepare students for high standards of professional practice. Assistance is available to any student who is seeking to improve their professional skills – either written or verbal. Those seeking help with professional writing and those who wish to improve their writing proficiency may obtain assistance from a variety of resources that are listed below.
- Class discussion and interaction are an integral part of your education. Students are required to attend all classes on time and remain for the full session. This expectation relates to our belief that everyone's participation provides a valuable contribution to the learning. The classroom is

not just a place for you to receive information; it provides an opportunity for you to learn from your colleagues and for them to learn from you. To achieve this, attendance and participation of all involved is a requirement.

- As participation in class discussions is strongly encouraged, doing the required and supplementary readings for mastering the course material and being prepared for class discussion is required. In support of these aims, the use of technology supports such as laptop computers and audio-recorders are at the permission of the individual professor. Cell phone use during class time, unless for emergencies, is prohibited. Likewise, texting, except for emergencies, is also prohibited.
- Each student is expected to pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty members are required to report any suspected instances of academic dishonesty and to follow school-specific procedures.

Plagiarism is defined as representing another's words as your own or falsification of credit for submitted work. Any specific questions such as co-authorship, etc. must be discussed with the faculty member(s) involved. In general, it is not permissible to use papers written for one class to be used again for another, but components may be built upon and reformulated as appropriate. This must be discussed with the professors involved. Stony Brook University provides useful and comprehensive information on academic integrity, including categories of academic dishonesty at the following link <http://www.stonybrook.edu/uua/academicjudiciary/>

Blackboard contains SafeAssign for faculty and students to compare submitted assignments against a set of academic papers to identify areas of overlap between the submitted assignment and existing works. It is recommended to students that they familiarize themselves with this useful tool.

Students are also strongly encouraged to utilize Purdue University's reference guide regarding issues related to plagiarism. This information can be accessed at the following site: <http://owl.english.purdue.edu/owl/resource/589/01/>. Another source that discusses how to avoid plagiarism is: <http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>

Language often expresses institutional racism, sexism, etc.

Sensitizing ourselves and becoming consciously aware of these expressions is important in achieving the goal of eliminating these. Therefore, as part of your professional preparation, we ask that you use verbal and written language that is non-racist, non-sexist, etc. Several examples of what is meant by inappropriate language may help to make the expectation more explicit:

- comments are made that express racial, sexual, class, heterosexual and other stereotypes;
- written work uses masculine pronouns when reference to both males and females is intended; (see Practical Guide to Non-Sexist Language [http://socialwelfare.stonybrookmedicine.edu/system/files/Guide to Non-sexist Language.pdf](http://socialwelfare.stonybrookmedicine.edu/system/files/Guide%20to%20Non-sexist%20Language.pdf));

- terms are used that put people in one-down position, e.g., when terms like “girl” or boy” are used in reference to adults or young adults.

Papers and other written work should conform to college standards of written English and paper assignments should be typed unless otherwise specified by your professors. There are many resources available to help you ensure that your papers are grammatically correct and properly formatted.

- The Stony Brook Writing Center, 2009 Humanities Building, offers advice and support to all students. Contact information: (631) 632-7405.
- Students are also referred to Purdue University’s Online Writing Lab: <http://owl.english.purdue.edu/owl/resource/560/01/>.
- An online tutorial is available at: <http://apastyle.org/learn/tutorials/basics-tutorial.aspx> A list of courses is available at: [http://www.stonybrook.edu/commcms/writrhet/course\\_listing/description.html](http://www.stonybrook.edu/commcms/writrhet/course_listing/description.html)

Use the spell check capability of your word processors and refer to dictionaries for spelling, manuals of style for footnotes, bibliographies, etc.

For citations, the School requires that students adhere to APA (The American Psychological Association) format. This is available at <http://apastyle.org> and also on the Purdue University On Line Writing Lab. Please refer to the following web site for information regarding this format: <http://owl.english.purdue.edu/owl/resource/560/01/>

- The Health Sciences Library offers useful information and tutorials. For example, resources exist on how to use EndNote, a program for references and citations (<http://guides.library.stonybrook.edu/content.php?pid=207141&sid=1727723>). This software and other resources are available free of charge to students via SOLAR. These resources can be accessed at: [http://it.cc.stonybrook.edu/student\\_guide](http://it.cc.stonybrook.edu/student_guide)
- In addition, the Health Sciences Library has a special site that provides important professional links related to social work. Follow the prompts at <http://sunysb.libguides.com/social-welfare>
- The School expects its constituents to demonstrate commitment to all the social work values that place high value on the worth and dignity of all people.
- We assume that everyone is always trying to do their best and that we all are striving to improve our understanding of each other’s world views. This means that we expect our classrooms to create safe places for open discussion through our demonstration of respect for each other as we broach difficult and complex topics and issues.

#### E. NASW Code of Ethics and Standards of Practice

The National Association for Social Workers (NASW) is the national professional organization for social workers in the United States. The NASW Code of Ethics is intended to serve as a guide to the everyday professional conduct of social workers. This Code includes four sections. The first section, “Preamble,” summarizes the social work profession’s mission and core values. The second section, “Purpose of the NASW Code of Ethics,” provides an overview of the Code’s main functions and a brief guide for dealing with ethical issues or dilemmas in social work practice. The third section, “Ethical

Principles,” presents broad ethical principles, based on social work’s core values, which inform social work practice. The final section, “Ethical Standards,” includes specific ethical standards to guide social workers’ conduct and to provide a basis for adjudication. You are expected to familiarize yourself with and adhere to the Code of Ethics. The Code may be downloaded from <http://www.socialworkers.org/pubs/code/default.asp>.

We encourage you to review the NASW Practice Standards for a range of topics: <http://www.helpstartshere.org/about/nasw-practice-standards.html>. For example, students’ attention is drawn to the NASW Standards on Cultural Competence: <http://www.socialworkers.org/practice/standards/NASWCulturalStandardsIndicators2006.pdf>.

In an increasingly international environment, it is important to view our profession from these global perspectives. Two central documents are the Universal Declaration of Human Rights (<http://www.un.org/en/documents/udhr/index.shtml>) and the Code of Ethics of the International Federation of Social Workers (<http://ifsw.org/policies/statement-of-ethical-principles/>). Both of these documents provide insights into the call for our profession to act on issues of social justice, human rights and social development.

#### F. Stony Brook University Sexual Harassment Policy Statement

The University reaffirms the principle that students, faculty, and staff have the right to be free from discrimination based upon gender, commonly known as “sexual harassment.”

Harassment on the basis of gender is a form of sexual discrimination, and violates Title VII of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972.

The University is responsible for and fully committed to the prevention and elimination of gender harassment. Supervisors and department heads are responsible for promoting an atmosphere that prohibits such unacceptable behavior.

Unwelcome sexual advances, requests for sexual favors and verbal or physical conduct of an abusive, sexual nature constitute harassment when such conduct interferes with an individual’s work or academic performance, or creates an intimidating, hostile, or offensive work or academic environment. Harassment of employees by supervisors, or of students by faculty or administrators, is unlawful. Conversely, harassment of supervisors by employees, faculty by students, or individuals by co-workers, is also unlawful.

The University does not tolerate gender harassment and treats it as a form of misconduct. Sanctions are enforced against individuals engaging in such behavior.

Individuals who are affected by, or are aware of, suspected cases of sexual harassment are urged to bring such situations to the University’s attention by contacting the Office of Diversity and Affirmative Action. The Office of Diversity and Affirmative Action has professional staff trained to investigate and provide assistance regarding issues of sexual harassment, and can be reached by calling (631) 632-6280. <http://www.stonybrook.edu/diversity/>

### **G. School of Social Welfare Policy Statement Concerning Heterosexism and Homophobia**

The Mission of the School of Social Welfare is grounded in the basic principle of the absolute dignity and equality of all persons. Therefore, consistent with the Council on Social Work Education Educational Policy and Accreditation Standards and the National Association of Social Workers Policy on Lesbian, Gay, Bisexual and Transgender Issues, the School of Social Welfare believes that heterosexism and homophobia are anti-ethical to the profession of social work.

The Council on Social Work Education requires that social work educators prepare students to understand and value human diversity. It is essential for social workers to have an understanding of the dynamics and consequences of social and economic injustice including all forms of human oppression and discrimination.

The School of Social Welfare provides students the opportunity to develop the knowledge, values and skills to promote social change to implement a wide range of interventions that further the achievement of individual and collective social and economic justice.

Given the School's Mission and the requirements of the Council on Social Work Education, the curriculum must present theoretical and practice content about patterns, dynamics, impact and consequences of discrimination, economic deprivation and oppression of lesbians, gays, bisexuals, and transgenders must be acknowledged.

Students must demonstrate in their conduct and activities the integration of the principles elucidated above. Failure to abide by these principles will be considered grounds for disciplinary action.

### **H. Bias and Hate Crimes or Bias-Related Incidents**

It is a Stony Brook University Police mandate to protect all members of our community by preventing and persecuting bias or hate crimes that occur within the campus's jurisdiction. The University is also committed to addressing bias-related activities that do not rise to the level of a crime. These activities, referred to as bias incidents, and defined by the University as acts of bigotry, harassment, or intimidation directed at a member or group with the University community based on national origin, ethnicity, race, age, religion, gender, sexual orientation, disability, military (new status/protected class) veteran status, color, creed, or marital status, may be addressed through the State University's Discrimination Complaint Procedure or the campus conduct code. <http://www.stonybrook.edu/diversity/services/investigation/state.html>

### **IX. Academic Standing, Student Conduct, and Grievances**

This section of the document sets forth the policies and procedures of the School of Social Welfare/HSC/Stony Brook University, with respect to the academic standing of students, of students' compliance with the Student Conduct Codes, and the student grievance and appeals procedures. It is understood that the general philosophy underlying these policies and procedures is not one of instituting punitive measures or attempting to constrain the activities of students that are appropriate to and consistent with the School's

educational philosophy, mission, policies, and goals. Rather, they are intended to enhance the degree to which the School can be responsive to individual situations as early as possible in order to avoid the development of serious problems, and address student grievances in a timely fashion. It is also recognized that the School has the responsibility to make decisions regarding the ability of students to perform in accordance with accepted academic and professional standards, and as such, has the responsibility and the right to review and act in accordance with the School, Health Sciences Center, and University policies on student conduct and academic standing issues.

These policies are intended to clarify and facilitate the School's ability to:

- identify individual conduct and academic situations which require attention;
- provide review of such situations;
- develop whatever action is necessary to remedy such situations;
- take appropriate administrative action; and
- provide a procedure for dealing with student grievances.

### **A. Student Status**

Student academic status encompasses the following:

1. **Good Standing.** Students must maintain a cumulative grade point average (GPA) of B (3.00) to remain in good standing.

2. **Loss of Good Standing.** Students whose cumulative grade point average (GPA) falls below B (3.00) at the end of any one semester will automatically be placed on academic probation for the following semester and be reviewed by the Academic Standing Committee. All students in this situation must contact their academic advisor. If the grade point average does not reach a B (3.00) by the end of the probationary period the matter will be considered by the Academic Standing Committee for further action.

Students who receive an F in field education (HWC 500, 501, 502, 503) or the Social Work Practice courses (HWC 513-518) for any one semester will automatically be placed on probation and the matter will be referred to the Academic Standing Committee. All students in this situation must contact their academic advisor.

3. **Probation, Suspension, Withdrawal, Unauthorized Withdrawal, and Termination**

#### **Probation**

Students may be placed on probation in accordance with the policies and procedures set forth in this document. Probation means that the student is no longer in good standing. A student on probation must meet formally stated requirements in a specified time period in order to be reinstated to good standing. A student who does not meet such requirements may: (a) have the probationary requirements extended; (b) may be offered the option of voluntarily withdrawing from the program; (c) be suspended; or (d) terminated from

the program. In cases of withdrawal, students who wish to re-enter the program must reapply through the regular admissions process.

#### Suspension

Suspension refers to formal action in which a student loses all rights and privileges to participate in the academic program as of the date of such suspension. Students who are suspended may not register for any subsequent academic period until such suspension is lifted. The usual period of suspension is for one academic year and may be shortened or extended.

Periods of suspension count towards the five-year period within which the degree requirements must be completed.

#### Withdrawal

Students may apply for voluntary withdrawal from the program. Students who withdraw lose all rights and privileges to participate in activities of the School and may not register for any subsequent academic period unless readmitted through the regular admissions process.

#### Procedure

Withdrawal from the School, for any reason, will be recorded only when written notification of the withdrawal is submitted by the student and is received by the Office of Student Services of the Health Sciences Center from the School of Social Welfare's Office of Student Services. The date stated on the official withdrawal form and not the date of the last class attendance is considered the official date of withdrawal. Non-attendance or notification to instructors does not constitute official withdrawal.

#### Unauthorized Withdrawal

Students who do not return at the start of a semester without following official withdrawal procedure are considered to have taken an unauthorized withdrawal from the program. They will be terminated from the program. Students who leave school during a semester without following official withdrawal procedure are considered to have taken an unauthorized withdrawal from the program. They will be terminated from the program and will be reported as having failed all courses for which they were registered.

#### Termination

Students may be terminated from the program by action of the Dean. Such students lose all rights and privileges to participate in the activities of the School and may not register for any subsequent period.

4. Leaves of Absence. Students may be granted a leave of absence for a period of time up to one year. If the leave of absence is granted beginning in the Spring semester it may be granted for up to three consecutive semesters, after which the student must register in order to remain in good standing. Students should be aware that the integrity of the educational experience would be paramount in decisions regarding leaves of absence and conditions for return. All leaves of absence time counts toward the five-year period within which the degree requirements must be completed.

Return to the program will require careful planning with both the academic advisor and the Field Education Office due to the sequencing of courses and field placement requirements.

Please note that the School cannot guarantee a one-semester field placement.

#### Procedure

Leaves of Absence are granted by the Dean or Associate Dean for Academic Affairs. Students must submit a written request for a Leave of Absence stating the reasons, to their faculty advisor, with a copy to the School of Social Welfare's Office of Student Services. The advisor will ascertain the student's academic standing in class and field, after which the advisor's written recommendation will be forwarded to the Associate Dean for Academic Affairs.

Students planning to return after an approved leave of absence need to plan with their faculty and field education advisors during the semester prior to their return, and must follow registration and field planning dates.

Students must register for the semester immediately following the end of their approved leave or they will be considered to have taken an unauthorized withdrawal from the program.

#### B. Conditions under which Academic Standing, Student Conduct and/or Grievance Action(s) May Be Initiated

The School's Academic Standing Committee is responsible for reviewing and evaluating performance standards for Undergraduate and Graduate Students. These include academic standing, professional conduct, and performance in field education.

The Committee serves as an advisory entity to the Dean and is responsible for reviewing and evaluating situations of undergraduate and graduate students in which a student's academic standing and continued matriculation may be at risk. The Academic Standing Committee also considers student grievances. The responsibility of the Academic Standing Committee is to engage in a systematic and thorough process of inquiry to gather relevant information regarding the situation, meet with the student to discuss the situation (whenever possible), and provide a summary and recommendation regarding the reviewed situation.

Consideration of a student's academic standing, student conduct and/or grievance may be initiated by the student or a faculty member when: 1) a student believes that she/he has a grievance in relation to his/her status as a member of the school/and or university; 2) conditionally admitted students do not fulfill the conditions for admission; 3) the student does not maintain a satisfactory grade point average; 4) the student is experiencing difficulty in meeting standards in course work or in field work; 5) the student is having difficulties in, and 6) there is a question of the student having violated the Academic Integrity or Professional Standards policies.

#### C. Procedures

Academic standing procedures are as follows:

##### 1. Review of Grade Point Average

At the end of each semester, each student's grade point average is reviewed. Any student whose record indicates they are not meeting GPA requirements in course work and field education will automatically be placed on probation. A letter will be sent to the student to inform him/her, with copies to the advisor and SSW Office of Student Services file. The advisor may discuss the student's probationary status with other faculty.

## 2. Academic Assessment Meeting

If the student is in danger of not meeting conditions to remain in good standing or graduate, an academic assessment meeting is held. This meeting can be convened at the request of one or more faculty members; at the request of the student; or at the request of the Office of Field Education. This conference may be initiated to discuss: (1) issues regarding the student's educational plans and performance in the program; (2) issues of student conduct; (3) grievances related to the student's academic or non-academic experiences which the student believes have not been satisfactorily resolved. Typically, such a meeting would be convened to devise a plan to address the problem. A report of the meeting will be prepared by one of the faculty members who participated in the meeting and distributed to all the participants. In this report the outcomes and timetables that have been developed to deal with the identified problem will be specified. A copy of this report is placed in the Office of Student Services file. Possible outcomes of this academic assessment meeting may be: 1) a satisfactory resolution of the problem or grievance; 2) development of a plan to address the problems/grievances; or 3) referral of the matter to the Associate Dean for Academic Affairs to request that the matter be reviewed by the Academic Standing Committee. Students may also appeal the recommendation of the Academic Assessment meeting to the Academic Standing Committee. If the matter is referred to the Academic Standing Committee, a copy of the report is sent to the Chairperson who presents the matter to the Committee.

## 3. Filing a Grievance

Should a student decide to initiate formal grievance, he/she must file a written complaint addressed to the student's advisor with a copy to the Chairperson of the Academic Standing Committee.

## 4. Review by the Academic Standing Committee

The Academic Standing Committee is chaired by the Assistant Dean for Academic Affairs, and includes three faculty members, (at least one whom is a member of the BSW faculty and one whom is a member of the MSW faculty) appointed by the Dean, in consultation with the program chairs; and the Director of Field Education or her designee. The Director of Student Services serves ex-officio.

When a student is not in Good Standing or is alleged to have violated an Academic Integrity and Professional Standard, the first step requires that the student consult with the faculty advisor, or field liaison, whichever is relevant, in an academic assessment meeting. If the issues cannot be resolved at that level of discussion, or in cases of alleged violations of academic integrity or professional performance, the Academic

Standing Committee is convened. The faculty advisor, student, and other involved persons are invited to attend the meeting. The student receives written notification of the meeting date and time, has the right to attend the meeting to present pertinent information and participate in the discussion, and may have student representatives present at the meeting.

Following discussion of the issues by the participants at the meeting, the student, faculty advisor, and any parties withdraw and the committee meets in executive session to deliberate. The Committee may make any of the following recommendations to the Dean: 1) no further action is required; 2) a plan for measures to be taken to improve the student's performance or to resolve the grievance; 3) the student be placed on probation, be suspended or terminated from the School; or 4) an exception is made to permit the student to repeat courses or continue to attend classes and or field education.

After the Committee formulates a recommendation, the student and faculty advisor return to the meeting to hear the Committee's recommendations. The Assistant Dean for Academic Affairs sends the written synopsis of the Academic Standing Committee to the student, the Dean, and copies of both go in the student's file.

Students may appeal the recommendation of the Academic Standing Committee in writing to the Dean within 10 business days. Appeals must be based on a) new evidence that has come to light since the meeting, or b) a violation of procedure. The Dean reviews the appeal, and sends a written determination to the student within 10 business days of receiving the appeal.

It shall be understood that this procedure is an internal School and/or agency matter and not legal proceeding. No participant shall be entitled to other advocates and/or legal representation.

# Degrees and Programs

## Bachelor of Science

The full-time, upper-division undergraduate program leads to a Bachelor of Science degree with a major in social work. The curriculum provides a foundation for generalist social work practice. Graduates are prepared for entry-level, professional social work positions in a wide range of health and human service institutions. The program comprises a sequence of courses and includes two terms of field education, two days per week. Field education placements are available in hospitals, nursing homes, schools, youth services and public and community social service agencies, among others. No credit will be given for life experience or previous work experience.

Formal, institutional recognition of outstanding academic achievement is awarded to students in the form of a Dean's list. An undergraduate student with at least a 3.75 grade point average in any semester will receive this distinction for that semester which will be reflected on the official University transcript.

## Academic Requirements for Admission

Applicants to the undergraduate program must achieve upper-division status before admission to the School. The School encourages applications from transfer students as well as applicants from Stony Brook University.

Interested students are advised to complete all general University requirements by the end of their second year of undergraduate work. Refer to [DEGREE REQUIREMENTS](#) in this Bulletin for general requirements. These include a minimum of 57 credits that must be earned prior to beginning the program. Within these credits, students must have completed courses providing a broad liberal arts base with core content in the following areas.

- A minimum of one three-credit course in English composition, which develops proficiency in the composition of expository and argumentative essays. This requirement may be met by EGC 101: Composition 1, by having taken comparable course work at another institution or by scoring four on the English placement examination and completing a designated intensive writing course.
- A minimum of one three-credit introductory course in biological sciences which provides an understanding of the major concepts of biology, including the cell, the gene, molecular biology, development and evolution, the human implications and values associated with these concepts, and the impact of biology on human behavior. This requirement may be met by BIO 101: A Humanities Approach, or comparable course work at another institution.
- A minimum of one three-credit course in natural sciences or mathematics in addition to the biology course.
- A minimum of two three-credit courses in the humanities and/or fine arts.\*
- A minimum of one three-credit course in American political systems which provides knowledge about the organization of American government, including the Constitution, Congress, political parties, pressure groups, growth of the presidency, the Supreme Court, judicial review, federalism, separation of powers, and the Bill of Rights. This requirement may be met by POL 102: Introduction to American Government, or comparable course work at another institution.
- A minimum of one three-credit introductory course in sociology or anthropology which provides an analysis of the principles of social structure through an examination of various forms of kinship, marriage, family, age group, voluntary associations, and various levels of political, judicial, religious and economic organization. This requirement may be met by ANT 102: Introduction to Social and Cultural Anthropology or SOC 105: Structure and Methods, or comparable course work at another institution.
- A minimum of one three-credit introductory course in psychology which provides an understanding of psychology as the science of behavior, including content related to personality theory, social and developmental psychology, and psychological testing. This requirement may be met by PSY 103: Introduction to Psychology, or comparable course work at another institution.

- A minimum of one three-credit course in American history (post-Reconstruction era) which provides knowledge of modern American history including industrialization, the impact of industrialization upon social, cultural and political life, the Great Depression, the New Deal, and the resulting social and technological changes. This requirement may be met by HIS 104: United States Since 1877, or comparable course work at another institution.

\* Consult the School of Social Welfare for approved courses. Studio, design or skills improvement courses are not accepted.

## Graduation Requirements

Candidates for the Bachelor of Science degree must:

1. Meet the general requirements of the University that are described in [DEGREE REQUIREMENTS](#) in this Bulletin.
2. Complete all course and field education requirements of the School of Social Welfare described in this section.
3. Complete 55 credits in required courses in the School of Social Welfare program.
4. Complete 12 credits of elective courses in social welfare.
5. Complete a total of 124 credits of undergraduate work.
6. Maintain a 3.0 cumulative grade point average in the social work program.

## Organization of the Curriculum

The curriculum in the undergraduate program is organized around five substantive areas of knowledge and skills: human behavior and the social environment, social welfare policy, social research, social work practice, and field education. The following program represents the curriculum for the Bachelor of Science student:

### Junior Year, Fall Term (15 Credits)

Course #	Title	Credits
HWC 304	Contemporary Social Justice Issues	3
HWC 308	Human Behavior and the Social Environment I	3
HWC 310	Political Economy of Social Welfare	3
HWC 311	Social Welfare Policy, Services and Analysis	3
HWC 313	Research in Social Work I	3

### Junior Year, Spring Term (16 credits)

Course #	Title	Credits
HWC 300	Introduction to Fields of Practice	4

HWC 305 3	Practice Processes in Social Work I
HWC 309 3	Human Behavior and the Social Environment II
HWC 312 Oppression 3	Social Welfare Policy and Institutional
HWC 314 3	Research in Social Work II

### Senior Year, Fall Term (18 credits)

Course #	Title
Credits	

HWC 301 6	Field Education I
HWC 306 3	Practice Processes in Social Work II
HWC 315 3	Integrating Seminar I
6	Two Electives*

### Senior Year, Spring Term (18 Credits)

Course	Title
Credits	

HWC 302 4	Field Education II
HWC 307 3	Practice Processes in Social Work III
HWC 316 3	Integrating Seminar II
6	Two Electives*

\* Electives vary from term to term.

#### 1. Electives

Students are required to take a minimum of 12 credits of electives to fulfill the curriculum requirements. In addition to the choice of electives offered in the SSW, to satisfy that requirement, students may take two upper division electives relevant to social work that are taught outside the School of Social Welfare. The course selected may be from those offered by a variety of departments within the University including those courses offered by other schools within the Health Sciences Center. The content of the course must be in concert with the School's mission and program objectives and in a subject not covered by the School's curriculum offerings. Prior to registering for such an elective, students must obtain approval from their advisor and the Director of the Undergraduate Program in writing. Students may apply **two** electives from outside the program **or** from transfer into the program.

#### 1. Independent Study Policies and Procedures

Students may elect to take an Independent Study as an elective. The student needs to obtain approval from his/her faculty advisor and register with an individual faculty member for Independent Study (HWC 395). The Independent Study needs to be in a subject area that is in concert with the School's mission and program objectives, and is not covered already by the curriculum offerings. Students may register for 1-3 credits of independent study during their tenure in the program.

An independent study proposal and bibliography should be signed and agreed upon by the student, the student's faculty advisor, the member of the faculty who has agreed to sponsor the independent study and the Director of the Undergraduate Program before registering for independent study credit for a maximum of 3 credits.

**The independent study may not replace required course work.** See BSW Independent Study Proposal:

[http://socialwelfare.stonybrookmedicine.edu/system/files/BSW\\_Independent\\_Study\\_Proposal\\_Cover\\_Sheet.pdf](http://socialwelfare.stonybrookmedicine.edu/system/files/BSW_Independent_Study_Proposal_Cover_Sheet.pdf)

## Master of Social Work

### Pathways to the MSW Degree

The graduate program prepares students for advanced social work practice. It provides students with the needed theoretical and practice expertise to function with maximum competence at different administrative or policy levels in social welfare fields and/or in the provision of direct services to individuals, families, groups, and communities. The school provides opportunities for study and practice that utilize the wealth of interdisciplinary resources available in the Health Sciences Center, the University, and community agencies throughout the New York metropolitan area. The requirements of the MSW Program have been approved by the New York State Education Department as meeting the academic pre-requisites qualifying students to sit for both the LMSW and LCSW License Exams.

Students who have graduated from a CSWE-accredited baccalaureate degree program in social work - within five (5) years from their initial matriculation are not required to repeat what has been achieved in their undergraduate program.

Candidates for the Master of Social Work degree must:

1. Complete all requirements for graduation in a period no longer than five years from the date of their matriculation at the school.
2. Complete a minimum of 64 credits in courses approved by the school, of which a minimum of 16 must be in field education.
3. Maintain a 3.0 cumulative grade point average.

## Curriculum

The curriculum provides for a generalist foundation year of courses and field education for all students. In the second year, students concentrate in advanced social work practice.

Some courses are offered in concentrated form during the semester, intersession and summer session. Although some

courses are offered for student convenience in Manhattan, be advised that in order to complete the program, all students are required to take some courses at the Stony Brook campus. At minimum, HWC 504 Human Behavior and the Social Environment I, HWC 505 Human Behavior and the Social Environment II, and HWC 506 Social Work in Health must be taken at the Stony Brook campus.

Guided by the theme, social work in health/health in social work, the curriculum provides all social work students with basic knowledge of health programs, policies and practices and how they affect individual and societal well-being. To give proper attention to health problems and their social consequences, the curriculum stresses health in social work by providing the knowledge and skills needed by all social workers, regardless of the setting in which they practice.

### 1. Generalist Foundation

In the first year, the array of courses and field education provides the basic professional foundation of knowledge, values and skills for social work practice with individuals, families, groups, organizations and communities.

The professional foundation includes content on social work values and ethics, diversity, social and economic justice, populations historically devalued and oppressed, human behavior in the social environment, social welfare policies and services, social work practice, research and field education.

### First Year, Full-time MSW Requirements

#### Fall Term

##### Course # Title

##### Credits

HWC 500 I	Field Education	4-6
HWC 504 I	Human Behavior and the Social Environment	3
HWC 509 Oppression	*Foundations of Social Justice: Challenging	3
HWC 511	Research I	3
HWC 513	Social Work Practice I	3

\*formerly known as HWC 509 Parameters of Health and Social Policy I (for students who entered the SSW prior to 2017-18)

#### Spring Term

##### Course # Title

##### Credits

HWC 501	Field Education II	4-6
HWC 505 3	Human Behavior and the Social Environment II	

HWC 510 3	Social Policy & Social Determinants
HWC 512 3	Research II
HWC 514 3	Social Work Practice II

\*formerly known as HWC 510 Parameters of Health and Social Policy II (for students who entered the SSW prior to 2017-18)

### 1. Advanced Curriculum

The program prepares students for advanced generalist social work practice in a variety of professional roles, including direct services with individuals, families, groups, and communities and in the analysis, development, implementation, management and evaluation of human services, and health policies and programs.

Students with a baccalaureate degree from a social work program accredited by CSWE may apply for admission to the Advanced Standing Program. Admission to this program is only awarded to graduates holding degrees from baccalaureate social work programs accredited by CSWE, those recognized through the International Social Work Degree Recognition and Evaluation Service, or covered under a memorandum of understanding with international social work accreditors.

Students applying for Advanced Standing are eligible to waive the following required courses: Human Behavior and the Social Environment (HWC 504 and 505), Research I and II (HWC 511 and 512), Foundations of Social Justice: Challenging Oppression and Social Policy & Social Determinants *\*Formerly named Parameters of Health and Social Policy I/II* (HWC 509 and 510), and Social Work Practice I and II (HWC 513 and 514), and Field Education I and II (HWC 500 and 501) if they have taken similar courses and received a grade of B or better.

In addition to the required advanced social work practice courses and advanced field education experiences, students may choose from a variety of electives.

### Second Year, Full-time MSW Requirements

#### Fall Term

##### Course # Title

##### Credits

HWC 502 III	Field Education	4-6
HWC 506 3	Social Work in Health Care	
HWC 515 3	Advanced Social Work Micro Practice I	
HWC 516 3	Advanced Social Work Macro Practice I	

HWC 519 Psychopathology and Psychopharmacology  
3

### Spring Term

#### Course # Title

HWC 503 Field Education IV  
4-6

HWC 517 Advanced Social Work Micro Practice II  
3

HWC 518 Advanced Social Work Macro Practice II  
3

\* Two Advanced Practice Electives  
6

#### 1. Alternative Pathways

In addition to the two-year, full-time option, the school has designed alternative pathways that retain the standard program requirements and quality. Pathway I, the Advanced Standing Option, is open only to graduates of a CSWE accredited baccalaureate program in social work. Pathway II is open only to applicants already working the field of social welfare. Eligibility for Pathway II is determined after admission to the school. Admission to the school does not guarantee approval to register as a Pathway II student. Pathway III is open to all applicants who choose to complete the program in more than two years.

#### 1. Pathway I: Advanced Standing

Students who have graduated from a CSWE accredited baccalaureate program in social work within the past five years may apply for Advanced Standing. Students applying for this option must demonstrate their readiness to function at the level of a second year MSW student. Students generally complete the program in one year, or may take a reduced program and complete the requirements in 1½ to two years.

Students spend three days in a field education setting for one academic year and must complete the required and elective courses. Pathway I students cannot use their place of employment for their field placement and must earn all the 36 credits as matriculated students in the School of Social Welfare.

#### Pathway I: Advanced Standing: Curriculum and Program Design (Full-time)

Students who plan to complete the program in one year follow the program design outlined below.

#### Fall Term

#### Course # Title

HWC 502 Field Education  
III 6

HWC 506 Social Work in Health  
3

#### Credits

HWC 515 Advanced Social Work Micro Practice I  
3

HWC 516 Advanced Social Work Macro Practice I  
3

HWC 519 Psychopathology and Psychopharmacology  
3

### Spring Term

#### Course # Title

HWC 503 Field Education  
IV 6

HWC 517 Advanced Social Work Micro Practice II  
3

HWC 518 Advanced Social Work Macro Practice II  
3

\*Two Advanced Practice Electives  
6

\*A minimum of six (6) Advanced Practice elective credits are required. Elective offerings vary from term to term. In addition, electives are differentiated between advanced practice electives and enrichment electives. Students are required to take a minimum of 6 credits of advanced practice electives. (See Section V. B. Credits)

#### Pathway I: Advanced Standing: Curriculum and Program Design (Modified Full-time)

Students who plan to complete the program in more than one year follow the program design outlined below:

#### First Year, Fall Term

#### Course # Title

HWC 502 Field Education  
III 6

HWC 515 Advanced Social Work Micro Practice  
I 3

HWC 516 Advanced Social Work Macro Practice  
I 3

HWC 519 Psychopathology and Psychopharmacology  
3

#### Credits

#### First Year, Spring Term

#### Course # Title

HWC 503 Field Education  
IV 6

HWC 517 Advanced Social Work Micro Practice II  
3

HWC 518 Advanced Social Work Macro Practice II  
3

#### Credits

\*Advanced Practice Elective  
3

## Second Year, Fall Term

Course # Title	Credits
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HWC 506 Social Work in Health	3
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\*Advanced Practice Elective  
3

\*A minimum of six (6) Advanced Practice elective credits are required. \*Elective offerings vary from term to term. In addition, electives are differentiated between advanced practice electives and enrichment electives. Students are required to take a minimum of 6 credits of advanced practice electives from the minimum required total of 9 elective credits. (See Section V. B. Credits)

### 1. Pathway II: Employment-based Modified Program

Students, who are currently working full-time in the field of social welfare and have had a minimum of three years paid, full-time, MSW supervised, social welfare experience, may apply for permission to use their agency of employment for two days of field education per week, for one year only. This field education experience must be separate and distinct from the student's regular job responsibilities. Specific eligibility criteria for this pathway are in the Field Education Manual. The Office of Field Education must approve participation in this pathway and is responsible for coordinating and approving a field education plan submitted by the student and an approved field education supervisor.

Pathway II students may not register for more than 4 credits (two days) of field education per term, or for more than three courses per semester. In addition to the standard daytime schedule, some required courses and some electives are offered in the late afternoon, evenings and weekends. Through this pathway, students may complete the degree requirements in 2½ to three years. Students in this pathway are therefore on a modified full-time schedule. See Pathway III for Curriculum Design.

### 1. Pathway III: Modified Program

This option is designed for students who choose not to follow the regular full-time schedule. Students must take 12 to 13 credits each term while they are attending school, except in the term (or year) in which they are candidates for graduation when they may take fewer. The degree requirements are typically completed in 2½ to three years.

The required courses are taken in the sequence indicated for regular full-time students. In addition to the standard daytime schedule, some required and some elective courses are offered during late afternoons, evenings and weekends. Students are not permitted to use their agency of employment for field education. In some instances, field education may be taken during evenings and weekends if an educationally sound placement can be arranged. In cases where this cannot be arranged, or it is determined by the field education faculty that such a placement is not appropriate for the

students' learning needs, students may need to complete one or both years of field education in a traditional time period.

Pathway III students may not register for more than four (4) credits of field education per term.

## Pathway II and Pathway III Curriculum and Program Design

### First Year, Fall Term

Course # Title	Credits
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HWC 500 I Field Education	4
HWC 504 I Human Behavior and the Social Environment	3
HWC 511 Research I	3
HWC 513 I Social Work Practice	3

### First Year, Spring Term

Course # Title	Credits
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HWC 501 Field Education II	4
HWC 505 II Human Behavior and the Social Environment	3
HWC 512 Research II	3
HWC 514 Social Work Practice II	3

### Second Year, Fall Term

Course # Title	Credits
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HWC 502 III Field Education	4
HWC 509 Oppression	3
HWC 515 Advanced Social Work Micro Practice I	3
HWC 516 Advanced Social Work Macro Practice I	3

\* HWC 509 Parameters of Health and Social Policy I (for students entering the SSW prior to 2017-18)

### Second Year, Spring Term:

Course # Title	Credits
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HWC 503 4	Field Education IV	
HWC 510 Determinants	*Social Policy & Social 3	
HWC 517 3	Advanced Social Work Micro Practice II	
HWC 518 3	Advanced Social Work Macro Practice II	

\*HWC 510 Parameters of Health and Social Policy II (for students entering the SSW prior to 2017-18)

### Third Year, Fall Term

Course # Title		Credits
HWC 506 3	Social Work in Health Care	
HWC 519 3	Psychopathology and Psychopharmacology	

\*Two Advanced Practice Electives  
6

\*Elective offerings vary from term to term. In addition, electives are differentiated between advanced practice electives and enrichment electives. Students are required to take a minimum of six (6) credits of advanced practice electives. (See Section IV. B. Credits)

#### 1. Pathway IV: Part-Time Program

This option is designed for students who choose not to follow the regular full-time schedule. Students must take the courses as prescribed. Courses are limited to two per semester for a total of six (6) credits. After completion of the second year, students may register for more than six (6) credits. Part-Time students begin Field Education during the spring semester of their second year. The degree requirements are typically completed in three to four years.

#### Fall Class Schedule

Part-Time Program - MSW Students (First Year)

Course	Title	Credits
HWC 509	Foundations of Social Justice: Challenging Oppression	3
HWC 511	Research I	3

#### Spring Class Schedule

Part-Time Program - MSW Students (First Year)

Course	Title	Credits
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HWC 510	Social Policy & Social Determinants	3
HWC 512	Research II	3

#### Fall Class Schedule

Part-Time Program - MSW Students (Second Year)

Course	Title	Credits
HWC 500	Field Education I	4
HWC 504	Human Behavior in the Social Environment: Critical Applications of Social Work Theory	3
HWC 513	Social Work Practice I	3

#### Spring Class Schedule

Part-Time Program - MSW Students (Second Year)

Course	Title	Credits
HWC 501	Field Education II	4
HWC 505	Integrating Seminar	3
HWC 514	Social Work Practice II	3

#### Fall Class Schedule

Part-Time Program - MSW Students (Third Year)

Course	Title	Credits
HWC 502	Field Education III	4
HWC 515	Micro Practice	3
HWC 516	Macro Practice	3
*HWC	Elective	3
*HWC	Elective or (HWC 519) Psychopathology	3

\*Psychopathology and Three Electives may be taken in any semester after the successful completion of the Second Year.

**Spring Class Schedule**

## Part-Time Program - MSW Students (Third Year)

Course	Title	Credits
HWC 503	Field Education IV	4
HWC 517	Micro Practice	3
HWC 518	Macro Practice	3
*HWC	Elective or (HWC 519) Psychopathology	3
*HWC	Elective	3

\*Psychopathology and Three Electives may be taken in any semester after the successful completion of the Second Year.

Additional requirements: The following courses are required and may be taken in any semester after the successful completion of Year II courses:

Psychopathology

\*Three Electives

Part-time students will develop a curriculum plan with their advisors designating in which semesters they will enroll in these required courses.

\*Elective offerings vary from term to term. In addition, electives are differentiated between enrichment electives and advanced practice electives. Part-time students are required to take a minimum of nine (9) credits of enrichment electives.

### 1. **\*Special Focus Areas (\*for students who entered the SSW prior to 2017-18)**

As part of their concentration year, second year students have the opportunity to develop specialized knowledge in a choice of specific areas as described below.

The special focus areas share a similar structure, with some specific variation within each, and each specialization has a director who oversees the curriculum for the specialization.

General special focus area requirements:

- Students are required to do a full year of Field Education placement at a setting related to their specialization. The placement may take place in the first or second year of the MSW program.
- Students are required to take electives related to their specialization. Each specialization has a list of required/ elective courses that qualify for the specialization (see individual specialization descriptions). Students are required to receive a B grade (3.00) or higher in the electives for the specialization. Enrichment level courses may be required for some of the specializations. However, all MSW students also must complete 2 advanced practice electives before graduating.

- Students are required to do their HWC 515 Advanced Social Work Micro Practice I and HWC 516 Advanced Social Work Macro Practice I written assignments on a topic related to their specialization.

Students are required to complete all requirements for the MSW Degree, including:

- A total of 64 credits (36 credits for Advanced Standing students), of which at least six (6) credits will be the Advanced curriculum courses of the specialization.
- At least 8 of the 16 credits of field education (12 credits for Advanced Standing students) in a setting related to the specialization.

Students in the Modified pathways will not be able to pursue a specialization due to required course scheduling.

The school offers five (5) specializations:

- Health
- Substance Abuse
- Trauma
- Social Work in Higher Education: Student-Community Development (SCD)
- Community and Political Social Action

#### 1. **Health**

Coordinator: Dr. Michelle Ballan, PhD

This focus area provides students with theory and practice skills in the analysis, development, implementation, management and evaluation of health programs, policies and practice and how they affect individuals and societal well-being; and prepares students to occupy both independent and interdisciplinary team roles in health promotion, prevention, patient care, research, planning and management. Particular emphasis is placed on dealing with traditionally disadvantaged and disempowered populations in accordance with the School's mission.

Completion of the following advanced practice electives:

- HWC 581 Public Health and Community Health Intervention (Fall 2014)
- HWC 584 Community Analysis and Health Promotion (Spring 2015)

#### 1. **Substance Abuse**

Coordinator: Frances L. Brisbane, Ph.D.

Assistant Director: Stephen Rabeno, Ph.D.

Students may opt for a focus area in Substance Abuse. Students enrolled in this specialization examine the history and development of policies and practice in the field of alcoholism and substance abuse. This specialization addresses the wider implications that relate to program planning and development, public policy and prevention, ethical issues within a substance abuse context and the more specific issues of working with families, individuals, and groups in treatment and recovery. Particular emphasis is placed on dealing with traditionally disadvantaged and

disempowered populations in accordance with the School of Social Welfare's mission.

Required elective courses:

- HWC 544 Overview of Substance Abuse (Fall 2014) – enrichment elective
- HWC 545 Individual and Family Treatment of Alcoholics and Substance Abusers (Fall 2014 at the Manhattan Site; Spring 2015 at Stony Brook Campus)
- One of the following advanced practice electives:
  - HWC 579 Special Topics in Social Welfare: Treating Veterans and Their Families (Summer 2014)
  - HWC 578 Advanced Social Work with Groups (Fall 2014 or Spring 2015)
  - HWC 556 Proposal Writing in the Health and Human Service Fields (Spring 2015)

### 1. Trauma

Coordinator: Kathleen Monahan, D.S.W.

This focus area will provide students with the advanced practice knowledge-base regarding the issues of trauma. The specialization is founded on a strengths based perspective and examines the complex issues regarding the range of traumatic events, long-term negative sequelae, and the evidence-based treatments that provide intervention and support. Cultural issues are a particular focus as well as legal, legislative and policy concerns. Two advanced elective courses in the second year of the graduate program support this specialization.

Completion of the following advanced practice electives:

- HWC 579 Special Topics in Social Welfare: The Dynamics of Child Sexual Abuse (Fall 2014)
- HWC 579 Special Topics in Social Welfare: Therapeutic Interventions for Trauma (Spring 2015)

### 1. Social Work in Higher Education: Student Community Development (SCD)

Coordinator: Richard H. Morgan, Ph.D.

The Social Work in Higher Education: Student-Community Development (SCD) Special Focus Area offers a unique focus on social work within higher education. This focus expands the arenas of social work practice, community organization and systems development to include the contemporary college campus. Students develop skills in providing direct interventions in response to a range of social issues that currently affect student communities nationwide such as multicultural relations, preventive mental health interventions, safety and strategies that promote student retention and success. The specialization emphasizes organizational and community development, social change and the strengths perspective as vital components of social work practice within various types of higher education learning communities.

Required elective courses:

- HWC 598 Issues in Higher Education (from Spring 2014) – enrichment elective

or

- HWC 566 Student-Community Development Student Portfolio Project (Fall 2014)

and

- HWC 594 Student-Community Development Seminar II (Spring 2015)
- Completion of one (1) of the following advanced practice electives:
  - HWC 578 Advanced Social Work with Groups (Fall 2014 or Spring 2015)
  - HWC 581 Public Health and Community Health Intervention (Fall 2014)
  - HWC 548 Adolescent development and Health Promotion (Fall 2014 or Spring 2015)
  - HWC 584 Community Analysis and Health Promotion (Spring 2015)
  - HWC 555 Supervision in Health and Human Service Organizations (Spring 2015 – online)

### 1. Community and Political Social Action

Coordinator: Carolyn Peabody, Ph.D.

Rooted in a critical and structural analysis of the causes of social problems, the Community and Political Social Action special focus area builds on Foundation and Advanced Generalist knowledge, values and skills to further deepen students' capacity to work for social change. This specialization enables students to gain a sharper focus on select areas such as community organizing, community development and political social work, which includes political advocacy, activism and advancing social workers as elected officials.

Completion of two (2) of the following advanced practice electives:

- HWC 556 Proposal Writing in the Health and Human Service Fields (Spring 2015)
- HWC 579 Social Work in the Political Process – Campaign School (Spring 2015)
- HWC 584 Community Analysis and Health Promotion (Spring 2015)

### 1. \*Special Focus Areas (\*for students who enter the SSW in 2017-18 and beyond)

Stony Brook University School of Social Welfare requires students to select a special focus area in their second year. The School has three special focus areas:

- Integrative Health: Physical, Psychological, and Social Well Being
- Families, Youth, and Transitions to Adulthood
- Community, Policy, and Political Social Action

All three special focus areas are offered on the Long Island campus.

The Manhattan campus offers the following focus areas:

- Integrative Health and Families
- Youth
- Transitions to Adulthood

Special Focus areas build on the generalist practice competencies that students have mastered in their first year courses and field placements. Focus areas offer the opportunity for students to develop both a deep and broad understanding of a domain of practice that will prepare them for a successful career path in that area of social work. Students will learn about all practice levels within a particular field—from policy and policy practice, to community services, to program development and leadership, to research, to evidence informed practice with specific populations. Special focus areas offer students a state-of-the-art understanding of social work with a special focus on either integrative health, families and youth, or community action and social policy.

Students achieve advanced competencies in their chosen special focus area, and may note their achievements on their resume at graduation.

#### Integrative Health: Physical Psychological and Social Well Being

The special focus area in Integrative Health recognizes that health is the result of many factors beyond genetics and germs. While health care today includes both behavioral health and management of disease and illness, social workers bring essential skills to address many of the social, political, economic and behavioral causes of illness, including addictions and disabilities. Health care today is delivered in both in-patient and out-patient settings and by primary care physicians in the community, and involves both community education and prevention, and treatment. Because social conditions such as housing, income, food security, mental health and addictions, are responsible for 60% of all health outcomes, social workers are recognized as an integral part of the health team, offering mental health and addiction counseling, serving as care coordinators, and working in community organizations and health settings to design and implement prevention, coordination, and treatment interventions for populations in need. Students interested in the following areas should consider this special focus area:

- Addictions
- Health Disparities and Chronic Illness
- Aging
- Disabilities
- Mental Health
- Trauma Informed Practice

#### Families, Youth, and Transitions to Adulthood

This Special Focus area recognizes that social conditions greatly impact the ability of families and children to be resilient, to endure as a unit of care and support, to remain housed, to offer nurturance and sustenance, to succeed in the educational system, and to remain outside of the criminal justice system. Other families, their communities, and community service providers strengthen families. Social workers are the primary workforce in this domain of practice, leading children and family organizations, developing policy, planning and implementing community programs, designing and supervising psycho-educational prevention programs, and providing individual, group, and family services to empower and assist clients in the community and in schools. This special focus area will appeal to students interested in the following areas:

- Child and Family Behavioral Health
- Foster Care, Abuse, and Adoption
- School Social Work
- Practice in Higher Education
- Homelessness
- Domestic Violence and Criminal Justice
- Trauma Informed Practice

#### Community, Policy, and Political Social Action

This Special Focus area recognizes that many of the problems faced by our clients and the communities in which they live result from the existence of inequality and from social policies that create, maintain and deepen both inequality and social injustice. In this Special Focus, students will gain advanced skills in political social work including political analysis and social action to influence and shape policies that empower clients and communities and foster equality and human dignity. The Community, Policy and Political Social Action Focus Area strengthens and deepens students' capacity to work for social change. This focus area enables students to gain a sharper focus on select areas such as:

- Community organizing
- Community Development
- Political advocacy
- Social Activism
- Preparing for Elected Office and the role of staff in the office

#### Courses and Field Practicum

As students complete generalist course requirements (at the end of the first year for full time students, before entering for Advanced Standing Students, and at the end of the second year for modified students), they must select a Special Focus Area. That selection will guide their second year field internships, enrollment in specialized courses, and elective choices. The courses include:

Policy Practice in Special Focus Area

Psychopathology and Psychopharmacology

Three Practice Courses in the Special Focus Area

Three Electives associated with the special focus area from a menu of electives

Students are also required to accept a second year field placement in the special focus area of the student's choice, as designated by the Department of Field Education.

#### 1. Dual Degree Program in Social Work and Law

The School of Social Welfare and Touro College Jacob D. Fuchsberg Law Center offer a dual degree program in which full-time students may obtain both a Master's degree in Social Work (MSW) and a Juris Doctor (JD) degree in law following four years of study. This program reduces the amount of full-time study otherwise necessary to earn these two degrees if taken separately.

Applicants for admission to the dual degree program must meet the separate application requirements of each program and must be accepted for admission by each school

independently. Applicants to the Law School must submit LSAT scores. Applicants to the dual degree program may apply prior to enrollment or during the first year of enrollment at Touro College of Law. **Students must be accepted to Touro College of Law prior to beginning their studies at the School of Social Welfare in order for credits to be accepted by Touro College.**

Details regarding the specific course requirements and their sequence for each degree, and the courses and grades for which each school will allow transfer credit, are contained in a brochure obtainable from the School of Social Welfare Office of Student Services.

### 1. Individualized Elective Course Options

#### 1. Independent Study Policies and Procedures.

Students may elect to take an Independent Study as an elective. The student needs to obtain approval from his/her faculty advisor and register with an individual faculty member for Independent Study (HWC 595). The Independent Study needs to be in a subject area that is in concert with the School's mission and program objectives, and is not covered already by the curriculum offerings. Students may register for 1-3 credits of independent study during their tenure in the program.

An independent study proposal and bibliography should be signed and agreed upon by the student, the student's faculty advisor, the member of the faculty who has agreed to sponsor the independent study and the Director of the Graduate Program before registering for independent study credit for a maximum of 3 credits. The independent study is determined to be either an enrichment or advanced practice elective in consultation with the Sponsor and Graduate Program Director. The independent study may not replace required course work. See Independent Study Proposal Form: [http://socialwelfare.stonybrookmedicine.edu/system/files/Independent\\_Study\\_Proposal\\_Cover\\_Sheet\\_0.pdf](http://socialwelfare.stonybrookmedicine.edu/system/files/Independent_Study_Proposal_Cover_Sheet_0.pdf)

### 1. Master's Project

- Policies and Procedures.** The following policies and procedures should guide preparation of the Master's Project. All Master's Projects are considered Advanced Practice Electives as they are intended to explore a topic in depth. They provide a specific focus on social work practice issues and often address the interventive concerns related to the topic. Implications for social work practice are always addressed.

*Purpose.* The project should reflect and demonstrate the student's ability to organize and integrate core knowledge, specialty interest, and the school's mission.

*Timing.* Planning for the Master's Project should start by the end of the student's second semester. The Project must be completed and approved by the deadline dates established each semester in conjunction with the sponsor.

*Articulation with other Curriculum Components.* The Master's Project is the culmination of the student's ability to identify areas of a substantive nature using values, knowledge, skills and techniques acquired in field work placements and classroom courses.

*Credits.* The Master's Project shall be awarded three credits. Students should register for HWC 507 with the section number of the Sponsor. If the student does not complete the Project by the end of the semester, a Reserve (R) grade is recorded.

Students then register for HWC 508 Continuation of Masters Project (0 credits) the following semester.

*Grading.* Letter Graded. Following consultation with the reader, the sponsor determines the grade.

*Sponsorship.* The student must select a member of the School's full-time faculty who agrees to serve as a sponsor for the Project. In addition, a second faculty member or approved content expert must be selected as a reader. The reader's role shall be determined through discussion among the sponsor, student, and reader.

*Prospectus.* The student must first submit a written prospectus to the sponsor and reader for approval. A copy of the prospectus with signatures of the sponsor and reader should be placed in the student's file.

*Evaluation and Approval.* The sponsor and the reader have the authority to accept the final project. They also have ongoing supervisory responsibility for suggesting revisions that the student shall incorporate in the final draft.

*Types of Master's Projects.* The following are some categories of types of projects. They vary in terms of format and methodological emphases. All projects, regardless of type, must result in a final written product.

- Analytic Essay. Analytic essays focus on specific issues and should include: (1) purpose, goals, and methodology; (2) a definition or redefinition of the issue; (3) review of the relevant literature; (4) description and documentation of the issue; (5) social, political, and economic context and implications of the issue; (6) critical analysis of current policy, practice, and services related to the issue; (7) implications of the analysis for policy formulation and/or practice that emphasizes a change strategy addressing the issue. Essays may also include program and training proposals that include a substantive component regarding the issue addressed by the proposal.

*Research Study.* A Research Study may be qualitative, quantitative, or both. Research projects should include: (1) statement of an interest, idea, hypothesis or problem; (2) purpose and objectives of the research; (3) review of the pertinent literature; (4) conceptual and operational definitions; (5) logic of the research design; (6) sample strategy when appropriate; (7) data collection methods, (8) findings; (9) analysis of data; (10) conclusions; (11) recommendations and/or implications. Please note that any research methodologies that involve human subjects must be approved through CORIHS. Please indicate whether CORIHS approval is being sought in such circumstances.

- Audio Visual. The Master's Project may take the form of an audio/visual presentation accompanied by a paper that includes the following (1) title page; (2) statement of the purpose of objectives of the project including intended use and audiences; (3) rationale for use of the audio/visual method; (4) description of steps for project development; (5) overview of project; (6) review of

pertinent literature; (7) an assessment of the limitations, strengths, and weaknesses of the project; (8) the location and accessibility of the project for future use; (9) implications for social welfare.

- Other Projects. The School welcomes creative projects that may not be covered by the above categories. A written description and analysis must be a part of all projects.
- Group Projects. Group Projects are permissible as long as there is justification for the group format and each individual has an identifiable piece of work.

*Standards and Format.* Preparation of the Master's Project shall conform to the following general guidelines:

Projects must be typewritten, double-spaced, with margins of 1 ½ inches on all sides, clean corrected copy, on 8 ½ x 11 paper, and in a uniform binder with label provided by the School.

Projects shall meet the following minimum standards which will be used in reviewing the adequacy of and relative merit of the Project:

- Internal Consistency and Continuity
- The adequacy of the Project shall be judged by the extent to which the explicit goals or objectives set forth in the project have been addressed and accomplished.
- The content shall be internally consistent and free of contradiction; or, where such contradiction occurs, it is explained and interpreted.
- The Project shall provide for continuity in the sense of showing the relationship of one part of the project to another and the relationship of each part to the overall purposes or objectives of the project.
- Comprehensiveness
  - The Project must have an analytical component in that it covers or accounts for all of the main or salient points related to the subject.
  - The Project shall also be comprehensive in that it demonstrates an ability to synthesize or integrate a variety of conceptual and/or empirical material relevant to the field of social welfare.
- Analytical
- The Project must have an analytical component in the sense that the subject of the project is examined from some conceptual frame(s) of reference and is not merely descriptive in nature.
- A test of the analytic nature of the Project is the extent to which meaning is attached to empirical data; interpretation of descriptive materials is made; and/or, implications, conclusions, or recommendations are drawn from whatever findings or descriptive materials is presented.
- Clarity
  - The Project must meet minimal standards of clarity of exposition in that words are used correctly, explained and defined where necessary.
  - The project must be written in conformity with accepted standards of spelling, grammar, sentence structure, punctuation, and page numbering.

- Completeness
- The Project must meet the standards addressed above, and include:
  - title and author on outside cover of binder;
  - title page (see sample following);
  - 200-word abstract;
  - Preface and Acknowledgements;
  - Table of Contents;
  - Body of report to contain the following components:
    - statement of the general subject;
    - objectives or purpose of the project;
    - methodology;
    - conceptual framework;
    - literature review;
    - findings or descriptive data;
    - interpretative or descriptive data;
    - limitations of current study
    - conclusions;
    - implications for future research;
    - implications for social work practice;
  - appendices
  - references; and
  - appropriate footnotes in APA form.

## Ph.D. in Social Welfare

### Program Purpose

The primary purpose of the Ph.D. program is to produce scholars who can use systematic methods to develop through research, and disseminate through teaching and writing, knowledge concerning social welfare problems and policies.

Drawing upon the social, behavioral and health sciences as well as social work knowledge and experience, the graduates of this program will have the skills to expand the base of tested knowledge that can guide the profession of social work in its efforts to address major social problems.

A second purpose is to develop leaders and educators who can effectively contribute to contemporary social work practice as defined in this school's mission statement, which can be found at: [socialwelfare.stonybrookmedicine.edu/mission](http://socialwelfare.stonybrookmedicine.edu/mission).

The core of this program is education for scholarly research leading to careers as teachers, researchers, and policy analysts with a focus on the content areas of health, mental health, and substance abuse. The strength of such a program lies in its location within the Health Sciences Center. This is a natural setting in which to bring together the basic sciences and theoretical disciplines in applied policy/program analysis and thereby contribute to research in the social dimensions of health and mental health.

### Program Structure and Content

The structure of this program consists of 10 required classroom courses (30 credits) as follows:

- Statistics I and II
- Research Methods I and II
- Qualitative Research
- Social Welfare Policy Analysis I and II
- Social Welfare Administration

- Knowledge Building in Social Work: The Philosophy of Applied Social Research
- Social Science Theory for Social Welfare
- Seminar in Social Work Education

In addition, the following are required:

- A minimum of 3 electives (9 credits)
- A research practicum (6 credits)
- A teaching practicum (3 credits)
- Qualifying exams
- A dissertation seminar (6 credits)

Also required are the successful passing of the qualifying exams and the production and defense of a scholarly dissertation. Fifty four (54) credits are required for graduation. In the first three years, students take three courses each semester. The full-time program is designed to be completed in a minimum of four years.

Once all coursework and the comprehensive exam have been completed successfully, students select a preliminary dissertation chair and committee and develop an approved dissertation proposal. The student is then advanced to candidacy and begins dissertation research. The fourth year is spent on completion of the dissertation and defense. Completion of all work toward the degree is required within seven years of admission to the program.

#### The Part-Time Option

Students who are approved for the part-time option take a minimum of six credits each semester until the 54 credit sequence has been completed. In order to meet residence requirements, they must take nine credits in each of two consecutive semesters. Part-time students take their comprehensive qualifying exam at the end of the semester when 42 credits of required course work are completed (usually the second semester of the third year). At the end of the third year, once all coursework and the integrative paper are completed successfully, part-time students select a dissertation chair and committee. In the fourth year, they develop an approved dissertation proposal. They are then advanced to candidacy. Dissertation research begins in the fifth year.

## Criteria and Procedures for Admission of students

***The program has suspended admission for new students at this time.***

Newly admitted students may begin classes during the fall semester only. Applications for admission for the following fall should be received by February 1.

Admission requirements include:

- A master's degree from a program accredited by the Council of Social Work Education.
- Academic promise as evidenced by superior achievement in undergraduate and master's level education.
- Satisfactory performance on the Graduate Record Examination.
- A personal interview.

- Professional competence as demonstrated through substantial experience in responsible social work and/or human services positions supported by three letters of reference including one, if possible, from someone familiar with the applicant's capacity to conduct research.
- A sample of writing in the form of a published article, a manuscript submitted for publication, a document completed for the applicant's agency or in connection with a research interest, or a paper prepared in your previous graduate studies.
- Applicant has distinct interest in policy, research, and theory with regard to social welfare.
- Personal qualities indicating a potential for leadership, compatibility with the School's mission statement, flexibility and openness to new ideas, maturity, a spirit of inquiry, and a commitment to furthering the knowledge base of the profession of social work.
- Competence in quantitative skills as evidenced by performance on the Graduate Record Exam and a college level course in statistics completed with a grade of B or better

\*Under special circumstances, applications from persons who do not meet all of these requirements will be considered. Applicants without the M.S.W. degree must have a master's degree in a closely related field and must demonstrate a high potential for success in the program.

## Requirements for the receipt of the Ph.D. degree

- One year in residence.
- Satisfactory completion of all required and elective courses (54 credits).
- Satisfactory completion of research and teaching practicum.
- Satisfactory performance on the integrative paper.
- Satisfactory performance on qualifying examinations.
- Advancement to candidacy by vote of the Doctoral Committee upon successful completion of all course work and the integrative paper.
- Completion of a dissertation.
- Successful defense of the dissertation.

A program summary booklet is available describing the Ph.D. program detail, its curriculum and requirements for admission. To receive a copy of this booklet, contact the School of Social Welfare's Ph.D. program office in writing or by telephone at (631) 444-2138.

## Dual Degree Program in Social Work and Law

This program offers the opportunity to earn an MSW from the School of Social Welfare and a JD (Juris Doctor) from the Touro Law Center in four years, rather than the five that would be required if the degrees were earned separately. Applicants may apply for the dual degree program prior to matriculation or during their enrollment in the first year at either school.

Applicants must apply to and be accepted by both schools. If accepted by both schools, the student is automatically eligible for the dual degree program. The first year may be spent at either school, with the choice being up to the student. The second year is spent at the other school, the third year is divided between the two schools and the fourth year is spent primarily at the law school.

A detailed description of the program is available from the School of Social Welfare's Office of Admissions and Student Services at (631) 444-3141.

## School of Medicine

DEAN: Kenneth Kaushansky  
OFFICE: HSC Level 4, Room 147A  
PHONE: (631) 444-2113  
WEB: [medicine.stonybrookmedicine.edu](http://medicine.stonybrookmedicine.edu)

### About the Program

The School of Medicine consists of basic science and clinical departments that have the responsibility for preclinical and clinical instruction of medical students in all the schools of the Health Sciences Center, as well as university-wide responsibility to students in other schools on the campus. Basic science departments include the departments of anatomical sciences, biochemistry and cell biology, biomedical engineering, microbiology, neurobiology and behavior, pathology, pharmacological sciences, and physiology and biophysics. Clinical departments include the departments of anesthesiology, dermatology, emergency medicine, family medicine, medicine, neurological surgery, neurology, obstetrics, gynecology and reproductive medicine, ophthalmology, orthopaedics, pediatrics, physical medicine and rehabilitation, preventive medicine, psychiatry and behavioral science, radiation oncology, radiology, surgery, and urology.

In addition to instruction at the undergraduate and professional levels, these departments have major responsibility for graduate, postgraduate and continuing education. The goal of each of these departments is to:

1. Integrate as rapidly as possible new scientific knowledge and the advances of basic research into the training of every health professional
2. Promote input from all university disciplines into education and research in the health sciences
3. Ensure that every healthcare professional trained in the school is prepared to provide the highest level of patient care. In the basic sciences, these efforts are enhanced by collaboration with colleagues at the biology and medical departments of Brookhaven National Laboratory, Cold Spring Harbor Laboratory and other research institutions in the vicinity. In the clinical departments, these objectives are enhanced by Stony Brook University Hospital as well as by the clinical affiliates of the Nassau University Medical Center, Winthrop University Hospital, the Northport Veterans Affairs Medical Center and various community clinical facilities integrated under a variety of arrangements.

For admission and academic information pertaining to the MD program, please see Degrees and Programs, Doctor of Medicine.

### Graduate Studies in Basic Health Sciences

Graduate studies leading to the PhD degree in basic health sciences are offered in the fields of anatomical sciences, molecular microbiology, cellular and molecular pathology, molecular and cellular pharmacology, physiology and biophysics, or population health and clinical outcomes research. The Department of Oral Biology and Pathology also offers a Master's of Science degree in Basic Health Sciences.

Basic health sciences departments of the School of Medicine also collaborate with the Division of Biological Sciences and other academic units to operate graduate study programs in various areas of the biological sciences, such as molecular biology and biochemistry, cellular and developmental biology, genetics, and neurobiology and behavior. Many of these programs are part of the tri-institutional consortium that includes Cold Spring Harbor Laboratory and Brookhaven National Laboratory, and students have the opportunity to work with the faculty at these institutions in addition to the Stony Brook University faculty.

Each graduate studies program is guided by its own director and executive committee and establishes its own entrance standards and degree requirements, described in detail in the [Graduate Bulletin](#). Inquiries regarding graduate admission to a specific department should be addressed to the director of the department's graduate program. Please see [ADMISSIONS](#) in this Bulletin for more information.

### Continuing Medical Education

The educational mission of the medical school targets medical students, post graduate trainees and practicing physicians. This is consonant with the philosophy that education is a continuing process throughout a professional career. The purpose of Continuing Medical Education is to optimize patient care and maintain and improve physician competency by means of offering high quality learning experiences for physicians. The activities offered permit physicians to fulfill CME requirements for re-licensure, maintenance of certification, hospital privileges, and medical or specialty society membership.

The School of Medicine's continuing education program is fully accredited by the Accreditation Council for Continuing Medical Education. Through its Office of Continuing Medical Education, the School of Medicine sponsors, co-sponsors, or jointly sponsors CME activities including regularly scheduled conferences, courses and enduring materials. The methods of instruction are varied to offer different types of learning experiences, appealing to diverse and individual learning styles and practice setting requirements. They include live conferences; interactive audio, video, and web-based programs; self-study materials; and hands-on training, e.g., procedural skills training in animal labs, simulation, standardized patients.

## Financial Aid

Inquiries concerning sources of financial aid and student financial planning should be directed to the [Health Sciences Office of Student Services](#). First-time financial aid applicants must complete the School of Medicine Institutional Application for Financial Aid. All financial aid applicants must complete the Free Application for Federal Student Aid (FAFSA) for each academic year they are applying. Financial aid for medical students consists of loans and grants. Financial aid awards will not exceed the cost of attendance for each academic year. The cost of attendance includes tuition and fees; room and board; books and supplies; transportation expenses; and personal/miscellaneous expenses. The cost of attendance is set and published each spring prior to the beginning of the new academic year.

For more information, please see [FINANCIAL INFORMATION](#) in this Bulletin.

## Endowed Chairs

### The Edmund D. Pellegrino Professorship of Medicine

In 1986, the University established a professorship in the School of Medicine to honor Edmund D. Pellegrino, MD, founder of the Health Sciences Center. The endowment specifies that the Edmund D. Pellegrino Professorship of Medicine will be occupied by "an individual who exemplifies the breadth of interests and achievements in education, research, and the practice of medicine that have characterized Dr. Pellegrino's career." The first occupant of that chair was Dr. Pellegrino, who held it for a brief period. Following Dr. Pellegrino's tenure, the chair was occupied by Harry W. Fritts, MD, who is now the Pellegrino Professor Emeritus and former Chair of Medicine at Stony Brook. Currently, Benjamin J. Luft, MD, Professor of Medicine, occupies the chair.

### The Evelyn Glick Chair in Experimental Medicine

In 1990, Mrs. Evelyn Grollman Glick of Baltimore, Maryland, created an endowment designed to support a Chair in the Department of Pharmacological Sciences. Income from this fund provides research or salary support for the Chair. The current occupant of the chair is Arthur P. Grollman, MD, Distinguished Professor of Pharmacological Sciences and Professor of Medicine.

### The William and Jane Knapp Endowed Chair in Pharmacological Sciences

An endowed chair in the School of Medicine, the William and Jane Knapp Endowed Chair in Pharmacological Sciences was established by the Knapps who are 1978 graduates of Stony Brook and continue to be connected to the University through a variety of activities. Bill Knapp is a member of the Stony Brook Foundation Board, and Jane Knapp is the former president of the Stony Brook Alumni Association. The endowment specifies that the "William and Jane Knapp Endowed Chair in Pharmacological Sciences will be occupied by a senior faculty member who is highly regarded, and who exemplifies the breadth of interests and achievements in education, and will advance the diagnosis and treatment of

cancer, diabetes, and/or inflammatory diseases." Howard C. Crawford, PhD, Associate Professor of Pharmacological Sciences, currently occupies this chair.

### The Marvin Kuschner Professorship of Pathology

An endowed chair in the School of Medicine, the Marvin Kuschner Professorship of Pathology was established by the University in 1988 in honor of Marvin Kuschner, M.D. (1919-2002), the former Dean of the School of Medicine at Stony Brook. The endowment specifies that the "Marvin Kuschner Professorship of Pathology will be occupied by an individual who exemplifies the breadth of interests and achievements in education, research and the practice of pathology and environmental medicine that have characterized Dr. Kuschner's career." Kenneth Shroyer, MD, PhD, Professor and Chair of the Department of Pathology, currently occupies this chair.

## Grants and Awards

### The Arthur Berken Fellowship

Dr. Arthur Berken, a long-time member of the clinical faculty at the School of Medicine, was concerned about the impact of technology on men and women in medical school. With the advances in diagnostics and treatment made possible through technology, he feared that young doctors might come to see their patients as little more than biochemical machines. So when Dr. Berken passed away in the late spring of 1994, his wife Roberta, his family, and a number of friends and colleagues endowed a fellowship to encourage would-be physicians to remember that, in the end, it is people who matter most. The Arthur Berken Fellowship prompted a new addition to the School of Medicine's MD with Recognition Awards, the MD with Recognition in Medical Humanism.

### Sir James Black Award for Excellence in Research

An endowment has been established with a gift from Sir James Black, FRS, Nobel Laureate in Physiology or Medicine, to provide an award to the graduating undergraduate pharmacology major who has achieved the highest scholastic excellence in both course work and a senior research project.

### Jean M. Devlin Achievement Award

This endowment, created by generous gifts from Richard A. Auhll and Rudi R. Schulte of Santa Barbara, California, matched by the Department of Pharmacological Sciences, honors Jean M. Devlin, founding Director of Stony Brook's undergraduate program in pharmacology. The Jean M. Devlin Award is presented at commencement to the graduating pharmacology major judged to have the greatest potential for making future contributions to the pharmacological sciences.

### William G. van der Kloot Awards

An endowment has been established by Professor Robert Nathans and the Department of Pharmacological Sciences in honor of William G. van der Kloot, PhD, Professor of Physiology and Pharmacological Sciences, and founding Chair of the Department of Physiology. The endowment provides awards annually to two students in the Molecular

and Cellular Pharmacology graduate program. The van der Kloot Award for Excellence in Teaching recognizes the most significant teaching contributions by a graduate student to the undergraduate major. The van der Kloot Award for Excellence in Research recognizes outstanding accomplishments in research evident by first author, peer-reviewed scientific publication.

### **David L. Williams Memorial Travel Award**

Funds are provided by an established endowment to honor David L. Williams, PhD, Professor of Pharmacological Sciences, who was widely recognized as an excellent teacher and mentor of students and junior faculty during his many years here. The award is given to a graduate student who has been advanced to PhD candidacy in the Molecular and Cellular Pharmacology Graduate Program, and who will participate in an advanced course (e.g., at Woods Hole, CSHL or an EMBO course) or present research results at either a national or international scientific meeting.

### **The Catacosinos Cancer Awards**

Dr. and Mrs. William Catacosinos have generously donated funds for annual grants to support cancer research. The Catacosinos Cancer Award recognizes significant contributions to the illumination of the cancer problems of the past and anticipates major advances coming from these investigations. A committee of scientists, appointed by the Dean of Medicine, oversees these awards which are administered by the Stony Brook Foundation.

### **Radmila and Gabor Inke Anatomical Research Fund**

The Department of Anatomical Sciences is the beneficiary of a generous testamentary gift from Dr. Gabor Inke. Dr. Inke became the department's first member in 1969 and served for more than 20 years. Dr. Inke, a recognized expert on the development of the human skull as well as the kidney, dedicated his life to research and teaching. Upon his death, the Radmila and Gabor Inke Anatomical Research Endowment Fund was created to support the research mission of the department that he helped to create.

### **Emil C. Voll Bequest**

A bequest of more than \$1.7 million from Emil C. Voll was made in 1992 to fund a professorship in cancer research in the School of Medicine. Mr. Voll's wife, Geraldine, died of cancer in 1987. Awards to four faculty investigators enable them to play a major leadership role in the School of Medicine's cancer program.

## **Degrees and Programs**

### **Doctor of Medicine**

#### **Admission**

The goal of Stony Brook University's School of Medicine is to prepare students to meet a major need of society: the improvement of health care and its delivery. The Committee on Admissions seeks to select not only the most competent

among the applicant pool, but those who will devote themselves to a life of scholarship and service, those who will make a difference in the lives of their patients and in the way medicine is delivered, and those who will continue the commitment to excellence that will be apparent in their applications.

Consideration of a student's intellectual and academic qualifications as well as qualities such as motivation, integrity, social consciousness, maturity, interpersonal skills and other evidence of promise for the field of medicine will be among those qualities we seek to evaluate. The diversity of the student body is an important objective, and we will strive to accept a class which is representative of a wide variety of backgrounds, experiences and academic interests. A major effort will be made in the selection process to include candidates from under-represented ethnic and economic groups.

The Committee on Admissions will do a holistic review of your candidacy for medical school. Your ability, to some measure, will be evident in your academic record, your scores on competitive examinations, your faculty's statements and your extracurricular and work experiences. Candidates should be aware that the majority of those who apply to Stony Brook University present exceptional credentials and the entering class reflects this fact. Motivational and personal characteristics as indicated in your application, letters of evaluation, and personal interviews are also a major part of our admissions assessment.\* The contribution you might make to our student body and the medical profession will, we hope, become apparent in reading your own statements and the comments of others. We cannot now, of course, make any estimate of the probability of favorable action on any one application. Stony Brook University, in making a considerable effort to individualize its application process, hopes to attract applicants who are informed about the school and are particularly interested in Stony Brook University.

There is no discrimination in the admissions review and selection process on the basis of race, color, sex, age, ethnicity, religion, national origin, sexual orientation, disability, marital status or veterans' status. Although residents of New York State constitute the majority of the entrants, the School of Medicine encourages applications from out of state residents.

Please go to our website for more detailed information about current coursework requirements and the MCAT policy: [https://medicine.stonybrookmedicine.edu/admissions\\_SOM](https://medicine.stonybrookmedicine.edu/admissions_SOM)

All questions concerning admission should be addressed to: [somadmissions@stonybrookmedicine.edu](mailto:somadmissions@stonybrookmedicine.edu)

Office of Admissions, School of Medicine

Health Sciences Tower, Room 147A, Level 4

Stony Brook University

Stony Brook, New York 11794-8434

Phone: (631) 444-2113

Applications are available through the American Medical College Application Services (AMCAS) at: [www.aamc.org](http://www.aamc.org)

\*The submission of false or misleading information in the application materials or in connection with the application process shall be the grounds for rejection. If such submission is discovered after the rendering of an offer of admission, matriculation in the school, or award of the degree, it shall be grounds for withdrawal of the acceptance offer, for dismissal, or for revocation of degree.

### TECHNICAL STANDARDS POLICY

The MD degree is, and must remain, a broad undifferentiated degree attesting to the mastery of general knowledge in all fields requisite for entry into graduate medical education programs (residencies) of diverse types. It follows that medical school graduates must possess the essential knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care in a safe and effective manner.

The School of Medicine faculty has, therefore, specified certain criteria (Technical Standards) which all medical students are expected to meet in order to participate in the entire medical education program and the practice of medicine. These Technical Standards are not intended to deter any candidate or enrolled student for whom reasonable accommodation will allow the fulfillment of the complete curriculum. Candidates for admission, academic promotion, and graduation must meet these Technical Standards, with or without reasonable accommodation. These criteria include the following five categories: 1) observation and participation; 2) communication; 3) motor function; 4) intellectual, conceptual, integrative and quantitative abilities; and 5) behavioral and social attributes. A copy of the Technical Standards may be obtained from the Admissions Office.

### MD CURRICULUM

The Stony Brook School of Medicine LEARN (Learning-focused, Experiential, Adaptive, Rigorous, Novel) curriculum provides the opportunity for extensive and integrated training in the basic medical sciences and clinical disciplines of medicine. There are three distinct phases in LEARN: Phase I – the Foundational Phase – of 18 months; Phase II – the Primary Clinical Phase – of 12 months; and Phase III – the Advanced Clinical Phase – of 16 months. “Transition” courses occur at key transitional times in students’ medical training. Five themes of care are woven across the entire curriculum: Patient-Centered Care, Evidence-Based Care, Patient Safety and Quality Care, Ethical and Professional Care, and Health Promotion and Preventive Care

#### Phase I

Phase I begins with Transition to Medical and Dental School (TMDS), a one-week course that is designed to foster new medical students’ transition from a lay person to a medical professional in training. TMDS is followed by Biomedical Building Blocks, a 24-week course organized into four distinct components – The Body (anatomy); Molecular Foundations of Medicine (biochemistry; cellular biology and physiology;

and pharmacologic principles); Pathogens and Host Defense (integrating immunology, inflammation, microbiology and immunologic diseases); and Basic Mechanisms of Disease (integrating histology, general pathology, hematologic and neoplastic diseases, and dermatologic diseases). Phase I concludes with a 36-week sequence of four systems-based Integrated Pathophysiology courses: Cardiovascular-Pulmonary-Renal, Gastrointestinal, Endocrine-Reproductive, and Mind-Brain-Behavior (which integrates fundamental neuroanatomy and neuroscience with neuropathology and psychiatric disorders). Integrated across the systems blocks are physiology, histology, pathology, histopathology, pharmacology and therapeutics.

Three longitudinal courses span the entire Phase I: Introduction to Clinical Medicine (ICM), Themes in Medical Education (TIME), and Medicine in Contemporary Society (MCS). ICM introduces students to the clinical skills required to examine and integrate clinical information from patient history and physical exam. MCS introduces students to ethical and social issues in current health care. TIME are week-long units that bridge key content across the curriculum. TIME weeks have a patient focus within an active learning environment.

Phase I provides time during the first summer for research, clinical shadowing, global health studies, and/or a vacation.

#### Phase II

Phase II, the Primary Clinical Phase, begins with a one-week Transition to Clinical Care course (TCC) followed by four 12-week blocks of core clerkships: internal medicine (8wks) and primary care medicine (4wks); pediatrics (6wks) and obstetrics and gynecology (6wks); surgery (8wks), emergency medicine (2wks) and anesthesiology (2wks); psychiatry (6wks), neurology (4wks) and radiology (2wks). Each 12-week clerkship block is capped by a one-week Translational Pillar, which integrates cutting edge basic science and translational medicine in the context of clinical care.

Primary clinical clerkships are completed at Stony Brook University Hospital, as well as other major teaching affiliates. Until May 2020, approximately 40 students desiring to complete their training at our Winthrop University Clinical Campus in Nassau County are chosen through a lottery process at the end of Phase I. These 40 students complete all of their primary clinical clerkships and most of their Phase III course work, including sub-internships and electives, at Winthrop University Hospital and its affiliated clinics.

#### Phase III

Phase III, the Advanced Clinical Phase, spans 18 months and offers students maximum flexibility. Students complete a 4-week sub-internship (in medicine, pediatrics, surgery, emergency medicine, ob/gyn, orthopaedics, or urology), an individualized 4-week Advanced Clinical Experience, and a 4-week Transition to Residency course. Students also complete a minimum of 22 weeks of electives. One-week Translational Pillar courses are also offered and required during Phase III as in the Primary Clinical Phase.

### AFFILIATED HOSPITALS

Stony Brook University Hospital (SBUH) is Long Island's premier academic medical center serving the healthcare needs of Long Island residents. With 603 beds, SBUH serves as the region's only tertiary care center and Level 1 Trauma Center, and is home to the Stony Brook Heart Institute, Stony Brook Cancer Center, Stony Brook Children's Hospital, Stony Brook Neurosciences Institute, and Stony Brook Digestive Disorders Institute. At any given time ~150 Stony Brook School of Medicine students and ~350 residents of all specialties are receiving experiential training at SBUH. Stony Brook University Hospital also operates Southampton Hospital, a 125-bed academic medical center with >100 clinical faculty members and residents in a variety of specialties. Southampton Hospital is a New York State-designated Stroke Center and its Emergency Department is the sole provider of emergency care on the South Fork, including an interventional cardiac catheterization laboratory. The Stony Brook School of Medicine is also the academic partner of the Northport Veterans Affairs Medical Center and is a full-service facility with 502 beds and ~150 residents in a wide range of specialties.

### ACADEMIC REQUIREMENTS

**Grading Policy:** An important goal of the LEARN curriculum is to provide students with interdisciplinary courses that are integrated to the greatest possible extent. Students will be evaluated on both acquisition of knowledge and skills and professional development and values. Advancement throughout medical school will depend on acquiring a good medical knowledge base, achieving basic bedside skills, communicating competently, and demonstrating professional values. Students must successfully complete the entire LEARN curriculum to graduate.

The School of Medicine uses a 3-tier system of grading for Phase 1 courses: Honors, Pass, Fail. Core clinical clerkships, sub-internships and elective rotations in Phases 2 and 3 are graded on a 5-tier system: Honors, High Pass, Pass, Low Pass, Fail. Core clinical clerkships require passage of an NBME subject exam at the 7<sup>th</sup> percentile level, at minimum, as determined by the latest academic year norms from the NBME for examinee performance. A 'Z' may be given in a clinical course to a student who has passed other elements of a course, but failed the initial attempt of the NBME subject exam for that course. A second failure converts the Z to a Z/F. If the student passes the make-up subject exam, the Z is converted to the Z plus the grade earned in accord with the course syllabus, for example, Z/P. Transition courses and longitudinal courses are graded on a Pass/Fail basis.

Other recorded grades include I (Incomplete), W (Withdrawal), and PO (Placed-Out). An Incomplete signifies that extenuating circumstances, usually out of the student's control, have prevented the student from completing the course requirements. A grade of Incomplete will be replaced by the final grade when the student completes the requirement. Withdrawal signifies that the student withdrew before completing course objectives. Placed-Out signifies that the student was given credit for a course by (a) having previously taken the same or a similar course and/or (b) by passing an exam deemed appropriate and sufficient by the course director.

**Academic Standing:** A student in good standing:

1. Has passing grades in all courses, clerkships, electives, standardized patient exams and other mandatory exercises; and
2. Has passed appropriate USMLE exams in the recommended time period during medical school; and
3. Is not on academic probation; and
4. Behaves in accordance with high standards of professional and academic ethics.

The Committee on Academic and Professional Progress (CAPP) may review the record of any student who loses good standing. Absent an exception granted by CAPP, only students in good standing will be permitted to begin a new Phase. Loss of good standing ends a student's eligibility for some special programs or activities, e.g. the Scholarly Concentrations Program, approval for conference travel, and permission to take clinical electives at other institutions. Loss of good standing results in loss of eligibility for educational loans. For purposes of international electives, due to travel arrangements involved, academic good standing will be assessed based on the student's record one semester before travel. However, students with concerns of chronic marginality may not be eligible for international electives or research scholarships. In such situations, the Vice Dean for UGME will make the final decision regarding such eligibility. Students are placed on academic probation by CAPP as a warning that they are in danger of suspension or dismissal. CAPP may put a student on academic probation if the student:

1. Fails any course, clerkship, elective, or mandatory exercise;
2. Has been cited for lack of acceptable academic ethics or professional behavior;
3. Does not pass USMLE Step I in a timely manner;
4. Has two or more Incompletes and/or "Z" 's;
5. Has a pattern of marginal academic performance.

The CAPP may remove a student from academic probation after the student has, to the satisfaction of the committee, remedied the problem giving rise to probation. All assignments to probationary status will appear in the student's MSPE letter. The student will return to good standing upon completion of the required remediation and the required probation period.

## Combined Degree Programs

### Medical Scientist (MD/PhD) Training Program

<https://medicine.stonybrookmedicine.edu/mstp/program>

Stony Brook University, in conjunction with Cold Spring Harbor Laboratory and Brookhaven National Laboratory, sponsors a medical scientist training program (MSTP) leading to both the MD and PhD degrees. The purpose of the MSTP, partially funded by a competitive grant from the National Institutes of Health, is to train academic medical scientists for both research and teaching in medical schools and research institutions. Graduates of this program are equipped to study major medical problems at the basic level, and at the same time, to recognize the clinical significance of their discoveries.

Students enrolled in the MSTP attend medical school for two years and then pursue graduate study for three to four years.

Upon completion of their graduate studies, students re-enter medical school and complete their clinical training. However, variations in this program of study can also be undertaken.

The SBU medical school has recently implemented a substantially redesigned course of study dubbed the LEARN curriculum.

Students matriculated into the MSTP are considered to have been accepted into both the Medical School and the Graduate School (with an undeclared major for the latter; specific programs of study, e.g. Genetics, Pharmacology, or Neuroscience, are chosen at a later time).

### MD/MPH Program

<https://publichealth.stonybrookmedicine.edu/academics/degreeoptions/grad/md>

The Program in Public Health at Stony Brook offers a Master of Public Health (MPH) degree, which can be obtained with the MD degree. The combined program requires the completion of all School of Medicine requirements for a Medical Doctorate (MD) and all 54 credits of the MPH program. However, the School of Medicine will accept the following MPH courses which will be applied towards 8-10 weeks of electives: HPH 506, HPH 507, HPH 514, HPH 542, and HPH 546. In addition, the Program in Public Health will accept 6-9 credits from the School of Medicine for their Introduction to Clinical Medicine, Medicine in Contemporary Society, and Themes in Medical Education modules that will substitute for a 3-credit course within the core MPH curriculum and 3-6 credits within the respective concentration. Students are able to select one of the three MPH concentrations – Health Analytics, Community Health, and Health Policy & Management.

### MD/MBA Program

<http://www.stonybrook.edu/commcms/business/academics/graduate-program/combined-masters/mdmba.html>

The School of Medicine and the College of Business have created a combined MD/MBA program. The purpose of the combined degree program is to prepare students for a management career in the health care field. The MD/MBA program combines a 4 year MD degree and a 48 credit (16 courses) MBA degree. Students in the combined MD/MBA degree complete MBA courses including finance, financial accounting, marketing, leadership, technological innovation, operations management, ethics and law, and business planning. Students are expected to either complete the majority of their MBA degree prior to starting their medical degree or after they have completed the medical degree. Due to the rigorous structure of the medical program students should not be taking classes from both programs during a given semester. There are two courses that overlap between both programs to integrate the two degrees. These courses are MBA 507 - Ethics and Law and MBA 522 - Industry Project which will be taken as electives in the medical program and will also count towards the MBA degree. Students receive both degrees upon completion of the entire program. If a student decides to leave before completing both degrees, he or she would receive the MD or MBA if he or she completed the course requirements for one of the degrees.

### MD/MA Program

<http://www.stonybrook.edu/bioethics/medicaleducation.shtml>

The joint MD/MA Program is offered on a selective basis for up to 2 medical students each year. In addition to their coursework, these students enroll in the MD with Scholarly Concentration Program and take an additional 18 credits from the MA Program in Medical Humanities, Compassionate Care and Bioethics. Students in the MD/MA Program receive a joint MD/MA upon graduation.

### Scholars for Medicine Program (Bachelors/MD)

[https://medicine.stonybrookmedicine.edu/admissions\\_SOM#scholars](https://medicine.stonybrookmedicine.edu/admissions_SOM#scholars)

Stony Brook University offers an integrated eight-year program for students interested in attending medical school following their undergraduate degree. The Scholars for Medicine (SFM) track offers selected students in the Honors College and WISE an opportunity to complete a combined Bachelor's/MD course of study while participating in pre-medical classes and activities. The Engineering Scholars for Medicine (ESFM) track offers selected students in the College of Engineering and Applied Sciences an opportunity to complete the rigorous training required of all engineers in ABET accredited programs while participating in pre-medical classes and activities. Students accepted into either of these tracks are reserved a seat in Stony Brook University's School of Medicine upon graduation provided they complete all applicable program requirements.

## GRADUATE NUTRITION PROGRAMS

### Graduate Nutrition Program Leading to the Master of Science Degree

This fully online 36 credit M.S. program in Nutrition provides a comprehensive course of study in advanced nutrition topics to prevent and manage disease, as well as optimize health through food and nutrition strategies. Expert faculty members, currently working in the field, provide instruction on evidence-based, timely nutrition therapies and facilitate development of a strong knowledge base and counseling skill set. Courses cover advanced medical nutrition therapy, critical care, nutrition strategies to reduce inflammation and modulate immune function, nutrigenomics, nutrition issues through the lifecycle, including pediatrics, neonatology, geriatrics, and biomedical statistics.

The Program is designed to meet the needs of students with varying backgrounds, including registered dietitians/nutritionists, graduates of baccalaureate programs in nutrition, practicing physicians and other health care practitioners, as well as post-baccalaureate students with strong science backgrounds. Students apply current knowledge and skills, new class material and critical thinking skills to complete case studies and other projects, as well as to participate in group

discussions. Graduates with complementary clinical training and health-related credentials will be prepared to apply their advanced training in a wide variety of clinical settings, such as hospitals, outpatient health care centers, rehabilitation centers, long term care facilities, cardiac rehabilitation centers, and sports/physical training centers. Graduates without clinical training and health care-related credentials will be prepared to work in non-health care settings, such as wellness centers, media outlets and industry settings including functional food and supplement development, supermarkets and retail food outlets.

*This program does not prepare graduates for admission into an accredited dietetic internship, which is necessary to sit for the national registration examination for dietitians/nutritionists. Therefore, this program is most appropriate for those who have already completed an ACEND accredited undergraduate nutrition program, or have already passed their registration exam, as well as professionals who desire a graduate degree in nutrition for career advancement; not for those seeking a program to meet requirements for the registration examination.*

## ADMISSION REQUIREMENTS

Applicants must possess a baccalaureate degree from an accredited college or university and have satisfied certain prerequisite requirements, including a preferred GPA of a 3.0 or higher. For more detailed information, please refer to our [website](#).

## PROGRAM REQUIREMENTS

To satisfy degree requirements, each student must complete 36 credits. Students have up to five years to complete the coursework and all coursework can be completed online. Students must earn a minimum of a C+ in any one course, and their overall GPA must remain at 3.0 or higher to remain in the program. If a student earns less than a C+ in a course, that course must be retaken. More detailed information on academic standing policies can be accessed in the Graduate Nutrition Program Student Handbook.

Applications and complete program information can be accessed online on the program's [website](#).

## GRADUATE NUTRITION PROGRAM LEADING TO THE ADVANCED GRADUATE CERTIFICATION IN NUTRITION

This fully online graduate certificate program is designed to meet the needs of students of varying backgrounds, including practicing physicians, nurse practitioners, registered nurses, physician assistants and other health care practitioners with strong practical skills, as well as post-baccalaureate students training to be health care providers with more recent basic science training. The certificate program requires successful completion of five pre-selected classes (15 credits) from within the graduate nutrition course offerings that are considered essential for non-registered dietitian/nutritionist clinicians seeking to incorporate nutrition into their practice. Students with varying backgrounds will apply current knowledge, new

class material and critical thinking skills to complete case studies and other class projects. Graduates will be prepared to apply their advanced training in clinical settings, as well as industry settings, such as pharmaceutical or supplement development, functional food companies and media outlets.

*This program does not prepare students in any way to earn a professional license or credential.*

## ADMISSION REQUIREMENTS

Applicants must possess a baccalaureate degree from an accredited college or university and have satisfied certain prerequisite requirements, including a preferred GPA of a 3.0 or higher. For more detailed information, please refer to our [website](#).

## PROGRAM REQUIREMENTS

To satisfy certificate requirements, each student must complete 15 credits. Students have up to five years to complete the coursework and all coursework can be completed online. Students must earn a minimum of a C+ in any one course, and their overall GPA must remain at 3.0 or higher to remain in the program. If a student earns less than a C+ in a course, that course must be retaken. More detailed information on academic standing policies can be accessed in the Graduate Nutrition Program Student Handbook.

Transfer credits are not accepted in the graduate certificate program.

Applications and complete program information can be accessed online on the program's [website](#).

## DIETETIC INTERNSHIP PROGRAM

This is a 38-week program beginning each September, sponsored by the School of Medicine. The Stony Brook University Dietetic Internship Program has an emphasis in clinical nutrition therapy. The program includes 61 hours of orientation and seminars, 38 weeks of rotations, and 1 week of RD exam review. The Internship is 1215 hours in length. Orientation begins in early September. Rotations and seminar starts immediately after Orientation. Seminars are held on Mondays and rotations are Tuesday through Friday every week. The internship year is scheduled to end in early June. Upon successful completion of the Dietetic Internship Program, interns are eligible to sit for the registration examination. Upon passing the CDR exam and receiving RD designation through the CDR, students can then apply for state licensure. Both dietitian and nutritionists must be licensed to practice in New York.

Students may apply to the Master of Science degree in nutrition through the [Graduate Nutrition Program](#) concurrently.

## Mission and Goals

The mission of the Dietetic Internship Program is to prepare entry level dietitian nutritionists to have a positive impact on health care delivery, health promotion, and the dietetics profession through the provision of high quality medical nutrition therapy, the management of high quality food service systems, and/or the implementation of high quality health promotion programs.

The goals of the Stony Brook University Dietetic Internship Program are:

**Goal 1:** To prepare entry level dietitians/nutritionists to perform at entry-level through the completion of a variety of high-quality rotations, especially in clinical nutrition therapy, in a timely fashion.

**Goal 2:** To prepare graduates to think critically and attain life-long learning skills so as to positively impact nutrition practices and the profession. (Examples include: precepting interns, disseminating evidence-based nutrition information to the public, serving in a professional organization, representing your department or institution on committees/task forces, etc.)

Outcomes are provided on the program website [website](#).

## Accreditation

The Dietetic Internship Program at Stony Brook Medicine, at State University of New York, is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995, (312) 889-0040 (phone), (312) 899-4772 (fax), [www.eatrightPRO.org/ACEND](http://www.eatrightPRO.org/ACEND). The Dietetic Internship Program had a full site review for reaccreditation in 2017 and expects full re-accreditation in 2018.

The program is accredited for up to 16 full-time students. The program is accredited for 2 part-time students. Refer to the program [website](#) for information on completion of the program on a part-time basis.

## Admission Requirements

The Stony Brook Dietetic Internship accepts applications in the April Computer Matching cycle and utilizes the Dietetic Internship Centralized Application System (DICAS). To apply students should go to <http://portal.dicas.org>

There is a \$25 Application fee payable to Stony Brook University for applying to the Dietetic Internship. The fee can be paid through PayPal. This fee is separate from any fee charged by DICAS or D&D Digital Systems. To submit the Application fee, please click on link on the [Application Instructions](#) of the webpage.

Applicants are required to have a baccalaureate degree from an accredited college or university, a preferred minimum grade point average of 3.0, and an Academy of Nutrition and Dietetics verification statement of completion of a didactic program.

For Stony Brook University MS Nutrition students who are applying to the Stony Brook University Dietetic Internship Program: Those students with a DPD verification statement and an undergraduate GPA of greater than 3.2, can secure an interview if they have successfully completed 6 credits in the Stony Brook University MS in Nutrition program. The guarantee is for the interview only and is NOT a guarantee of a seat in the internship.

Refer to the program [website](#) for information on the application screening and interview process and additional admission

requirements. The Internship program participates in the national computer matching process.

## DIETETIC INTERNSHIP ROTATIONS AND REQUIREMENTS

### Rotations

- Clinical Rotations
  - 5 weeks of outpatient rotation at Stony Brook University Hospital
  - 11 weeks of nutrition therapy rotation at Stony Brook University Hospital or an affiliated hospital
  - 4 weeks long term care
  - 64 hour longitudinal research rotation
- 5 weeks of public health nutrition rotation including work at Family, Population and Preventive Medicine and WIC
- 7 weeks of food service rotation including 4 weeks food service management and 3 weeks school food service
- 3 week elective rotation
- 1 week virtual renal rotation

### Required Activities/Coursework

- 61 hours of Orientation and Seminar
- 1 week RD examination review

Upon successful completion of the Dietetic Internship Program, interns are eligible to sit for the registration exam.

Stony Brook University does not give credit or supervised practice hours for prior learning experience.

## Departments

### Department of Anatomical Sciences

The [department](#) conducts graduate studies leading to the PhD degree, through its own and interdisciplinary programs (e.g., the [Interdepartmental Doctoral Program in Anthropological Sciences](#)). It also provides instruction in the anatomical sciences for students in the Schools of Medicine, Health Technology and Management, and Dental Medicine.

### Department of Anesthesiology

The [Department of Anesthesiology](#) provides instruction in the clinical science of the specialty, and the physiology, pharmacology, and biochemistry on which it is founded. Emphasis is placed upon the integration of basic and clinical sciences, and upon an interdisciplinary approach to attain optimal care of patients. Instruction is provided to medical students during their clinical training years. All students rotate through anesthesiology for two weeks during their surgery selective month. Those students interested in more advanced training are encouraged to apply for a third-year elective or a fourth year sub-internship, during which they will be exposed to all aspects of clinical anesthesia management of surgical, obstetrical and chronic pain patients. They will administer anesthesia under supervision, participate in pre- and post-operative care, and become familiar with specialized aspects,

such as intensive care, cardiopulmonary resuscitation, cardiac and neurosurgical anesthesia, perinatal medicine, and therapy of acute and chronic pain. Participation in ongoing clinical research projects and all teaching exercises is encouraged.

The Department of Anesthesiology also provides comprehensive instruction to dental, ER, and periodontal residents, and to orthopedic surgery, and medicine interns.

In its graduate program, the department provides a four-year training program of residents specializing in anesthesiology.

Fellowships in subspecialties and clinical research are available to physicians who have completed the requirements toward specialization.

## Department of Biochemistry and Cell Biology

This [department](#) offers fundamental courses in biochemistry and cell biology to students in the health professions, as well as to undergraduates and graduates in biochemistry and biology. Its graduate studies are centered on an interdisciplinary program in molecular biology, cell biology, and also a graduate program in biochemistry and structural biology. The department also offers a Biochemistry and Cell Biology (BCB) MS program.

## Department of Biomedical Engineering

[Biomedical engineering](#) is at the forefront of medicine's technologic revolution; its many successes have raised expectations for the prevention, diagnosis and treatment of disease. Faculty at Stony Brook University have been active contributors to the cutting-edge of this technology, and our University is building on internationally acclaimed strengths in bioelectromagnetics, biomechanics, biomaterials, biotechnology, tissue engineering, instrumentation and medical imaging. The program in biomedical engineering trains individuals with baccalaureate degrees in engineering, applied mathematics and the sciences to provide them with the synthesis, design and analysis skills necessary to contribute effectively to the advancement of science and technology in health and medical care.

Graduate degree programs are offered at the master's and doctoral levels. These programs provide two distinct avenues of graduate study in biomedical engineering: the doctoral level is directed toward the student interested in a research or academic career, and the master's level for those primarily interested in the application of biomedical engineering concepts in the development of advanced technology in biomedical products and processes. The department's goal of actively promoting the development of a creative, versatile biomedical engineer is accomplished by exposing the individual to the biology, engineering, and business concepts critical to succeeding in the biomedical research and development environment.

The program's goal is to actively promote the development of versatile biomedical engineers. This includes in-depth exposure to the biological and the engineering concepts underlying physiological processes. A Bachelor of Engineering in Biomedical Engineering (BE) is also offered.

To provide the permanent foundation on which to build a career in biomedical engineering, an integrated core set of biomedical engineering courses have been implemented. These provide our biomedical engineering students with the underlying engineering principles required to understand how biological organisms are formed and how they respond to their environment. Students will attain a credible level of sophistication in their understanding of cell, tissue, and organ physiology.

The student is then able to complement this background with additional engineering courses either within the Program in Biomedical Engineering (PIBE), or in the other disciplines of engineering.

The graduate program relies on the core set of courses to provide biomedical engineering students with an overview of the biophysical principles involved in cell, tissue and organ biology. The progression of the four PIBE core courses requires three resident terms to complete. In addition to these four courses, a seminar series providing exposure to the breadth of bioengineering research and development activities both within the University, as well as throughout the scientific/industrial community, is required of all PIBE students through their first two years of study. Finally, each course has a component of independent study to nurture the student's abilities to pursue a topic specialized interest.

## Curriculum Requirements

**Master's Degree Curriculum:** The Master's of Science Degree in BME is achieved by completing the core course and track/specialization requirements. The program of study can be chosen from any of the following approved tracks/specializations: general, biomechanics, biosignals, medical physics, or molecular bioengineering. The general program of study can be custom tailored in consultation with your faculty advisor/mentor to accommodate almost any BME area of interest. The core courses that all new graduate students must take are as follows: BME 501 Engineering Principles in Cell Biology, BME 502 Adv. Num. Comput. Analysis Appl. Biol. Syst., BME 505 Prin. and Practice of BME I, BME 520 Lab. Rotation I, BME 521 Lab. Rotation II. All students (except those pursuing the Medical Physics Track) must also fulfill a business/management course requirement, which can be met by taking: BME 509 Fundamentals of the Bioscience Industry or any MBA class (MBA 501-507, 511 or 589) from the School of Business. A given track/specialization will have additional requirements, which includes a minimum of six technical elective courses, 3 of which have to be BME. Students must maintain an overall grade point average (GPA) of 3.0 or better, and must maintain a GPA of 3.0 or better for all core courses.

**Thesis or Non-Thesis Options:** The student has the option of earning the Master's of Science Degree in BME on either a thesis or non-thesis track. The non-thesis option is recommended for students who wish to pursue a career in industry that does not involve Research and Development (R&D). If non-thesis, the student undertakes elective graduate coursework to complete the 31 credits. The thesis option is recommended for students who will be continuing on for their doctoral degree and for students who wish to pursue an industrial career with an R&D focus. If non-thesis, the student can generally complete the requirements in three full-time

academic semesters. In the thesis option, in addition to the general requirements, the student must complete at least six credits of thesis research (BME 599), and submit and defend a written thesis. Generally, it takes four full-time academic semesters to complete the MS degree with the Thesis option.

**Doctoral Degree Curriculum:** A minimum of 15 graduate credits, beyond the Master's in BME level, is required for completion of the Doctor of Philosophy degree in BME. There are no course requirements per se, though certain courses may be required to fill any gaps in the student's knowledge. Following completion of a qualifying exam, and independent basic research program will be undertaken. One semester of teaching practicum must be satisfactorily performed. Completion of this research program will culminate in the submission and oral defense of a dissertation. The University requires at least two consecutive semesters of full-time graduate studies. All requirements for the PhD must be completed within seven years after the completion of 24 credits of graduate study.

### Undergraduate Biomedical Engineering Program

The Department of Biomedical Engineering offers the major in biomedical engineering, leading to the BE degree. In a rigorous, cross-disciplinary training and research environment, the major program provides an engineering education along with a strong background in the biological and physical sciences. It is designed to enhance the development of creativity and collaboration through study of a specialization within the field of biomedical engineering. Teamwork, communication skills, and hands-on laboratory and research experience are emphasized. The curriculum provides students with the underlying engineering principles required to understand how biological organisms are formed and how they respond to their environment.

### Graduate Biomedical Engineering Program

The graduate program relies on the core set of courses to provide biomedical engineering students with an overview of the biophysical principles involved in cell, tissue and organ biology. The progression of the five BME core courses requires three resident terms to complete. In addition to these four courses, a seminar series providing exposure to the breadth of Biomedical Engineering research and development activities, both within the University as well as throughout the scientific/industrial community, is required of all BME students through their first two years of study. Finally, each course has a component of independent study to nurture the student's abilities to pursue a topic of specialized interest. Degrees available through this program include the following:

- Master's of Science (MS) in Biomedical Engineering
- Doctor of Philosophy (PhD) in Biomedical Engineering

### The First Year

For MS students, the first year of study includes core courses, electives, and attending the PIBE seminars. Students in the MS research track are required to identify a research advisor by the end of their first spring semester in the program. For doctoral students, the first year includes preparation for the qualifying examination, taking any classes as directed by their

Dissertation Defense Committee, and initiation of independent research. Most doctoral students will take their qualifying examination within the first year. Some international students may be required to take remedial English courses, depending upon their mastery of the language. Students who are being financially supported by teaching assistantships will assist designated faculty in instructing undergraduate students.

### The Second Year and Beyond

In the second year, most students will finish any remaining core and elective courses. MS research track students will have begun their research projects under a faculty member's supervision. Once PhD students have successfully passed their qualifying examination, they have no further requirements except the completion and defense of an original dissertation. To improve scientific communication skills, all students participate in the weekly program laboratory seminars where faculty, postdoc and graduate students present the latest research from their laboratories. These intimate, yet informal, meetings allow students to learn by watching and presenting research in a friendly and critical environment.

### Department of Dermatology

The [Department of Dermatology](#) is committed to providing quality education in cutaneous biology, cutaneous oncology and skin disease to medical students, residents and fellows. Emphasis is placed on the integration of principles of basic pathophysiology with clinical manifestations and preventive medicine, and on the development of problem solving and diagnostic skills.

In conjunction with the Department of Orthopedics, Department of Pathology, Department of Radiology, and Department of Medicine/Divisions of Allergy, Immunology and Rheumatology, the Department of Dermatology participates in the Connective Tissue and Skin Systems Course for second year medical students. The format varies from didactic lectures to workshops and clinical pathologic correlations, including an opportunity for students to interact with patients.

A one-month clinical elective is offered during the fourth year, which provides exposure to the diagnostic and management of cutaneous disorders in both the ambulatory and inpatient settings at Stony Brook University Hospital, Stony Brook Technology Park and the Northport Veterans Affairs Medical Center.

A one-month research elective provides in-depth exposure to academic dermatology, and the application of laboratory science to clinical problems through participation in a laboratory or clinical research project.

A three-year dermatology residency training program provides structured education in basic cutaneous biology and pathophysiology, and extensive exposure to patients with skin disorders. The training experience comprises all aspects of ambulatory and inpatient dermatology, including dermatologic surgery, cutaneous oncology, dermatopathology and phototherapy. Opportunity is provided for involvement in basic science and/or clinical skin research.

Postgraduate fellowships are offered in basic and/or clinical research. The Department of Dermatology is actively

involved in continuing medical education for staff, community practitioners and healthcare professionals, through CME accredited Grand Rounds, conferences, seminars and through participation in local dermatologic societies.

## Department of Emergency Medicine

The [Department of Emergency Medicine](#) offers exposure to a wide range of clinical problems and to an evolving regional emergency medical services system. The academic department provides a home for dedicated faculty and students to learn, teach, and pursue basic science, clinical, and health policy research. Stony Brook offers ample opportunity for collaboration and exchange with faculty and students from many other disciplines.

The department conducts advanced life support training for medical students at the end of the second year. During the third year, the department offers a two-week clerkship in Emergency Medicine. The course includes 84 hours of clinical time in the Emergency Department, labs and simulation exercise.

For fourth-year medical students, the department offers four-week didactic courses in Emergency Medicine, twice a year. Those interested in pursuing a career in Emergency Medicine may take the course with incoming first-year Emergency Medicine residents in July. Lectures are offered on management of common emergency department presentations including chest pain/acute MI, trauma, burns, stroke, seizures, pediatric airway disorders, GI bleed, trauma and toxic syndromes. Labs include airway management, wound care, advanced surgical skills, splinting, ultrasound, regional nerve block and slit lamp. Special sessions include a Pediatric Advanced Life Support course and Advanced Trauma Life Support. This course is repeated in February as an elective for all fourth-year medical students. In addition to the clinical and didactic experiences, the department also offers a “sub-internship” in Emergency Medicine, where students take on the roles/responsibilities of a PGY-1 in Emergency Medicine. The department’s goal is to offer students a path to develop the clinical competence, academic excellence and administrative acumen to assume leadership roles in the field of Emergency Medicine.

The department sponsors an accredited three-year residency training program in emergency medicine. Stony Brook University Hospital is the primary clinical site of resident education. The comprehensive emergency medicine experience is augmented by community rotations at Good Samaritan Hospital (PGY2s), NYC Bellevue for toxicology (PGY2s), and Shock Trauma Center in Maryland for trauma ICU (PGY3s). The goal of the residency program is to train emergency physicians who are capable of providing thorough, competent, evidence-based patient care, and who are dedicated to improving and leading the field of emergency medicine into the future.

## Department of family, population & Preventive medicine

The Department of Family, Population and Preventive Medicine officially launched on August 1, 2017 with the merger of the former Department of Family Medicine and

Department of Preventive Medicine, both of which were established when the medical school first opened in 1971. With the recognition of numerous synergies between them, along with the growing focus on prevention, population health, and transformation of the delivery of primary care, the time was opportune for the creation of a department with Population as part of its name and identity. Indeed, the new department is well poised to build on the concepts espoused in the Institute of Medicine’s 2012 report [Primary Care and Public Health: Exploring Integration to Improve Population Health](#)

### Mission

The Department’s mission is to improve the health and well-being of patients, families, providers, and communities through clinical, educational and research programs that incorporate primary care, public health, nutrition and preventive medicine.

### Vision

In general terms, we fulfill our mission by:

- Providing comprehensive family medicine based primary care utilizing a biopsychosocial focus and the Patient Centered Medical Home (PCMH) delivery model
- Providing specialized services in Occupational & Environmental Medicine, Travel Medicine & Adult Vaccinations and Wellness & Chronic Illness
- Conducting extensive educational activities for a diverse group of learners and trainees
- Conducting a broad range of interdisciplinary [research](#)
- Participating in partnerships with communities and institutions to improve the healthcare and health status of populations

### Divisions

The Department is organized into the following 7 Divisions. Click on the links to view descriptions of each division’s focus, activities, and programs.

- [Epidemiology & Biostatistics](#)
- [Family & Community Medicine](#)
- [Graduate Medical Education](#)
- [Medicine in Society](#)
- [Nutrition](#)
- [Occupational, Environmental & Clinical Preventive Medicine](#)
- [Preventive Medicine & Population Health](#)

In addition to teaching in the two Residency Programs, (Family Medicine Residency Program and General Preventive Medicine & Public Health), our faculty are actively involved in various educational programs throughout Stony Brook Medicine and the University. This includes teaching and mentoring medical students, residents, fellows and junior faculty from other departments, graduate students in the [School of Nursing](#), [Program in Public Health](#), and the [Graduate Program in Biomedical Informatics](#).

The Department’s Nutrition Division offers an online [MS Degree in Nutrition](#) and a [Dietetic Internship](#).

The Medicine in Society Division offers a [MA Degree in Medical Humanities, Compassionate Care and Bioethics](#).

## Department of Medicine

The [Department of Medicine](#) encompasses nine divisions: Cardiology, Endocrinology and Metabolism, Gastroenterology and Hepatology, General Internal Medicine, Hospitalist and Geriatrics, Hematology/Oncology, Infectious Diseases, Nephrology and Hypertension, Pulmonary and Critical Care Medicine, and Rheumatology, Allergy and Clinical Immunology at Stony Brook, as well as at its clinical affiliates. The combined faculty of these institutions are charged with the responsibility for the following:

- 1) Directing and teaching the Introduction to Clinical Medicine program for first and second year medical students
- 2) Oversight and teaching of the Systems Approach to Medicine for second year medical students
- 3) Directing the Ambulatory Care Clerkship for third-year medical students
- 4) Directing the Clerkship and Sub-Internship in Medicine
- 5) Developing curriculum and supervising electives in the medical subspecialties
- 6) Training 49 residents and 75 fellows
- 7) Providing Continuing Education in Medicine
- 8) Providing superb clinical care for patients across Long Island who require Internal Medicine primary care and subspecialty services in both the inpatient and outpatient settings

The Department of Medicine education program is designed to provide medical students, residents and fellows with a solid foundation in general internal medicine and its subspecialties, including quality patient care and research. This goal is exemplified in the design of the medical clerkship. Under the tutelage of full-time faculty and community preceptors, students learn the arts, skills, and modes of reasoning in making diagnoses and managing patients. In addition, students become a part of the medical staff by delivering patient care. These educational activities are supplemented by conferences, a comprehensive lecture series of topics identified as a target “Core Curriculum,” the Chairman’s lecture series, small group sessions with the Program Director, and multi-departmental clinical pathology conferences. The study of the patient as the keystone to learning medicine is stressed throughout the inpatient and ambulatory experience. A fourth-year sub-internship is offered for those students with an interest in careers in Internal Medicine and as a foundation for many students pursuing other disciplines. The one to two months internal medicine sub-internship provides the students with an intensive patient care experience in the inpatient setting with faculty mentoring and oversight. Additionally, many fourth-year students elect to participate in a variety of subspecialty electives that provide in-depth, focused learning experiences in the internal medicine disciplines.

The Graduate Training program’s goals and objectives emphasize the department’s mission to educate

compassionate, life-long learner physicians who are capable of delivering the highest quality of medical care. The core program consists of 49 residents in 5 different tracks including Traditional Internal Medicine training, Primary Care Medicine, Medicine/Pediatrics, and Medicine/Neurology. A preliminary year in Internal Medicine is offered for those pursuing training in other medical disciplines, such as radiology, which require a clinical internship. In addition, the core program supports 11 fellowships, including a full range of subspecialties from Geriatrics through Gastroenterology, and from Endocrinology through Electrophysiology.

The post-graduate program encourages trainee participation in research, and offers training in research. Post-doctoral traineeships are available in both applied and basic research for senior house officers planning careers in academic medicine. Separate clinical research fellowships for trainees are available through the General Clinical Research Center. Senior students and residents may take electives in general medicine and the medical subspecialties.

In keeping with the goals of our education program, continuing education is provided at various hospitals through regularly scheduled rounds and conferences. These activities, aimed at not only the members of the medical staff but for all healthcare professionals, emphasize the importance of interdisciplinary approaches in analyzing problems, whether at the bedside or in the laboratory.

## Department of Molecular Genetics and Microbiology

The [Department of Molecular Genetics and Microbiology](#) provides a focus for research activities ranging from the analysis of mechanisms responsible for the pathogenicity of microorganisms to the identification of genes involved in human cancer. Key discoveries in molecular genetics have been made in this department and world-renown scientists have flourished in this environment.

The department occupies laboratories and offices in the Life Sciences Building and the Centers for Molecular Medicine, a state of the art research and teaching facility. The research laboratories are fully equipped and, in addition, the department provides access to a variety of central facilities and services: a cell culture and hybridoma facility, microinjection facility, microscopy facilities, glassware washing, microarray facility, an analytical equipment lab, environmental rooms, darkrooms, and other department-shared equipment that are readily available to students and trainees.

As a basic science department of the School of Medicine, the department offers a diversified course of study leading to the PhD degree in Molecular Genetics and Microbiology. The major areas of study are the basic mechanisms of viral and bacterial pathogenesis, cell growth, signal transduction and the molecular mechanisms of cancer. The pre-doctoral training program offers its students the opportunity to study topics in virology, bacteriology, immunology, biochemistry, and cell and developmental biology utilizing the experimental approaches of the molecular biologist and geneticist. Instruction and course planning involve faculty members from the Department of Molecular Genetics and Microbiology, and

selected members from the Departments of Biochemistry and Cell Biology, Medicine, Pathology, and Pharmacology, and from three outside institutions, Cold Spring Harbor Laboratory, Brookhaven National Laboratory, and The Feinstein Institute for Medical Research. The department also offers undergraduate and graduate courses that are required for majors in the health-related professions as well as the basic sciences.

The department has an active seminar program of outside speakers who present topics relevant to molecular microbiology and genetics. In addition, there is a yearly retreat in which ongoing research in the department and recent progress in the field are presented and discussed. The department also presents a colloquium each fall on human diseases, with outstanding researchers from throughout the world presenting their current work on the selected topic.

Our training opportunities lead the way in interdisciplinary research with clinical and basic research cooperation in the fields of cancer research and infectious disease.

## Department of Neurological Surgery

The Department of Neurological Surgery is a principal component of the neurosciences program at Stony Brook. The main objective of the department is to provide quality patient care using the latest technology while integrating a commitment to teaching and research in the neurosciences. The clinical faculty members provide surgical care to both adult and pediatric patients who require surgical treatment for diseases and disorders of the spine and brain. The Cerebrovascular Center offers expertise in the surgical and endovascular management of cerebral aneurysms, carotid and intracranial atherosclerosis, arteriovenous malformations, and acute stroke. The department includes faculty with training in Physical Medicine and Rehabilitation who provide non-surgical treatment of spine disorders, varying from prescription of physical therapy programs to performance of fluoroscopically guided injections.

Selected residents from neurology, orthopaedics and surgery programs may rotate on the neurological surgery service for intensive exposure to the surgical management of spine and brain maladies, in particular trauma and more complex neurosurgical problems that are characteristic of an academic practice. Medical students may be instructed on processes relating to the nervous system and pre-clerkship lectures are given periodically with emphasis on skull base tumors, craniospinal trauma, cranial pressure dynamics, central nervous system tumors, non-surgical management of spine pain, acute stroke and cerebrovascular disease. Some of the research faculty are engaged in multidisciplinary, translational research exploring fluid dynamics in hydrocephalus and intracranial flow disorders; and the role of amyloid  $\beta$ -protein (A $\beta$ ) in Alzheimer's disease and stroke. We are home to one of only three Artis<sup>®</sup> Zeego angiography suites in the country dedicated to research and training. The Cerebrovascular Center includes an active Clinical Trials Unit conducting numerous national and international trials of novel endovascular devices. Other research projects include research on interspinal spacers used in spinal surgery and the development of artificial discs. Sponsorship may be provided to qualified graduate students.

## Department of Neurology

The [Department of Neurology](#), part of the [Neurosciences Institute](#), includes Divisions of Pediatric Neurology, Clinical Neurophysiology, and Neuropsychology, as well as sections in Stroke/Cerebrovascular Neurology, Multiple Sclerosis (MS)/Neuroimmunology, Epilepsy/EEG, Neuromuscular Diseases/EMG, Neuro-Oncology and Sleep Disorders. It includes the [Comprehensive Epilepsy Center](#), the [Adult MS Comprehensive Care Center](#) and [Pediatric MS Care Center](#), and the [Stony Brook ALS Center of Excellence](#) among others.

The department's mission is to provide excellence in neurologic care for the patient, research, education and community service. The department provides basic and clinical training in neurological science to medical students, fellows and residents. The intent of this training is to provide a basis for scientific neurology and practical instruction in patient care. The department carries on a broad program of research that contributes to the understanding of the structure, function and diseases of the nervous system. The clinical faculty provides tertiary, as well as basic level clinical care in neurology, carried out within the context of medical student and residency/ fellowship training. The department strives to increase community awareness about neurologic disorders.

In addition to instruction of medical students the department provides ACGME approved training programs in the following areas with subsequent Board Certification: 1) Adult Neurology, 2) Child Neurology, 3) Clinical Neurophysiology, and 4) Cerebrovascular Neurology. The department participates in the Sleep Medicine program as well. A three-year residency program is offered to prepare postgraduate physicians for board certification in adult or child neurology. The residency training programs provide a firm background in basic neuroscience disciplines and extensive exposure to clinical neurology. The didactic and clinical curricula are emphasized. Residents complete separate rotations in neuropathology, neuroradiology, child neurology, and psychiatry, and are encouraged to become involved in clinical and/or basic neuroscience research. Graduates from all programs are eligible for certification exams upon completion of the program.

Instruction is provided at all levels of medical education. Members of the department participate in the teaching of basic neuroscience to medical students. The mandatory clinical clerkship consists of intensive inpatient (consultative services and wards) and outpatient experience in neurology. Exposure to the Child Neurology, Epilepsy/EEG/Intra-operative Monitoring Sleep, or Stroke services can be arranged during the clerkship. The intent is to provide the student with the background to perform a neurological history and examination, and to evaluate patients with neurological disease in an appropriate and logical manner. The emphasis in this experience is on improving clinical diagnostic skills and the ability to formulate a plan of care. Attention is also directed to learning the techniques and interpretation of evoked potentials, electroencephalography, electromyography, and neuroradiological procedures, including magnetic resonance imaging. Students are expected to participate in all aspects of the clinical activities of the department. Individually crafted advanced electives in neurology are available for students who have completed the clerkship.

The faculty maintains a strong commitment to clinical neurology through operation of the neurology service at Stony Brook University Hospital and at the Northport Veterans Affairs Medical Center. Faculty research programs complement the clinical and academic functions of the department. Research in the department of neurology covers a wide spectrum of activities ranging from proteomics, genetic studies and stem cell research, to clinical trials in the major nervous system disorders to neuroimmunology/MS, neuro-imaging, vascular neurology/stroke, epilepsy, neuro-ophthalmology and developmental neurobiology projects. There are active ongoing research collaborations with Brookhaven National Laboratory, and Cold Spring Harbor Laboratory, as well as onsite research within the department.

## Department of Neurobiology and Behavior

This department offers fundamental courses in neurobiology to students in the health professions as well as to undergraduates and graduates in biology. Its graduate studies are centered on the program in neuroscience.

## Department of Obstetrics, Gynecology and Reproductive Medicine

The Department of Obstetrics, Gynecology and Reproductive Medicine is organized into the following divisions, each with its own chief: Gynecology and General Obstetrics, Gynecologic Oncology, Maternal-Fetal Medicine, Reproductive Endocrinology and Infertility, and Midwifery.

The department is responsible for instruction of medical students in each phase of their development. During the second-year curriculum, the department participates in the Introduction to Clinical Medicine course. Students are taught male and female genitourinary physical examinations in a program using prepared “professional patients.” Following the study of exam techniques utilizing audiovisual aids and pelvic models, small groups of students spend one session with a physician instructor and specially trained professional patients who assist the individual student in conducting the exam.

The objective of the program is to provide an experience for students to perform non-traumatic genital exams to minimize the initial technical and psychological difficulties of the exam, and to introduce to them the importance of communication with their patients.

Second-year medical students also have an intensive three-week course in Reproductive System Pathophysiology. Building on and expanding the students’ knowledge of the basic sciences obtained in their first year, this course covers aspects of human reproduction dealing with both the normal and abnormal conditions of the male and female reproduction.

The Clinical Clerkship in Obstetrics and Gynecology is an eight-week core curriculum presentation for students to become intimately involved with the ambulatory and hospital care of female patients with pregnancy and/or diseases of the reproductive tract. Educational objectives are attained through didactic lectures, seminars, rounds, and clinical exposure — the latter essentially by integration into the service as a sub-intern. In addition to gaining experience with examination,

diagnosis, and principles of treatment, opportunities are provided for exposure to the preventive medicine aspects of the discipline, including family planning, adolescent guidance, cancer screening, patient education and detection and prenatal health.

For students already career oriented in obstetrics and gynecology, and for those who desire greater depths than permitted by the core curriculum, fourth-year electives are offered in maternal-fetal medicine (high-risk pregnancy), reproductive endocrinology and infertility, gynecologic oncology, and gynecology and general obstetrics with participation in faculty research projects as well as in independent student research projects, utilizing the department’s laboratory facilities in endocrinology, immunology, fetal physiology and virology.

The principal goal of the department is to train physicians who will maintain and improve the highest standards in women’s healthcare.

The department offers an accredited four-year residency, which includes training in all aspects of obstetrics and gynecology. The program provides a structured educational experience that is planned in continuity with undergraduate and continuing medical education. Participants are afforded structured, sequentially developed exposures using a continuity of care model in the ambulatory and inpatient setting. This includes primary medical management and a variety of surgical experiences appropriate to the level of training.

The department offers a three-year training program in Maternal-Fetal Medicine through its two Regional Perinatal Centers on Long Island, Stony Brook University Hospital, and Winthrop University Hospital. This program is designed to include up to three fellows. The program objective is to train specialists in Maternal-Fetal Medicine who, in addition to having expertise in clinic practice, research, and public health, will have the skills needed to excel in the ever-more challenging environment of academic medicine. Specific objectives include training individuals capable of continuing a career in academic medicine with defined areas of interest and foundations in research and education that will prepare each of the trainees to obtain research grant funding or to otherwise be a productive member of the academic community.

Each graduate of the Fellowship in Maternal-Fetal Medicine will have the knowledge and skills to act as a consultant to general obstetricians as well as to participate in regionalization of perinatal services active in improving the delivery of healthcare to designated populations. The educational program of this fellowship is also designed to guarantee a completed, hypothesis based, research thesis by graduation. Each fellow is taught to teach and mentored to mentor with didactic lectures, structured educational experiences, 360 degree evaluations, and involvement as a research mentor to undergraduates and/or residents. Each fellow will be adequately prepared to achieve subspecialty certification by the Division of Maternal-Fetal Medicine of the American Board of Obstetrics and Gynecology and then proceed to develop successful careers in academic medicine.

## Department of Ophthalmology

The [Department of Ophthalmology](#) is a fully integrated multi-specialty ophthalmic group offering a wide range of ophthalmic services committed to providing the highest quality care for patients with all types of eye diseases and visual problems. The department strives to educate and advise patients about their specific eye problems; to communicate with the referring healthcare providers in order to provide timely, well coordinated care; and to treat patients with efficiency, respect, and compassion.

The department is organized to provide the following clinical services:

- General ophthalmology service
- Neuro-ophthalmology service
- Vitreoretinal service
- Cornea and anterior segment service
- Glaucoma service
- Oculoplastics and reconstructive surgery service
- Pediatric ophthalmology and adult strabismus service
- Optometric service
- Uveitis

These services are directed by members of the full-time faculty, all of whom are board certified and fellowship trained.

The faculty plays an active role in the medical student education, contributing to several of the organized teaching blocks. The department offers a two-to-four-week clinical clerkship in ophthalmology.

The department has a three-year, fully accredited residency training program in ophthalmology. This training program has six residents, three of whom rotate at both Stony Brook University Hospital and the Northport Veterans Affairs Medical Center. The faculty also participates in the training of residents from other departments in the School of Medicine, including Maxillofacial Surgery, Neurology, and Emergency Medicine. The department offers a basic series of lectures in ophthalmology. Research participation within the department adds a valuable dimension to its educational programs, demonstrating the faculty's commitment to scholarly activity and the advancement of ophthalmic knowledge and patient care.

The department has a number of research programs both within the full-time faculty and in collaboration with Neurobiology, Preventive Medicine, and Neurology. The department is a member of the SUNY Eye Institute.

## Department of Orthopedics

The Orthopedic Surgery Residency Program provides the resident with a rich educational experience through its home institution and two affiliated hospitals, Veterans Affairs Medical Center and Winthrop University Hospital. A rotation is also

provided in Orthopedic Oncology at Memorial Sloan Kettering Cancer Center in New York City.

Rotations are provided in the clinical subspecialties of Hand and Foot Surgery, Microsurgery, Oncology, Pediatric Orthopedics, Spinal Surgery, Sports Medicine, Joint Replacement and Reconstruction, and Upper Extremity Surgery. There is uninterrupted participation in the comprehensive management of patients in all subspecialties, from the initial ambulatory encounter through admission and treatment processes to rehabilitation and follow-up. All residents receive experience in clinical and diagnostic orthopaedics, and comprehensive training in the surgical management of all orthopedic problems.

Strong faculty commitment to teaching and academic development, combined with a full and varied surgical schedule, provides a vast amount of clinical material and support for the resident. This results in an experience that fulfills and exceeds the requirements of the American Board of Orthopedic Surgeons (ABOS).

The orthopaedic faculty oversees the Connective Tissue Course for the medical students and Medical Imaging Course in the Physical Therapy Program. Medical students have an option of participating in an Orthopedic Club, led by one of the orthopedic faculty.

The academic resources of the program, including the Orthopedic Cellular Biology/Structure Lab and Musculoskeletal Lab, provide basic research experience. Instruction in cellular physiology and biochemistry of musculoskeletal tissues (bone/cartilage; muscle/nerve; tendon/ligament) is given by the PhD faculty of the [Orthopedic Department](#). Pathology is taught by the clinical faculty and supplemented by a visiting professor. Anatomy is taught on a regular basis, both in the operating room and the lab. Psychomotor skills are taught in a preliminary physical exam and psychomotor course that is given annually to entry-level (PGY-2) residents. Periodically throughout the year, psychomotor skills are refined through hands-on experience in the micro-lab suturing vessels, tendons and nerves. Laboratory experiences also include training in arthroscopy. A trauma-oriented skill section is also included and offers experience with procedures such as internal fixation for wrist fractures and AO techniques in trauma. Multiple weekly conferences include Peds Conference, Peds X-ray Conference, Trauma Conference, and Hand Conference. There is also participation on a weekly basis with Grand Rounds (which consists of case or pathology presentations one to two occasions per month, formal senior resident presentations once per month, and QA Conference once per month). Resident Conference is held every Wednesday for three hours. Each section includes a lecture by a resident(s), based on PGY level, or an attending and/or lab by all residents and an attending. Sports Conference and Chairman's Rounds are held every other week.

A completed research project of publishable quality is required of each resident prior to graduation. Time and resources are available to the residents for required and elective research interests. The Research Committee meets every other week.

The department supports a fully accredited residency program in orthopedic surgery and post-residency fellowships in hand surgery.

## Department of Pathology

The [Department of Pathology](#) is concerned with the pathogenesis of disease, as well as with its manifestations of diagnosis. The department serves as a bridge between the preclinical and clinical sciences for students, clinicians, and non-clinicians at all stages of training. It has responsibility for teaching students in each school of the Health Sciences Center, in the College of Arts and Sciences, and in the Graduate School, and has responsibility for the postgraduate and continuing education of residing physicians, house staff and practitioners. In addition to its teaching responsibilities, the department operates the hospital laboratories. At the graduate level, programs leading to the PhD degree are developed within the department and in cooperation with other departments.

## Department of Pediatrics

The [Department of Pediatrics](#) defines three broad areas within its mission:

- 1) Excellence in patient care and patient education in our service to the communities around us.
- 2) Excellence in medical education within each phase of the training of physicians, allied health professionals and scientists.
- 3) Excellence in scholarship and research related to childhood health and development, childhood diseases and disorders.

The department's goals align with the three-part mission, including the provision of the highest standards of care for children and families, while providing exemplary training programs, highest quality educational and service leadership, and opportunities for research and scholarship so that the department can continue to improve pediatric medical care both in the surrounding communities and at the national level. Faculty roles in teaching encompass trainee education from the start of undergraduate medical and allied health education through residency and subspecialty fellowship training, combining basic and clinical knowledge with inpatient and ambulatory clinical experiences to facilitate the development of astute, competent, knowledgeable and caring professionals. Ongoing research among the faculty and trainees helps to prepare new investigators with the skills to expand understanding of pediatric diseases, and provide evidence-based and effective interventions for the challenging health problems of the pediatric population.

The department is made up of the following clinical and academic divisions, each with its own designated division chief.

### Division of Adolescent Medicine

The [division](#) provides primary care for adolescents ages 12 through 21. Part of the mission of the division is to provide services to reduce or prevent high risk behaviors. Adolescent Medicine also provides primary care including a comprehensive psychosocial component in order to

screen for high-risk behaviors and educate teens in order to prevent future high risk behaviors. Additional services offered include gynecological care; female and male family planning services; substance abuse screening; sexually transmitted disease screening and treatment including oral HIV testing; screening and treatment for various mental health issues like ADHD, ADD, depression, and anxiety; and medical care for patients with eating disorders including obesity. The division of Adolescent Medicine works closely with the Division of Infectious Disease to provide primary care for Adolescents infected with the HIV virus (either perinatally or behaviorally infected) through a program called URAPP (University Response and Prevention Program). In addition, Adolescent Medicine and the Cody Center for Autism provide comprehensive sexual education and related medical care for teens with developmental delay. Services also include individual counseling and group counseling exploring appropriate and inappropriate sexual behaviors. Adolescent Medicine also provides inpatient consultations to evaluate for specific adolescent needs as well as high-risk behaviors as mentioned above.

### Division of Pediatric Cardiology

The [division](#) provides diagnosis and treatment of cardiovascular diseases in infants, children, and adolescents; cares for adults with congenital cardiac defects; diagnosis and treatment of cardiovascular disease in the fetus; preventive cardiology services (e.g. Fit Kids for Life program); and the diagnosis and treatment of hyperlipidemia in children. Its faculty offer cardiac catheterization and echocardiography for the diagnosis of heart lesions. In addition the division has expertise in fetal echocardiography.

### Division of Pediatric Critical Care Medicine

The [Pediatric Intensive Care Unit](#) provides complete care for critically ill children at [Stony Brook Children's Hospital](#). Care is provided for children from birth to age 21, with medical or surgical problems or who have been victims of trauma. The division provides state-of-the-art care, including continuous renal replacement therapy, high frequency oscillatory ventilation, and inhaled nitric oxide therapy. In addition, they provide moderate or deep sedation for children undergoing painful procedures, both inpatients and outpatients. The transport service provides a team to transport children from all of the other hospitals in Suffolk County. The Pediatric Intensive Care faculty also organize and teach Pediatric Advanced Life Support courses to physicians and nurses throughout the institution. The Stony Brook Simulation Center is used to teach the PALS courses and to train our residents. The PICU has a very active Family Advocacy Board that includes family members of former (and sometimes current) PICU patients and PICU leadership, and works to improve the care of the children in the PICU and meet the needs of the parents and family members as well.

### Division of Developmental and Behavioral Pediatrics

Diagnosis and treatment are available for a wide range of [behavior problems and developmental disturbances](#) of infancy and early childhood. Specialties include assessments of concerns about high-risk and premature infants, disorders of parenting and problems of early childhood (such as sleep

disturbances, tantrums, toilet skill training, and self-control). Developmental assessment is provided for children from birth to five years of age. For children with complex medical management needs, joint consultation in the behavioral and developmental aspects of the disease is provided.

The Cody Center for Autism and Developmental Disabilities

The Cody Center for Autism and Developmental Disabilities is recognized by the NY State Legislature as a State University Center for Autism and Developmental Disabilities. The clinical service consists of a multidisciplinary evaluation and treatment program that offers primary, specialty medical (e.g., neurology and genetics), and mental healthcare, plus educational and training programs for families and individuals of all ages who are affected by developmental disabilities. Other division programs provide school-based consultation services, undergraduate and postgraduate educational courses in the field of Autism and Developmental Disabilities, and a multi-site collaborative research program. The broad mission of the Cody Center is to:

- Advance the standard of care for individuals with autism spectrum disorders and other developmental disabilities.
- Provide an educational setting for professionals.
- Contribute significant research outcomes to the body of science surrounding autism and related disorders.
- Practice a multidisciplinary approach to treating people with developmental disabilities.

### Division of Pediatric Emergency Medicine

This division was established in March 2010 with the opening of a separate pediatric ED. The division provides emergent care of patients up to age 21 in a child-friendly environment.

### Division of Pediatric Endocrinology

The division of [Pediatric Endocrinology](#) provides inpatient and outpatient care for patients with diabetes mellitus, thyroid disorders, growth disorders, disorders of calcium and phosphorous, adrenal disorders, hypoglycemia, hypothalamic and pituitary disorders, problems with sexual differentiation and lipid disorders. In 2008-2009 there were 4,000 annual outpatient visits, 70 inpatient admissions, and 200 inpatient consultations. The division hosts a Pediatric Endocrinology Fellowship program that has been ACGME accredited since 1995. It is a three-year program open to graduates who have successfully completed a Pediatric Residency Program. The program aims to train physicians in the art and science of clinical Pediatric Endocrinology. It is based exclusively at Stony Brook University Hospital and its affiliated Medical School. Fellows have weekly continuity clinics under the supervision of the faculty and are required to develop a research project under mentorship of the faculty within the Division of Pediatric Endocrinology or the Medical School at large.

### Division of Pediatric Gastroenterology

This division provides outpatient and inpatient consultations for pediatric patients with gastrointestinal, liver and nutritional concerns. The division treats a large number of children with reflux, acute and chronic abdominal pain,

gastrointestinal bleeding, Celiac Disease, failure to thrive, chronic constipation, feeding problems, Irritable Bowel Syndrome, Crohn's Disease, and Ulcerative Colitis. Children with a wide range of liver, diseases, including infectious hepatitis, autoimmune hepatitis, congenital anomalies, and Wilson's Disease are evaluated and followed through the program. In addition to these disorders, an increasing number of children with fatty liver (an emerging serious liver disease) are also evaluated and followed at Stony Brook. Nutritional consultations are provided for children with severe feeding problems, children dependent on tube feeds, those with Celiac Disease, with excessive weight gain, obesity, hypercholesterolemia, and with severe food allergies. The division also manages nutritional support for patients with Cystic Fibrosis. The division prides itself for providing excellent care and support for families with children requiring tube feedings. Gastrostomy tubes are placed via endoscopy in the endoscopy suite or bedside in the ICU in critically ill children by the division's physicians. The division performs more than 500 procedures a year including upper endoscopies, colonoscopies, polyp removal, pH probe studies, 48 hour BRAVO pH monitoring, and has 5000 ambulatory visits/year. Capsule endoscopy is now available for small bowel evaluation. All pediatric endoscopies are performed under sedation/anesthesia provided by a pediatric anesthesiologist, therefore markedly enhancing the safety and comfort our children.

### Division of Genetics

Medical [Genetics](#) offers services to all individuals from infants to adults including prenatal and preimplantation genetic counseling. Services may involve evaluation, diagnosis, counseling, and treatment of a wide variety of genetic conditions including: inborn errors of metabolism, follow up of abnormal newborn screening, cancer genetic counseling, birth defects, chromosomal abnormalities, dysmorphology/syndrome recognition, neurofibromatosis and neurocutaneous disorders, developmental delay and mental retardation, neurodegenerative disorders, genetic evaluation of autism, congenital hearing loss, prenatal and preimplantation genetic diagnosis, and family history concerns. The Inherited Metabolic Disorder Clinic has been designated as a Center of Excellence by the National Society of Inherited Metabolic Disorders. It is one of only eight NYS-DOH designated Metabolic Centers in New York State and the only such center located on Long Island. The division also operates the Inherited Metabolic Disease Family Support Group for Long Island (IM.D.FSGLI) as a community service which brings families together for Educational and Social activities and provides special foods, formulas and other resources including full-day educational symposia and Taste Connections.

### Division of General Pediatric Medicine

Comprehensive and confidential healthcare is offered for patients between birth and 21 years. Full service general pediatrics is offered at the following locations: Stony Brook Children's Hospital, University Pediatrics at Tech Park, Stony Brook Primary Care at Patchogue, Stony Brook Primary Care at Islip, Stony Brook Primary Care at East Moriches, Stony Brook Pediatrics at Southold, and Stony Brook Pediatrics at Riverhead.

## Division of Pediatric Hematology and Oncology

Staffed by a team of physicians, specialized nurses, and ancillary personnel, [this division](#) provides the most advanced diagnostic and treatment modalities for pediatric patients with hematologic and/or oncologic disorders. Care is provided in a multidisciplinary team setting to offer state-of-the-art care to children.

Some of the services offered include:

- Inpatient and outpatient services for chemotherapy and transfusion needs
- Autologous and cord blood stem cell transplantation
- Care of patients with sickle cell disease, thalassemia and other hemoglobinopathies, bleeding disorders, Gaucher's disease, and other metabolic disorders

## Division of Pediatric Hospitalist Medicine

[This division](#) was created in 2009 in recognition of the strong value of this service in enhancing quality of care. As has been the experience at many centers, the hospitalist service contributes to patient care and resident education in important ways. Hospitalists develop and adhere to evidence-based clinical care guidelines for the care of common disorder (e.g. asthma) which results in shortened lengths of stay and better patient outcomes. In addition they provide a high level of resident supervision. Pediatric Hospital Medicine currently has three full-time faculty members with some additional coverage provided by the chief residents and the academic general pediatrics fellows. The clinical responsibilities in the hospital include caring for patients in the newborn nursery, caring for acutely ill children on the general pediatric ward, and circumcisions in the NBN and NICU. The hospitalists also provide care to chronically ill children at several long-term care facilities. In addition to the clinical duties, the hospitalists are actively involved in the education of both pediatric residents and medical students. Their other major focus is to improve the overall quality of care for patients within the hospital by creating and instituting new initiatives such as the asthma action pathway and leading the initiative on patient-family centered care.

## Division of Pediatric Infectious Diseases

[This division](#) provides clinical consultation for Infectious Disease problems to children hospitalized at Stony Brook and to those in the community on an ambulatory basis. In addition, the division conducts clinical research in two distinct tracks: 1) federally funded clinical HIV/AIDS trials, and 2) industry-sponsored pharmaceutical trials. The division currently receives more HIV/AIDS research funding than any other hospital or organization on Long Island and is both the Designated AIDS Center and the Regional Perinatal Center for Suffolk County. In addition, the division is one of only nine Centers of Excellence in Pediatric Care in the state as designated by the New York State Department of Health, AIDS Institute. The multi-disciplinary division consists of three attending physicians, two Pediatric Infectious Diseases Fellows, a Certified Pediatric Nurse Practitioner, an Obstetric Nurse Practitioner and a Nurse Practitioner of Psychiatry, registered nurses, social workers, a nutritionist and a treatment advocate. The division has been continuously

funded by the National Institutes of Child Health and Development (NICHD) as a Pediatric and Obstetric AIDS Clinical Trials Group (PACTG) since 1992, and is the only organization in Nassau or Suffolk County providing access to the latest federally funded HIV/AIDS research. The division is currently conducting 22 pediatric and obstetric medication/treatment protocols as well as a longitudinal quality of life study of perinatally HIV-infected children. The division also receives funding from the Ryan White C.A.R.E. Act Titles I and II to provide HIV-specific pediatric care, supportive, psychological, treatment advocacy and nutritional services, and is the only recipient of Ryan White C.A.R.E. Act Title IV funding in Nassau or Suffolk Counties and of funding from the Suffolk Project for AIDS Resource Coordination (SPARC). SPARC is the community-based component of the division whose mission is to improve coordination of HIV/AIDS services and enhance access to services for HIV-infected women, infants and children, including access to HIV/AIDS clinical trials. The SPARC project began as a pilot program with one staff funded at \$70,000 in 1995; it has grown to a staff of 15 funded at over \$833,000 and has become a model among Health Resources and Services Administration (HRSA) projects across the nation.

## Division of Neonatology

Stony Brook University Hospital is a New York State Department of Health designated Regional Perinatal Center (RPC) with a state-designated Level III NICU that offers excellence of care in Neonatal and Perinatal medicine. [The division](#) offers 24-7 in-house coverage by a BE/BC Neonatologist who works together with the in-house Maternal and Fetal Medicine faculty to provide around the clock attending coverage of the service. The NICU had 935 admissions last year accounting for 10,235 inpatient days. Division faculty also provide consults to both inpatient and outpatient high-risk OB patients to prospectively plan for the care of sick neonates. Biweekly conferences are held with the Maternal Fetal Medicine faculty and Fellows and Neonatal Faculty and Fellows and various other consultants to discuss the patients in preparation for delivery and post-delivery management. The division also coordinates a high-risk clinic for NICU graduates, offers quarterly outreach conferences with eight RPC-affiliated institutions, and is one of two NICUs in New York State that offer a MOD-supported program to provide family-centered care to NICU families. This assists them with their transition to a NICU stay, which can be very traumatic.

## Division of Pediatric Nephrology

[This division](#) offers a wide range services including: clinical nephrology consultation, management of chronic kidney disease and hypertension, kidney biopsies, dialysis, and the only renal transplantation service for pediatrics in Suffolk County, Long Island. The division is consulted on a wide variety of renal diseases including: hematuria, proteinuria, hydronephrosis (both pre- and post-natal), nephritic and nephritic syndromes, lupus nephritis, renal cystic diseases, urinary tract infections, and congenital abnormalities, to name a few of the more common diseases. The Pediatric Nephrology service provides the only pediatric dialysis service in Suffolk County and the only one east of the Nassau/Queens border. The renal transplant service is an outstanding team

that includes Stony Brook transplant physicians. The division is also involved in multi-center clinical trials.

### **Division of Pediatric Pulmonology/Allergy and Immunology**

The division provides multidisciplinary inpatient and outpatient services for infants and children with acute and chronic respiratory problems, including cystic fibrosis, asthma, bronchopulmonary dysplasia (BPD), congenital lung abnormalities, neuromuscular respiratory diseases, chronic respiratory failure/insufficiency and pediatric sleep disorders. The Asthma Care Program provides a single source of comprehensive asthma care for children. Our pediatric pulmonologists work together with nurse practitioners, nurses and respiratory therapists to offer a multidisciplinary approach to treating children and adolescents with asthma. The Cystic Fibrosis Center is accredited for care, teaching and research by the Cystic Fibrosis Foundation and provides integrated, multidisciplinary care for children with cystic fibrosis and their families. The Center also provides educational programs for health professionals and conducts research focused on improved treatments. The Pulmonary Function Laboratory has comprehensive state-of-the-art facilities for performing and interpreting lung function tests including spirometry, full pulmonary function testing, exercise testing and cold-air challenge as well methacholine challenge for asthma diagnosis in children. The Pediatric Bronchoscopy Service provides diagnostic evaluation of inpatients and outpatients and is supported by a well-equipped flexible bronchoscopy unit. Infants, including newborns, and children with airway and respiratory problems who need bronchoscopy undergo the procedure with sedation in collaboration with intensivists in the Neonatal Intensive Care Unit or the Pediatric Special Procedures Unit. The Sleep Disorders Center provides diagnostic services to aid in the evaluation of sleep disorders, including obstructive sleep apnea, respiratory disorders and behavioral problems related to sleep. The Sleep Disorders Center is located in Smithtown. The pediatric pulmonologists provide guidance and ongoing assessment of patients in the pediatric ventilatory unit at Avalon Gardens in Smithtown. The division also includes the Allergy and Immunology services for the department and specializes in asthma, allergic diseases and immunological disorders in all age groups. We specialize in the care of families in need of asthma, allergy and/or immunology consultations, diagnostic evaluations and specialty medical care.

### **Division of Pediatric Rheumatology**

This division offers comprehensive diagnosis and management for rheumatologic disorders including juvenile rheumatoid arthritis and lupus.

### **Education Programs**

The Department of Pediatrics participates actively in the educational programs of Stony Brook University's School of Medicine, hosts a categorical and combined Pediatrics–Internal Medicine Residency and five fellowship training programs, and contributes to the educational growth of undergraduate (baccalaureate level) students, master's and doctoral level students, and trainees in the other four Schools of the Health Sciences. Additionally, the department hosts high school students in its research laboratories, visiting

students from other U.S. medical schools seeking senior elective experiences in Pediatrics, and international students engaged in the School's exchange program with two Korean medical schools. The department's education efforts for third-year students are extensive. The Medical School Clerkship in Pediatrics is a required course that is conducted year-round in eight-week blocks for all third-year students in the School of Medicine. The Clerkship in Pediatrics is closely guided by an Executive Committee which meets formally three times yearly to review all aspects of the course. The clerkship objectives, activities, and evaluation criteria are summarized in the Guidelines to the Clerkship in Pediatrics. The Sub-internship in Pediatrics is a rigorous four-week clinical experience designed to expand clinical responsibility beyond that of the clinical clerk. Elective experiences are available in all fields of pediatrics, either at Stony Brook or at affiliated programs at Nassau University Medical Center or Winthrop-University Hospital.

The ACGME accredited three-year residency program is designed to provide a solid foundation for clinical practice or for further study in the pediatric specialties, including pediatric research. The program emphasizes basic principles of scientific medicine and reasoning, training pediatricians to apply evidence-based medicine to the clinical care of children. While learning to care for the sick child in the inpatient setting, the residents also develop an outpatient primary care continuity practice throughout their three years of training.

### **Department of Pharmacological Sciences**

Pharmacology is an interdisciplinary science that explores the effects of exogenous chemicals and endogenous signals on biological systems. Faculty research interests emphasize the molecular mechanisms of the action of drugs, hormones and toxins. Areas of research include chemical biology and toxicology, neuropharmacology, and a variety of types of signal transduction. Teaching is directed toward an understanding of the basic principles underlying the therapeutic and toxic actions of drugs and chemicals.

The department provides instruction for professional students in the schools of the Health Sciences Center and offers graduate and upper-division courses in pharmacology, toxicology, and therapeutics. A PhD-granting graduate program is offered through the Graduate School and the School of Medicine. An undergraduate pharmacology program is provided through the College of Arts and Sciences.

### **Department of Physical Medicine and Rehabilitation**

The Department of Physical Medicine and Rehabilitation provides an educational experience for fourth-year students who are interested in the specialty. Students will gain exposure to the field of rehabilitation medicine in a variety of settings including inpatient, outpatient and electromyography. Students will learn the physiatric approach to patient care and the roles of the various rehabilitation team members. The elective is based at St. Charles Hospital. Students may contact Jennifer Semel-Concepcion, MD, acting chair of the department, at (631) 474-6011.

## Department of Physiology and Biophysics

The [Department of Physiology and Biophysics](#) offers a program of study leading to a Doctor of Philosophy.

The broad interests of our faculty provide diverse research opportunities ranging from systems physiology, to translational cancer research and single molecule biophysics. Our goal is to instruct students in the use of quantitative methods to study complex physiological problems of relevance to human health and disease.

The Department's principal areas of research specialization are 1) Ion channel and gap junction Biophysics, with emphasis on cardiology and vision; 2) Intracellular and intercellular signaling mechanisms in cancer and neurobiology; 3) Physiology at the cellular, organ, and intact animal levels with emphasis on transgenic models of disease; 4) Fluorescence microscopy with the largest concentrations of microscopy equipment at Stony Brook University.

Our curriculum is based on a foundation in Human Physiology with additional advanced courses in Statistical Methods, Biochemistry and the physical chemistry of Biomembranes. Through elective coursework in Applied Mathematics, Genetics, Neurobiology or Journalism students can tailor their training to their career goals. Students from our program have gone on to careers in academic and industrial research, government service and law.

### Program Requirements

#### Requirements

To obtain the Ph.D in Physiology & Biophysics, students must successfully complete all required coursework. Within the course of laboratory rotations during the first year, students must obtain faculty sponsorship for their doctoral thesis research. By the end of the second year, students must complete their qualifying examination, which entails an oral defense of a research fellowship proposal on the topic of the student's choosing. At the beginning of the third year, students are required to constitute their doctoral thesis examination committee containing at least one member from outside the Department. Advancement to candidacy is predicated on the successful presentation of the Thesis Proposal by the end of the third year. Once advanced to candidacy, students are expected to pursue a course of rigorous laboratory research. Successful completion of the degree program will entail a first-authored research publication in a peer-reviewed journal. All of these requirements are to be completed within seven years from the date of admission

#### Curriculum

	Fall	Spring
Year 1	Cellular Physiology & Biophysics (HBY 530)	Student Journal Club (HBY 570) Lab rotation (HBY 500)

	Human Physiology (HBY 350)	Seminar in Physiology & Biophysics (HBY 690)
	Student Journal Club (HBY 570)	Statistical Analysis (HBY 561)
	Lab rotation (HBY 500)	Model Based Analysis (HBY 562)
	Seminar in Physiology & Biophysics (HBY 690)	Ethics In Research (GRD500)
Year2	Graduate Biochemistry (MCB 520)m	Lab Research (HBY 591)
	Biomembranes (MCB 517)	Student Journal Club (HBY 570)
	Lab Research (HBY 591)	Seminar (HBY 690)
	Student Journal Club (HBY 570)	
	Seminar in Physiology & Biophysics (HBY 690)	
	Teaching Practicum (HBY 695)	

An additional 12 credits of electives are taken at the student's discretion during the first and second year.

### Admission

#### Application Requirements

The minimum requirements for admission to The Ph.D program in Physiology & Biophysics are a Bachelor's Degree with a Major in the Physical or Biological sciences. Successful applicants have a grade point average of 3.25/4.0 or higher for their undergraduate curriculum, with special emphasis on coursework within the major. Admission requires submission of scores from the Graduate Record Exam (GRE). Successful applicants have GRE scores ranked in the upper half in all three areas of examination. No subject test is required. Students for whom English is not their native language, must establish English proficiency based on the results of your TOEFL or IELTS examinations. Applicants are required to provide three letters of recommendation that can speak to the student's academic and research performance. Preference is given to students with previous research experience. Students who do not meet these qualifications are encouraged to seek admission to our Master's program for additional preparation.

## Department of Psychiatry and Behavioral Science

The [Department of Psychiatry and Behavioral Science](#) provides a complete range of instruction from beginning medical education through post-residency fellowships. Members of the department are involved in teaching in psychology, neurobiology, pharmacology and biomedical engineering, as well as psychiatry. Faculty within the department are dedicated to research related to an understanding of psychiatric disorders, ranging from basic neurobiological research to applied clinical studies. Through joint appointments with other departments, many faculty members supervise and support graduate and post-doctoral students in related disciplines.

### Clinical Services

The department is organized into three clinical divisions. The clinical divisions include Adult Psychiatry, Child Psychiatry, and Medical/Geriatric Psychiatry. Services in these divisions may be provided at Stony Brook University Hospital, at the Northport Veterans Affairs Medical Center, and at Eastern Long Island Hospital. University Hospital services provide 30 adult care beds, adult day hospital facilities, 10 children's beds, a comprehensive psychiatric emergency program, a consultation-liaison service and outpatient clinics for adults and children. Northport Veterans Affairs Medical Center provides a 50-bed acute inpatient service and a 50-bed chronic care service. Eastern Long Island Hospital provides an 23-bed and adult inpatient service.

### Medical Student Education

The department is committed to an interdisciplinary approach to mental health throughout its curricular activities. Within the curriculum of the medical school, the department provides psychiatric curriculum in the first year introduction to human behavior course, the second year neuroscience course, the third-year clerkship in clinical psychiatry (four weeks), and the fourth year clerkship in behavioral medicine (two weeks). A psychiatry sub-internship is available to students in their third and fourth years on an elective basis.

### Residency Program

The Department of Psychiatry and Behavioral Science offers a four-year residency program in psychiatry with the first year designed as a categorical postgraduate "mixed" clinical experience. The residency program provides a broad variety of situations, subjects, and settings from which residents and students may select their learning experiences. The program goal is to train a physician who specializes in the treatment and understanding of diseases and abnormalities that manifest themselves in behavioral change. Such a physician should be well grounded in diagnostics, psychopharmacological interventions and behavioral management techniques. The training program pays particular attention to the neurobiological foundations of psychiatry, while at the same time providing training in psychotherapeutics and other skills necessary to the general practice of psychiatry.

### Fellowship Training

The department offers several fellowships including accredited clinical fellowships in child psychiatry and geriatric psychiatry.

### Institute for Mental Health Research

Founded in 1982, the IMHR is the research division of the department. With several million dollars of extramural support annually the research and clinical research faculty are engaged in psychiatric research ranging from basic science investigations of circadian rhythms, the molecular biology of Alzheimer's disease, to cutting-edge research in behavioral medicine and in the epidemiology of mental disorders.

In addition to this umbrella research organization the department is also home to the Alzheimer's Disease Center of Long Island and the Applied Behavioral Medicine Research Institute.

### Department of Radiation Oncology

The [Department of Radiation Oncology](#) is organized to develop and teach the disciplines of radiation physics, radiation biology and therapeutic radiology as applied to the treatment of malignancies and selected benign disorders. Active basic and clinical research programs operate in conjunction with other medical school departments and the Brookhaven National Laboratory.

For medical students already career oriented in radiation oncology and for those who desire greater depth than permitted by the core curriculum, fourth year electives are offered in radiation oncology.

Undergraduate and graduate as well as medical students interested in research collaboration or the clinical oncology of solid tumors, are encouraged to apply for elective rotations.

The mission of the Department of Radiation Oncology is to develop a well-rounded academic program in radiation oncology, to include:

- Expert cost effective radiation therapy services
- Education of medical professionals in the management of oncology patients
- Improvement of patient care through science and technology transfer
- University leadership in oncology

The Radiation Oncology Department fosters and supports three nationally recognized programs that encourage the Stony Brook University community to continue its education in the fields of Medical Dosimetry and Medical Physics.

### Medical Dosimetry Program

The Medical Dosimetry Program is a one-year post-baccalaureate program offered as a continuation of the Health Science major and provides students eligibility for the Medical Dosimetry Certification Board exam. Students work along side the Radiation Oncology staff within the department, as well as several satellite facilities as to further their experience. Students work clinically to hone their skills

in a professional setting, while continuing academic classes taught by departmental faculty and staff.

The Post-Baccalaureate Medical Dosimetry program offers accepted students a first hand experience in treatment planning, dose calculations, and responsibilities pertinent to that of a board certified Medical Dosimetrist. As the students continue with a regular regimen of classes, the program concurrently prepares students to handle clinical responsibilities that one would encounter on a daily basis as well as obstacles that may appear on an occasional agenda. During the clinical year, students also undergo a series of tasks that render them competent in basic dosimetry techniques.

### Medical Physics Residency Program

The Medical Physics Residency Program is a two-year program that provides preparation for the Board Certification by the American Board of Radiology (ABR). Residents are involved in all aspects of the clinic including, but not limited to machine QA, IMRT, HDR and LDR Quality Assurance, instruction of Medical Dosimetry and Biomedical Engineering students, 3D conformal and IMRT planning, Stereotactic Radiotherapy, and administrative responsibilities. Residents are encouraged to partake in projects that are run in the clinic and are provided with continued educational opportunities. Residents are trained to be fully functioning Medical Physicist upon the completion of their program.

### Biomedical Engineering Master's of Science

In conjunction with these programs, the Stony Brook Radiation Oncology Department offers the Biomedical Engineering Master's of Science candidates a forum of advanced learning. Through hands on experience in the clinic and classes taught by our residents and departmental faculty, the MS candidates are afforded an opportunity to acquire experience in Medical Physics.

## Department of Radiology

### Divisions

- Division of Breast Imaging
- Division of Diagnostic Radiology
- Division of Cardiac Imaging
- Division of Cross-sectional Imaging
- Division of Interventional Radiology
- Division of Musculoskeletal
- Division of Neuroradiology
- Division of Nuclear Medicine
- Division of Pediatric Imaging

The department transverses Stony Brook University Hospital and the Veterans Administration Medical Center and our common mission is a commitment to excellence in medical imaging, responsive service, and the responsible use of our resources in clinical care, education and research. Our goal is

to help our patients, referring physicians and family members achieve their goals.

The medical students rotate through the Nassau University Medical Center and Winthrop University Hospital. The third-year medical students rotate on the radiology service for two weeks. The course combines daily lectures, which address basic image interpretation and an algorithmic approach for the selection of imaging studies. In addition, the student completes a series of programmed learning seminars and teaching files, which review principles of image interpretation. There is extensive exposure to many of the subspecialty areas with observation of procedures and participation in film review sessions with Radiology faculty. Schedules are distributed at the start of the clerkship.

A fourth-year medical student elective is offered. Rotation is for two or four weeks. The student will be able to exercise choice in time commitment to various subspecialties according to perceived need. The student will attend departmental conferences, participate in daily activities of the department, meet with visiting professors, and attend student rounds for case presentations. Overall supervision is by the course director, with day-to-day contact with attending staff members.

The department offers a four-year residency in diagnostic radiology. The program includes all aspects of radiology, including neuroradiology, musculoskeletal, thoracic, cardiac, interventional, abdominal, and pediatric radiology, as well as nuclear medicine. All modalities are also covered extensively including x-ray, ultrasonography, CT, MRI, PET, nuclear medicine and interventional radiology. The residency provides the resident with a strong foundation to meet his or her goals, whether in clinical practice, academic teaching, or in research. Teaching is the core mission of the department. The clinical rotations, core curriculum, and research project provide each resident with the fundamentals necessary to pursue a clinical and/or academic career. All modalities, including evolving technologies, are included in the program. A one-month research rotation is supplemented by elective research opportunities. The rotations are primarily at Stony Brook University Hospital, with additional rotations at the Northport Veterans Administration Hospital. Also in the third year of the radiology residency, residents take part in the four-week program of the American Institute of Radiologic Pathology program.

The department offers fellowships in musculoskeletal and breast imaging.

## Department of Surgery

The [Department of Surgery](#) was founded in 1974 together with the creation of the Stony Brook School of Medicine. Expanding on the institutional vision, the department's mission is to achieve national recognition as a leading research entity; provide exceptional clinical care encompassing "leading edge" therapies and technologies to our patient population; serve as a first-tier educational program for our fellows, residents, students and staff; and play a leading role in our community in the dissemination of high-quality healthcare and education.

The department is organized into nine clinical divisions: general surgery, including trauma and surgical critical care; cardiothoracic surgery; otolaryngology-head and neck

surgery; breast surgery; upper gastroenterological and general surgical oncology; pediatric surgery; plastic and reconstructive surgery; colon and rectal surgery; and vascular surgery. In addition, the department includes two nonclinical divisions: education and surgical research.

### Medical Student Education

The department provides instruction for medical students throughout their four years of training. Most of the department's effort is directed at third- and fourth-year students in the form of a general surgery clerkship and surgical selectives/electives, although some didactic teaching is also provided for the first- and second-year students through clinical correlations lectures. The cornerstone of the student education program is the eight-week third-year clerkship (repeated six times per year to encompass the entire third-year class), which is offered at three sites (Stony Brook University Hospital, Winthrop-University Hospital, and the the Northport Veterans Affairs Medical Center).

### Third Year

The third-year surgery clerkship is designed to provide the student with a broad experience in the the evaluation and treatment of patients with surgical disease across all of the general surgical disciplines via his/her assignment to a specific surgical team of residents and attending physicians. These rotations are geared to emphasize direct patient contact, including all phases of evaluation, diagnosis, and treatment. Students are specifically expected to: 1) participate in daily patient care until clinic follow-up, 2) accept personal responsibility as a physician for the care of their patients, acting always under attending and resident supervision, 3) obtain didactic learning through regular attendance of student lectures and department-wide educational activities, and 4) attend surgical skills labs geared to teach basic surgical technique.

The formative and summative evaluation of students include weekly meetings with the clerkship director at which regular feedback to the students is provided, a mid-point quiz, an Objective Structured Clinical Examination (OSCE), and a clinical evaluation by the attending and resident physicians with whom the student has had substantial contact. At the conclusion of the general surgery clerkship, the student also takes a "PBL" formatted oral examination and a standardized National Board examination, graded on a standardized national curve.

### Fourth Year

There are a number of course offerings in the fourth year, one of which is mandatory (Surgical Selectives), and several which are electives (sub-internships in a number of services, and the surgical anatomy didactic course). The one-month Surgical Selectives course (including a mandatory two-week service in anesthesiology) provides student with additional exposure to optional rotations in the surgical subspecialties. The sub-internship in surgery allows the senior medical student to function as a primary responsible physician working under the close supervision of the surgical team.

### Residency/Fellowship Programs

The Department of Surgery offers a five-year, ACGME-certified residency program in general surgery graduating six chief residents per year, with a total of 51 residents. In addition, individual divisions within the department offer an ACGME-accredited residency plus fellowship in vascular surgery, ACGME-accredited residency (fellowship) in colon and rectal surgery, and ACGME-accredited residency (fellowship) in surgical critical care.

All residency/fellowship programs in the department require residents to develop the six competencies, as defined by the ACGME, in the following areas: patient care; medical knowledge; practice-based learning and improvement; interpersonal and communication skills; professionalism; and systems-based practice. To successfully complete residency/fellowship training, these competencies must be developed to the level expected of a new practitioner.

A new Surgical Skills Center (SSC) is also available to provide residents and medical students with a more expanded educational curriculum. The SSC provides opportunities for trainees to practice in a stress-free environment not only surgical technical skills, but also pre-operative and post-operative patient care scenarios that enhance residents' educational experience. The SSC utilizes cutting-edge audio/video technologies and software in order to maximize the utility and productivity of the activities it hosts and to provide opportunities for performance review of, effective debriefing with, and meaningful feedback to trainees.

Training modules range from basic open skills (knot tying, suturing, IV access, central line and chest tube insertion) and fundamental laparoscopic skills (camera navigation, controlled cutting, transfer drills, and laparoscopic suturing) to advanced open surgical skills (inguinal hernia anatomy and repair, sutured and stapled intestinal anastomosis, vascular anastomosis, arterial endarterectomy and bypass, open aortic aneurysm repair) and advanced patient care skills (advanced trauma and cardiac life support, various surgical clinical care scenarios). Three high-end haptic virtual reality simulators are also available for training in laparoscopic advanced skills, laparoscopic cholecystectomy, laparoscopic colon resection, angiographic vascular anatomy, and a wide array of basic and advanced endovascular skills (navigation of endovascular catheters, angioplasty, and stenting). A dedicated space for a surgical wet-lab has also been created to allow for practice using animal tissue.

### General Surgery

The general surgery residency graduates six chief residents per year, and a total of 51 residents participating in a five-year, ACGME program across three campuses. General surgery residents are provided training predominantly by Department of Surgery full-time and voluntary faculty, but also rotate on the Department of Urology transplant service and receive additional endoscopy experience on the Gastroenterology Service in the Department of Medicine. As detailed below, the residents' clinical rotations are supplemented by didactic conferences and simulation lab opportunities, as well as by opportunities to rotate out of their training for one to two year experiences in departmental, on campus or off-campus research endeavors.

## Vascular Surgery

The department offers a new five-year vascular surgery residency, which is among the few such programs available nationwide. A traditional two-year residency (fellowship) is also offered. Based in the Division of Vascular Surgery, both training programs are designed to prepare physicians for the pursuit of an academic career in vascular surgery equally as well as for private practice in vascular surgery. Residents are chosen out of medical school for the integrated five-year program, which culminates in eligibility for certification in vascular surgery (not for general surgery). For those physicians who are sure that they want vascular surgery as a career, this program provides focused training and reduces the amount of training time from the standard training period by two years. Residents and fellows are taught open and endovascular interventions, medical management of vascular disease, and use of noninvasive techniques. Clinical research is an important part of both training programs in vascular surgery.

## Colon and Rectal Surgery

The department offers a one-year colon and rectal surgery residency (fellowship) based in the Section of Colon and Rectal Surgery. The content of the educational experience is directed toward fulfilling the requirements of the American Board of Colon and Rectal Surgery. Fellows gain operative experience through a large volume of diverse surgical procedures, including reconstructive anorectal surgery, surgery for inflammatory bowel disease, emergency colon resections, ambulatory anorectal surgery, and all aspects of office and endoscopic procedures. Upon completion of the training program, fellows are ready to enter into clinical practice, and are eligible for board certification in colon and rectal surgery.

## Surgical Critical Care

The surgical critical care residency (fellowship) is a one-year experience (two fellows per year) centered at Stony Brook University Hospital, which is the only regional (Level 1) trauma center in Suffolk County. The fellows are provided clinical experience in surgical critical care, including burn care, and do rotations on the hospital's specialized intensive care units. Fellows are actively involved in clinical research with members of the Division of General Surgery, Trauma, Surgical Critical Care, and Burns.

## Research

The Department of Surgery is committed to its mission to achieve national recognition as a leading research entity. The department has developed an infrastructure to support both clinical and translational research and to foster research projects by both faculty and trainees. The surgery residency program has incorporated a robust curriculum in research education, including the teaching of literature review, hypothesis generation, study design, biostatistics, ethics in research, data analysis, and research proposal writing. As part of the training requirement, all residents must present or publish a paper in their first three years of training, with a second such project mandated for their fourth or fifth year.

## Department of Urology

The [Department of Urology](#) at Stony Brook University Hospital provides a wide range of general and tertiary urological care. Subspecialty services include urologic oncology, female urology, laparoscopy, infertility and microsurgery, kidney stone disease and lithotripsy, pediatric urology, reconstructive urology, sexual dysfunction, kidney transplantation and minimally invasive surgery via laparoscopy and robot-assisted surgery using the Da Vinci® S HD™ Surgical System.

The majority of the faculty of the Department of Urology are fellowship trained at elite institutions. They offer a wide array of experience in all aspects of urological procedures. The department has a four-year ACGME accredited residency program and works in conjunction with the School of Medicine in providing education to medical students.

The department participates in the second-year medical student curriculum. In the Introduction to Clinical Medicine course, students are taught the male genitourinary physical examination. Following the study of the exam techniques utilizing audiovisual aids and models, small groups of students spend a session with the instructing physician and professional patients, who assist the student in conducting the physical examinations.

Stony Brook medical students may elect a clerkship during the third-year or a sub-internship during the fourth year. During this rotation, emphasis is placed on the urologic history, physical examinations, and differential diagnosis of urologic problems. The basic pathophysiology of urologic disease is emphasized and the rationale for medical and surgical intervention is reviewed. The sub-internship consists of a four-week rotation, which gives a more in-depth exposure to urology. Students are expected to give a presentation at the end of their rotation. Research-based electives are also available to medical students within the Department of Urology.

All students are taught directly by the attending faculty and urology residents. The residents are responsible for orienting the medical students to the day-to-day activities of the service. This gives the residents a chance to exhibit their teaching, professionalism, communication, and system-based practice skills. Activities include morning rounds, selection of participation in specific surgical cases performed within the department, and participation in the out-patient clinic. The residents are also directly responsible for assisting the medical students with history and physical examinations and other clinical patient care activities. The chief resident participates with the attending staff in evaluating all medical students while on their urology rotation.

## Residency Program

The educational philosophy of the Department of Urology is to provide the urology resident with an in-depth understanding of the practice of urology, including, but not limited to, patient care, communication skills, medical knowledge, practice-based learning and improvement, professionalism, and system-based practices. In addition to the six competencies, the department provides a strong understanding of the basic scientific, medical, and surgical principles of urology. The department believes that basic and clinical sciences

should be integrated into the residency in order to cultivate a physician/urologic surgeon who is well versed not only in the technical aspects of the specialty, but also in a fundamental understanding of the disease processes which affect the urinary tract and the male genital system. The objectives of the urology resident education at Stony Brook are to:

1. Provide a strong didactic, educational environment focused on the six competencies listed above
2. Provide a supervised surgical education with the appropriate evaluative tools
3. Reinforce the concept of self-motivated education, which will serve the resident well in his/her practice in the community, in research, or in academics
4. Provide a strong understanding of the six competencies and emphasize how they are important to the functioning of the physician in today's complex healthcare environment

In summary, the overall emphasis of our program is to provide residents with a well rounded educational experience that will prepare them for a productive and satisfying career in urology. Since the career goals of individual residents may differ, it is our goal to provide a broad base of urologic education from which any career path in urology can be achieved.

## School Of Dental Medicine

DEAN: Mary R. Truhlar, DDS, MS

OFFICE: 160 Rockland Hall

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### About the Program

The School of Dental Medicine contributes to the mission of the University through its outstanding educational programs, internationally recognized contributions to scientific knowledge, and service to the profession and community including the provision of excellent clinical care to thousands of patients each year.

All educational programs at the School of Dental Medicine are accredited without reporting requirements by the Commission on Dental Accreditation. The school is a vital, collaborative component of Stony Brook University. The school is made up of a number of academic departments that are responsible for ensuring that the curricula (predoctoral, postdoctoral and continuing education) reflect the most recent advances in dentistry and medicine. These departments include General Dentistry, Hospital Dentistry and Dental Anesthesiology, Oral Biology and Pathology, Oral and Maxillofacial Surgery, Orthodontics and Pediatric Dentistry, Periodontology and Implant Dentistry, and Prosthodontics and Digital Technology.

The foremost goal of the pre-doctoral program (Doctor of Dental Surgery, DDS) at the School of Dental Medicine is to provide an education that enables its students to develop into competent, caring dentists, who are prepared to become leaders in the profession during this time of dramatic change in healthcare. Graduates of the school may pursue general dental practice, enroll in specialty programs, or choose a

career in academic dentistry and/or research. The School of Dental Medicine offers advanced degrees including Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Oral Biology or Molecular and Cellular Biology through the Graduate School and the Department of Oral Biology and Pathology. There are also opportunities for students to pursue combined or concurrent degree programs culminating in the DDS/MPH, DDS/MBA or the DDS/MS in Material Science Engineering.

Advanced specialty programs in endodontics, orthodontics, periodontics and dental care for the developmentally disabled are housed in the School of Dental Medicine. Residencies in general dental practice (GPR), pediatric dentistry, dental anesthesiology, prosthodontics, and oral and maxillofacial radiology are offered through Stony Brook University Hospital.

The school has affiliations with a number of regional hospitals including Nassau County Medical Center and Long Island Jewish Medical Center.

Overall, students are provided with opportunities to observe the relationships of systemic and oral health in the hospitalized patient, and to participate as members of a healthcare team.

### Doctor of Dental Surgery Program

The School of Dental Medicine maintains a small predoctoral class size and provides a personalized education in a nurturing environment that helps guide our students' professional growth and promote independence and maturity. Faculty members are routinely available to help reinforce material presented in lectures, encourage students with special interests and offer assistance with developing clinical skills.

The School of Dental Medicine fosters a culture of science within the predoctoral curriculum. Students develop the understanding that scientific inquiry and the ability to critically evaluate and integrate new findings in the care of patients is a necessity to fully develop as professionals. Through participation in research projects, students are encouraged to explore the current technologies and work with faculty in developing new paradigms for the therapy of disease.

Students at the School of Dental Medicine receive rigorous instruction in the traditional basic sciences (anatomy, biochemistry, histology, microbiology, physiology, genetics, general pathology, embryology, pharmacology, neuroscience and nutrition), most of which are in courses taken together with students from the School of Medicine. The school offers a unique translational science curriculum that bridges the fundamental knowledge obtained in the basic sciences to the orofacial complex and clinical dentistry. Students also receive extensive training in the behavioral sciences and practice management that helps them to better understand the social and community context within which dentists function. They learn to establish rapport with their patients and to establish a partnership that assures the best possible clinical outcome. Most of the clinical component of the educational program is provided in the [Dental Care Center](#) of the School of Dental Medicine, a state-of-the-art facility situated in a pleasant suburban community. The largest dental treatment facility on Long Island, the Dental Care Center provides care

for thousands of patients, offering a rich diversity of patient needs to enhance the learning and clinical experience of our students. Clinical experiences begin in the latter part of the first year, with increasing clinical education in the second, third and fourth years. The student is responsible for obtaining thorough medical, dental and psychosocial histories; determining diagnoses; developing patient-centered treatment plans; and rendering comprehensive care for patients. The School of Dental Medicine consistently ranks among the top dental schools in the nation for the amount of supervised clinic experience per student. The number of patient visits per student is also one of the highest in the country.

Whereas the majority of instruction in the early clinical years is discipline-based, the fourth year clinical experience is provided in the General Practice Program. This innovative program enables students to treat their patients in a setting that simulates general dental practice. Clinical instruction is provided by general dentists and specialists where appropriate. Practice management and behavioral sciences skills are reinforced by faculty on a daily basis as students refine their clinical abilities. Students may participate in the senior selective program in which up to 120 hours can be devoted to advanced training in various clinical disciplines or research projects.

Students also pursue service learning opportunities via local, national or international outreach programs coordinated by faculty. Formal outreach programs include the Indian Health Service (Pine Ridge, South Dakota), Chile, Jamaica and Madagascar. Similarly, some dental students pursue interprofessional degree or certificate programs at the University, such as the Master of Public Health (MPH) or Master of Business Administration (MBA). Upon completion of the four-year predoctoral curriculum, students can be confident in their abilities as well rounded, new dentists prepared to embark upon their futures in the profession.

For additional information regarding the predoctoral program or admissions, please call (631) 632-8871, or write:

Office of Education  
115 Rockland Hall  
School of Dental Medicine  
Stony Brook University  
Stony Brook, NY 11794-8709  
[www.stonybrookmedicalcenter.org/dental/](http://www.stonybrookmedicalcenter.org/dental/)

## Degrees and Programs

### ADMISSIONS

The Stony Brook School of Dental Medicine selects highly qualified students who are representative of a variety of backgrounds, experiences, and interests. Selection is based on an overall appraisal of the applicant's suitability for a career in dentistry. Applicants should demonstrate academic achievement, competence in the sciences and a general interest in the profession of dentistry. These factors, as well as performance on the DAT, letters of recommendation and the personal interview, are considered in the admissions

process. Consistent with the school policy of selecting students with varied backgrounds, the school encourages applications from qualified individuals from those groups who have in the past been underrepresented in the dental profession. Due to the small class size, students attending the school are educated in a highly supportive environment. Academic tutoring, faculty counseling, and individually developed remedial programs are available to students under special circumstances, as determined by faculty.

For information regarding application to the Doctor of Dental Surgery program please go to: <https://dentistry.stonybrookmedicine.edu/student/admissions>

### FINANCIAL AID

Funding your education is one of the most important investments you will make to prepare for your future. The Stony Brook University School of Dental Medicine are committed to providing our students with the assistance to explore all funding options available.

Financial aid is divided into three basic categories: grants/scholarships, loans, and employment programs. Grants/Scholarships do not have to be repaid. Loans usually carry some form of interest payment and must be paid back to the lender. Employment Programs allow the student the chance to earn money to help with educational expenses.

All students must file the Free Application for Federal Student Aid (FAFSA) at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). The deadline for submission for new students is **April 1st**. When completing the FAFSA do not include parental information, unless you are applying for any campus-based funds, such as the Tuition Waiver Grant for Disadvantaged Students (DW) or the Health Professions Student Loan (HPSL). Parent information will be used only for consideration in awarding campus-based funds.

**Federal Code: 002838**

For information regarding Financial Aid please go to: <https://dentistry.stonybrookmedicine.edu/dentalfinancial>

### DDS CURRICULUM

The program of study leading to the Doctor of Dental Surgery (DDS) degree consists of a fixed sequence of courses as listed below. Enrollment in the second, third and fourth years requires the satisfactory completion of all courses in the previous year. Exception may be made in special cases as described in the section on academic standing. Under certain conditions, credit may be given for equivalent courses taken at other recognized academic institutions. The course hours listed may vary from year to year because of holidays and other school closings. The sequencing of courses, course titles and course hours are subject to modification to reflect changing concepts in dental education and curriculum revisions.

**First-Year Program**

Course #	Title	Hours
HBA 521	Gross Anatomy of the Head, Neck and Trunk	139
HBA 531	Nervous System	67
HBV 521b	Physiology	110
HDG 511	Dental Morphology/ Occlusion	64
HDG 512	Operative Dentistry I	128
HDG 522	Cariology	28
HDI 501	Foundations in Dental Professional Development	6
HDI 505	Patient I: Communication and Examination	60
HDO 501	Oral Biology I	34
HDP 501	Introduction to Periodontics	28
HDR 503	Radiology I	48
MED 500b	Molecular Foundations of Medicine	101
MED 500c	Pathogens and Host Defense	141
MED 500d	Basic Mechanisms of Disease	95
<b>Clinics</b>		
HDG 521	Clinic I: Introduction to Patient Care	33

**Second-Year Program**

Course #	Title	Hours
HBH 531	Pharmacology	84
HDC 601	Children's Dentistry I	97
HDE 611	Endodontic Technique	53
HDE 615	Introduction to Endodontics	21

Course #	Title	Hours
HDG 601	Health Care Systems and Clinical Practice	35
HDG 614	Operative Dentistry II	35
HDI 601	Evidence-Based Dentistry and Critical Thinking	20
HDI 602	Community I: Population, Oral Health and Epidemiology	10
HDI 604	Foundations in Dental Professional Development	7
HDI 605	Patient II: Team-Based Oral Diagnosis	33
HDO 601	Oral Biology II	86
HDP 601	Diagnosis and Treatment of Periodontal Diseases I	60
HDR 611	Fixed Partial Prosthodontics Technique	160
HDR 613	Removable Prosthodontics Technique	128
HDS 601	Oral and Maxillofacial Surgery	66
HDS 602	Pain Control I	36
HDS 603	Medical Emergencies I	8
HDS 604	Pain Control II	37
HDS 605	Physical Diagnosis: Introduction to Family Medicine	20
Med 204b	Nutrition	7
<b>Clinics</b>		
HDC 621	Year II Children's Dentistry Clinic	95
HDG 621	Year II Operative Dentistry Clinic	234

Course #	Title	Hours
HDP 621	Year II Periodontics Clinic	56
HDR 622	Year II Radiology Clinic	30
HDS 621	Year II Oral and Maxillofacial Surgery Clinic	9

### Third-Year Program

Course #	Title	Hours
HDC 701	Children's Dentistry II	48
HDG 704	Practice Development I	31
HDG 706	Implantology	30
HDI 702	Diagnosis and Management of Oro-Facial Pain	16
HDI 704	Foundation in Dental Professional Development	10
HDI 705	Patient III: Interdisciplinary Treatment Planning	50
HDI 732	Community II: Service Learning Experiences	120
HDO 701	Oral Biology III	11
HDO 702	Oral Pathology	85
HDO 703	Oral Pathology Conference I	26
HDO 704	Translational Oral Biology	39
HDO 705	Oral Medicine	20
HDO 706	Oral Facial Genetics	22
HDP 701	Diagnosis and Treatment of Periodontal Diseases II	18
HDP 702	Periodontal Clinical Seminar	12
HDR 707	Advanced Removable Prosthodontics	12

Course #	Title	Hours
HDR 708	Advanced Esthetic Concepts	20
HDR 709	Oral and Maxillofacial Radiologic Interpretation	26
HDS 701	Advanced Oral and Maxillofacial Surgery Treatment Planning	6
HDS 703	Medical Emergencies II	3

### Clinics

HDC 721	Year III Children's Dentistry Clinic	246
HDE 725	Year III Endodontics Clinic	30
HDG 721	Year III Operative Dentistry Clinic	2
HDG 724	Year III Dental Emergencies Clinic	20
HDP 721	Year III Periodontics Clinic	255
HDR 722	Year III Fixed Partial Prosthodontics Clinic	9
HDR 723	Year III Removable Prosthodontics Clinic	124
HDR 726	Year III Radiology Clinic	20
HDS 721	Year III Oral and Maxillofacial Surgery Clinic	24

### Fourth-Year Program

Course #	Title	Hours
HDG 803	General Dentistry Seminar IV	24
HDG 804	Practice Development II	39

Course #	Title	Hours
HDG 805	Care for Medically Compromised and Geriatric Patients	27
HDI 802	Diagnosis and Management of Oro-Facial Pain	16
HDI 804	Foundations in Dental Professional Development IV	13
HDI 832	Community II: Service Learning Experiences	120
HDO 803	Oral Pathology Conference II	24
HDR 806	Advanced Imaging Techniques	10
HDR 807	Advanced Removable Prosthodontics	12
HDS 803	Medical Emergencies III	2
<b>Clinics</b>		
HDC 821	Year IV Dental Care for the Developmentally Disabled Clinic	20
HDG 821	General Practice Program Clinic I (see also HDP 821)	628
HDG 822	General Practice Program Clinic II (see also HDP 821)	431
HDG 824	Year IV Dental Emergencies Clinic	5
HDP 821	Year IV Periodontics Clinic I (component of HDG 821)	60
HDP 822	Year IV Periodontics Clinic II (component of HDG 822)	60

Course #	Title	Hours
HDR 823	Year IV Radiology Clinic	10
HDS 821	Year IV Oral Surgery Clinic	24
HDS 822	Year IV Oral Surgery Hospital Rotation	25

### Fourth-Year Selective Courses

During the fourth year, students may take up to 120 hours of selective courses at the School of Dental Medicine.

Course #	Course Title	Department
HDG 808	Geriatrics Elective	General Dentistry
HDI 806	Elective in Ethics and Professionalism	Oral & Maxillofacial Surgery
HDI 840	Children's Dentistry Selective	Orthodontics & Pediatric Dentistry
HDI 841	Dental Anesthesiology Selective	Hospital Dentistry & Dental Anesthesiology
HDI 842	Endodontics Selective	Periodontology & Implant Dentistry
HDI 843	Oral & Maxillofacial Surgery Selective	Oral & Maxillofacial Surgery
HDI 844	Orthodontics Selective	Orthodontics & Pediatric Dentistry
HDI 845	Periodontics Selective	Periodontology & Implant Dentistry
HDI 846	Research Selective	Office of Research & Faculty Development
HDR 804	Esthetic Dentistry Elective	Prosthodontics & Digital Technology
HDR 821	Advanced Prosthodontics Selective	Prosthodontics & Digital Technology

### Graduate Studies in Oral Biology and Pathology

Co-Directors: Marcia Simon, Stephen G. Walker

The [Department of Oral Biology and Pathology](#) offers two graduate degrees, which are granted through the [Graduate School](#) of Stony Brook University. The department offers a PhD in Oral Biology and Pathology and an MS in Biomedical Sciences (Track in Oral Biology and Pathology). These degrees can also be obtained as part of a combined DDS/PhD program or a combined DDS/MS program. The MS in Biomedical Sciences (Track in Oral Biology and Pathology) may also be obtained as part of a combined degree program leading to an Advanced Certificate in Endodontics/MS, Advanced Certificate in Orthodontics/MS, or an Advanced Certificate in Periodontics/MS. The main function of these advanced degree programs is to train educators and researchers to staff dental and medical schools, dental research institutes, dental and medical industrial laboratories, and to provide relevant basic science training for dentists and physicians taking postdoctoral specialty training. The course work consists of an in-depth exposure to knowledge, directly and indirectly related to oral biology and its related sciences, and is coupled with appropriate individual research, tutorial and thesis/dissertation programs.

### Oral Biology and Pathology Program

The Graduate Program in Oral Biology and Pathology offers a program of study and research leading to the MS and PhD degrees. The MS curriculum is of approximately two years' duration and is particularly suited for those dental graduates who wish to obtain further basic science training before entering or while obtaining a clinical specialty. The Graduate Program in Oral Biology and Pathology is also of particular interest to industrial-based scientists seeking additional training and advanced degrees. While the department is interested in all aspects of oral biology, active programs of research presently being conducted include the following: development, metabolism, and control of the oral microflora on the teeth and various epithelial surfaces; oral putrefaction, malodor, and gingivitis; pathogenesis of periodontitis; interrelationship between systemic and oral diseases; mechanisms and therapy of dentinal hypersensitivity; ultrastructure and metabolism of healthy and diseased periodontal tissues with an emphasis on remodeling and matrix metalloproteinases; chemistry and crystallography of the biological calcium phosphates; biology of epithelial growth and differentiation; epithelial gene therapy; mechanisms of epidermal and oral carcinogenesis; wound repair; biology of skin and mucosal grafting; acquired and innate immunity; inflammation and fibrosis; and cancer. Further details may be obtained from the graduate program directors.

### Admission Requirements

In addition to the minimum Graduate School requirements, the following are required:

- A bachelor's degree and grade point average of 3.3 in the sciences and 3.0 overall
- Original transcripts and three letters of recommendation
- Proof of satisfactory performance on the General Aptitude and Advanced parts of the Graduate Record Examination (GRE)

- For the combined DDS/PhD and combined DDS/MS, applicants must apply separately to both the DDS program and the PhD or MS program.

- For the combined Advanced Certificate in Endodontics/MS, Advanced Certificate in Orthodontics/MS, and the Advanced Certificate in Periodontics/MS, applicants must apply separately to both the MS program and the Advanced Certificate Program.

All applicants are carefully screened by the credentials committee of the department. Interviews and discussions are arranged with faculty members and graduate students where possible. Formal approval for acceptance into the program is given by the [Graduate School](#).

### Degree Requirements

In addition to the minimum degree requirements of the Graduate School:

- All students must complete all or part of the Oral Biology and Pathology Oral Systems course.

- MS students must also complete two graduate basic science courses selected from offerings within and outside the department.

- PhD students must also complete four to six basic science course offerings at the graduate level and advance to candidacy by preparing a detailed written proposal in the format of a National Institutes of Health research grant application. A public seminar is presented by the student to members of his or her advisory committee, the department and the University community at large, in which the student defends the proposal. This is followed by a further defense by the student before his or her advisory committee. A determination for advancement to candidacy is then made and forwarded to the Graduate School for official approval.

- An original research thesis/dissertation is required for completion of both the MS and PhD degrees. For the PhD, a public defense followed by an examination of the student's dissertation by their Dissertation Committee is required. For the MS degree, the student defends the thesis only to the student's thesis committee. If the thesis/dissertation is recommended for approval, the determination is submitted to the Graduate School for final decisions to award the degree.

### Advanced Specialty Education Program in Endodontics

Program Director: Thomas Manders

The Postdoctoral Program in Endodontics is a 24-month, full-time program designed to meet the eligibility requirements of both the American Dental Association for specialization in endodontics and the certifying examination given by the American Board of Endodontics. Applicants to the program must have a DDS or DMD degree, or foreign equivalent. Beginning in July of each year, training takes place primarily in the School of Dental Medicine and its clinical facility (Dental Care Center). Each resident utilizes an operatory designed for endodontic practice, which includes x-ray machines, digital imaging equipment and surgical operating microscopes.

Emphasis is placed on diagnosis, in conjunction with the other disciplines, and treatment of all patients requiring endodontic therapy, using a varied aggregate of treatment modalities. Instruction will be provided through lectures, seminars, case presentation, conferences and clinical practice. To receive a certificate in the advanced educational program in endodontics, the student must:

- satisfactorily complete all courses listed below
- submit 25 completed case write-ups as per the standards of the American Board of Endodontics
- complete one research project; pass semiannual oral examinations modeled after the certifying exam of the American Board of Endodontics

Year I program requirements include:

Endodontic Clinic  
 Head and Neck Anatomy  
 Oral Pathology  
 Biochemistry and Physiology  
 Pharmacology  
 Microbiology/Immunology  
 Radiology  
 Literature Review  
 Research Project  
 Teaching Training  
 Endodontic Seminars

Year II program requirements include:

Endodontic Clinic  
 Literature Review  
 Teaching Training  
 Research Project  
 Endodontic Seminars  
 Inhalation/Oral Sedation  
 Biostatistics and Research Methodology

Year I and II program requirements include:

Pain Physiology  
 Microanatomy  
 Surgical Endodontics  
 Medical Emergencies  
 Medically Compromised  
 Mechanism of Dental Pain  
 Scientific Writing

### Cost of attendance

Financial aid budgets or cost of attendance are made up of two parts, direct costs and indirect costs. For more information on Endodontics Tuition & Fees including Living Expenses. Please visit <https://dentistry.stonybrookmedicine.edu/dentalfinancial/cost>.

## Advanced Specialty Education Program in Orthodontics and Dentofacial Orthopedics

Program Director: Richard D. Faber

The Advanced Specialty Education Program in Orthodontics and Dentofacial Orthopedics is a 36-month, full-time program designed to meet the eligibility requirements of both the American Dental Association for specialization in orthodontics and the certifying examination given by the American Board of Orthodontics. Applicants to the program must have a DDS or DMD degree, or foreign equivalent that is acceptable for New York State Licensure. Beginning on July 1 of each year, training will take place primarily in the School of Dental Medicine and its clinical facility (Dental Care Center), at Stony Brook University Hospital, and at other affiliated teaching hospitals, such as Cohen's Children's Medical Center/ Northwell System.

Instruction is provided through lectures, seminars, case presentation, conferences and clinical practice. Emphasis is on diagnostic procedures and treatment planning and the application of clinical methods, best designed to meet the treatment objectives for the individual patient.

To receive a certificate in post-doctoral orthodontics, the student must:

- satisfactorily complete all courses
- submit 25 completed case analyses
- submit two completed case write-ups as per standards of the American Board of Orthodontics
- pass an oral examination modeled after the certifying exam of the American Board of Orthodontics
- sit for parts I and II of the American Board of Orthodontics written examination
- present and defend a research project at the end of the third year

Year I program requirements include:

Basic Science Core  
 Orthodontic Technique (Pre-clinical Orthodontics)  
 Cephalometrics and Radiology  
 Growth and Development  
 Orthodontic Theory and Practice  
 Head and Neck Anatomy  
 Diagnosis, Treatment Planning and Interdisciplinary Care I  
 Clinical Orthodontics I  
 Surgical Orthodontics and Craniofacial Deformities I  
 Temporomandibular Joint Dysfunction and Occlusion  
 Literature Review I  
 Journal Club  
 Research Project  
 Evolution of the Craniofacial-dental mechanism  
 Supervised Clinical Teaching  
 Expert Seminar Series

Year II program requirements include:

Orthodontic Theory and Practice II  
 Diagnosis, Treatment Planning and Interdisciplinary Care II  
 Surgical Orthodontics II  
 Literature Review II  
 Supervised Clinical Teaching  
 Research Project

Journal Club  
 Clinical Orthodontics II  
 Conferences in Clinical Orthodontics  
 Expert Seminar Series

Year III program requirements include:

Clinical Orthodontics III  
 Literature Review III  
 Teaching in the Undergraduate Dental Program  
 Research Project  
 Diagnosis, Treatment Planning, and Interdisciplinary Care III  
 Supervised Clinical Teaching  
 Conferences in Clinical Orthodontics  
 Expert Seminar Series

### Cost of Attendance

Financial aid budget or cost of attendance are made up of two parts, direct costs and indirect costs. For more information on Orthodontics Tuition & Fees including Living Expenses. Please visit <https://dentistry.stonybrookmedicine.edu/dentalfinancial/cost>.

For more information about this program (i.e. tuition, application, stipends), please email [lynda.reynolds@stonybrookmedicine.edu](mailto:lynda.reynolds@stonybrookmedicine.edu).

Lynda Reynolds, Program Coordinator  
 Department of Orthodontics and Pediatric Dentistry  
 114 Rockland Hall  
 School of Dental Medicine  
 Stony Brook University  
 Stony Brook, NY 11794-8701

## Advanced Specialty Education Program in Periodontics

Program Director: Vincent J. Iacono

The Advanced Education Program in Periodontics is a 36-month, full-time program beginning July 1. It is designed to meet the eligibility requirements of the American Dental Association for specialization in periodontics and for the certifying examination given by the American Board of Periodontology. Two to three students are accepted each year. Training is provided at the School of Dental Medicine and at affiliated teaching hospitals, including Stony Brook University Hospital and Long Island Jewish Medical Center. The program objective is to produce highly educated and clinically competent periodontists proficient in the diagnosis and treatment of the various forms of periodontal diseases. Significant training is given in implantology, oral and periodontal plastic surgery, oral reconstructive surgery, and periodontal medicine.

Educational objectives are accomplished through lectures, seminars, case presentation conferences and clinical practice. The receipt of a certificate in periodontics is dependent upon satisfactory completion of all scheduled courses, a portfolio of 20 written completed case reports, satisfactory completion of ten competency tests, and passing inservice and oral comprehensive examinations.

Year I program requirements include:

Introduction to Postgraduate Periodontics  
 Geriatrics  
 Physical Diagnosis and Medical Risk Assessment  
 Oral Pathology and Medicine  
 Implantology  
 Normal and Reparative Tissue Development in the Oral Cavity  
 Host Parasite Interactions  
 Regional Anatomy, Orofacial Neuroscience and Pain  
 Conditions  
 Anesthesiology  
 Sedation  
 Restoring Dental Implants  
 Occlusion and Temporomandibular Disorders  
 Statistics and Data Analysis  
 Ethics and Professionalism in Dental Practice  
 Literature Review (Biology and Pathology of the Periodontium/  
 Clinical Periodontology)  
 Current Periodontology and Implantology Literature Review I  
 Conferences in Clinical Periodontics I  
 Periodontal Clinic I  
 Surgical Seminars I  
 Orthodontic and Periodontal Literature/Treatment Planning  
 Seminar  
 Periodontic/Prosthodontic Treatment Planning Seminar  
 Unexpected Outcomes in Periodontics  
 Oral and Maxillofacial Pathology Seminars  
 Research Project for MS in Biomedical Sciences

Year II program requirements include:

Periodontal Clinic II  
 Conferences in Clinical Periodontics II  
 Surgical Seminars II  
 Current Periodontology and Current Implantology Literature  
 Review II  
 Treatment Planning in Restorative/Implant Dentistry I  
 Literature Review (Biology and Pathology of the Periodontium/  
 Clinical Periodontology)  
 Orthodontic and Periodontal Literature Review/Treatment  
 Planning Seminar II  
 Provisionalization of Dental Implants  
 Periodontic/Prosthodontic Treatment Planning Seminar  
 Unexpected Outcomes in Periodontics  
 Research Project for MS in Biomedical Sciences

Year III program requirements include:

Periodontal Clinic III  
 Conferences in Clinical Periodontics III  
 Surgical Seminars III  
 Current Periodontology and Current Implantology Literature  
 Review III  
 Treatment Planning in Restorative/Implant Dentistry II  
 Prosthodontics  
 Implant Therapy in Practice  
 Provisionalization of Dental Implants  
 Orthodontic and Periodontal Literature Review/Treatment  
 Planning Seminar III  
 Periodontic/Prosthodontic Treatment Planning Seminar  
 Unexpected Outcomes in Periodontics  
 Research Project for MS in Biomedical Sciences

## Cost of Attendance

Financial aid budgets or cost of attendance are made up of two parts, direct costs and indirect costs. For more information on Periodontics Tuition & Fees including Living Expenses.

Please visit <https://dentistry.stonybrookmedicine.edu/dentalfinancial/cost>.

To apply, applications should go to: <https://portal.passweb.org>.

For more information about the postdoctoral periodontics program (i.e., stipends, estimated expenses, application, admission, etc.) please call (631) 632-8930, or write:

Department of Periodontology and Implant Dentistry  
110 Rockland Hall  
School of Dental Medicine  
Stony Brook University  
Stony Brook, New York 11794-8703

## GENERAL PRACTICE RESIDENCY

Program Director: Deborah Gazzillo, DDS

Clinical Director: Sylvia Rice

Stony Brook University's General Practice Residency (GPR) program was established in 1980. The GPR program has 20 fully accredited one- and two-year positions commencing approximately July 1 of each year. In addition to training in all areas of hospital dentistry, the residents receive an advanced program of didactic and clinical training in implant, fixed and removable prosthodontics, and instruction in the management of medically compromised geriatric patients, phobic patients and individuals with developmental disabilities. The majority of time is spent providing patient care in a state of the art dedicated ADEC operator staffed by dental assistants and clerks simulating a small, multi-individual group dental practice.

The General Practice Residency program is an educational program designed to provide clinical, didactic and hospital experience at the post-doctoral level. The program prepares residents to:

- provide comprehensive oral healthcare to a wide range of ambulatory and hospitalized patients
- understand the relationship between oral and systemic diseases, to develop professionals and to pursue areas of interest under close supervision of attending staff
- refine and advance knowledge and clinical skills in the practice of dentistry and the management and treatment of complex restorative problems
- demonstrate the application of the basic sciences to the clinical practice of dentistry
- understand the process of self-assessment and peer review

The educational program consists of both clinical and didactic aspects. The clinical training is designed to provide advanced experience in preventive dentistry, restorative dentistry, periodontics, endodontics, and oral-and maxillofacial surgery. Residents treat patients with increasingly complex dental and

medical problems, such as patients with implant restorations, lost vertical dimension of occlusion, as well as systemic or psychiatric disorders, the developmentally disabled, geriatric and pediatric patients. Residents are provided with supervised training and experience in patient evaluation, planning and treatment. The program is designed to ensure that the residents will be capable of anticipating, diagnosing and treating emergencies. They develop the skills and knowledge to diagnose and treat acute infections and pain of the oral region, hemorrhage of the oral cavity and traumatic injuries to the dental and maxillofacial tissues. The seminar program contains a didactic component for each clinical discipline. Service rotations to emergency medicine and anesthesiology take place at affiliated institutions and are designed to allow for continuity of patient care.

For information about the GPR program (i.e., stipends, estimated expenses, application, admission, etc.) please call (631) 632-8930, or write:

Pam Burger, Coordinator  
Department of Hospital Dentistry  
151 Westchester Hall  
School of Dental Medicine  
Stony Brook University  
Stony Brook, New York 11794-8711

## advanced Specialty Education Program in Pediatric Dentistry

Program Director: Charles Larsen, DMD

This is a 24-month program beginning July 1 with five new positions offered each year. The program is a combined Hospital and University-based certificate program. The Stony Brook University Advanced Specialty Education Program in Pediatric Dentistry (ASEPPD) emphasizes resident training in the multidisciplinary comprehensive dental care approach and management of infants, children and adolescents in addition to dental care for patients with developmental disabilities. Medically compromised patients are managed using an interdisciplinary healthcare-team approach.

The ASEPPD is an educational program designed to provide clinical, didactic and hospital experience at the postdoctoral level. The program goals are as follows:

- provide the resident with an appropriate and comprehensive education so that they become knowledgeable and clinically proficient in the specialty of pediatric dentistry
- prepare the resident for a career in clinical practice and/or academics and encourage the resident to continue his/her professional growth after completion of the program through formal coursework, self-study, research, attaining board certification and an active role in an academic/teaching program.
- provide quality oral healthcare and education to the pediatric and special needs population of Suffolk County, New York.
- provide leadership and education in pediatric oral health to health professionals within Stony Brook University Hospital,

Stony Brook Health Sciences Center, and the Long Island community

- participate and collaborate in scholarly activity, research and service programs

The didactic curriculum complements the residents' clinical experiences. The core curriculum offers the knowledge and experience required in the medical and dental management of the pediatric and special needs patient. In addition, the curriculum meets the eligibility requirements of the ADA Committee on Dental Accreditation Standards for Advanced Specialty Education in Pediatric Dentistry and the American Board of Pediatric Dentistry Qualifying Examination.

The program is designed to ensure that the residents will become proficient in diagnosis, risk assessment and comprehensive treatment planning. Residents will develop the skills and knowledge to diagnose and treat acute infections and pain of the oral region, and traumatic injuries to the dental and maxillofacial tissues.

Service rotations to Pediatric Medicine, Emergency Medicine and Anesthesiology, which are designed to allow for continuity of patient care, take place at Stony Brook University Hospital and Stony Brook Medicine outpatient clinics.

The Pediatric Dentistry Residency program has a strong community service component. Residents participate in oral health programs, within school-based, Head Start and WIC programs and local community health centers. Residents participate in healthcare provider, allied health staff and caregiver education, and provide oral health services in the underserved areas of Suffolk County. Many of these community services take place in the Stony Brook Dental Mobile Clinic. In addition, clinical services are provided at the Shinnecock Indian Nation Health Care Center.

For information about this program (i.e., tuition, application, stipends) please email:

[lynda.reynolds@stonybrookmedicine.edu](mailto:lynda.reynolds@stonybrookmedicine.edu)

Lynda Reynolds, Program Coordinator  
Advanced Specialty Education Program in Pediatric Dentistry  
Department of Orthodontics and Pediatric Dentistry  
114 Rockland Hall  
School of Dental Medicine  
Stony Brook University  
Stony Brook, NY 11794-8701

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## advanced specialty education program in Dental Anesthesiology

Program Director: Ralph Epstein

This is a 24-month program beginning July 1 with four new positions offered each year. The program is a University Hospital-based certificate program. The Stony Brook University Dental Anesthesia Program emphasizes resident training in all aspects of ambulatory and inpatient sedation and anesthesia services. During the two years of training, the resident will be a part of a comprehensive anesthesia teaching program for medical and dental anesthesia residents. The didactic and clinical training has been developed to meet all

requirements of the Commission on Dental Accreditation. The overall mission of the Dental Anesthesia Residency is to train dentists in all aspects of anesthesiology in order to provide them with an appropriate foundation for the administration of anesthesia and pain control for dental patients.

The dental anesthesia residents will begin their training with their medical colleagues at University Hospital. The initial orientation training takes place using the most advanced simulator training techniques in an ultra-modern simulator training facility. Following basic comprehensive training in University Hospital, Veterans Administration Medical Center and the Ambulatory Surgical Center, the resident will receive training at the School of Dental Medicine, providing ambulatory sedation and general anesthesia services to dental patients. This training will be enhanced by working alongside dentist anesthesiologists as they travel to private offices providing ambulatory sedation and intubated general anesthesia services to dental patients. Due to the presence of postgraduate programs in endodontics, general practice dentistry, oral and maxillofacial surgery, pediatric dentistry and periodontology, the dental anesthesia residents will train with their peers and provide sedation and anesthesia services for many different types of dental procedures.

Upon completion of the two-year program, the residents will have the competency and proficiency to provide sedation and general anesthesia, in the inpatient and office-based settings, to the general adult population along with pediatric, geriatric and patients with special needs. This program will provide a special emphasis in the treatment of patients with special needs, i.e., autistic and the developmentally disabled. The residents will also be trained to treat patients with acute and chronic pain syndromes. Because of the University's high regard for excellence in teaching and research, the selection process will look for prospective residents who have an interest in part-time or full-time teaching at the completion of their residency program. To this end, the residents, in their second year, will help teach anesthesia and pain control to the predoctoral students, post-graduate students/residents in the following programs, i.e., endodontics, GPR, oral and maxillofacial surgery, pediatric dentistry, and periodontology. They will also assist in teaching continuing education programs to the professional community of the greater Long Island region.

Applications are processed through the PASS program and the program participates in the MATCH program for accepting residents. For additional information about this graduate program please contact:

Ralph Epstein, DDS  
Program Director  
Advanced Dental Education Program in Dental Anesthesiology  
Room 1104 Sullivan Hall  
Stony Brook University  
School of Dental Medicine  
Stony Brook, NY 11994-8700

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## Advanced Specialty Education Program in Prosthodontics

Program Director: Tanya Somohano, DMD, FACP

The Advanced Specialty Education Program in Prosthodontics is a 36-month, full-time program beginning July 1. There are two positions offered each year. It is a GME (Graduate Medical Education) funded post-doctoral level program in fixed, removable and implant prosthodontics. The program provides the candidate with clinical proficiency and comprehensive knowledge of the diagnosis, treatment planning, rehabilitation and maintenance of oral function, appearance and health of patients with missing/damaged teeth and orofacial defects by using biocompatible artificial substitutes. The curriculum includes didactic and clinical instruction in complete dentures, removable partial dentures, fixed prosthodontics, implant prosthodontics, implant surgery, digital dentistry, geriatrics, temporomandibular disorders and maxillofacial prosthetics. The didactic background and the clinical and laboratory skills of these areas of prosthodontics are stressed. The program integrates all facets of the biomedical sciences with a comprehensive clinical experience culminating in the award of the certificate in prosthodontics.

The intensive and systematized library reading assignments and literature review seminars are an important aspect of the curriculum. They are designed to acquaint the resident with the principal facets of the prosthodontic specialty, evidence-based health care and methods of critically reviewing the dental literature.

All residents are encouraged to plan on pursuing eventual certification by the American Board of Prosthodontists. To this end, the residents will be required to take Section A of the board exam and present at least two patient treatments that would satisfy the requirements of two parts of Section B of the board exam. Residents are encouraged to challenge one part of Section B of the American Board of Prosthodontics certification exam in February of their third year.

This program follows the guidelines established by the ADA for advanced educational programs in prosthodontics and the multidisciplinary scope of the specialty certificate examination of the American Board of Prosthodontics. Our goal is to graduate clinical scholars capable of pursuing a career in private practice, academics and/or prosthodontic research.

For additional information regarding the program and admissions requirements please visit our website at: <https://dentistry.stonybrookmedicine.edu/prosthodontics>

### Contact person:

Ms. Elizabeth A. Schroeder  
Stony Brook University  
School of Dental Medicine  
Department of Prosthodontics & Digital Technology  
Attn: Advanced Specialty Education Program in Prosthodontics  
1105 Westchester Hall Stony Brook, NY 11794-8712  
Phone: 631-632-3161  
Email: [SDM.Prosthodontics@stonybrookmedicine.edu](mailto:SDM.Prosthodontics@stonybrookmedicine.edu)

## Advanced Specialty Education Program in Oral and Maxillofacial Radiology

Program Director: Mina Mahdian, DDS, MDS

The Advanced Specialty Education Program in Oral and Maxillofacial Radiology is a 24-month, full-time program beginning July 1. There are two positions offered each year. It is a GME (Graduate Medical Education) funded post-doctoral level program that is committed to comprehensively train residents to become proficient oral and maxillofacial radiologists, competent teachers who are familiar with the foundations of research methodology, and who are prepared to contribute their skills and knowledge in the service of the profession. The interrelation with other medical/dental specialties is also emphasized.

The curriculum includes didactic and clinical instruction in the fundamentals of image acquisition and interpretation of conventional and advanced radiographic exams in the maxillofacial region as well as providing the residents with multidisciplinary approach in the diagnosis and treatment planning for patients with malignancy, syndromic conditions and complicated maxillofacial developmental abnormalities. Emphasis is placed on developing radiographic interpretative and diagnostic skills based on scientific literature with clinical and pathophysiological correlation. Additionally, all residents are expected to perform a research project culminating in presentation of their project at a national or international meeting and/or publication in a peer reviewed journal.

All residents are encouraged to plan on pursuing certification by the American Board of Oral and Maxillofacial Radiology. Residents will participate in mock board exams provided by the program, in order to become prepared for their board exam. Residents are eligible to challenge the certifying examination of the American Board of Oral and Maxillofacial Radiology upon completion of the 24-month training program.

For additional information regarding the program and admissions requirements please visit our website at: <https://dentistry.stonybrookmedicine.edu/omfradiology>.

### Contact person:

Ms. Elizabeth A. Schroeder  
Stony Brook University  
School of Dental Medicine  
Department of Prosthodontics & Digital Technology  
Attn: Advanced Specialty Education Program in Oral and Maxillofacial Radiology  
1105 Westchester Hall Stony Brook, NY 11794-8712  
Phone: 631-632-3161  
Email: [SDM\\_OMFR@stonybrookmedicine.edu](mailto:SDM_OMFR@stonybrookmedicine.edu)

## Fellowship in Dental Care for the Developmentally Disabled

Program Director: Debra Cinotti

The School of Dental Medicine offers a postdoctoral fellowship program in the provision of dental care for the persons with developmental disabilities. This program, commencing each July 1, supports two full-time fellows. The program includes seminars, lectures and extensive clinical experiences at the

Dental care Center in the School of Dental Medicine and University Hospital. Fellows learn various patient management techniques to provide comprehensive oral healthcare in both an ambulatory and hospital clinical setting, including dental rehabilitation with general anesthesia in the operating room at the Medical Center. Independent study resulting in publication and/or case presentation is required. Lectures/seminars include the following topics:

Pediatric Dentistry Lecture Series  
Seminars on Developmental Disabilities  
Geriatric Dentistry  
Dental Phobia  
Medical Emergencies

For information about this program (i.e., stipends, estimated expenses, application, admission, etc.) please write to:

Dr. Debra Cinotti,  
Chair, Department of General Dentistry

Program Director, Dental Care for the Developmentally Disabled Fellowship Program  
School of Dental Medicine  
Stony Brook University  
Stony Brook, New York 11794-8709  
[debra.cinotti@stonybrookmedicine.edu](mailto:debra.cinotti@stonybrookmedicine.edu)

## Departments

### General Dentistry

#### **Department of General Dentistry**

*Chair: Debra Cinotti, DDS*

The [Department of General Dentistry](#) teaches the primary care aspect of dentistry, which includes the knowledge and skills to comprehensively diagnose, treat and manage a patient's overall oral health needs. It encompasses the pre-doctoral divisions of Behavioral Sciences and Practice Management, Operative Dentistry and Dental Materials, the General Practice Program (GPP), and Dentistry for Patients with Special Needs (Dental Care for the Developmentally Disabled; Geriatric Dentistry). The department also offers a comprehensive General Practice Residency (GPR) program as well as the Dental Care for the Developmentally Disabled Fellowship Program for post-doctoral students.

#### **DEPARTMENT OF GENERAL DENTISTRY PRE-DOCTORAL PROGRAM**

The Division of Operative Dentistry and Dental Materials educates students in the restorative principles and techniques of dentistry, beginning in year one. The course *Dental Morphology and Occlusion*, provides foundational knowledge, providing the building blocks for education in *Cariology, Operative Dentistry, and Dental Materials*. During the first-year, students engage in pre-clinical courses, which incorporate a digital curriculum (CAD/CAM dentistry).

Students become competent in operating a digital scanner and CAD/CAM software, and to self-evaluate the quality of their wax-ups, preparations and restorations. Introduction to clinical patient care also begins in year 1 with students

performing initial evaluative procedures such as medical and dental histories, and head and neck exams for patients in the Dental Care Center. In year 2, students advance to more complex procedures, providing preventive and restorative treatments for their patients. During the third and fourth years, having established familiarity with patient management in the clinical environment, students progress to more complex treatment modalities including prosthetics and implant dentistry, developing expertise necessary for the practice of dentistry. The third year students provide patient care supervised by general dentists and specialists. Fourth year students provide patient care in the GPP or General Practice Program which is conducted in a format similar to general private practice. In GPP, students learn procedures under the guidance of general practitioners with specialists available when the complexity of the case warrants.

Housed within the Division of Behavioral Sciences and Practice Management, is the *Patient 1-3 series*, the *Foundation Series*, *Community Dentistry*, and *Health Care Systems and Practice Development*. The *Patient 1-3 series* develops and builds upon the students' foundation for clinical diagnosis and treatment planning skills, and explores doctor/patient communication strategies with interactive exercises and simulated clinical experiences. Ethical dilemmas are explored in the *Foundations of Professional Development series* whereby students engage in interactive lectures and panel discussions, exploring factors impacting the patient-doctor relationship and ethical decision making. *Community Dentistry* studies epidemiology of oral disease. The *Practice Development series* conveys the business of dentistry, including health care systems, elements of establishing a dental office and the legal and regulatory concepts related to providing oral health care.

*Dentistry for Patients with Special Needs* educates our students in the management of patients with complex medical needs and disabilities. Within this division, year 4 students receive comprehensive instruction on the evaluation, diagnosis, and treatment of individuals with developmental disabilities and geriatric patients with complex medical needs. Students practice in small groups, maximizing student/teacher interaction.

#### **DEPARTMENT OF GENERAL DENTISTRY POST-DOCTORAL PROGRAMS**

The post-doctoral programs in the Department of General Dentistry are the *General Practice Residency Program (GPR)* and the Dental Care for the *Developmentally Disabled Fellowship Program (DCDD)*. The *GPR* program provides an in-depth experience in the treatment of advanced oral health needs, including prosthetics and implant dentistry. The *DCDD* program provides an in-depth experience in the treatment and management of adult patients with developmental disabilities, providing patient care in both an ambulatory and hospital setting. Please refer to the bulletin sections specific for these programs for specific program descriptions and detail.

## HOSPITAL DENTISTRY AND DENTAL ANESTHESIOLOGY

### *Department of Hospital Dentistry & Dental Anesthesiology*

*Chair: David K. Lam, MD, DDS, PhD, FRCDC*

The [Department of Hospital Dentistry and Dental Anesthesiology](#) was established in September 2000 to facilitate experiences in the dental management of hospital inpatients and outpatients for predoctoral and postdoctoral students. The department actively collaborates with the other departments to provide instruction in the management of patients in a hospital setting and in various pain management techniques.

## ORAL BIOLOGY AND PATHOLOGY

### *Department of Oral Biology & Pathology*

- *Acting Chair: Lucille London, PhD*

The [Department of Oral Biology and Pathology](#) acts as a bridge between the traditional basic sciences and the clinical sciences related to oral health. The department has made a major commitment to the development of new diagnostic technology and approaches for use in the preservation of the oral tissue and management of oral disease. It is one of the leading departments in the University in technology development and transfer to clinical practice.

Within the predoctoral dental curriculum, the department offers approximately 400 hours of didactic instruction relevant to the understanding of biological and molecular processes involved in oral diseases. During the first three years of the predoctoral program, the subject matter deals with the biology of embryological development of the face and oral cavity, oral mineralized tissues, dental supporting tissues, oral microbiota, salivary glands and their products, oral and other mucous membranes, and the various sensory and oral motor systems of the mouth. The sequencing of the units is designed to obtain maximum integration between concurrently offered basic science and clinical courses. The department has developed a unique course in translational and clinical oral biology in the third and fourth years of the dental program, which offers basic and practical experience in clinical laboratory methods and familiarizes students with investigative clinical procedures used in the diagnosis and monitoring of the effectiveness of treatment of a patient. The department is responsible for instruction to dental students in the body of basic biological and molecular processes involved in oral disease.

Oral pathology and oral medicine segments of the department's curriculum are offered in the latter two years of the predoctoral program. Where possible, the didactic subject matter is coupled with actual patient examination and clinicopathological conferences. Emphasis is placed on the inter-relationships of pathology, clinical behavior, prognosis, therapeutic modality and the biologic nature of the disease entity.

The department also offers graduate studies leading to a PhD in Oral Biology and Pathology or to a MS in Biomedical Science (Track in Oral Biology and Pathology). Both the PhD and MS can be obtained as part of combined DDS/PhD or DDS/MS programs. The MS in Biomedical Science (Track in Oral Biology and Pathology) may also be obtained as part of combined degree programs leading to an Advanced Certificate in Endodontics/MS, and Advanced Certificate in Orthodontics/MS, or an Advanced Certificate in Periodontics/MS. These programs are granted through Stony Brook University's [Graduate School](#). The main function of these programs are to train oral biology educators and researchers to staff dental and medical schools, dental research institutes, dental and medical industrial laboratories, and to provide relevant basic science training for dentists and physicians taking post-doctoral specialty training. The course work consists of an in-depth exposure to knowledge, directly and indirectly related to oral biology and its related sciences, and is coupled with appropriate individual research, tutorial and thesis programs.

### **Division of Translational Oral Biology**

Translational Oral Biology is an area of applied science that has been developed over a period of 35 years at the Stony Brook University School of Dental Medicine, where it exists as an important and unique component of the dental curriculum. It has been built on a growing foundation of oral and medically related biological science with focus on clinical application and patient care.

The Translational Oral Biology curriculum for dental students is given in the third year and is presently comprised of four sections. Section one deals with the nature and fundamentals of technology and knowledge transfer. Section two focuses on the fundamentals and specifics of newly developed and emerging diagnostic devices and techniques. Section three deals with the underlying basis and specifics of a range of new and emerging therapeutics and therapies. The fourth and last part deals with protocols to manage specific diseases where newly discovered and perfected diagnostic and therapeutic entities can be applied and integrated into clinical practice.

## ORAL AND MAXILLOFACIAL SURGERY

- *Department of Oral & Maxillofacial Surgery*

*Acting Chair: David K. Lam, MD, DDS, PhD, FRCDC*

The goal of the predoctoral teaching program in [Oral and Maxillofacial Surgery](#) is to prepare dental students to be competent in performing minor oral surgical procedures and to be able to manage more complex cases. Students receive instruction and acquire abilities in the manipulation of soft and hard tissues (e.g., removal of erupted teeth, flap procedures, alveoloplasty and suturing techniques). In addition, dental students have the opportunity to gain experience in performing more advanced surgical procedures. The program provides insight into the management of complex problems such

as facial bone fractures, impacted teeth, salivary gland diseases, tumors and developmental abnormalities. The oral and maxillofacial surgery curriculum includes instruction in patient evaluation, pain and anxiety control, and the management of medical emergencies.

- The Department of Oral and Maxillofacial surgery, in partnership with Northwell Health, also supports both a 6-year MD-integrated and 4-year certificate-only advanced education program in Oral and Maxillofacial Surgery. This program is designed to prepare the trainee with sufficient didactic and clinical education to meet the requirements of the American Board of Oral and Maxillofacial Surgery and to be prepared for a career in clinical practice. Residents are also encouraged to develop skills in teaching and research which will be useful for an academic career.

## ORTHODONTICS AND PEDIATRIC DENTISTRY

### • *Department of Orthodontics & Pediatric Dentistry*

*Acting Chair: Richard D. Faber, DDS, MS*

The predoctoral curriculum of the [Department of Orthodontics and Pediatric Dentistry](#) begins in the first quarter of the second year. Initially, the student is introduced to the preventive aspects of dental care for children. Prevention is especially stressed including the use of systemic and topical fluorides, occlusal sealant application and diet modification. Restorative care and appliance therapy for children is also taught with equal emphasis placed upon the technical aspects of treatment and treatment rationale. The development of occlusion from the prenatal period through adolescence is presented, and what constitutes a normal occlusion is described. Students learn to recognize malocclusion, identify the concomitant etiologic factors and are taught to prevent, intercept or treat minor problems of occlusion. The didactic program continues in the third year with emphasis on behavior management in children, orthodontic considerations for the adult patient and review of the literature. Clinical sessions in children's dentistry are conducted in the student's second and third years. The department offers selectives to fourth-year students both at the school and at affiliated institutions. In addition, a fourth year clinical program in dental care for the developmentally disabled is provided.

## Periodontology and Endodontics

### *Department of Periodontology*

*Chair: Vincent J. Iacono, DMD*

Through a series of lectures, seminars, demonstrations and clinical assignments, the [Department of Periodontology](#) presents basic knowledge and skills to predoctoral dental students that are essential to the prevention and treatment of diseases and conditions affecting the supporting structures around teeth and their substitutes, (i.e., dental implants). Upon completion of this program, the student is capable of differentiating a healthy from a diseased periodontium. A thorough knowledge of all local etiologic factors responsible

for periodontal disease and methods of preventing its onset is stressed. Utilizing this knowledge and experience, the dental student is exposed to the full scope of periodontal specialty care and trained to competently evaluate, treatment plan and manage patients with slight to moderate periodontal disease.

The department also includes the Division of Endodontics, devoted to the morphology, physiology, and pathology of the human dental pulp and periradicular tissues. Predoctoral instruction includes the biology of the normal pulp and the etiology, diagnosis, prevention, and treatment of diseases and injuries of the pulp and associated periradicular conditions.

The department also includes the School of Dental Medicine faculty representative to the University's Global Health Institute. This program addresses global outreach to the underserved, international professional relationships, and international fellowships.

## Prosthodontics and digital technology

### *Department of Prosthodontics & Digital Technology*

*Acting Chair: Dan Colosi, DDS, PhD*

The [Department of Prosthodontics](#) is the branch of dentistry that deals with the restoration and maintenance of oral function by the replacement of missing teeth and other oral structures by artificial devices. Oral and maxillofacial radiology is the specialty of dentistry that deals with the acquisition and interpretation of radiographic imaging studies performed for diagnosis or treatment guidance for conditions affecting the maxillofacial region. The Department of Prosthodontics & Digital Technology is focused on the alliance between dental biomaterials, the specialty of prosthodontics, diagnostic imaging and the new digital technologies in the dental profession. The Department of Prosthodontics & Digital Technology combines faculty from diverse backgrounds from the clinical specialty areas to the basic sciences. Prosthodontic education is typically structured in fixed prosthodontic, removable prosthodontic, and implant prosthodontic courses. These courses are taught primarily in the second through fourth years of dental school. The predoctoral curriculum in diagnostic imaging comprises didactic and clinical education in fundamental notions of radiographic imaging, conventional and advanced maxillofacial imaging techniques, and diagnostic image interpretation. These courses are taught in the first through fourth years of dental school. The department has also established an advanced education program leading to a specialty certificate in Prosthodontics which will include experience in Maxillofacial Prosthodontics and Implantology. Faculty members within the Department of Prosthodontics & Digital Technology interface and actively collaborate with other academic departments within the School of Dental Medicine, as well as the School of Medicine surgical specialties of Otolaryngology and Plastic Surgery.

## School of Nursing

DEAN: Lee Anne Xippolitos, RN, PhD  
OFFICE: Health Sciences Center, Level 2  
PHONE: (631) 444-3200

WEB: [nursing.stonybrookmedicine.edu](http://nursing.stonybrookmedicine.edu)

## Overview

The School of Nursing (SON) offers degree programs leading to the Bachelor of Science (BS), Master of Science (MS) and Doctor of Nursing Practice (DNP). At the undergraduate level, the SON offers the Basic Baccalaureate Program (BBP) and an Accelerated Baccalaureate Program for students who hold non-nursing Baccalaureate degrees. Both of these programs are offered on-site and lead to licensure as a registered nurse. The Registered Nurse to Bachelors and Registered Nurse to Bachelors/Masters are available for registered nurses with associate degrees or diplomas in nursing. These programs are offered through distance education with on-site requirements.

At the graduate level, a Master of Science degree in advanced practice nursing is offered in the following population foci: Adult-Gerontology-Primary Care, Family, Pediatric-Primary Care, Psychiatric-Mental Health, Women's Health, Neonatal, and Nurse Midwifery. The SON also offers a Master of Science in Nursing Education and Nursing Leadership. Advanced Certificate Programs are offered for nurses with an advanced degree (masters or doctoral) to continue their education by preparing them for the advanced practice roles of nurse practitioner, nurse midwife, nurse leader or nurse educator. All Master of Science and Advanced Certificate Programs are offered through distance education with on-site requirements.

The license-qualifying Post-Baccalaureate Doctor of Nursing Practice (DNP) Program is designed for registered nurses who hold a baccalaureate degree with a major in nursing, and is offered in the following population foci: Adult-Gerontology-Primary Care, Family, Pediatric-Primary Care, Psychiatric-Mental Health, Women's Health, Neonatal, and Nurse Midwifery. Nurse practitioners and nurse midwives who hold a Master's degree may be eligible to enter our DNP Program with advanced standing (post-masters entry). A gap analysis is conducted to confirm previous coursework taken and validate the number of clinical hours performed at the Master's level. The DNP program is offered through distance education with on-site requirements.

The Baccalaureate degree in nursing, Master of Science degree in nursing and Doctor of Nursing Practice programs at Stony Brook University School of Nursing is accredited by the Commission on Collegiate Nursing Education (CCNE): [www.aacn.nche.edu/ccne-accreditation](http://www.aacn.nche.edu/ccne-accreditation). Nurse Midwifery is accredited by the Accreditation Commission for Midwifery Education (ACME), [www.midwife.org/acme](http://www.midwife.org/acme).

## Mission Statement

The mission of the Stony Brook School of Nursing is to prepare nurse leaders at all entries of practice to advance the health of the people of New York, the wider geographic regions and the global community with a focus on the underserved. This is accomplished through innovative, high

quality and accessible educational programs, clinical practice, research and public service.

## Vision

Stony Brook University School of Nursing will be a top ranked school recognized for excellence and innovation in education, leadership, research, advocacy, and practice.

## Values

### I REACH UP

- Integrity
- Respect
- Excellence
- Accountability
- Creativity
- Honesty
- Unity
- Perseverance

## Bachelor of Science Program Outcomes

Upon completion of the program, the student will be able to:

1. Apply principles from the sciences, arts and humanities to patient-centered nursing practice.
2. Use theories from nursing and related disciplines to guide research, policy and clinical nursing practice.
3. Integrate best current evidence with clinical expertise in the delivery of safe, quality care to diverse individuals, families and communities.
4. Apply knowledge and skills in leadership, quality improvement and patient safety to provide high quality health care.
5. Use information management and patient care technologies in communication, mitigation of error, decision making and optimization of quality patient outcomes.
6. Engage effectively within nursing and interprofessional teams to foster open communication, mutual respect, and shared decision.
7. Demonstrate professionalism and the inherent values of altruism, autonomy, human dignity, integrity, and social justice.
8. Incorporate cultural values and preferences in the delivery of care to individuals, families, communities and populations across the life span.
9. Formulate the value of practice excellence, lifelong learning and professional engagement.

## Master of Science Program Outcomes

Upon completion of the program, the student will be able to:

1. Integrate scientific findings from nursing and related sciences to improve nursing care across diverse settings.
2. Demonstrate leadership by collaborating and consulting with key stakeholders in the design, coordination and evaluation of patient care outcomes.

3. Apply quality and safety principles within an organization to be an effective leader and change agent.
4. Integrate theory, evidence, clinical judgment, research and interprofessional perspectives to improve practice and health outcomes for patient aggregates.
5. Ethically utilize data, information and appropriate technology to evaluate and achieve optimal health outcomes.
6. Demonstrate political efficacy and competence to improve the quality of healthcare delivery and health outcomes of populations.
7. Integrate the concepts of interprofessional communication, collaboration and consultation to effectively manage and coordinate care across systems.
8. Synthesize ecological, global and social determinants of health to design and deliver culturally relevant clinical prevention interventions and strategies.
9. Demonstrate behaviors of professional engagement and lifelong learning.

## Doctoral Program Outcomes

Upon completion of the program, the student will be able to:

1. Analyze scientific data related to healthcare models and strategies that affect population health.
2. Integrate knowledge from nursing and other sciences as the foundation for the highest level of advanced nursing practice.
3. Synthesize relevant finding from evidence for practice to improve healthcare outcomes.
4. Employ leadership skills for interprofessional collaboration that improve patient and population health outcomes.
5. Utilize information systems technology to evaluate outcomes of care, care systems, and quality management.
6. Evaluate methods that improve complex healthcare delivery systems to maintain accountability for quality healthcare.
7. Initiate the development, implementation, and analysis of healthcare policies that promote ethical and social responsibility.
8. Evaluate cultural competence to improve patient and population outcomes.
9. Evaluate clinical competence and organizational skills appropriate to area of specialization through life-long learning and reflections.

## Pre-Admission

Information about the School of Nursing's academic programs and admission requirements are located on the website: [www.nursing.stonybrookmedicine.edu](http://www.nursing.stonybrookmedicine.edu)

Additionally, information sessions are held in the School of Nursing with dates and times posted on the website.

## Applications

All application to the School of Nursing programs are electronic and must be submitted online by published deadlines. Interviews may be required of qualified applicants.

*Admission to Stony Brook University School of Nursing programs is highly competitive. Meeting minimum criteria for admission does not guarantee acceptance. The School of Nursing reserves the right to make final decisions based upon the applicant pool each year.*

## Required Application Documentation

An application is not considered complete until the following documentation is received by the stated application deadline:

- Application and personal statement
- Paid application fee or approved waiver
- Unofficial transcripts from all colleges/universities attended
- Three letters of recommendation
- Completion of three prerequisite sciences by the application deadline (for all undergraduate programs)
- Meet the Technical Standards For Admission and Retention (see below)

## Additional Requirements upon Admission

- Official transcripts from all colleges/universities attended
- Certification in Basic Life Support for Healthcare Providers (BLS) w/ AED
- All Neonatal and Midwifery students must submit proof of Neonatal Resuscitation certification (NRP)
- Evidence of meeting University and School of Nursing health requirements
- Evidence of health insurance
- Evidence of student malpractice insurance
- All prerequisite classes must be completed prior to the start of the program
- Foreign transcripts evaluated by the World Education Services (WES), or other accredited service
- TOEFL, if applicable

## Technical Standards for Admission and Retention

The Stony Brook University School of Nursing faculty has specified technical standards critical to the success of students in any Stony Brook University nursing program. Qualified applicants are expected to meet all academic admission criteria, as well as these technical standards, appropriate to their program of study.

1. **Observation** The applicant/nursing student must be able to understand verbal communications, communicate effectively and sensitively with patients in order to elicit information, describe changes in mood, activity and posture, assess non-verbal communications, and be able to effectively and efficiently transmit information to patients, families, fellow students, faculty, staff and all members of the health care team. Skills include verbal, written, and nonverbal abilities consistent with effective communication.
2. **Communication** The applicant/nursing student must be able to communicate effectively and sensitively with patients in order to elicit information, describe changes in mood, activity and posture, assess non-verbal communications, and be able to effectively

and efficiently transmit information to patients, fellow students, faculty, staff, and all members of the healthcare team. Skills include verbal, written, and nonverbal abilities consistent with effective communication.

3. **Sensory/Motor** The applicant/nursing student must be able to use the senses of seeing, hearing, touch, and smell to make correct judgments regarding patient conditions for the purpose of demonstrating competence to safely engage in the practice of nursing. The applicant/nursing student must have sufficient motor function to elicit information from patient and be able to execute motor movements reasonably required to provide general care and emergency.
4. **Intellectual-Conceptual, Integrative and Quantitative Abilities** The applicant/nursing student must be able to measure, calculate, analyze, synthesize, and evaluate to engage completely in the safe practice of nursing.
5. **Behavioral and Social Attributes** The applicant/nursing student must have the mental and emotional health to fully use her or his intellectual ability, exercise good judgment, and complete all responsibilities necessary to competently and efficiently engage in safe patient care and the practice of nursing. Applicants/nursing students must be able to develop mature, sensitive, and effective relationships with individuals, patients, families, community members and colleagues. To provide safe patient care applicants/nursing students must possess characteristics of adaptability, flexibility, and be able to function in the face of uncertainty and complex disorienting situations. The health care environment requires applicants/nursing students to be able tolerate physical and emotional stress and continue to function effectively and efficiently. She/he must have a high level of compassion for others, motivation to serve, integrity, consciousness of social values and at all times uphold the standards, ethics and values of professional nursing. Candidates and students must possess sufficient interpersonal skills to interact positively with individuals, families and communities from all strata of society, ethnic backgrounds and belief systems.

## Non-Matriculated Students

A non-matriculated student may take selected courses up to six credits by permission. Permission must be granted through the SON Office of Student Affairs.

## Student Advisement

All students are assigned an academic faculty advisor who is responsible for ongoing academic counseling. Students are required to meet with their advisor before each registration period, at mid-term and at the end of each term. It is expected that all students follow their prescribed pathway. If any variation is needed or requested, students must contact their academic faculty advisor regarding any potential change. If approved, a revised pathway will be required.

## Grading Policy

Undergraduate students must maintain a minimum GPA of 2.5, and graduate students must maintain a minimum GPA of 3.0 to be in good academic standing. Enrollment of all matriculated students requires registration for coursework in all semesters, unless a leave of absence has been granted.

Students in all programs on a leave of absence will not have access to the curriculum, faculty support and technical support. Graduate students must pass the theoretical portion of any course with a grade of C (70%) or higher. Undergraduate students must pass the theoretical portion of any course with a C+ (74%) or higher. Clinical performance is graded as Pass/Fail.

- Failure to pass either the theoretical or the clinical components of a clinical course will result in the failure of the entire course.
- As stipulated in specific course outlines, assignments handed in late or redone may receive reduced credit.
- All students must meet and maintain all Professional Standards for Admission and retention for the School of Nursing.

## Academic Sanctions

The criteria for students to maintain enrollment in good standing in the School of Nursing are satisfactory performance in all academic and clinical components of the program. Failure to meet standards for academic progression may result in an academic sanction.

### Academic Warning

Academic Warning is utilized to notify students of unsatisfactory performance in any course at any time, for the following reasons:

- Unsatisfactory grades.
- Unsatisfactory clinical performance.
- Academic and clinical dishonesty.
- Unprofessional behavior.

Faculty recommendations, in writing, are developed to assist students meet individual learning needs and course objectives must be in writing. Failure to comply with faculty recommendations will result in further actions (jeopardy, suspension, deceleration, termination).

### Academic Jeopardy

Jeopardy status is defined as a cumulative G.P.A. of less than 2.5 for undergraduate students, 3.0 for graduate students, failure in the clinical laboratory or failure of a required course.

Jeopardy will be recommended for any of the following circumstances:

- Undergraduate students who receive a grade less than C + in a required course
- Graduate students who receive a grade less than C in a required course or a grade less than B for doctoral students
- Failure of the clinical component of a course
- Cumulative G.P.A. is less than 2.5 for undergraduate work. Cumulative G.P.A. of 3.0 for graduate work

- Student on Academic Warning who fails to comply with faculty recommendations

### **Deceleration**

Deceleration is an interruption in the normal sequence of courses in any of the nursing programs. Students may decelerate by requesting approval, by recommendation and advisement of faculty, or by academic sanction.

### **Suspension**

Suspension is a mandatory temporary leave initiated by the faculty or the clinical faculty/preceptor while questionable actions by a student are being investigated by the Committee on Admissions and Academic Standards. These actions may include but are not limited to:

- Unsafe clinical performance
- Academic Dishonesty
- Professional Misconduct
- Criminal Acts

### **Termination**

Termination is a mandated expulsion of the student from the nursing program as determined by the Associate Dean for Academic Affairs and Strategic Partnerships. A student may be terminated from the nursing program for any of the following circumstances:

- As a result of an Academic Warning or Jeopardy
- As a result of a substantiated suspension
- As a result to register for two or more consecutive semesters (Undergraduate and Master of Science students)
- As a result of failure to maintain current registration each semester as prescribed by the student's curriculum pathway (Doctoral students)
- As a result of substantiated Academic Dishonesty
- As a result of substantiated professional misconduct

### **Return to Satisfactory Academic Standing**

If the Committee on Admissions and Academic Standards determines that an academic sanction of deceleration, suspension or termination is not warranted, the Committee will recommend to the Associate Dean for Academic Affairs and Strategic Partnerships that the student return to satisfactory academic standing.

### **Academic integrity**

All students are expected to follow the codes established by the University, which can be found on the Office of University Community Standards website. SON students are also expected to follow the policies of the SON contained in the School of Nursing Student handbook at [www.nursing.stonybrookmedicine.edu](http://www.nursing.stonybrookmedicine.edu). Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Academic dishonesty shall be defined as misrepresentation of authorship or in any fashion falsifying part or all of any work submitted or intended to be submitted for academic credit. Such misrepresentation or falsification includes, but is not limited to, the use of supportive documentation, mechanical aids, mutual

cooperation not authorized by faculty, plagiarism or theft of academic materials.

The principles of academic dishonesty also apply to those courses taken during the clinical phases of any program, which are taken for credit or otherwise required for completion of the program. Owing to the critical nature of such requirements and student responsibility for the welfare of patients and agencies providing healthcare, academic dishonesty is further defined to include falsification of patient or agency records, violating accepted codes of professional ethics, or engaging in activities that might endanger the health or welfare of patients. Acts of academic dishonesty are referred to the Committee on Admissions and Academic Standards for review and recommendation to the dean.

### **Appeals**

If a student wishes to appeal a decision made by the Associate Dean for Academic Affairs and Strategic Partnerships, the student must direct a letter stating the reason(s) for the appeal to the Dean. If the student wishes to challenge the final decision made by the Dean following appeal in the School of Nursing, a further appeal may be directed to the Executive Vice President for Health Sciences within ten (10) working days of receipt of the first class/certified letter written notice of termination by the Dean. All decisions by the Executive Vice President for Health Sciences are final.

### **Tuition and Fees**

For detailed information about tuition and fees, see the "Cost and Aid" section of this Bulletin.

A Distance Learning fee is assessed in addition to University tuition and fees\* as follows.

Fall: \$236  
Spring: \$236  
Summer: \$150

\*All fees are subject to change without notice.

### **Financial Aid**

Financial aid programs are administered by the University or by federal and state agencies to which the student applies directly. Information about financial aid can be found on [The Health Sciences Office of Student Services](#) website. The office is located in the Health Sciences Center, Level 2, Room 271; the telephone number is (631) 444-2111.

### **Clinical Practice Responsibilities**

To participate in clinical experiences, students must submit the following: a completed health form; record of immunizations and titers; health insurance card; Basic Life Support (American Heart Association or American Red Cross) and malpractice insurance \$1 million/\$3 million (minimum coverage) and RN licensure/re-registration where applicable.

Students in the Registered Nurse Baccalaureate Program and Master's program must submit a copy of and maintain a current RN license. New York State applicants must submit a copy of the current NYS Infection Control Certificate.

Students in the Master's program must submit Student Nurse Practitioner or Midwife Malpractice Insurance of \$1 million/\$3 million. All students must submit yearly renewals of their RN license, malpractice insurance, Basic Life Support and health form. ID badges must be worn at all times while participating in class and clinical experiences. Students must adhere to clinical dress code and School of Nursing identification policy.

## Clinical Placement

Students and faculty work together to identify potential clinical sites and preceptors in the geographic area where they plan to do clinical fieldwork. The Clinical Placement staff work closely with students and faculty to facilitate this process so that students are able to achieve clinical competence and expected program outcomes.

All clinical sites and preceptors must be approved by the Stony Brook University School of Nursing faculty within each individual program to ensure that the planned clinical fieldwork will enable the student to successfully fulfill the clinical course objectives. Program faculty maintain communication with preceptors throughout the semester. Faculty are responsible for the overall evaluation of students.

Clinical sites may include private practices, free-standing clinics, hospitals, and hospital-affiliated facilities and practices. All sites require a letter of placement from the Clinical Placement Office. In addition, many sites require a legal affiliation agreement/contract between the individual institution and the State University of New York, on behalf of the Stony Brook University School of Nursing.

The Office of Clinical Placements works closely with the legal department to expedite favorable contract negotiations. Successful or timely contract execution cannot be guaranteed because of the complex nature of the legal process. The School of Nursing currently maintains approximately 600 clinical affiliation agreements/contracts throughout the United States, Canada and abroad.

It is highly recommended that students select sites from the Stony Brook University School of Nursing's list of existing affiliation agreements/contracts or sites for which a contract is not required in order to facilitate timely progression through the program. The clinical experiences depend on the availability of clinical sites and preceptors in a student's region. The School of Nursing cannot guarantee the availability of clinical sites or the results of clinical negotiations.

## Technical Specifications for On-Site and Distance Education Programs

All nursing students, both onsite and distance, will have selected courses, many of which are available primarily by computer. Each student entering the School, both onsite and distance, **must** have access to a **Windows-based** or **Macintosh-based** computer which they are responsible to maintain. The following is a detailed description of the computer hardware, software and data communication requirements. Please take the time to familiarize yourself with

these requirements to assure that your computer system fully meets them.

### Requirements

- A computer purchased within the last 2 years will generally meet the minimum computer hardware requirements.
- Microsoft Windows version 7 or higher, or Mac OS X 10.10 or higher.
- MS Word and PowerPoint are required; current version MS Office 2013, 2016 or Office 365 recommended. \*
- Internet browsers:
  - Chrome v.40 or higher
  - Internet Explorer 11
  - Microsoft Edge
  - Safari 8 or higher
- Latest Version of Adobe Acrobat Reader and Adobe Flash player are required. (Upgrade can be downloaded free from Adobe Website).

### Recommendations

- Virus scanning software is highly recommended. \*

\* Current versions of MS Office and Symantec anti-virus may be available free from Campus. Since the School of Nursing does not administer these offerings they are subject to change. Registered students can obtain more information about these offers from the Stony Brook University Division of Information Technology website

It is strongly recommended that students use a computer dedicated for their own use rather than sharing a computer with others when completing the Distance Education Program. Students are required to maintain their computer hardware and operating systems in proper functioning order.

Please call Tech Support (631) 444-7505 or email Tech\_Help@notes2.nursing.sunysb.edu, if you have any questions or need any additional information.

## Honors

Degree candidates may receive school or departmental awards for superior performance upon recommendation of the faculty.

## Dean's List

Each semester, part-time students must have completed at least six credits of letter-grade work in order to be considered.

## Degrees with Distinction

School of Nursing undergraduate students are eligible for Degrees with Distinction. Degrees with Distinction are conferred on candidates for the Bachelor of Science degree who have completed at least 55 credits at Stony Brook, excluding special examination and waiver credit (or 43 credits for Registered Nurse Baccalaureate students), and who attain the requisite grade point average (determined by the registrar). The levels of distinction are *summa cum laude*, *magna cum laude*, and *cum laude*, and constitute

approximately the 98th percentile, the 93rd percentile and the 85th percentile, respectively.

The grade point average cutoffs for the three levels of distinction are: summa cum laude, 3.80; magna cum laude, 3.70; and cum laude, 3.60.

Attainment of a degree with distinction is indicated on the student's diploma and permanent academic record.

## Honor Society

The Kappa Gamma Chapter of Sigma Theta Tau International was chartered in 1988 and is the honor society for the School of Nursing. Graduate and Undergraduate students are eligible based upon criteria as established by Sigma Theta Tau International Inc.

## Nursing Clubs/HSCSA Organizations

The Health Sciences Center Student Association (HSCSA) represents all HSC undergraduate students enrolled in the Schools of Health Technology and Management, Nursing, and Social Welfare. HSCSA sponsors numerous activities and programs during the year to meet the social and academic needs of students. It also promotes inter-professional understanding and education by fostering joint activities among students in the different health professions programs.

## National Student Nurse's Association: Stony Brook Chapter

The mission of the National Student Nurse's Association-Stony Brook Chapter is to organize, represent and mentor students preparing for initial licensure as registered nurses, as well as those enrolled in baccalaureate completion programs, convey the standards and ethics of the nursing profession, promote development of the skills that students will need as responsible and accountable members of the nursing profession, advocate for high quality healthcare, advocate for and contribute to advances in nursing education and develop nursing students who are prepared to lead the profession in the future.

## Pre-Nursing Society

The Pre-Nursing Society was founded in 2003 by Roxanna Minero with the goal and intentions of educating students on the west side of Stony Brook's campus about Stony Brook's School of Nursing and the nursing profession. Participating students have the opportunity to become involved within the community, helping them to observe firsthand some of the roles of a nurse. Some of the volunteer services include monthly visits to the Veteran's Nursing Home, the Walk for Beauty, the Special Olympics, Light the Night Walk, and the Lupus Walk.

# Degrees and Programs

## Basic Baccalaureate Program (BBP)

The BBP builds upon the foundation acquired through lower division prerequisite courses from the arts, humanities and sciences to prepare students for the role of generalist professional nurse. Students engage in experiential learning opportunities that focus on individuals, families, groups and communities across the health care continuum. In addition, students are exposed to various delivery models of professional nursing and health care. Stony Brook University Hospital is utilized as a clinical site along with other settings. Stony Brook University Hospital is utilized as a clinical site along with other settings.

Admission Requirements:

- Minimum cumulative GPA of 2.8 is required
- 57 college credits with a grade of C or higher in all required pre-admission coursework

Required Pre-Admission Coursework	Credits
English Composition	3
Sociology	3
Psychology	3
Lifespan Development	3
Microbiology/Lab	4
Anatomy & Physiology I/Lab	4
Anatomy & Physiology II/Lab	4
Chemistry	3
Statistics	3
Humanities	6
Fine Arts	3
US History	3
Global Issues	3
Second Semester of Elementary Foreign Language*	3
Electives	9
<b>Total Credits</b>	<b>57</b>

\* Stony Brook University students who satisfy the skill level 3 requirement for foreign language through the Stony Brook University Placement Exam fulfill the foreign language requirement for the School of Nursing. However, the number

of elective credits must increase from 9 to 12 in order to meet the minimum requirements of 57 credits.

These courses together satisfy the SUNY General Education requirements. The SUNY competencies requirements are satisfied within the cumulative curriculum.

### Graduation Requirements Credits

#### Professional Socialization

HNI 350 Professional Role Development in Nursing 2

HNI 440 Research in Nursing 2

HNI 479 Transitions in Professional Practice 3

#### Health Related Sciences

HNI 301 Mathematics for Health Care 1

HNI 310 Pathophysiology 3

HNI 333 Fundamentals of Pharmacology 4

#### Clinical Nursing

HNI 370 Health Assessment 3

HNI 373 Psychosocial Mental Health Nursing 6

HNI 377 Principles and Applications of Nursing Interventions I 6

HNI 378 Principles and Applications of Nursing Interventions II 6

HNI 455 Adult/ Gerontological Health Nursing I 6

HNI 456 Adult/ Gerontological Health Nursing II 6

HNI 463 Maternal and Newborn Health Nursing 5

HNI 464 Child and Adolescent Health Nursing 5

HNI 469 Population Health Nursing 6

HNI 474 Capstone Nursing Practicum 5

Electives 2

**Total Credits 71**

## Registered Nurse to Baccalaureate Program (RNBP)

Offered through Distance Learning with On-Site Requirements

The Registered Nurse to Baccalaureate Program is designed for students with either an associate degree or diploma in nursing. The curriculum is concentrated in the upper division and leads to a Bachelor of Science degree with a major in nursing.

The upper-division nursing major draws on the lower-division prerequisite courses from the arts, humanities, and natural and social sciences. Learning experiences are focused on the world's evolving health care environment. Communication, negotiation, and leadership skills are emphasized as students provide care to individuals, families, groups and communities. Various models of professional nursing and health care are introduced.

Spring Admission: Program begins in January\*

Summer Admission: Program begins in May\*

\*RN license is required within 11 weeks from the start of the program

Admission Requirements:

- Minimum cumulative GPA of 2.5 is required
- 57 college credits with a grade of C or higher in all required pre-admission coursework

### Required Pre-Admission Coursework\* Credits

English Composition 3

Sociology 3

Psychology 3

Lifespan Development 3

Microbiology/Lab 4

Anatomy & Physiology I/Lab 4

Anatomy & Physiology II/ Lab 4

Chemistry 3

Statistics 3

Humanities 6

Fine Arts 3

US History 3

Global Issues 3

Second Semester of Elementary Foreign Language\*\* 3

Electives 9

**Total Credits 57**

\*The SUNY Transfer Path for Nursing may affect admission requirements for graduation of SUNY AS degree programs in nursing. Applicants are urged to attend Information Sessions for further advisement regarding admission requirements.

\*\* Stony Brook University students who satisfy the skill level 3 requirement for foreign language through the Stony Brook University Placement Exam fulfill the foreign language requirement for the School of Nursing. However, the number of elective credits must increase from 9 to 12 in order to meet the minimum requirements of 57 credits.

### Graduation Requirements Credits

#### Professional Socialization

HNC 350 Professional Role Development in Nursing 2

HNC 440 Research in Nursing 2

HNC 479 Transitions into Professional Practice 3

#### Health Related Sciences

HNC 310 Pathophysiology 3

HNC 333 Fundamentals of Pharmacology 4

HNC 499 Clinical Epidemiology 3

#### Clinical Nursing

Clinical Practice Portfolio - Submitted while in program 28

HNC 340 Novice to Expert 6

HNC 370 Health Assessment 3

HNC 469 Population Health Nursing 6

HNC 470 Nursing Management Practicum 6

Electives 5

**Total Credits 71**

#### Advanced Placement Credits

Registered Nurse to Baccalaureate students are required to submit a clinical practice portfolio to be evaluated for 28 advanced placement credits. If the portfolio does not meet academic standards, the student will not be able to continue in the program. The cost is \$300.

## Registered Nurse Baccalaureate to Master of Science Program (BS/MS Program)

Offered through Distance Learning with On-Site Requirements

The Registered Nurse Baccalaureate to Master of Science Program is designed for students with either an associate degree or diploma in nursing. The curriculum is concentrated in the upper division and leads to a Bachelor of Science degree with a major in nursing. Upon meeting progression criteria, students will continue to the Master of Science program in their designated specialty.

#### Admission Requirements

- Minimum cumulative G.P.A. of 3.0 is required
- Minimum 1 year clinical experience as an RN in clinical area of interest
- 57 college credits with a grade C or better in the following pre-admission courses:

#### Required Pre-Admission Coursework\*

English Composition 3

Sociology 3

Psychology 3

Lifespan Development 3

Microbiology/Lab 4

Anatomy & Physiology I/Lab 4

Anatomy & Physiology II/ Lab 4

Chemistry 3

Humanities 3

Fine Arts 3

US History 3

Global Issues 3

Second Semester of Elementary Foreign Language\*\* 3

Electives 9

**Total Credits 57**

\*The SUNY Transfer Path for Nursing may affect admission requirements for graduation of SUNY AS degree programs in nursing. Applicants are urged to attend Information Sessions for further advisement regarding admission requirements.

\*\*Stony Brook University students who satisfy the skill level 3 requirement for foreign language through the Stony Brook University Placement Exam will fulfill the foreign language admission requirement for the School of Nursing. However, the number of required elective credits must increase from 9 to 12 in order to meet the minimum requirement of 57 credits.

**Graduation Requirements Credits****Professional Socialization**

HNC 350 Professional Role Development in Nursing 2

HNC 440 Research in Nursing 2

HNC 479 Transitions into Professional Practice 3

**Health Related Sciences**

HNC 310 Pathophysiology 3

HNC 333 Fundamentals of Pharmacology 4

HNC 499 Clinical Epidemiology 3

**Clinical Nursing**

Clinical Practice Portfolio - submitted while in program 28

HNC 340 Novice to Expert 6

HNC 370 Health Assessment 3

HNC 469 Population Health Nursing 6

HNC 471 Nursing Management Practicum for BS/MS students 3

Electives 0

**BS/MS - Graduate Core Classes**

HNH 503 Organizational Leadership and Role Formation 3

HNH 504 Quality Improvement, Safety and Health Care Technologies 3

HNH 505 Health Care Policy and Advocacy 2

Total Credits \*71

**Advanced Placement Credits**

Registered Nurse to Baccalaureate students are required to submit a clinical practice portfolio to be evaluated for 28 advanced placement credits. If the portfolio does not meet academic standards, the student will not be able to continue in the program. The cost is \$300.

**Admission requirements for the Master of Science programs**

- Completed application
- Baccalaureate degree with a major in nursing(non-nursing bachelor's degrees, see Clinical Practice Portfolio below)
- Minimum of one year's recent relevant experience (preferred)
- Unofficial transcripts from all college/universities attended
- Cumulative grade point average of at least 3.0
- Current professional Registered Nurse license
- Three letters of recommendation
- Three credit undergraduate course in Health Assessment (by advisement)
- Three credit undergraduate course in Statistics (by advisement)
- Meet all Technical Standards for Admission and Retention

**Applicants with Non-Nursing Bachelor Degrees**

Applicants to a master's program with a non-nursing bachelor's degree are required to submit a clinical practice portfolio to be evaluated for baccalaureate-level nursing competencies once they have been offered conditional acceptance to a program. The Clinical Practice Portfolio fee is \$300. If the portfolio does not meet academic standards, the student cannot be matriculated.

**Additional Requirements Upon Admission**

- Official transcripts from all colleges/universities attended
- Current curriculum vitae/resume
- Evidence of meeting all Stony Brook University and School of Nursing health requirements
- Evidence of health insurance and RN/student nurse practitioner malpractice insurance
- Certification in Basic Life Support for Healthcare Providers (BLS) with AED
- Technical Requirements

Transcripts from foreign institutions must be evaluated for transfer equivalency credits by an accredited evaluation service, such as the World Education Services (WES) <http://www.wes.org>

**Progression Requirements for the Master of Science Programs**

- Successful completion of all program required courses
- Maintenance of a cumulative GPA of 3.0 or better
- Satisfactory professional and ethical conduct
- Maintenance of current Registered Professional Nurse license during enrollment in clinical courses and health insurance requirements and malpractice insurance; graduate students who do not meet the above standards are subject to the same academic sanctions, warning, jeopardy, suspension and dismissal as the undergraduate students
- Failure to register for two consecutive semesters may result in termination

## Master of Science Program Curriculum

### Advanced Practice Nursing Program in Adult-Gerontological Health (HNAZM)

#### Offered through Distance Education with On-Site Requirements

The Adult-Gerontological Health Nurse Practitioner Program prepares nurses as expert providers of primary health care to young adults, adults, older adults and their families across health care settings. The primary focus of the program is to prepare the graduate to promote, maintain, supervise, and restore health, identify health risks, and assess, diagnose, and manage acute and chronic illnesses common in primary care. The ability to function as an educator, leader, consultant, advocate, and change agent is an essential to the development of clinical expertise in this role.

Course #	Title	Credits
HNH 503	Organizational Leadership and Role Formation	3
HNH 504	Quality Improvement, Safety and Healthcare Technologies	3
HNH 505	Healthcare Policy and Advocacy	2
HNG 515	Advanced Health Assessment	3
HNG 519	Advanced Theory and Clinical Practice in Adult Health Nursing I	4
HNG 529	Advanced Theory and Clinical Practice in Adult Health Nursing II	5
HNG 539	Advanced Theory and Clinical Practice in Adult Health Nursing III	5
HNG 540	Clinical Pharmacology	3
HNG 541	Statistical Methods and Scholarly Inquiry	3
HNG 543	Applications in Clinical Nursing Research	3
HNG 549	Advanced Theory and Clinical	5

Course #	Title	Credits
	Practice in Adult Health Nursing II	
HNG 588	Clinical Pathobiology	3
	Electives	3
<b>Total Credits</b>		<b>45</b>

### Advanced Practice Nursing Program in Child Health (HNKZM)

#### Offered through Distance Education with On-Site Requirements

The Pediatric Nurse Practitioner Program prepares nurses as expert providers of primary health care to children and their families across health care settings. The primary focus of the program is to prepare the graduate to promote, maintain, supervise and restore health, identify health risks, and assess, diagnose, and manage acute and chronic illnesses common in primary care. The ability to function as an educator, leader, consultant, advocate, and change agent is an essential to the development of clinical expertise in this role.

Course #	Title	Credits
HNH 503	Organizational Leadership and Role Formation	3
HNH 504	Quality Improvement, Safety and Healthcare Technologies	3
HNH 505	Healthcare Policy and Advocacy	2
HNG 520	Selected Topics in Childhood Morbidity	3
HNG 525	Advanced Health Assessment Child Health	3
HNG 540	Clinical Pharmacology	3
HNG 541	Statistical Methods and Scholarly Inquiry	3
HNG 543	Applications in Clinical Nursing Research	3
HNG 518	Advanced Theory and Clinical Practice in Child Health Nursing I	4
HNG 528	Advanced Theory and Clinical	4

Course #	Title	Credits
	Practice in Child Health Nursing II	
HNG 538	Advanced Theory and Clinical Practice in Child Health Nursing III	5
HNG 548	Advanced Theory and Clinical Practice in Child Health Nursing IV	4
HNG 588	Clinical Pathobiology	3
	Electives	2
<b>Total Credits</b>		<b>45</b>

### Advanced Practice Nursing Program in Neonatal Health (HNNZM)

#### Offered through Distance Education with On-Site Requirements

The Neonatal Nurse Practitioner Program prepares nurses as expert providers of health care to neonates and their families across health care settings. The primary focus of the program is to prepare the graduate to promote, maintain, supervise and restore health, identify health risks, and assess, diagnose, and manage acute and chronic illnesses. The ability to function as an educator, leader, consultant, advocate, and change agent is an essential to the development of clinical expertise in this role.

Course #	Title	Credits
HNH 503	Organizational Leadership and Role Formation	3
HNH 504	Quality Improvement, Safety and Healthcare Technologies	3
HNH 505	Healthcare Policy and Advocacy	2
HNG 513	Advanced Health Assessment of the Neonate and Infant	3
HNG 522	Selected Topics in Neonatal Pathophysiology	2
HNG 541	Statistical Methods and Scholarly Inquiry	3
HNG 542	Neonatal Pharmacology	3

Course #	Title	Credits
HNG 543	Applications in Clinical Nursing Research	3
HNG 564	Advanced Theory and Clinical Practice in Neonatal Health Nursing II: Primary Care for High Risk Infant	3
HNG 569	Advanced Theory and Clinical Practice in Neonatal Health Nursing I: The Childbearing Family	3
HNG 578	Advanced Theory and Clinical Practice in Neonatal Health Nursing III: The High Risk Neonate I	7
HNG 579	Advanced Theory and Clinical Practice in Neonatal Health Nursing IV: The High Risk Neonate II	7
HNG 588	Clinical Pathobiology	3
<b>Total Credits</b>		<b>45</b>

*Advanced Practice Nursing Program in Perinatal/Women's Health (HNWZM)*

*Offered through Distance Education with On-Site Requirements*

***No longer accepting applications to this program. Program information on this page is applicable to currently enrolled students only.***

The Perinatal/Women's Health Nurse Practitioner Program prepares nurses as expert providers of primary health care to women and their families across health care settings. The primary focus of the program is to prepare the graduate to promote, maintain, supervise and restore health, identify health risks, and assess, diagnose, and manage acute and chronic illnesses common in primary care. The ability to function as an educator, leader, consultant, advocate, and change agent is an essential to the development of clinical expertise in this role.

Course #	Title	Credits
HNH 503	Organizational Leadership and Role Formation	3
HNH 504	Quality Improvement, Safety and Healthcare Technologies	3
HNH 505	Healthcare Policy and Advocacy	2
HNG 501	Primary Care	3
HNG 514	Advanced Theory and Clinical Practice in Perinatal/ Women's Health Nursing I	4
HNG 515	Advanced Health Assessment	3
HNG 524	Advanced Theory and Clinical Practice in Perinatal/ Women's Health Nursing II	4
HNG 534	Advanced Theory and Clinical Practice in Perinatal/ Women's Health Nursing III	5
HNG 540	Clinical Pharmacology	3
HNG 541	Statistical Methods and Scholarly Inquiry	3
HNG 543	Clinical Applications in Nursing Research	3
HNG 554	Advanced Theory and Clinical Practice in Perinatal/ Women's Health Nursing IV	4
HNG 588	Clinical Pathobiology	3
	Electives	2
<b>Total Credits</b>		<b>45</b>

### Advanced Practice Nursing Program in Psychiatric/Mental Health (HNMZM)

#### Offered through Distance Education with On-Site Requirements

The Psychiatric/Mental Health Nurse Practitioner Program prepares nurses as expert providers of health care to patients with psychiatric or psychosocial issues across health care settings. The primary focus of the program is to prepare the graduate to promote, maintain, supervise and restore mental health, identify health risks, and assess, diagnose, and manage mental health issues. The ability to function as an educator, leader, consultant, advocate, and change agent is an essential to the development of clinical expertise in this role.

Course #	Title	Credits
HNH 503	Organizational Leadership and Role Formation	3
HNH 504	Quality Improvement, Safety and Healthcare Technologies	3
HNH 505	Healthcare Policy and Advocacy	2
HNG 515	Advanced Health Assessment	3
HNG 517	Advanced Theory and Clinical Practice in Psychiatric/ Mental Health Nursing I	4
HNG 527	Advanced Theory and Clinical Practice in Psychiatric/ Mental Health Nursing II	4
HNG 537	Advanced Theory and Clinical Practice in Psychiatric/ Mental Health Nursing III	5
HNG 540	Clinical Pharmacology	3
HNG 541	Statistical Methods and Scholarly Inquiry	3
HNG 543	Applications in Clinical Nursing Research	3

Course #	Title	Credits
HNG 547	Advanced Theory and Clinical Practice in Psychiatric/Mental Health Nursing IV	5
HNG 551	Psychopharmacology	2
HNG 588	Clinical Pathobiology	3
	Electives	2
<b>Total Credits</b>		<b>45</b>

### Advanced Practice Nursing Program in Nurse Midwifery (HNEZM)

#### Offered through Distance Education with On-Site Requirements

The Nurse Midwifery Program prepares nurses as expert providers of health care to women across the lifespan. The certified nurse midwife is prepared to provide and/or collaborate in the care of women and the healthy newborn with a focus on normal birth in a variety of settings. The ability to function as an educator, leader, consultant, advocate, and change agent is an essential to the development of clinical expertise in this role.

Course #	Title	Credits
HNH 503	Organizational Leadership and Role Formation	3
HNH 504	Quality Improvement, Safety and Healthcare Technologies	3
HNH 505	Healthcare Policy and Advocacy	2
HNG 501	Primary Care	3
HNG 515	Advanced Health Assessment	3
HNG 540	Clinical Pharmacology	3
HNG 541	Statistical Methods and Scholarly Inquiry	3
HNG 543	Applications in Clinical Nursing Research	3
HNG 555	Professional Issues in Midwifery	1
HNG 581	Midwifery I	4

Course #	Title	Credits
HNG 585	Midwifery II	4
HNG 586	Midwifery III	5
HNG 587	Midwifery IV	5
HNG 588	Clinical Pathobiology	3
<b>Total Credits</b>		<b>45</b>

*Advanced Practice Nursing in Family Health (HNLZM)*

*Offered through Distance Education with On-Site Requirements*

The Family Health Nurse Practitioner Program prepares nurses as expert providers of primary health care to individuals across the lifespan in a variety of health care settings. The primary focus of the program is to prepare the graduate to manage common acute and chronic health problems through health promotion, maintenance, supervision and restoration. The ability to function as an educator, leader, consultant, advocate, and change agent is an essential to the development of clinical expertise in this role.

Course #	Title	Credits
HNG 577	Family Theory	3
HNH 503	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety, and Health Care Technologies	3
HNH 505	Health Policy and Advocacy	2
HNG 541	Statistical Methods & Scholarly Inquiry	3
HNG 543	Applications in Clinical Nursing Research	3
HNG 540	Clinical Pharmacology	3
HNG 515	Advanced Health Assessment	3
HNG 588	Clinical Pathobiology	3
HNG 572	Advanced Theory & Clinical Practice in Family Health Nursing I	4
HNG 573	Advanced Theory & Clinical	5

	Practice in Family Health Nursing II		HNH 533	Legal/Ethical/Regulatory Issues in Nursing Leadership	3
HNG 574	Advanced Theory & Clinical Practice in Family Health Nursing III	5			
			HNH 540	Advanced Theory and Practice in Nursing Leadership I	4
HNG 575	Advanced Theory & Clinical Practice in Family Health Nursing IV	5			
			HNH 534	Advanced Leadership Seminar	3
<b>Total Credits</b>		<b>45</b>			
			HNH 541	Advanced Theory and Practice in Nursing Leadership II	3
Nursing Leadership (HNH2M)					
Offered through Distance Education with On-Site Requirements					
				<b>Total Credits</b>	<b>36</b>

The Master of Science in Nursing Leadership prepares nurses as leaders to assume leadership positions across all levels of nursing and health care continuum. This program is offered as an executive cohort program using a blended model with scheduled on-site immersions and curriculum delivery via a computer mediated modality.

Course #	Title	Credits
HNH 503	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety and Health Care Technologies	3
HNH 505	Health Care Policy and Advocacy	2
HNG 541	Statistical Methods & Scholarly Inquiry	3
HNG 543	Applications in Clinical Nursing Research	3
HNH 530	Communication and Relationship Management	3
HNH 531	Business Skills for Nurse Leaders	3
HNH 532	Finance and Economics in Nursing Leadership	3

#### Nursing Education (HNU2M)

Offered through Distance Education with On-Site Requirements

The Master of Science in Nursing Education prepares nurses as educators to teach new and advanced nurses, in schools of nursing as well as in clinical settings. This program is offered as an executive cohort program using a blended model with scheduled on-site immersions and curriculum delivery via a computer-mediated modality.

Course #	Title	Credits
HNH 503	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety and Health Care Technologies	3
HNH 505	Health Care Policy and Advocacy	2
HNG 541	Statistical Methods & Scholarly Inquiry	3
HNG 543	Applications in Clinical Nursing Research	3
HNG 540	Clinical Pharmacology	3
HNG 515	Advanced Health Assessment	3
HNG 588	Clinical Pathobiology	3

HNH 510	Facilitating Adult Learning	3
HNH 511	Curriculum Design, Implementation and Evaluation in Nursing Education	3
HNH 512	Advanced Theory and Practice in Nursing Education	3
HNH 513	Advanced Theory and Practice in Nursing Education I	3
HNH 514	Advanced Theory and Practice in Nursing Education II	4
HNH 515	Advanced Theory and Practice in Nursing Education III	4
	Electives	2
	<b>Total Credits</b>	<b>45</b>

## Advanced Certificate Programs

### Admission Requirements

- Completed application
- Master's degree from an accredited nursing program
- Unofficial transcripts from all colleges/universities attended
- Minimum of one year recent relevant experience (preferred)
- Cumulative grade point average of at least 3.0
- Current registered professional nurse licensure
- Three letters of recommendation
- Three-credit undergraduate course in Health Assessment (by advisement)
- Three-credit undergraduate course in Statistics (by advisement)
- Technical Standard for Admission and Retention

Transcripts from foreign institutions must be evaluated for transfer equivalency credits by an accredited evaluation service, such as the World Education Services (WES) <http://www.wes.org>

The Advanced Certificate Program offers the masters or doctoral prepared nurse the ability to continue graduate education to specialize in another clinical area. This Advanced Certificate Program reflects state and national requirements for certification, as well as national trends. This provides the student with eligibility to apply for New York State Certification as well as national certification in their specialty. Program credit requirements may vary depending upon program and previous graduate course level work.

Stony Brook University School of Nursing reserves the right to change admission and program criteria to meet prevailing accreditation, regulatory and registration requirements.

Meeting clinical course requirements is dependent upon the availability of appropriate clinical sites and preceptors in a student's region. The Stony Brook University School of Nursing cannot guarantee the availability of clinical sites and preceptors or the results of clinical contract/affiliation negotiations.

## Advanced Certificate Program Curriculum\*

### Adult-Gerontological Nurse Practitioner (HNAZC)

#### Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
<b>Core Courses</b>		
HNG 519	Advanced Theory and Clinical Practice in Adult Health Nursing I	4
HNG 529	Advanced Theory and Clinical Practice in Adult Health Nursing II	5
HNG 539	Advanced Theory and Clinical Practice in Adult Health Nursing III	5
HNG 549	Advanced Theory and Clinical Practice in Adult Health Nursing IV	5
		(19) minimum
<b>By Individual Advisement (Gap Analysis)</b>		
HNH 503	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety and Health Care Technologies	3
HNH 505	Health Care Policy and Advocacy	2

Course #	Title	Credits
HNG 515	Advanced Health Assessment	3
HNG 540	Clinical Pharmacology	3
HNG 588	Clinical Pathobiology	3

**Child Health Nurse Practitioner (HNKZC)**  
**Offered through Distance Education with On-Site Requirements**

Course #	Title	Credits
<b>Core Courses</b>		
HNG 520	Selected Topics in Childhood Morbidity	3
HNG 518	Advanced Theory and Clinical Practice in Child Health Nursing I	4
HNG 528	Advanced Theory and Clinical Practice in Child Health Nursing II	4
HNG 538	Advanced Theory and Clinical Practice in Child Health Nursing III	5
HNG 548	Advanced Theory and Clinical Practice in Child Health Nursing IV	4
		(20) minimum
<b>By Individual Advisement (Gap Analysis)</b>		
HNH 503	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety and Health Care Technologies	3
HNH 505	Health Care Policy and Advocacy	2
HNG 525	Advanced Health Assessment Child Health	3

Course #	Title	Credits
HNG 540	Clinical Pharmacology	3
HNG 588	Clinical Pathobiology	3

**Perinatal/Women's Health Nurse Practitioner (HNWZC)**

**Offered through Distance Education with On-Site Requirements**

No longer accepting applications to this program. Program information is applicable to currently enrolled students only.

Course #	Title	Credits
<b>Core Courses</b>		
HNG 501	Primary Care	3
HNG 514	Advanced Theory and Clinical Practice in Perinatal/Women's Health Nursing I	4
HNG 524	Advanced Theory and Clinical Practice in Perinatal/Women's Health Nursing II	4
HNG 534	Advanced Theory and Clinical Practice in Perinatal/Women's Health Nursing III	5
HNG 554	Advanced Theory and Clinical Practice in Perinatal/Women's Health Nursing IV	4
		20 (minimum)
<b>By Individual Advisement (Gap Analysis)</b>		
HNH 503	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety and Health Care Technologies	3

Course #	Title	Credits
HNH 505	Health Care Technologies	2
HNH 505	Health Care Policy and Advocacy	2
HNG 515	Advanced Health Assessment	3
HNG 540	Clinical Pharmacology	3
HNG 588	Clinical Pathobiology	3

**Neonatal Health Nurse Practitioner (HNNZC)**  
**Offered through Distance Education with On-Site Requirements**

Course #	Title	Credits
<b>Core Courses</b>		
HNG 522	Advanced Topics in Fetal and Neonatal Pathophysiology	2
HNG 542	Neonatal Clinical Pharmacology	3
HNG 578	Advanced Theory and Clinical Practice in Neonatal Health Nursing III: The High Risk Neonate I	7
HNG 579	Advanced Theory and Clinical Practice in Neonatal Health Nursing IV: The High Risk Neonate II	7
		19 (minimum)
<b>By Individual Advisement (Gap Analysis)</b>		
HNH 503	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety and Health Care Technologies	3

Course #	Title	Credits
HNH 505	Health Care Policy and Advocacy	2
HNG 513	Advanced Health Assessment of the Neonate and Infant	3
HNG 564	Advanced Theory and Clinical Practice in Neonatal Health Nursing II: Primary Care Concepts for High Risk Infants	3
HNG 569	Advanced Theory and Clinical Practice in Neonatal Health Nursing I: The Childbearing Family	3
HNG 588	Clinical Pathobiology	3

**Psychiatric/Mental Health Nurse Practitioner (HNMZC)**

**Offered through Distance Education with On-Site Requirements**

Course #	Title	Credits
<b>Core Courses</b>		
HNG 517	Advanced Theory and Clinical Practice in Psychiatric/Mental Health Nursing I	4
HNG 527	Advanced Theory and Clinical Practice in Psychiatric/Mental Health Nursing II	5
HNG 537	Advanced Theory and Clinical Practice in Psychiatric/Mental Health Nursing III	5
HNG 547	Advanced Theory and Clinical Practice in Psychiatric/	5

Course #	Title	Credits
HNG 551	Mental Health Nursing IV	21 (minimum)
	Psychopharmacology <sup>2</sup>	
<b>By Individual Advisement (Gap Analysis)</b>		
HNH 503	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety and Health Care Technologies	3
HNH 505	Health Care Policy and Advocacy	2
HNG 515	Advanced Health Assessment	3
HNG 540	Clinical Pharmacology	3
HNG 588	Clinical Pathobiology	3

### Nurse Midwifery (HNEZC)

Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
<b>Core Courses</b>		
HNG 555	Professional Issues in Midwifery	1
HNG 581	Midwifery I	4
HNG 585	Midwifery II	4
HNG 586	Midwifery III	5
HNG 587	Midwifery IV	5
		19 (minimum)
<b>By Individual Advisement (Gap Analysis)</b>		
HNH 503	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement,	3

Course #	Title	Credits
HNH 505	Safety and Health Care Technologies	2
	Health Care Policy and Advocacy	
HNG 515	Advanced Health Assessment	3
HNG 540	Clinical Pharmacology	3
HNG 588	Clinical Pathobiology	3

### Family Health Nurse Practitioner

Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
<b>Core Courses</b>		
HNG 572	Advanced Theory & Clinical Practice in Family Health Nursing I	4
HNG 573	Advanced Theory & Clinical Practice in Family Health Nursing II	5
HNG 574	Advanced Theory & Clinical Practice in Family Health Nursing III	5
HNG 575	Advanced Theory & Clinical Practice in Family Health Nursing IV	5
HNG 577	Family Theory	3
		22 (minimum)
<b>By Individual Advisement (Gap Analysis)</b>		
HNH 509	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety, and Health Care Technologies	3

Course #	Title	Credits
HNH 505	Health Policy and Advocacy	2
HNH 515	Advanced Health Assessment	3
HNH 540	Pharmacology	3
HNH 588	Pathophysiology Across the Lifespan	3

## Nursing Education

Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
<b>Core Courses</b>		
HNH 510	Facilitating Adult Learning	3
HNH 511	Curriculum Design, Implementation and Evaluation in Nursing Education	3
HNH 512	Advanced Teaching Strategies in Nursing Education	3
HNH 513	Advanced Theory and Practice in Nursing Education I	3
HNH 514	Advanced Theory and Practice in Nursing Education II	4
HNH 515	Advanced Theory and Practice in Nursing Education III	4
<b>Total</b>		20 (minimum)
<b>By Individual Advisement (Gap Analysis)</b>		
HNH 503	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety, and	3

HNH 505	Health Care Policy and Advocacy	2
HNG 515	Advanced Health Assessment	3
HNG 540	Clinical Pharmacology	3
HNG 588	Clinical Pathobiology	3

## Nursing Leadership

Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
HNH 530	Communication and Relationship Management	3
HNH 531	Business Skills for Nurse Leaders	3
HNH 532	Finance and Economics in Nursing Leadership	3
HNH 533	Legal/Ethical/Regulatory Issues in Nursing Leadership	3
HNH 534	Advanced Leadership Seminar	3
HNH 540	Advanced Theory and Practice in Nursing Leadership I	4
HNH 541	Advanced Theory and Practice in Nursing Leadership II	3
<b>Total Credits</b>		22

\*Please visit our website at [www.nursing.stonybrookmedicine.edu](http://www.nursing.stonybrookmedicine.edu) for Gainful Employment information

## Doctor of Nursing Practice (DNP)

Offered through Distance Education with On-Site Requirements

**Program Overview**

The DNP degree was adopted in 2004 by the Association of Colleges of Nursing (AACN) in response to numerous societal, scientific, and professional advances. These ongoing developments include expansion of scientific knowledge required for safe practice, an increasingly interprofessional work environment, and growing interest in the quality of patient care and outcomes of care. Practice demands associated with an increasingly complex healthcare system create a mandate to educate professional nurses engaged in advanced practice with doctoral level competencies. The DNP degree represents attainment of the highest level of preparation in nursing practice.

The Post-Baccalaureate **DNP Program at Stony Brook University School of Nursing** prepares diverse students to be clinical leaders, stimulate innovation in practice, and influence policy, thereby impacting patient outcomes and population health. Our **DNP graduates** have skills and tools that enable them to identify opportunities for improvement in health care delivery, critically appraise evidence to inform change, utilize information technology to analyze complex practice models and organizational issues, improve systems of care to enhance safety and quality of care when needed, and facilitate translation of evidence into practice to advance health outcomes.

The license-qualifying Post-Baccalaureate DNP Program is designed for registered nurses who **hold a baccalaureate degree** with a major in nursing, and prepares them to sit for a national certification exam in an advanced practice nursing specialty. The program requires 87 credits of coursework, including a minimum of 1,000 scholarly/clinical practice hours. The Post-Baccalaureate DNP Program is offered in the following population foci: Adult-Gerontology-Primary Care, Family, Pediatric-Primary Care, Psychiatric-Mental Health, Women's Health, Neonatal, and Nurse Midwifery.

Nurse practitioners and nurse midwives who **hold a Master's degree** may be eligible to enter our DNP Program with **advanced standing (post-masters entry)**. A gap analysis is conducted to confirm previous coursework taken and validate the number of clinical hours performed at the Master's level. With advanced standing, the program requires 42 credits of coursework, including a minimum of 500 scholarly practice hours (to meet the 1,000+ post-baccalaureate practice hour requirement).

**The DNP program at Stony Brook University School of Nursing is offered through distance education with on-site requirements.** DNP students pursue study in various areas of clinical inquiry, and develop a practice-relevant quality improvement or evidence-based practice project. The faculty of the School of Nursing is committed to the spirit of collaboration and mentorship. *Major foci of the DNP Program are developing a community of scholars, fostering a commitment to lifelong learning, and cultivating an area of clinical scholarship.*

**Graduation Requirements**

Course #	Course Title	Credits
<b>(with Advanced Standing)</b>		
<b>Scientific Underpinnings</b>		
HND 612	Theories of Applied Science	3
HND 650	Systems Theory	3
<b>DNP Project Core</b>		
HND 647	DNP Seminar (Clinical Inquiry, Review of Literature)	4
HND 655	Doctoral Synthesis I (Planning, Methods, Implementation)	5
HND 655	Doctoral Synthesis II (Management & Analysis of Data)	6
HND 675	Doctoral Synthesis III (Scholarly Dissemination)	6
<b>Analytics &amp; Informatics Core</b>		
HND 635	Biostatistics	3
HND 645	Large Datasets	3
<b>Advanced Clinical Practice Core</b>		
HND 615	Genomics	3
<b>Population Health Core</b>		
HND 625	Health Policy and Social Justice	3
HND 640	Principles of Epidemiology/Global Health	3
<b>Total Credits</b>		<b>42</b>

**Accelerated BACCALAUREATE PROGRAM (ABP)**

On-Site, One Year

The Accelerated Baccalaureate Program is designed for students who have already completed a bachelor's degree, either at the State University of New York at Stony Brook or another comparable institution. The concentrated nursing curriculum leads to a Bachelor of Science degree with a major in nursing. Graduates of the program are eligible to sit for the NCLEX-RN exam.

This second bachelor's degree draws on the prerequisite courses from the humanities and the natural and social sciences as a means of assisting the student to use theory and utilize nursing process to provide health promotion, health maintenance and restoration of diverse populations of patients. Students are provided learning experiences focused on individuals, families, groups and communities. In addition, students are exposed to various delivery models of professional nursing and health care. Stony Brook University Hospital is utilized as a clinical site along with various other settings.

#### Admission Requirements

- B.A. or B.S. Degree
- Minimum cumulative GPA 2.8 and grades of C or higher in the following courses:

Required Courses	Credits
Microbiology/Lab	4
Anatomy & Physiology I/Lab	4
Anatomy & Physiology II/ Lab	4
Chemistry	3
Statistics	3
Lifespan Development	3

Graduation Requirements	Credits
<b>Professional Socialization</b>	
HNI 350 Professional Role Development in Nursing	2
HNI 440 Research in Nursing	2
HNI 479 Transitions into Professional Practice	3
<b>Health Related Sciences</b>	
HNI 301 Mathematics for Health Care	1
HNI 310 Pathology	3
HNI 333 Fundamentals of Pharmacology	4
<b>Clinical Nursing</b>	
HNI 370 Health Assessment	3

HNI 373 Psychosocial Mental Health Nursing	6
HNI 377 Principles and Applications of Nursing Interventions I	6
HNI 378 Principles and Applications of Nursing Interventions II	6
HNI 455 Adult/ Gerontological Health Nursing I	6
HNI 456 Adult/ Gerontological Health Nursing II	6
HNI 463 Maternal and Newborn Health Nursing	5
HNI 464 Child and Adolescent Health	5
HNI 469 Population Health Nursing	6
HNI 474 Capstone Nursing Practicum	5
<b>Total Credits</b>	<b>69</b>

## Program in Public Health

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### About the Program

The [Graduate Program in Public Health](#) was established at Stony Brook to train people who wish to integrate the knowledge, skills, vision and values of public health into their careers and provide leadership in the field. The Program leads to the Master of Public Health (MPH) degree as well as a variety of combined and concurrent programs.

The Program advocates a population health approach to public health. The hallmarks of population health include ecological understanding of the determinants of health and a systems approach to solving health problems; emphasis on proactively stabilizing and improving health among all populations; and insistence on accountability, evidence-based practice, and continuous performance improvement. The population health approach requires multi-disciplinary collaboration among scholars in the social, behavioral, clinical, and basic sciences and humanities. Furthermore,

it incorporates the development of comprehensive health information systems, and the use of advanced analytical tools to examine health problems and evaluate responses.

The population health orientation is consistent with the traditions of public health and with recent Institute of Medicine (IOM) recommendations for public health education, although it expands upon them. The IOM recommends that public health:

“Adopt a population health approach that builds on evidence of multiple determinants of health... (Develop) appropriate systems of accountability at all levels to ensure that population health goals are met; ...Assure that action is based on evidence;”

The population health orientation of the program is also compatible with the educational philosophy of the Hospital. The Health Sciences Center, opened in 1971, emphasizes the need for interdisciplinary education and collaboration, and recognizes the need for health professions to work together. The Graduate Program in Public Health values the importance of a collegial atmosphere at an early stage in an MPH student's education in order for the student to gain respect for the diverse backgrounds and competencies of fellow students.

The emphasis of the Graduate Program in Public Health reflects the changing environment in which public health practice occurs, and recent thinking about how to respond to these changes. Public health retains its distinct role as the specialty emphasizing prevention, with the object of its work being populations, in contrast to the historical role of medicine, dentistry, and other clinical disciplines that focus on healing, with the object of their work being individuals. “The public health professional is a person educated in public health or a related discipline who is employed to improve health through a population focus.”

Since the 1980s, the three main functions of public health have been identified as assessment, policy development, and assurance. However, the knowledge and skills needed to perform these functions optimally has changed radically in light of advances in information technology and increased knowledge about the determinants of health and disease. These changes are occurring at all levels of inquiry, from the micro (genetics and microbiology) through the macro (the social sciences). Changing political, economic, demographic, and social conditions in the United States and the world make the application of new knowledge and technologies all the more important.

As one recent Institute of Medicine report states: “The beginning of the 21st century provided an early preview of the health challenges the United States will confront in the coming decades. The system and entities that protect and promote the public health, already challenged by problems like obesity, toxic environments, a large uninsured population and health disparities, must also face emerging threats, such as antimicrobial resistance and bio-terrorism. The social, cultural, and global context of the nation's health is also undergoing rapid and dramatic change. Scientific and technical advances, such as genomics and informatics, extend the limit of knowledge and human potential more rapidly than their implications can be absorbed and acted upon. At the

same time, people, products, and germs migrate, and the Nation's demographics shift in ways that challenge public and private resources.”

Recent, influential reports regarding public health education suggest ways to address the evolving training needs of public health professionals. These publications include one report issued by the Centers for Disease Control and Prevention — Public Health's Infrastructure — and three reports from the Institute of Medicine: *Who Will Keep the Public Healthy?*; *The Future of Public Health in the 21st Century*; and *Crossing the Quality Chasm*. The recommendations in these reports challenge new public health programs to train public health leaders to be boundary spanners — able to use the new tools and knowledge available in order to formulate solutions to the complex public health problems facing us. “Public health professionals have a major role to play in addressing these complex health challenges, but in order to do so effectively, they must have a framework for action and an understanding of the ways in which they do affect the health of individuals and populations.”

These recent recommendations regarding public health can be synthesized as follows. In addition to the traditional knowledge, including epidemiology and biostatistics, public health leaders need:

- An ecological understanding of the causes of poor health including social, behavioral, environmental, occupational, demographic, policy, economic and genetic factors as well as the interrelationship of these factors;
- A thorough understanding and appreciation of the cultural heterogeneity of populations, its impact on public health initiatives, and tools to deal with issues arising from cultural heterogeneity;
- A thorough understanding of the current system of addressing poor health — medical, dental and public health — including organization, financing, regulation, accessibility, quality, effectiveness and efficiency;
- An orientation toward policy, as well as programmatic, solutions to public health problems and the skills to assess, develop, implement and evaluate policies;
- An orientation favoring evidence-based decision-making and the skills to develop evidence for public health decision-making including study design and analysis of data;
- An orientation favoring accountability and continuous quality improvement in public health and the skills needed to measure accountability and assess performance;
- Informatics skills including application of information technology to obtain, organize, and maintain useful data for public health decision-making;
- Leadership skills including the conceptual and analytical tools to prioritize problems and make sound decisions.

Instilling a population health orientation and fostering the skills necessary to act upon it provide the program's graduates with the ability to meet the basic needs of public health today — defined as provision of the Essential Public Health Services and the three core public health functions (assessment and

monitoring; formulating public policies; and assuring access to appropriate and cost-effective care) — as well as to expand the work of public health to achieve its broad mission “to fulfill society’s interest in assuring conditions in which people can be healthy.”

## Vision, Mission and Goals

The vision of the Program in Public Health is to improve the health of populations on Long Island and in the region, state, and nation through education, research, and community service that utilizes all of the scholarly resources of Stony Brook University in a collaborative and boundary-spanning manner.

The mission of the program is to promote improvements in the health of the public through excellence in education, research, and community service locally, nationally, and globally.

The specific goals and measurable objectives developed by the faculty (with feedback from our public health community and constituents) of the Program in Public Health can be found on the [program’s website](#).

To achieve its general educational, research and community benefit goals, the program trains public health professionals who:

- Understand the multiple determinants of health and illness including the social, behavioral, environmental, demographic, occupational, policy, economic, genetic, and health care determinants;
- Appreciate the need for interdisciplinary collaboration in order to understand population health problems and develop optimal strategies to address them;
- Have the strongest analytical, conceptual, and communication skills in order to facilitate development and implementation of optimal strategies for addressing population health problems.

## Program Values

The Program in Public Health embraces as a core value adherence to all ethical standards of conduct and academic integrity. The program’s culture inherently values: beneficence, diversity and inclusiveness, reduction of health disparities, protection of vulnerable populations, the balance of public health with human rights, and community engagement. In support of the mission statement, the program values the training of students as public health problem solvers with a population health orientation by a multi-faceted team of faculty, staff, and public health practitioners. The program operationalizes its values through the following pillars upon which the program stands: education, research and service.

## Education

The *Program in Public Health* values high-quality education that moves beyond the simple transmission of information to produce creative and critical thinkers. This value is operationalized through the provision of Core and Concentration curricula that lead to the MPH degree. The program emphasizes the development of analytical and

critical thinking skills and an ecological approach to health improvement and disease prevention.

## Research

The *Program in Public Health* values research that contributes to the health improvement of all populations and the elimination of health disparities. This value is operationalized by leading and facilitating interdisciplinary and collaborative research by the faculty and students, including work that emphasizes health improvement through community engagement and community-based participatory research (CBPR).

## Center for Health Services and Outcomes Research

Cost control and quality enhancement remain elusive goals in the U.S. healthcare system. More and better evidence is required to help direct scarce healthcare resources to many competing uses, and to evaluate alternative strategies for promoting more cost-effective care. In recognition of this need, the Graduate Program in Public Health has established the Center for Health Services and Outcomes Research (CHSOR). The Center is a multidisciplinary research unit that combines expertise in economics, statistics, epidemiology, medicine, and other clinical disciplines to address substantive issues in healthcare delivery. As part of its research mission, the Center seeks to develop joint projects with researchers at Stony Brook University and with health organizations throughout Long Island.

The Center has two divisions: (1) Children’s Environmental Health; and (2) Long Island Prevention Research. The Children’s Environmental Health division is part of the New York State, regionalized children’s environmental health system, which includes eight Children’s Environmental Health Centers in New York State (CEHCNY). The mission of CEHCNY is to be a clinical, research, educational, and community referral center for pediatric environmental diseases on Long Island, working in collaboration with the other seven statewide CEHCNY centers. The Long Island Prevention Research division develops research and innovative strategies to prevent disease and promote healthy communities. The focus is on collaboration with communities, as both participants and partners, and other organizations on Long Island including the Suffolk County Department of Health Services and Winthrop University Hospital’s Office of Health Outcomes Research.

## Center for Public Health and Health Policy Research

The Center for Public Health and Health Policy Research has an active agenda aimed at improving health in minority communities on Long Island. In collaboration with Literacy Suffolk, the Center has received a National Institutes of Health Partners in Research grant entitled Community Alliance for Research Empowering Social Change (CARES).

CARES consists of an interdisciplinary team of researchers, community-based organizations, and community members working together to improve minority health outcomes through evidence based public health. The Center has also hosted the Think Tank for African American Progress on Long Island

in the spring 2010. The focus of the meeting was to inspire and assist young, black women to develop their full potential. The Center collaborates closely with the Suffolk County Minority Health Action Coalition, which has held three mini-summits on Long Island to develop partnerships for health improvement projects. The Center also collaborates with the Witness Project, which seeks to educate women in minority communities about cancer prevention and screening.

## Service

The Graduate Program in Public Health values three types of service: Community, Professional and University.

- **Community:** The Program values direct service to communities. This value is operationalized as advocating for improving population health and eliminating health disparities, providing needs assessments and guidance for solutions to community health problems, and assisting the public health workforce. One example is a partnership with the New York City- Long Island Tower- Lower Tri-County Public Health Training Center (PHTC). The PHTC, a collaboration between Columbia University Mailman School of Public Health, is one of the 37 Public Health Training Centers across the nation funded through August 2013 by the Health Resources and Services Administration (HRSA) to provide continuing education, training and technical assistance to local, regional and state public health workers.
- **Professional:** The program values faculty members' contributions to organizations that advance their professional fields. This value is operationalized by the faculty promotion and tenure criteria and by expectations for annual performance evaluations.
- **University:** The program values service to the University, which is operationalized as mentoring other faculty and serving as members or leaders on committees that advance the mission and goals of the University and the *Program in Public Health*.

## Accreditation

The *Program in Public Health* actively sought accreditation from the Council on Education for Public Health (CEPH) by planning from our inception to meet CEPH standards and criteria. The Program hosted a successful Site Visit in March 2008 and was officially accredited in October 2008 through 2013. In May 2013, the Program completed an extensive self-study process, which culminated with a Site Visit in October 2013 and in June 2014 received notification of re-accreditation through 2020.

Because the *Program in Public Health* is accredited, our alumni are eligible to be certified in public health by the National Board of Public Health Examiners (NBPHE). This organization was established in September 2005 for the purpose of ensuring that students and graduates from schools and programs of public health accredited by CEPH have mastered the knowledge and skills relevant to contemporary public health. The certification exam serves this purpose.

[Visit their site for more information about NBPHE and the certification exam.](#)

## Program Policies

For more information about these and other policies visit the [program site](#)

### Grading

The following grading system is used in the Graduate Program in Public Health:

A (4.0), A- (3.67), B+ (3.33), B (3.00), B- (2.67), C+ (2.33), C (2.00), C- (1.67), and F (0.00). Unless specified differently in the course syllabus, course grades on a 100 point scale are: A (93-100); A- (90-92); B+ (87-89); B (83-86); B- (80-82); C+ (77-79); C (73-76); C- (70-72); F (69 or lower).

In order to encourage students to develop excellent writing skills, course grades will reflect the quality of writing in course assignments. The specific policy on grading the quality of writing will be the prerogative of the course instructor and it must be explained in the course syllabus.

### Academic Process

Students must maintain a B average (3.0) in all the MPH Core Courses and a B average (3.) in the MPH Concentration. All electives must be listed as selectives or approved by the student's faculty advisor or Academic Coordinator in order to count toward completion of the MPH degree. In evaluating a student's standing, the program will not include electives in the GPA that are not listed as selectives or approved by the faculty advisor or Academic Coordinator.

When a student's cumulative graduate GPA falls below B (3.0) for grades earned in courses numbered 500 and above taken at Stony Brook, the student shall be placed on probation. If the student's overall GPA has been raised to B (3.0) by the end of the next semester of enrollment after being first notified of probation, the student will be returned to regular status.

Students may be on probation for a maximum of two semesters. A student on academic probation who fails to achieve a 3.0 cumulative GPA by the end of the second semester on probation will usually not be permitted to re-enroll.

A student enrolled part time who has accumulated six semester credits with a cumulative average below 3.0 will have two semesters, or six additional credits (whichever comes first) to bring their cumulative GPA to 3.0.

Temporary grades (I and NR), missing grades and those grades for which no numerical equivalents are defined (P, S, U, and R) are not calculated in determining the eligibility for academic probation. The MPH degree requirements are rigorous, and students must be able to devote sufficient time to meet the performance standards required. The program accommodates full-time and part-time study. Part-time students typically complete the program in 3 years. If a part-time student carries 7-8 credits per semester, including two summers, the MPH degree can be earned in two years. The Program also accommodates full-time study leading to completion of the degree in as short a time as 18 months.

## Enrollment Notification Policy

- Students must enroll in at least one course per semester (Fall and Spring) unless they complete a Change of Enrollment Form and submit this form to the MPH Academic Coordinator.
- A Leave of Absence (LOA) of more than one year requires a written justification that must be approved by the Director of the Graduate Program in Public Health.
- When a student wishes to return to active status after a LOA, a Term Activation Form must be completed and submitted to the MPH Academic Coordinator in order to enroll in courses.

## Time and Location of Courses

Most courses are taught on the Health Sciences Center campus and are offered in the late afternoon or early evening.

## Time Limits

Not including granted leaves of absence, all requirements towards the MPH degree, the BS/MPH degree, the MBA/MPH, and the MPH/MAPP degree must be completed within five years from matriculation in the program. The MD/MPH joint degree and DDS/MPH concurrent degrees can take six years.

## Credit Transfers

All core courses must be taken at Stony Brook University, unless an equivalent was taken in an accredited public health program with a grade of B or better within the last five years. All concentration courses are to be taken at Stony Brook University, unless an equivalent course, with a grade of B or better, was taken at an approved graduate program in the past five years and transfer of credits is approved by the MPH Academic Coordinator. The student must request a credit transfer and complete the necessary forms. In all respects, the Graduate Program in Public Health follows Stony Brook's Transfer of Credit policy: Graduate candidates may petition the school to accept credits from another institution toward his or her degree. The school has the responsibility of deciding on the applicability of credits to the specific program. Normally, transfer credits will be limited to no more than six credits.

## Non-Matriculated Students

The Graduate Program in Public Health only allows students who have been admitted into the program to take courses as a non-matriculated student. A maximum of 12 credits may be taken as a non-matriculated student in the Graduate Program in Public Health. Permission to enroll in courses must be obtained from the MPH Academic Coordinator.

## Public Health Grand Rounds

To provide MPH students with information on emerging and important public health issues, the Graduate Program in Public Health sponsors a Public Health Grand Rounds lecture series each academic year.

## Competency Assessment

Each Core Course in the Graduate Program in Public Health curriculum aims to develop specific competencies among MPH students through a set of Learning Objectives. In order to assess how well we are conveying these competencies,

we require every MPH student to complete a Competency Assessment survey at the beginning and end of each Core Course. All information from the Competency Assessment surveys is kept strictly confidential and is not, in any way, used to evaluate a student's academic progress in pursuit of the MPH degree. This information is analyzed only for the purpose of improving the Program and maintaining accreditation by the Council of Education for Public Health (CEPH). The Graduate Program in Public Health reserves the right to withhold grades or prevent subsequent course registration for students who do not complete both the pre- and post-survey.

## Advising Policy

Each student is assigned a faculty advisor upon matriculation into the program. Whenever possible, that advisor will be a faculty member in the student's concentration: Evaluative Sciences, Community Health, or Public Health Practice. The student may change advisors at any time with the consent of the director of the Graduate Program in Public Health. In addition, students who change their concentration will be assigned, or may select, a faculty advisor in the new concentration.

Faculty advisors must meet with their advisees at least twice a year to discuss student progress through the program, assess academic growth, and provide guidance with independent study and practicum projects. The faculty advisor also discusses the student's expectations for the future and acts as a touchstone if the student is having problems. The two mandatory meetings take place at the end of the Fall and Spring semesters and can be conducted in person or by phone, whichever is preferred by both the student and faculty advisor. Students will be contacted by the program to schedule an appointment with their faculty advisor. At other times, students should contact their faculty advisor directly to make appointments.

## Graduation

The Graduate Program in Public Health has only one graduation ceremony (convocation), which is held each year in the spring. This ceremony serves all students who graduate from the program during the year.

## Academic Integrity

Intellectual honesty is a cornerstone of all academic and scholarly work. Therefore, the Graduate Program in Public Health views any form of academic dishonesty as a very serious matter. The program treats each suspected case of academic dishonesty on a case-by-base basis. The course instructor may choose to handle an incident or bring it to the Executive Committee for review and recommendations. In this case, the director will make the final determination of action, based on the recommendations of the Executive Committee. The student may appeal the decision of the course instructor or the director, following the guidelines of the Program's Academic Appeal Policy (see Graduate Program in Public Health Student Handbook).

Penalties for misconduct may vary according to the circumstances of each particular case. Penalties may range in severity from verbal warning to expulsion from the University with the reason recorded on the student's permanent transcript.

The Stony Brook University Academic Judiciary Committee defines academic dishonesty as follows: Academic dishonesty includes any act that is designed to obtain fraudulently, either for oneself or for someone else, academic credit, grades, or other recognition that is not properly earned or that adversely affects another's grade.

The following represents examples of this and does not constitute an exhaustive list:

- Cheating on exams or assignments by the use of books, electronic devices, notes, or other aids when these are not permitted, or by copying from another student.
  - Collusion: two or more students helping one another on an exam or assignment when it is not permitted.
  - Ringers: taking an exam for someone else, or permitting someone else to take one's exam.
  - Submitting the same paper in more than one course without permission of the instructors.
  - Plagiarizing: copying someone else's writing or paraphrasing it too closely, even if it constitutes only some of your written assignment, without proper citation.
  - Falsifying documents or records related to credit, grades, status (e.g., adds and drops, P/NC grading, transcripts), or other academic matters.
  - Altering an exam or paper after it has been graded in order to request a grade change.
  - Stealing, concealing, destroying, or inappropriately modifying classroom or other instructional material, such as posted exams, library materials, laboratory supplies, or computer programs.
  - Preventing relevant material from being subjected to academic evaluation.
  - Presenting fabricated excuses for missed assignments or tests.
  - Some ways that student can protect themselves from involvement in academic dishonesty are as follows:
    - Prepare thoroughly for examinations and assignments.
    - Take the initiative to prevent other students from copying exams or assignments (for example, by shielding answers during exams and not lending assignments to other students unless specifically granted permission by the instructor).
- Check the syllabus for a section dealing with academic dishonesty for each course. There may be requirements specific to the course.
- Avoid looking in the direction of other students' papers during exams.
  - Use a recognized handbook for instruction on citing source materials in papers. Consult with individual faculty members or academic departments when in doubt.
  - Use the services of the Writing Center for assistance in preparing papers.

- Discourage dishonesty among other students.
- Refuse to assist students who cheat.
- Do not sit near students with whom you have studied.
- Do not sit near roommates or friends.

Many cases of plagiarism involve students improperly using Internet sources. If you quote an Internet source, you must cite the URL for that source in your bibliography. Copying (or closely paraphrasing text) text or figures from a website without citing it and placing it in quotation marks is plagiarism. It is no different from doing the same thing with a printed source. Professing ignorance of this rule will not be accepted as a legitimate basis for appealing an accusation of academic dishonesty.

For more comprehensive information on academic integrity, please refer to the [academic judiciary website](#).

## Student Conduct

Stony Brook University expects students to respect the rights, privileges and property of other people. Faculty are required to report to the Office of the Student Judiciary any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the Health Sciences Center Schools and the School of Medicine are required to follow their school-specific procedures.

## Attendance Requirements

Attendance is mandatory, unless there is a medical reason or the student is excused by the program director or course instructor. If a course instructor has no written policy in the syllabus regarding the consequences for being absent from class, the Graduate Program in Public Health policy will apply: three or more unexcused absences from class will reduce the final course grade by a full letter grade (e.g., A to B).

## HIPAA Training

The Graduate Program in Public Health requires all students to complete training in the Health Insurance Portability and Accountability Act (HIPAA) by the start of the fall semester.

The requirements are as follows:

- Review And Understand. Each student must review and understand the SBU Policy and Procedure on Research Subjects' Right to Privacy.
- Undergo HIPAA Training. Each student must carefully read and understand the HIPAA awareness training materials for research investigators and study staff.

To satisfy this training requirement, each student must send an e-mail to Mary Ellen Herz at [maryellen.herz@stonybrook.edu](mailto:maryellen.herz@stonybrook.edu) with the subject reading: HIPAA RESEARCH TRAINING COMPLETED, and the body of the text reading: "I have read and understood the HIPAA awareness training materials and agree to comply with the SBU Policy and Procedures on Research Subjects' Right to Privacy."

## Protection of Human Subjects Training

The Graduate Program in Public Health requires all students to take the Stony Brook University online training program in protection of human subjects in research, offered by the [Collaborative Institutional Training Initiative \(CITI\)](#). Information about this training program is available on the website of the [Office of the Vice President for Research](#).

This training is part of the Human Subject Protections Program at Stony Brook, which ensures that the University keeps safe those individuals who volunteer to participate in our research activities.

Protection of human subjects training must be completed prior to the start of the fall semester. A copy of the certificate of completion from CITI must be provided to the MPH Academic Coordinator.

## Organization of Public Health Students and Alumni of Stony Brook University (OPHSA)

The Graduate Program in Public Health graduated its first class in May 2006. Since that time, the alumni of the program have organized with students to create an association that serves both groups: Organization of Public Health Students and Alumni (OPHSA).

The purpose of OPHSA is to organize current students and alumni to achieve the following goals:

1. To promote the general welfare and professional image of Stony Brook University and the GPPH.
2. To foster a strong relationship between the school, faculty and members of the organization.
3. To foster and sustain collegial relationships between members of the student body and alumni of the GPPH.
4. To promote participation between alumni and students in educational, scientific and public health research activities.
5. To identify and develop resources to assist students, alumni and faculty in their careers.
6. To maintain student and alumni representatives who will advocate for the needs of the student population on standing committees of the GPPH.
7. To promote educational activities necessary for the maintenance and promotion of certification in the public health professions.
8. To promote public participation and advocacy for public health issues.

The Graduate Program in Public Health strongly supports the development of OPHSA and encourages alumni and student participation. We view this initiative as the next important step in furthering the vision, mission and goals of the program.

# Degrees and Programs

## Master of Public Health

### Admission to the MPH Degree Program

Although admission requirements are rigorous, the *Program in Public Health* aims to develop camaraderie, cooperation, and cohesiveness among students in each cohort. For this reason, admission to the Program is during the fall semester only.

We are seeking intellectually inquisitive people from different socioeconomic, educational, racial, and ethnic backgrounds who can provide special contributions to the field of public health and the program. The Program considers the potential contribution of each applicant to the student body and the public health field. Applicants are evaluated on academic achievement, leadership potential, professional accomplishment, and personal attributes. Excellent written and oral communication skills are expected. Fluency in more than one language is not required for admission, but it is becoming increasingly desirable for the practice of public health. The Program reserves the right to limit class size in order to maintain a faculty/student ratio that ensures a high quality academic program. Therefore, Program admission is highly selective, and all qualified applicants may not be accepted.

The MPH program is open to students from all academic disciplines. Students can select from one of three concentrations including Community Health, Health Analytics and Health Policy and Management.

The MPH admissions requirements for the program are:

- Bachelor's degree from an accredited college or university with a 3.0 GPA or better. Admitted students usually have GPAs that are higher than 3.0. The major must have an equivalent at the State University of New York (SUNY).
- Official transcripts from all post-secondary schools. Transcripts for all degrees earned in schools outside the U.S. or Canada must be evaluated by an agency accredited by the National Association of Credential Evaluation Services. (See section on International Students for more information about this process. The requirement for evaluation of transcripts is waived for graduates of foreign medical schools with a current license to practice in the U.S.)
- Official GRE (verbal, quantitative, and analytical) scores are required (within last 5 years). This requirement is waived for applicants who have been awarded a doctoral degree from an accredited U.S. or Canadian university. Applicants to the MD/MPH program may substitute MCAT scores for the GRE. Applicants to the MBA/MPH program may substitute GMAT scores. Applicants to the DDS/MPH may substitute DAT scores. A request to substitute any other standardized test scores for the GRE needs to be submitted in writing to the Assistant Director for Student Affairs.
- Three references from persons who can address the applicant's capacity to provide leadership in public health and complete a course of graduate study. If the applicant

is a student or has graduated within the last two years, at least one letter must be from a college or university faculty member with whom the applicant has studied. If the applicant is a member of the public health workforce, at least one letter must be from a senior administrator in the organization who is familiar with his/her work.

- One essay, no more than 500 words. Topic: How does your background, training, and experience prepare you for a leadership role in Public Health?
- Completion of the on-line application, SOPHAS, by the deadline of each admission cycle.
- A personal interview, if requested by the MPH Admissions Committee.
- Any other requirements of the Graduate School not stated here.

### For International Students:

- International students who trained in non-English speaking schools and do not reside in an English speaking country are required to take the TOEFL exam. The expected minimum score is 213 for the Computer-Based Test, 90 for the Internet-Based Test, and 550 for the Paper-Based Test. In addition to the minimum score of 90 on the internet-based exam, each subsection score must be at least a 22.
- International students are required to have a course-by-course educational credential evaluation completed by an agency accredited by the [National Association of Credential Evaluation Services](#). We require using [World Education Services](#). This evaluation provides a U.S. course equivalent including semester hours earned, course content, and corresponding letter grade for all courses listed on the international applicant's transcript.

This evaluation must be completed before the application can be considered.

For more information about the requirements for international students, [click here](#).

### Admissions Committee

The Admissions Committee considers all factors including grades, standardized test scores, recommendation letters, essays, prior training and professional experience. It is a goal of the Admissions Committee to select applicants who have the academic capability, aptitude, character, personal qualities, and commitment to provide future value to society through leadership and creative contributions to the field of public health.

The Admissions Committee encourages applications from persons in the public health workforce and weighs their professional experience heavily in admissions decisions.

### Admitted Students

Once admitted, the program has the following requirements that must be completed by orientation:

- All entering students must complete the online Health Insurance Portability Accountability Act (HIPAA) training before the MPH Orientation.
- All entering students must complete the online Protection of Human Subjects training before the MPH Orientation. The course is offered by the Collaborative Institutional Training Initiative (CITI). More information can be found on page 24 of this bulletin.
- All entering students must take an on-line Math Assessment no later than the time of Orientation (if later, it must be with permission of the Director) and prior to enrolling in the Biostatistics courses.
- Also, it is expected that incoming students will be computer literate and email capable, and have library skills sufficient for graduate work. For students with deficiencies in these areas, resources are available through the Health Sciences Center Library to acquire or update them.
- Also, it is expected that incoming students will be computer literate and email capable, and have library skills sufficient for graduate work. For students with deficiencies in these areas, resources are available through the Health Sciences Center Library to acquire or update them, as necessary.

### Curriculum

The curriculum for the MPH degree is competency-based in order to comply with current efforts to improve the quality and accountability of public health training programs. The Graduate Program in Public Health faculty developed the required MPH Core Competencies, using the Association of Schools of Public Health (ASPH), Master's of Public Health Core Competency Development Project as the starting point.

To ensure that all students have a broad understanding of the basic areas of public health, every student is required to complete all MPH Core courses satisfactorily. Students receive training in the five basic, discipline-specific, competency areas of public health: biostatistics, environmental health, epidemiology, health policy and management, and the social and behavioral sciences. Students also receive core competency education in informatics and communication, professionalism, systems thinking, research methods, and problem solving. The Community Health, Health Analytics, and Health Policy and Management concentrations have concentration-specific competencies. The program's success in transmitting the competencies to students is measured before and after completion of the Program (Orientation and Graduation Competency Assessments), as well as before and after each Core course (Pre/Post Course Competency Assessments). A table with the complete list of MPH Core Competencies and Concentration Competencies is on the Graduate Program in Public Health website.

## Overview

### MPH Core (39 credits)

Course #	Title	Credits
HPH 500	Contemporary Issues in Public Health	3
HPH 501	Introduction to the Research Process	3
HPH 506	Biostatistics I	3
HPH 507	Biostatistics II	3
HPH 508	Health Systems Performance	3
HPH 514	Epidemiology for Public Health	3
HPH 516	Environmental and Occupational Health	3
HPH 523	Social and Behavioral Determinants of Health	3
HPH 525	Evaluating Public Health Initiatives	3
HPH 550	Theories of Health Behavior & Communication	3
HPH 555	Demography & Global Health	3
HPH 562	Data Management & Informatics	3
HPH 564	Qualitative Methods	3

### MPH Culminating Experience (6 credits)

Course #	Title	Credits
HPH 580	Practicum	3
HPH 581	Capstone	3

### MPH Concentration (9 credits)

Total Credit Hours for MPH Program (54 credits)

#### Health Analytics Concentration

The mission of this concentration is to prepare public health professionals with the analytical, research, and statistical skills necessary to benchmark and evaluate health improvement initiatives in community and health care settings. Increasingly, the health field is challenged to adopt an evidence-based approach to preventing and treating disease and disability. The concentration in Health Analytics will play a critical role

in meeting this challenge. There is a special emphasis on integrating cost effectiveness and cost benefit concepts into the curriculum so that resource allocation issues are considered.

The faculty has training in research design, implementation of research projects, and analysis of data as well as expertise in evaluating the performance of specific areas of the health system. Faculty members study a variety of health issues including health care quality improvement, patient decision-making, and determinants of health and disease. Some faculty members work with physicians to improve clinical outcomes for patients with heart disease, cancer, asthma, and other conditions. Others work with health care administrators to increase efficiency in the use of health care resources in hospitals and other medical care settings. Others work with organizations to improve health in communities.

#### Required Courses

Course #	Title	Credits
HPH 560	Applied Biostatistics	3
HPH 559	Advanced Research Methods	3
HPH 534	Spatial Analysis: Health Application	3

#### Community Health Concentration

The mission of this concentration is to prepare students for community-based work in public health. Students will acquire skills and knowledge related to planning, implementing, and evaluating community health improvement projects and interventions, as well as learn the principles of community engagement and community-based participatory research.

#### Required Courses

Course #	Title	Credits
HPH 551	Practice of Health Communications	3
HPH 552	Planning and Implementing Community Health Initiatives	3
HPH 553	Advanced Evaluation of Community Health Initiatives	3

#### Health Policy and Management Concentration

The mission of this concentration is to provide students with the policy background, knowledge and skills that will be particularly useful in advancing careers involving management functions in health and healthcare related organizations. Courses address economics, policy and principles of

management. Some courses in this concentration are offered in collaboration with Stony Brook's College of Business.

## Required Courses

Course #	Title	Credits
HPH 527	Health Economics and Policy	3
HPH 529	Fundamentals of Healthcare Management	3
	<i>Choose one course from the following list</i>	
MBA 501	Managerial Economics	3
MBA 505	Marketing	3
MBA 509	Operations Management	3

Or, with approval of the Concentration Head (and consent of the instructor or Program Director, if needed), other courses in the University related to the student's goals may be substituted.

## Combined and Concurrent Degree Programs

### Combined Undergraduate Programs

The *Program in Public Health* offers several combined undergraduate degree programs including a Bachelor of Science (BS) in Applied Mathematics and Statistics/MPH; a Bachelor of Science (BS) in Pharmacology/MPH; a Bachelor of Arts (BA) in Women's Studies/MPH; and a Bachelor of Arts (BA) in Earth and Space Sciences/ MPH.

For the first two or three years, students complete undergraduate coursework including General Education and undergraduate major requirements. During either their third or fourth year (once a majority of their undergraduate degree requirements are completed), students begin taking graduate courses as outlined by the plan of study. In their fifth and sixth years, students complete the remaining graduate requirements for the MPH degree.

### Admission Requirements

**Under Stony Brook policy, students must complete 60 credits of undergraduate coursework (Junior Status) with a minimum GPA of 3.0 in all college work before being admitted into any combined Bachelor/Masters degree program. Additional entry requirements for the MPH combined degree consist of:**

- GPA of at least 3.3 for courses required in undergraduate major

- Two letters of recommendation from faculty members in the undergraduate major
- Completion of the MPH online application, using SOPHAS Express, the centralized application for schools and programs in public health, for review by the MPH Admissions Committee

### Combined and Concurrent Graduate Programs

The *Program in Public Health* collaborates with the following programs to offer combined programs with the Master of Public Health degree:

1. Master of Business Administration (MBA)
2. Master of Arts in Public Policy (MAPP)
3. Master of Science in Nutrition (MS) (on-line)
4. Doctor of Medicine (MD)
5. Doctor of Dental Medicine (DDS) (concurrent)

### MBA/MPH

In collaboration with the College of Business, we offer a combined MBA/MPH degree which prepares students for a management career in the health field. The MBA/MPH program includes about 20 credits of overlap, which reduces the total number of credits in the combined program to 81. Students select a MPH concentration in any of the three concentrations: Community Health, Health Analytics, or Health Policy and Management. Students receive both degrees upon completion of the entire program.

*Special Note:* Students in the combined MBA/MPH program pay the graduate MBA tuition rate. For more information visit: <http://www.stonybrook.edu/bursar/tuition/mba.shtml>.

### MPH/MAPP

In collaboration with the Political Science Department, we offer a combined MPH/MAPP degree that prepares students for a career in public health administration and policy-making. The MPH/MAPP program includes about 24 credits of overlap, which reduces the total number of credits in the combined program to 63-66. Students select a MPH concentration in any of the three concentrations: Community Health, Health Analytics, or Health Policy and Management. Students receive both degrees upon completion of the entire program.

### MPH/MS in Nutrition

In collaboration with the Department of Family Medicine, Program in Nutrition, we offer a combined MPH/MS in Nutrition degree for individuals who are interested in leadership roles in which knowledge of nutrition is both marketable and practical. The MPH/MS Nutrition program includes 12-15 credits of overlap, which reduces the total number of credits in the combined program to 75-78 (depending on the MPH concentration). Students select an MPH concentration in Health Analytics, Health Policy and Management, or Community Health. Students receive both degrees upon completion of the entire program. All MPH courses are offered on-site. All Nutrition courses are offered on-line.

### Admission Requirements Combined Programs

Students who wish to be considered for admission into the combined MBA/MPH, MPH/MAPP, or MPH/MS in Nutrition

degree program must comply with all admission requirements for the MPH degree alone. The MPH Admissions Committee reviews completed applications initially and recommends eligible applicants to the College of Business Admissions Committee, Political Science Department, or Nutrition Program, respectively, for final approval.

- *MBA/MPH applicants may submit GMAT scores in lieu of GRE scores.*
- *MPH/MS in Nutrition additional requirements:*
- Physiology (laboratory not required)
- A nutrition course if the undergraduate degree is not in nutrition/dietetics. Prospective students can take the *Survey of Nutrition* course offered by the Program as a non-matriculated student or use a previously taken nutrition course with approval of the course syllabus by Program coordinator. Alternatively, prospective students can be admitted to the Program with the condition that they successfully complete the Survey of Nutrition course. If the student successfully completes the Survey of Nutrition course they can proceed with registration for the subsequent semester.

For more information about these programs, contact the Assistant Director for Student Affairs at (631) 444-2074

### **MD/MPH (Combined) and DDS/MPH (Concurrent) Degree Programs**

The combined MD/MPH and concurrent DDS/MPH are two programs in which Stony Brook University medical and dental students complete their MPH degree during medical or dental school (4 year program – not recommended) or during medical or dental school and an additional year (5 year program - recommended). All requirements of the MPH and MD or DDS degrees are met. Up to four medical students and two dental students each year are awarded full MPH tuition scholarships, while enrolled full-time in their MD or DDS programs.

### **Admission Requirements**

Applicants applying for admitting to both the Program in Public Health (PPH) and the School of Medicine (SOM) or School of Dental Medicine (SDM) need the following:

1. The application process for the PPH is separate from the application to the Stony Brook SOM or SDM. Admission to one program is determined independently from admission to the other; and admission to one program does not guarantee admission to the other.
2. To avoid the need to send support documents to both programs, SOM or SDM applicants who also apply to the PPH can request in writing that the SOM or SDM provide to the MPH Admissions Committee a copy of their support documents including MCAT or DAT scores, official transcripts from all post-secondary schools, and letters of recommendation for their application for admission to the PPH.
3. SOM and SDM applicants who apply to the PPH must provide one additional reference that addresses the applicant's public health leadership potential.

## **Advanced Graduate Certificate in Health Communications**

The Advanced Graduate Certificate in Health Communication is offered as collaboration between the *Program in Public Health* and the School of Journalism. This 18-credit program is designed for members of the public health workforce, healthcare professionals, master's and doctoral candidates, and media professionals in journalism, marketing, public relations, and communications. The certificate prepares students to be effective communicators, bridging the gap between medicine and public health and the world-at-large and providing the skills necessary to communicate health-related issues to the public, directly or through the press. Graduates will likely find employment in academic settings, research facilities, public health organizations, and healthcare institutions. Graduates may also serve as health communications experts in media, consulting, and public relations settings. Working professionals will gain communication skills that help them advance within their respective public health, healthcare, or media professions.

Notes for MPH applicants and students also pursuing a certificate program:

- Students pursuing an Advanced Graduate Certificate concurrently with the MPH at Stony Brook may use approved courses to count towards both the certificate and degree.
- Students who have earned the Advanced Graduate Certificate prior to matriculation in the MPH will be held to the 12 credit rule outlined in the Non-Matriculated Students section of the Program in Public Health bulletin.

Students who have completed the MPH prior to acceptance into the Advanced Graduate Certificate will not be able to count MPH credits towards the certificate. In this circumstance, students may take different courses than those counted towards the MPH degree.

For more information, visit our website: <http://publichealth.stonybrookmedicine.edu/>

## **Advanced Certificate in Health Education and Promotion**

The Advanced Graduate Certificate in Health Education and Promotion is a 25-credit program that will enhance students' knowledge, experiences, and skills in health education and promotion and positively impact their chosen career pathway in public health. It is anticipated that graduates will find or enhance employment in academic settings, research facilities, public health organizations, or health care institutions. In addition, courses in this certificate address the health education competencies that are the basis for the nationally recognized Certified Health Education Specialist (CHES) certification offered by the National Commission for Health Education Credentialing, Inc. Students completing this certificate will obtain some of the credits necessary for eligibility to take the exam.

Notes for MPH Applicants and Students:

- Students pursuing an Advanced Graduate Certificate concurrently with the MPH at Stony Brook may use approved courses to count towards both the certificate and degree.
- Students who have earned the Advanced Graduate Certificate prior to matriculation in the MPH will be held to the 12 credit rule outlined in the Non-Matriculated Students section of the Program in Public Health Bulletin.

Students who have completed the MPH prior to acceptance into the Advanced Graduate Certificate will not be able to count MPH credits towards the certificate. In this circumstance, students may take different courses than those counted towards the MPH degree.

For more information, visit our website: <http://publichealth.stonybrookmedicine.edu/>

## Phd in population health and clinical outcomes research

This program is designed to meet the training needs of PhD-prepared scientists in the fields of population health and clinical outcomes research. The program draws upon the expertise of our faculty to successfully deliver the curriculum, and the resources available at Stony Brook University to implement and sustain the program.

For all information regarding admissions and curriculum, please see the [Graduate Bulletin](#) or visit the program website, <https://publichealth.stonybrookmedicine.edu/phcor>.

# School of Health Technology and Management

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## About the School

American demographics, economics and technological advances in diagnostics, treatment and therapy have combined to create an environment where patients are diagnosed earlier, are more likely to survive disease or trauma, live longer, participate in ambulatory-based treatment, and asked to take a more participatory role in their own health care.

As advances in science and information technology collide with a new consumerism and cry for reform of systematic health care processes, educators find themselves in the midst of transition as we move from one health care model to another. Whatever the new health care model evolves into, you can be assured that the School of Health Technology and Management will provide its graduates with the necessary skills to practice their profession.

The school offers baccalaureate, master's, and doctoral degrees in both clinical and non-clinical areas that include applied health informatics, athletic training, clinical laboratory sciences, health administration, health and rehabilitation sciences, health care policy and management, healthcare quality and patient safety, health science, medical molecular biology, occupational therapy, physical therapy, physician assistant, polysomnographic technology, and respiratory care. These programs are full-time entry-level except for the post professional program for Physician Assistants, and the graduate programs in health care policy and management, healthcare quality and patient safety, and medical molecular biology which are for health care professionals. Students in the professional programs pursue core and basic science curricula, as well as the professional courses required for competence in their specific profession.

The School of Health Technology and Management offers non-credit certificate programs in anesthesia technology, EMT-paramedic, medical dosimetry, nuclear medicine, phlebotomy, radiation therapy, and radiologic technology.

## The Center for Public Health Education

The Center for Public Health Education (CPHE) has been involved in education for health professionals and human service professionals since 1983. Its mission is to provide relevant and critical information on HIV/AIDS that will support health and human service professionals caring for people infected with HIV/AIDS; promote quality care and target resources needed to meet the needs of underserved communities; promote HIV prevention, education, and harm reduction; and influence public policy relevant to the HIV/AIDS epidemic.

The number of programs provided by the CPHE document the presence of a strong educational commitment and a very active continuing program of education. Tens of thousands of providers from the Long Island community have participated in a wide variety of programs conducted by the CPHE throughout the region.

- The CPHE is a partner in the Northeast/Caribbean AIDS Education and Training Center (AETC), funded by the Health Resources and Services Administration (HRSA). As a local performance site, the CPHE designs HIV-related training programs tailored to the specific needs of clinicians. Programs range from general HIV/AIDS overviews to in-depth, advanced trainings, mini-residencies, and clinical consultations. Focused training is offered in subspecialties that address the needs of men, women, and children with HIV, as well as special populations such as adolescents, inmates, substance abusers, and the mentally ill.
- The New York State Department of Health AIDS Institute provides funding to the CPHE to develop and deliver a wide range of HIV educational programs that include the new NYS 2017 HIV Testing Guidance as well as other relevant topics such as cultural competency, and HIV risk reduction and harm reduction, viral hepatitis and STIs. CPHE also oversees a Peer Certification program for individuals living with HIV, Hepatitis C or assessing Harm Reduction services.

For further information contact:

The Center for Public Health Education,  
School of Health Technology and Management,  
Benedict House,  
Stony Brook University,  
Stony Brook, New York 11794-4016  
(631) 444-3209 Fax: (631) 444-6744

Attention: Ilvan Arroyo, Associate Director

## Goals and Objectives

Advances in technology require state-of-the-art equipment for training in these fields. The School of Health Technology and Management offers the most up-to-date, advanced equipment for training our health care graduates. In addition, advances in information technology and electronic medical records require that our students become familiar with the latest health care models. Our school is committed to the team approach in health care, and to the education and training of highly competent health care professionals who can assume leadership roles in diverse health care settings.

## Professional Program Admission

Students seeking admission to the applied health informatics, athletic training, clinical laboratory sciences, healthcare quality and patient safety, medical molecular biology, occupational therapy, physical therapy, physician assistant, polysomnographic technology, and respiratory care programs in the school, either from the College of Arts and Sciences at Stony Brook or from other institutions, must be specifically accepted to the school and to the program they have selected.

Stony Brook students may declare a major in Health Science, which leads to a Bachelor of Science degree. Health Science majors will spend three years on west campus taking liberal arts, science, and health-related courses and will fulfill all Stony Brook Curriculum (SBC) requirements. The senior year will be spent enrolled in classes in the Health Sciences. Stony Brook freshman may also declare a major in athletic training, clinical laboratory sciences, polysomnographic technology, and respiratory care.

## Admission Requirements

Candidates for admission to full-time upper-division study in athletic training, clinical laboratory sciences, polysomnographic technology, and respiratory care must have a minimum cumulative average of 2.5 and 60 semester hours of credit. In addition, all entry-level clinical programs require the completion of three credits in English composition (equivalent to WRT 102), six credits in social and behavioral sciences, three credits in arts, three credits in humanities, and six to eight credits in natural science. (Refer to "Requirements for the Bachelor's Degree" at the beginning of this Bulletin for specific areas of study to satisfy these requirements.) Candidates for admission to the graduate programs require a minimum grade point average of 3.0 and completion of a baccalaureate degree prior to admission. Transfer credit is given for course work completed with grades of C or higher.

The individual programs have additional requirements. Please check the admission requirements for entrance to the specific program to which admission is sought. Refer to "Health Sciences Admissions" at the beginning of this Bulletin for

application information. Technical standards for professional programs are available upon request.

## Selection Factors and Procedures

Programs within the school base selection of students on several factors. Experience in the particular field or in the health care system, evidence of ability to succeed academically and demonstrated concern for human beings are considered as primary selection factors. These factors are judged by letters of recommendation, personal interviews, and transcripts, and by personal statements from the applicants.

Admission to the school is determined by the school's Admissions Committee, which is composed of a representative from each department. The Admissions Committee of each program reviews the candidate's transcripts, records, and application forms, conducts interviews, and makes recommendations to the school's Admissions Committee. Offers of admission are made in order of merit. Although applicants may meet minimum admission requirements, they might not be offered an interview or admission since places are limited by available space.

## Recommended Freshman and Sophomore Curricula

The general policy of the school is to avoid, to the greatest extent possible, specific prerequisite course requirements. The purpose of this policy is to permit flexibility in evaluating the records of candidates for admission. Emphasis is placed upon the extent to which the student is prepared through training and experience to pursue the program.

It is recommended that students interested in a career in the health professions choose a sufficient number of courses in the physical and natural sciences to develop a broad understanding of these fields of study. At least one course in English composition, as well as a spectrum of courses in the humanities and social and behavioral sciences, is required.

In the case of a few programs, rigid accreditation criteria for the school to specify special prerequisite course work. Prospective students should consult the information given in subsequent sections of the Bulletin relating to the particular program in which they are interested for special recommendations or prerequisite requirements. These are listed as "Admission Requirements" under the heading for the specific program.

Faculty members of the school are available to serve as advisers to freshmen, sophomores, and any other undergraduates who aspire to programs in the school. Consult the assistant dean for academic and student affairs for assistance in acquiring a faculty adviser. Undergraduate students interested in applying to an upper-division program are encouraged to seek faculty advisement early.

## Policies

### Physical Examination and History

Documentation of satisfactory health status, prior to beginning classes, is required. Documentation must include a health history and physical examination report completed by a licensed physician (M.D. or D.O.), registered physician

assistant or registered nurse practitioner, not earlier than six months prior to entry into the school; a report of chest x-ray or PPD Mantoux test for tuberculosis; and a report of measles, mumps, rubella, hepatitis, and varicella antibody titer completed within the same period. A note certifying completion of the examination is not acceptable; a full examination report is required. This documentation is submitted to the student health service as part of the student's health record. The school requires an updated health assessment at the beginning of each year. Additional requirements are specified in the "Physical Examination Policy" section of this Bulletin.

### **Clinical Insurance**

Students admitted to the school are required to purchase liability insurance prior to participation in clinical assignments. (Costs vary by program and can range from \$15-\$175 per year.) Clinical sites also require students to have proof of health insurance before beginning clinical rotations. It is the individual student's responsibility to arrange appropriate coverage.

### **Academic Standing**

The School of Health Technology and Management recognizes the necessity for knowledge, as well as superior behavioral, ethical and clinical standards. Students are evaluated on knowledge, professional competence and skill, adherence to professional codes of ethics, sensitivity to patient needs, ability to work with and relate to peers and other members of the health care team, attitude, attendance, punctuality, and professional appearance. These standards foster the health care team concept and have been established to protect the rights of the patients and communities served by the Health Sciences Center. Failure to demonstrate these important qualities will be reflected in a student's grade.

Undergraduate students must maintain an overall grade point average of 2.0 and a 2.5 minimum average in required professional courses to remain in good standing. Any student who earns a grade point average below 2.0 overall or 2.5 in professional courses will be placed on probation for the following period and terminated if his/her average does not attain those levels at the end of the probationary period. Graduate students must maintain an overall grade point average of 3.0 to remain in good standing. Normally, a student on probation will not be permitted to participate in the required periods of full-time clinical practice. Specific programs may have additional academic criteria or requirements. Refer to individual programs for details.

### **Grading Policy**

The School of Health Technology and Management follows the grading policies stated in the front of this Bulletin with the exceptions that 1) the P/NC, R, and S/U grades are not used; 2) S/F may be used in specifically designated courses where finer grading distinctions are impractical; and 3) D grades may be given to graduate students in graduate level courses for which the credit is counted in determining the grade point average, but no credit is granted toward the Master of Science or Doctor of Physical Therapy degrees.

### **Dean's List**

A Dean's List of superior undergraduate students is compiled at the end of the fourth and eighth modules of each academic year. To be eligible for the Health Technology and Management Dean's List, students must be matriculated full time in a baccalaureate program of the school and have a minimal grade point average of 3.60 (seniors) or 3.45 (juniors).

### **Academic Dishonesty**

Academic dishonesty shall be defined as misrepresentation of authorship or in any fashion falsifying part or all of any work submitted or intended to be submitted for academic credit. Such misrepresentation or falsification includes, but is not limited to, the use of supportive documentation, mechanical aids, or mutual cooperation not authorized by the faculty.

The principles of academic dishonesty also apply to those courses taken during the clinical or internship phases of any program which are taken for credit or otherwise required for completion of a program. Due to the critical nature of such requirements and student responsibility for the welfare of patients and institutions providing medical care, academic dishonesty is further defined to include the falsification of patient or institutional records, knowingly violating accepted codes of professional ethics or knowingly engaging in activities that might endanger the health or welfare of patients or resident institutions.

The penalty for any substantiated act of academic dishonesty shall be expulsion from the school, unless the dean and the chair of the department in which the accused is a student concur with a Committee on Academic Standing recommendation for a modified penalty.

### **Appeals**

Students may appeal probation or termination by requesting reconsideration of this decision by the dean. All other academic regulations in effect at Stony Brook University and in the Health Sciences Center ordinarily apply to students of this school. Consult the "Academic Regulations and Procedures" at the beginning of this Bulletin for further information.

### **Courses**

Courses offered by the school are intended for Health Technology and Management students only. However, some are open on a limited basis, with permission of the instructor, to other students. Priority is given to Health Sciences students.

### **Academic Calendar**

The School of Health Technology and Management is one of the few schools within the University that is faced with the need to meet concurrent academic and professional requirements. These mandates, joined with the geographic challenges incurred in obtaining suitable clinical experience in the Long Island area, make it impossible to adhere to the usual academic calendar. In order to meet these professional needs, a special academic calendar has been developed. This calendar provides for modules of five weeks in length; courses consist of one, two, three, or more modules as determined by

the academic faculty. (See the “Academic Calendar” section of this Bulletin and related publications.)

## FINANCIAL AID

Financial aid, part-time employment, etc., is available in limited amounts. Students may qualify for some of the general support programs administered by the Health Sciences Office of Student Services. For advice and detailed information, contact the Health Sciences Office of Student Services. (See the “Financial Assistance” section of this Bulletin.)

## CLINICAL RESOURCES

Clinical instruction takes place at more than 215 clinical affiliates of Stony Brook Medicine, in addition to University Hospital. Other sections of this Bulletin describe University Hospital and key affiliates which now exceed 2,400 beds. Each program director, in consultation with the dean, negotiates affiliation arrangements for the use of those clinical facilities that will provide the best possible range and quality of instruction for students. Therefore, not all programs necessarily send students to any one hospital or clinical site. Each program director can provide, upon request, information about current arrangements for clinical instruction for his/her student group. Each student is personally responsible for arranging transportation to and from clinical assignments.

## Graduation and Degree Requirements

### Undergraduate Degree (Baccalaureate)

Candidates must have earned a minimum of 120 semester hours of credit (including credit granted for proficiency examinations, etc.), with a grade point average of 2.0 during the junior and senior years of study. (Refer to “Requirements for the Bachelor’s Degree” in this Bulletin for a complete description.)

All candidates for graduation must complete the general degree requirements, school and core curricula, and specific program requirements.

### Graduate Degrees (Masters or Doctorate)

A cumulative grade point average of 3.0 is required for graduation. The minimum passing grade for each graduate course is a C, unless otherwise noted. See program descriptions for special academic requirements. All degree requirements for the Health Care Policy and Management, Healthcare Quality and Patient Safety, and Post Professional Physician Assistant programs must be completed within five years. In addition, the Health Care Policy and Management program requires that a minimum of 30 semester hours of graduate study be completed at Stony Brook.

## Courses

Courses offered by the school are intended for Health Technology and Management students only. However, some are open on a limited basis, with permission of the instructor, to other students. Priority is given to Health Sciences students.

# Degrees and Programs

## program in Applied health informatics leading to a master of science degree

Program Director: Carmen McCoy

The School of Health Technology and Management offers a Master of Science degree in Applied Health Informatics (MS/AHI). The MS/AHI is a full-time, 15 month, 52 credit degree program offered at the Stony Brook Southampton campus. Students enroll in two traditional 15 week fall and spring semesters and four 6-7 week summer sessions. Students are expected to complete the degree program within 15 months. The graduate program was designed to appeal to clinically prepared health care graduates, computer science graduates and non-clinical health-related graduates.

The curriculum was developed with input from regional CIOs, health IT hiring managers, and national experts to ensure that graduates have the knowledge, skills and competencies required to work in the healthcare industry. The MS/AHI curriculum provides broad knowledge and skills of health IT and in-depth study in one specialty field in health IT.

In addition, students complete 480 hours of practicum experience at large healthcare centers, community-based health care organizations, or with vendors in the region. The practicum provides students with on-the-job-training to build their resumes with work experience. The MS/AHI curriculum:

- Fosters critical thinking, evidence-based practice, leadership and professionalism with an emphasis on the development of professional knowledge, skills and competencies that are valued and needed by healthcare organizations.
- Utilizes problem-based learning, case studies, and student presentations as instructional methodologies.
- Focuses on the application of health informatics with the primary purpose of responding to the high demand workforce needs.
- Includes a 16 credit internship which will provide the opportunity to demonstrate mastery of the curriculum and build skills and competencies that will enhance the students' ability to find gainful employment in the region.

## Program Requirements

The MS/AHI curriculum includes a core sequence of courses (24 credits), as a foundational base of knowledge, skills, and competencies in Health Informatics put forth by the Commission on Accreditation for Health Informatics Education (CAHIIM), taken during the summer I, II and fall semesters. Students then select a specialization of study (12 credits) for the spring semester in Knowledge Management and Leadership, Clinical Informatics, or Data Analytics. Each specialization requires students to complete 16 credits of practicum courses. Practicum I (4 credits) is completed during the spring semester with the specialization courses and practicum II & III (12 credits) are completed during summer sessions I & II.

## Admissions Requirements

The MS in Applied Health Informatics accepts applicants for admission each summer. The program admission requirements are as follows:

- A baccalaureate degree from an accredited college or university
- An overall 3.0 undergraduate GPA
- Three letters of recommendation
- Essay demonstrating an in-depth understanding of, and commitment to, this dynamic profession

*Note: Graduate Record Examination (GRE) is not required for admission*

For applicants with an overall GPA of less than 3.0, but substantive coursework (minimum of 14 credits) that is directly applicable to the study of health informatics, applications will be evaluated by faculty based on the GPA of this coursework to be considered for conditional admission. If by the completion of the first enrolled semester, a conditionally admitted student is able to maintain a 3.0 graduate GPA, the applicant will be recommended for full admission to the master's degree program.

## Required Core Curriculum

The core curriculum is common to all students regardless of specialization. The core curriculum is taken during summer sessions and fall semester.

Course #	Title	Credits
HHA 500	Health Care Delivery Systems	3
HHA 501	Biomedical and Health Informatics Essentials	3
HHA 502	Health Information Systems and HIT	3
HHA 503	Regulations, Confidentiality, Privacy and Security	3
HHA 504	Database Design and Development for Health Informatics Professionals	3
HHA 505	Leadership and Management Essentials	3
HHA 506	Research Design and Methodology for the Health Informatics Professionals	3

Course #	Title	Credits
HHA 507	Statistics for Health Informatics Professionals	3

## Specialization Curriculum

Students select a specialization of study in one of the three specialty areas below.

### Clinical Informatics Specialization Curriculum

The goal of this specialization is to develop the knowledge, skills, and competencies required of clinical informatics personnel. The curriculum aligns with domains and learning outcomes put forth by Gardner, et al. (2009) in the Journal of American Medical Informatics Association's article entitled, core content for the subspecialty of clinical informatics.

Course #	Title	Credits
HHA 530	Clinical Decision Making and Process Improvement	4
HHA 531	Health Information Systems	4
HHA 532	Leading and Managing Clinical Information Systems Change	4
HHA 584	Specialization Practicum I	4
HHA 586	Specialization Practicum II	6
HHA 588	Specialization Practicum III	6

### Knowledge Management and Leadership Specialization Curriculum

The goal of this specialization is to develop the knowledge, skills, and competencies required by leaders in Health Informatics. The curriculum aligns with domains and learning outcomes put forth by AHIMA Competencies for Master-level HIM.

Course #	Title	Credits
HHA 540	Health Data Management	4
HHA 541	Information Technology and System	4
HHA 542	Advanced Organizational Leadership and Management	4

Course #	Title	Credits
HHA 584	Specialization Practicum I	4
HHA 586	Specialization Practicum II	6
HHA 588	Specialization Practicum III	6

### Data Analytics Specialization Curriculum

The goal of this specialization is to develop the knowledge, skills, and competencies required to manipulate, analyze, interpret and present healthcare data using application software. This specialization was developed by national leaders in the field. Note: Departmental approval required to register for this specialization.

Course #	Title	Credits
HHA 550	Applied Healthcare Analytics	4
HHA 551	Big Data Technologies in Healthcare	4
HHA 552	Healthcare Data Visualization	4

### Practicum Courses

The practicum I is taken during the spring semester, practicums II & III are offered during summer sessions.

Course #	Title	Credits
HHA 550	Specialization Practicum I	4
HHA 586	Specialization Practicum II	6
HHA 588	Specialization Practicum III	6

## Program in Athletic Training Leading to the Bachelor of Science Degree

***The Athletic Training Program is no longer accepting applications for admission.***

Program Chair: Kathryn Koshansky

The Athletic Training Program, offered by the School of Health Technology and Management, is accredited by the Commission on Accreditation of Athletic Training Education (CAATE).

The program is designed for students interested in becoming an Athletic Trainer (AT). Athletic trainers are healthcare professionals who collaborate with physicians to optimize

activity and participation of patients and clients. As members of the sports medicine team, athletic trainers specialize in the prevention, clinical diagnosis and intervention of emergency, acute and chronic medical conditions involving impairment, functional limitations and disabilities. Athletic Training is recognized by the American Medical Association (AMA) as a healthcare profession. Athletic trainers' work settings can include high schools, colleges, universities, professional sports teams, hospitals, rehabilitation clinics, physicians' offices, corporate and industrial institutions, the military, and the performing arts.

The student's comprehensive professional preparation is directed toward the development of specified competencies in the following content areas: Evidence-Based Practice, Prevention and Health Promotion, Clinical Examination and Diagnosis, Acute Care of Injury and Illness, Therapeutic Interventions, Psychological Strategies and Referral, Healthcare Administration, and Professional Development and Responsibility. Formal instruction involves teaching of required subject matter in structured classroom, clinical, and laboratory environments. All students are required to fulfill their clinical education requirements under the direct supervision of a preceptor. Clinical education provides the student with authentic, real-time opportunities to practice and integrate athletic training knowledge, skills, and clinical abilities, including decision-making and professional behaviors required of the profession in order to develop proficiency as an athletic trainer.

The curriculum prepares students for the Board of Certification, Inc. (BOC) examination. Upon passing this examination, an individual may apply for certification by the New York State Education Department Office of Professions. In addition to the baccalaureate degree, the school's Certificate of Professional Achievement in Athletic Training is awarded upon satisfactory completion of all required course work.

### Admission Requirements

***The Athletic Training Program is no longer accepting applications for admission.***

Candidates for the athletic training education program must meet the upper division admission requirements of the School of Health Technology and Management, including a minimum of 60 credits of required, recommended, and elective courses. The requirements may be fulfilled through previously completed college studies. In addition to the general academic requirements for junior status in the School of Health Technology and Management, the program requires candidates to meet the school's natural science requirement. The following course work require minimum grades of "C": 3 credits of Introduction to Psychology; 3 additional credits of 200-400 level social behavioral sciences; \*8 credits biology (to include 1 course in human physiology); \*4 credits chemistry; \*4 credits physics; 3 credits calculus; 3 credits statistics; 3 credits medical terminology; 2 credits nutrition; and 2 credits Supplement Use in Sports (only available online through Stony Brook University). \*Science classes must have labs. Natural science courses (biology, chemistry, physics) less than 10 years old are preferred. \*Please note that Stony

Brook University may require prerequisites for some of these courses.

- 3 credits of introductory (SBS) social & behavioral sciences (PSY 103-Introduction to Psychology (or equivalent) with a minimum grade of "C")
- 3 credits of intermediate or higher level (200-400) of social and behavioral sciences (SBS+)

The following courses require a minimum grade of "C":

- PSY 103 - Introduction to Psychology (SBS)
- CHEM 131 - General Chemistry IB (SNW)
- CHEM 133 - General Chemistry Laboratory I (SNW)
- BIO 202 - Fundamentals of Biology: Molecular and Cellular Biology (STEM+)
- BIO 204 - Fundamentals of Scientific Inquiry in the Biological Sciences I
- PHY 121/123 - Physics for the Life Sciences I/Lab (SNW) or PHY 113/115 - Physics of Sport/Lab (SNW)
- BIO 203 - Fundamentals of Biology: Cellular and Organ Physiology (STEM+) or HAN 202 - Human Anatomy and Physiology for Health Science II (STEM+)
- MAT 125 - Calculus A (QPS)
- AMS 102, 110 or PSY 201- Statistics (QPS)
- HAN 312 - Medical Terminology and Human Anatomy
- HAL 376 – Introduction to Nutrition
- HAL 375 - Supplement Use in Sports

The program also requires applicants to successfully complete each of the following courses with a minimum grade of "B":

- HAL 205 Introduction to Athletic Training (CER, GLO)
- HAL 210 Emergency Care of Athletic Injuries (CER)
- HAL 300 Kinesiology
- HAN 200 - Human Anatomy and Physiology for Health Science I (SNW) or ANP 300 - Human Anatomy (STEM+)

Candidates must complete required course work by the end of the spring term of the year for which the application is made. Certification in healthcare provider cardiopulmonary resuscitation (BLS) is required. A minimum of a 2.5 cumulative grade point average is required. Fifty observational hours with an athletic trainer is also required for admission.

All students, except freshmen declared majors, must submit an online application by the deadline (March 15th) of the year they wish to enter. The application process includes an interview with the ATP Admissions Committee.

### Freshmen Declared Four-Year Major

Stony Brook freshmen can declare the four-year athletic training major by contacting the Athletic Training program at (631) 632-2837 and meeting with the program chair.

Students successfully completing the lower division component of the major are advanced to the upper division professional program. Freshmen declared majors must successfully complete 60 credits and program prerequisites by the end of the sophomore year, and have a minimum cumulative grade point average of 2.75 and a \*science GPA of 2.5.

In addition to general coursework and program specific courses, the freshman declared major student must meet the academic standards listed above and complete HAL 205

Introduction to Athletic Training (GLO) with a minimum grade of B+.

### Program Requirements

Athletic training students must complete the following required courses:

#### Professional Courses (Year One)

Course #	Title	Credits
HAL 305	Prevention and Care of Athletic Injuries	3
HAL 306	Prophylactic Taping, Bracing and Equipment Fitting	2
HAL 320	Clinical Evaluation and Diagnosis of the Lumbar Spine and Lower Extremity	3
HAL 321	Clinical Evaluation and Diagnosis of the Head, Cervical Spine and Upper Extremity	3
HAL 345	Therapeutic Modalities	4
HAL 360	Rehabilitation of Athletic Injuries	4
HAL 370	Exercise Physiology	4
HAL 481	Athletic Training Practicum I	3-6
HAL 482	Athletic Training Practicum II	7
HAL 483	Athletic Training Practicum III	7

#### Professional Courses (Year Two)

Course #	Title	Credits
HAL 351	Research Methods and Biostatistics	3
HAL 355	General Medical Conditions and Disabilities in the Physically Active	4
HAL 435	Organization and Administration in Athletic Training	3

Course #	Title	Credits
HAL 450	Senior Research Seminar in Athletic Training	3
HAL 460	BOC Exam Primer	1
HAL 484	Athletic Training Practicum IV	3-6
HAL 485	Athletic Training Practicum V	7
HAL 486	Athletic Training Practicum VI	7
HAL 499	Athletic Training Teaching Practicum	2

### Special Academic Requirements

An Athletic Training student will fulfill the upper division writing requirement by successful completion of the research paper for HAL 450.

Professional courses (HAL) must be taken in a sequential manner. A minimum grade of C is required in each course. Students who receive a grade of "C-", must remediate the insufficient grade before progressing on to the next course in sequence. Students who receive a grade of "D+" or below must retake the course and achieve a minimum grade of C before progressing to the next course in the sequence.

Professional HAL courses may only be repeated once. Failure to obtain the grade of "C" or higher in two attempts may result in the recommendation for termination from the program.

### Program in Clinical Laboratory Sciences Leading to the Bachelor of Science Degree

Program Chair: Kathleen Finnegan

The Department of Clinical Laboratory Sciences offers an upper-division program leading to the Bachelor of Science degree. Stony Brook freshmen are given the option to declare clinical laboratory sciences as a lower-division major. A double major in clinical laboratory sciences and biology is available. A part time online-hybrid program is also available. Clinical laboratory scientists utilize a wide variety of sophisticated equipment and skills to perform tests that analyze specimens to produce data for the diagnosis, prevention, and treatment of disease. Many of the same tests are used for organ transplants, therapeutic drug monitoring, crime investigation, genetic studies, and research. The program now offers three specializations (Forensic Medical Diagnostics, Laboratory Information Systems, and Clinical Cytogenetics) within its traditional clinical laboratory curriculum.

The majority of clinical laboratory scientists work in hospital laboratories; however, many job opportunities exist in other areas such as research and development, industry, sales and technical services, health departments, and computer firms.

Competitive salaries, career advancement, and a versatile background make the clinical laboratory professional well-equipped to enter a variety of scientific fields. The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), located at 5600 N. River Road, Suite 720 Rosemont, IL 60018, (773) 714-8880. In addition to the baccalaureate degree, the school's Certificate of Professional Achievement in Clinical Laboratory Sciences is awarded upon satisfactory completion of all required coursework. The Clinical Laboratory Sciences program is a New York State licensure qualifying program.

### Admission Requirements

Candidates for the clinical laboratory sciences program must meet the upper-division admission requirements of the School of Health Technology and Management. The requirements may be fulfilled through previously completed college studies.

In addition to the general academic requirements for junior status in the School of Health Technology and Management, the Department of Clinical Laboratory Sciences requires candidates to meet the department's natural science requirement by successfully completing 8 credits of biology with laboratories, 3 credits of microbiology, 12 credits of chemistry with laboratories (including one course in organic chemistry), and 3 credits of statistics.

In order to be eligible for enrollment to the specializations, students must complete all the requirements for the Clinical Laboratory Sciences degree and the applicable requirements associated with the individual specialization. An Introduction to Computer Science course is recommended as an additional prerequisite for the Laboratory Information Systems specialization. A genetics course is recommended for the Clinical Cytogenetics specialization.

All prerequisite and recommended science courses must be designated for science majors. Stony Brook freshmen are able to declare a lower-division clinical laboratory sciences major. To advance to junior status, they must meet the requirements described above, and successfully complete HAD 210 Introduction to Clinical Laboratory Sciences with a minimum grade of A-.

\*A conditional acceptance may be granted if, upon the judgment of department faculty, there are exceptional circumstances concerning department prerequisites.

### Program Requirements

All clinical laboratory sciences students must complete the following courses for successful completion of the upper-division program leading to the baccalaureate degree.

### Basic Science Courses/Other Health Technology and Management Courses (Junior and Senior Year)

Course #	Title	Credits
HAS 332	Management Concepts for Health Professionals	1

Course #	Title	Credits
HBP 310	Pathology	3
HAD 324 (for HHCZB students only)	Pathology	3
HBV 350 (class of 2018)	Physiology	4
HAD 350 (for HHCZB students only)	Systems Physiology	4
HAS 355 (replaces HBV 350 effective fall 2017 )	Integrative Systems in Physiology	4

### Professional Courses (Junior Year)

Course #	Title	Credits
HAD 313	Clinical Biochemistry I	3.5
HAD 315	Hematology I	4
HAD 330	Foundations in Phlebotomy	1.5
HAD 331	Introductory Biochemistry	3
HAD 340	Foundations in Clinical Laboratory Sciences	1.5
HAD 335	Medical Ethics	1
HAD 363	Computer Applications in Clinical Laboratory Sciences	2
HAD 380	Clinical Microbiology I	4
HAD 381	Clinical Microbiology II	4
HAD 425	Parasitology/ Mycology	3
HAD 397	Clinical Microbiology Practicum**	6
HAD 398	Clinical Hematology Practicum I**	3

### Professional Courses (Senior Year)

Course #	Title	Credits
HAD 351	Research Literacy and Design	1
HAD 403	Medical Molecular Biology	3
HAD 411	Clinical Biochemistry II	2.5
HAD 412	Clinical Biochemistry III	2
HAD 414	Coagulation, Urinalysis and Body Fluids	4
HAD 415	Applied Immunology	3
HAD 416	Immunohematology	3.5
HAD 432	Pharmacology	1.5
HAD 460	Clinical Laboratory Quality Management	1
HAD 492	Research Tutorial	2
HAD 493	Advanced Seminar in Clinical Laboratory Sciences	2
HAD 494	Clinical Chemistry Practicum**	4
HAD 496	Histocompatibility Practicum (elective)*	1
HAD 497	Immunohematology Practicum**	3
HAD 498	Clinical Coagulation/ Urinalysis/ Body Fluids Practicum**	1

\*\* Clinical practice consists of full-time clinical instruction and practice at the clinical affiliates and other affiliated patient-care facilities.

### Special Academic Requirements

In addition to the academic policies of the school, specific academic policies of the program specify that all required courses must be successfully passed in order to remain matriculated in the program. In addition, all professional (HAD) courses with a laboratory component must be passed with a

grade of C- or better to remain matriculated in the program and to attend clinical practicums. Failure to pass all required courses, or failure to achieve a minimum grade of C- in all professional (HAD) courses with a laboratory component, will require a student to repeat the course. To graduate from the Clinical Laboratory Sciences program, a passing grade of B+ or better is required for all clinical practica (HAD 397, HAD 398, HAD 494, HAD 497, and HAD 498).

## Elective Specializations

### Forensic Medical Diagnostics

Course #	Title	Credits
HAD 304	Introduction to Forensic Sciences	1

### Laboratory Information Systems

Course #	Title	Credits
HAD 468	Laboratory Information Systems Internship	1

### Clinical Cytogenetics

Course #	Title	Credits
HAD 406	Introduction to Clinical Cytogenetics	1
HAD 506	Clinical Cytogenetics Internship	1-6

## the advanced certificate program in disability studies

Program Director: Pamela Block

The certificate program in Disability Studies focuses on multiple social and environmental factors that influence the experience of chronic conditions and functional impairments. These factors range from architectural barriers to social discrimination and have a profound influence on access to education, employment, recreation, and participation in other community activities across the life cycle.

Disability Studies draws from philosophy, history, anthropology, sociology, law, political sciences, economics, English, literary and cultural studies, Women's Gender and Sexuality Studies, critical race studies, bioethics, and many other fields. The goal of this certificate program is to train scholars from clinical and non-clinical backgrounds to use a variety of methodologies to operationalize critical theories and focus on the practical and policy implications of disability. The intent is to address social inequalities improving quality of life and community access for disabled people.

## Admission Requirements

Admission to the Advanced Certificate Program in Disability Studies is open to any full-time student enrolled in a Stony Brook graduate degree-granting program, and in certain cases independent scholars and writers, as well as clinicians and other professionals in the health fields.

A Disability Studies Program application form is required. Applicants must show writing and critical analytical abilities sufficient to pursue this course of study. The applications will be reviewed by the program director and admissions committee.

## Program Requirements

Students must take the following two courses:

Course #	Title	Credits
HAX 664	Conceptual Foundations of Disability Studies 1890s-1990s	3
HAX 668	Emerging Topics in Disability Studies	3

One of the following three courses (3 credits) is required:

Course #	Title	Credits
HAX 665	Disability, Participation and Justice	3
HAX 667	Disability Studies Language, Narrative and Rhetoric	3
HAX 669	Disability and Health in Local and Global Contexts	3

Two additional elective courses (6 credits) are required.

## PROGRAM IN EMERGENCY MEDICAL TECHNICIAN–BASIC LEADING TO A CERTIFICATE

Program Director: Malcolm Devine

The EMT-Basic training program is a non-degree, non-credit program designed to train students in accordance with the 1998 standards established by the United States Department of Transportation. Upon successful completion of the program, all students will be eligible to take examinations for certification as:

- New York State EMT
- Nationally Registered EMT
- AHA CPR for Health Care Providers

Certification in Advanced Cardiac/Pediatric Life Support and Basic Life Support is also part of the curriculum. The program, offered every year, consists of approximately 750 hours of didactic training and 696 hours of clinical practicum in the emergency department, paramedic ambulance, CCU, obstetrics, pediatrics and other applicable venues.

The program, available at multiple times throughout the academic year, includes approximately 130 hours of didactic instruction and 24 hours of clinical practicum in ambulance operations or emergency hospital care. EMT Basic Certification is a prerequisite for the program in Emergency Medical Technician- Paramedic.

### Admission Requirements

Applicants must be 18 years of age or older, prior to the New York State practical exam.

For further information please click [here](#)

## Program in Emergency Medical Technician–Paramedic Training Leading to a Certificate

Program Director: Paul Werfel

The EMT-paramedic training program is a non-degree, non-credit program designed to train effective and compassionate paramedics in accordance with the 1998 standards established by the United States Department of Transportation. Upon successful completion of the program all students will be eligible to take examinations for certification as:

- New York State EMT–Paramedic
- Nationally Registered EMT–Paramedic (NREMT)
- New York City REMSCO
- AHA CPR for Health Care Providers
- AHA ACLS (Advanced Cardiac Life Support)
- AHA PALS (Pediatric Advanced Life Support)

Certification in Advanced Cardiac/Pediatric Life Support and Basic Life Support is also part of the curriculum. The program, offered every year, consists of approximately 750 hours of didactic training and 696 hours of clinical practicum in the emergency department, paramedic ambulance, CCU, obstetrics, pediatrics and other applicable venues.

### Admission Requirements

Applicants must be 18 years of age or older, have a high school diploma and be a currently certified New York State EMT or AEMT.

## Graduate program in health administration leading to a master of health administration degree

Program Chair: Julie Agris

The Graduate Program in Health Administration is a 50-credit hybrid program leading to a Master of Health Administration (M.H.A.) degree that develops highly qualified health management professionals. The program couples a strong foundation in general management principles with specialized knowledge in the healthcare field. Students have the opportunity to achieve their degree through a combination of high quality, interactive distance education, intense face-to-face on campus residencies and experiential learning opportunities. In addition, all students receive one-on-one career advisement as part of a mentorship program in which seasoned healthcare managers and executives work directly with students to assist them in beginning a path to reach their ultimate goals in the health management field.

### Admissions Requirements

- Baccalaureate degree with a minimum undergraduate grade point average of 3.00.

### Program Requirements:

All students must complete the following curriculum:

### Professional Courses (Year One)

Course #	Title	Credits
HHH 500	The Health System*	1
HHH 501	Health Analytic Methods*	4
HHH 510	Health Finance and Accounting*	4
HHH 520	Health Governance and Organizational Analysis*	4
HHH 536	Health Law and Compliance*	4
HHH 540	Health Management*	4
HHH 585	MHA Residency I: Communication Skills and Interpersonal Effectiveness **	1
HHH 586	MHA Residency II: Professionalism and Ethics**	1

**Professional Courses (Year two)**

Course #	Title	Credits
HHH 506	Health Quality and Performance Improvement*	2
HHH 508	Human Resources Management in the Health Sector*	3
HHH 541	Health Strategic Planning and Management (Capstone preparation)*	2
HHH 542	Health Leadership and Change: Comprehensive Capstone Project*	2
HHH 564	Health Technology and Information Management*	3
HHH 587	MHA Residency III: Leadership and Change**	1
HHH 588	MHA Residency IV: Comprehensive Capstone Project Presentation and Portfolio Development**	1
HHH 589	Health Management Practicum and Seminar I**	3
HHH 590	Health Management Practicum and Seminar II**	3

**Elective Courses**

**Candidates must select two courses for a total of at least four elective credits.**

Course #	Title	Credits
HHH 512	Health Finance II*	2
HHH 530	Health Operations Management*	2

Course #	Title	Credits
HHH 575	Long-Term Care in the Health Sector*	2
HHH 590	Physician Practice Management*	2

Note: Practicum Placement linked to Elective (Inpatient, Outpatient, LTC, PP)

\* On-line Course

\*\*On-Site Course

## health and rehabilitation sciences leading to the ph.d. degree

***The Health and Rehabilitation Sciences Program is no longer accepting applications for admission.***

Program Chair: Sue Ann Sisto

Rehabilitation Research and Movement Performance (RRAMP) Laboratory at the Research and Development Park is a one-of-a-kind 7,000-square-foot laboratory dedicated to helping individuals with disabilities, assessing athletic performance and aiding recovery after disease or injury through the use of a state-of-the-art motion analysis system. This system is coupled with four in-ground force plates, electromyography and an eye tracking system. There is a large computer lab for graduate students, is the site for student work for in the PhD. Program in Health and Rehabilitation Sciences program. The laboratory houses talented faculty from the School of Health Technology and Management whose research explores ways to improve the lives of individuals with spinal cord injury, traumatic brain injury, stroke, Huntington's disease and Multiple Sclerosis, Parkinson's disease, amputations, orthopedic disorders, cerebral palsy, pediatric cancer, geriatric disorders, cardiovascular disease, and obesity. The RRAMP lab also includes a locomotor training center, a motor control / motor learning lab to probe motor recovery, a musculoskeletal lab currently using ultrasound diagnostic equipment to assess and train muscle control of the spine and pelvic floor, prosthetic and orthotic lab, and a transcranial magnetic stimulation and a body composition lab to explore physical changes of muscle, fat, and bone. Plans are being made to add a community fitness and wellness center for people with disabilities; this building will be housed adjacent to the RRAMP lab. The RRAMP lab is operated by faculty and staff from the School of Health Technology and Management. Located at the facility are the research director, assistant to the director, and research professors.

The PhD in Health and Rehabilitation Sciences program is housed in the RRAMP Lab (Rehabilitation Research and Movement Performance) Lab. The RRAMP lab office suite is located in the Research and Support Services Building. In

addition to office space, there are four research laboratories within the secured portion of the suite. Within the building, but outside the suite proper, are a conference room, staff/student lounge, disabled patient restroom and shower, and laundry facility.

### Admissions Requirements

***The Health and Rehabilitation Sciences Program is no longer accepting applications for admission.***

The point of entry into the Ph.D. program is based on a "Mentor Match" of students with faculty from the SHTM. This match ensures a highly individualized program of study for the student based on existing research projects of the faculty. The Mentor will ensure that every student is exposed to related research from the three other branches of research in order to provide a successful translational research experience. Mentors and their collaborators, who are conducting research in other branches of this translational continuum, will expand the research experience of the students. At the same time, these translational research opportunities may facilitate the discovery of relationships between the student's research and that of other faculty researchers. The Admissions Committee of the program assigns the "Mentor Match" based on requests from the students as well as evaluations of their interests and strengths in relationship to the available faculty.

In addition to the minimum Graduate School requirements, the following are required:

- A. All applicants must hold a bachelor's degree prior to the application deadline.
- B. Preference given to applicants with a minimum grade point average of 3.0 on a 4.0 scale and applicants with a master's degree.
- C. Have taken the Graduate Record Examination (GRE) or equivalent graduate entrance exam within the past five years or have completed an American accredited graduate program prior to applying.
- D. Strong letters of recommendation (three references).
- E. Achieved an acceptable score on the TOEFL for international applicants.
- F. Applicant must submit official transcripts from all post-secondary schools.
- G. One essay, no more than 1000 words on the candidate's research interests and how those interests match to research at Stony Brook University's School of Health Technology and Management.

The Admissions Committee will consider all factors including grades, standardized test scores, recommendation letters, essays, prior training, professional experience, and match in research interest. The goal of the committee is to select applicants who have the academic capability, personal qualities, and commitment to provide future value to society through a career in interdisciplinary health sciences research.

### Program Requirements

The curriculum consists of 78 credits requiring a minimum of four years of full-time effort. Although the direction of the students' research will be highly individualized, all students must complete 21 credits of core courses, 27 credits of concentration courses (of which 12 are required), and 30 credits of dissertation research. In addition, there will be a zero credit doctoral seminar every semester for discussion and advancement of doctoral projects by faculty and peers.

Core Course Requirements:

Course #	Title	Credits
HAX 600	Doctoral Seminar	0
HAX 602	Frameworks, Models and Classification Systems in Health and Rehabilitation Sciences	3
HAX 605	Research Ethics	3
HAX 632	Teaching and Learning	3
HAX 653	Research Methods: Design and Statistics	3
HAX 656	Qualitative Research	3
SOC 501	Multivariate Stats for Social Science	3
SOC 502	Multivariate Regression Techniques	3

Concentration-Specific Requirements:

Behavioral and Community Health Concentration

The BCH concentration is uniquely crafted to train students in leadership and community-based participation, in the domains of healthcare and health policy. This program is designed to meet the aspirations of students seeking to create change in the intersection of healthcare, policy, and the social experience. Fundamentally participatory in nature, this concentration expects students not only to become proficient in research and theory, but also to acquire the tools and experience to apply theory to practice. This program establishes the necessary intellectual framework to understand community-based leadership, and then provides the opportunities to exercise it, professionally and personally. The BCH concentration is designed for social scientists, behavioral scientists, community health researchers, clinicians, community organizers, and health policy specialists. This concentration develops proficiency in various research methods, both qualitative and quantitative in nature. Particular emphasis will be given to translating theory to practice and understanding the applied nature of

policy measures. The BCH concentration provides students with proficiency in policy evaluation, community intervention, leadership development, community engagement, and community-based participatory research. Students in the BCH concentration will understand the intersection of health, policy, and society, and the shared relationship among them. In the shifting healthcare environment, attention will be given to marginalized groups, like immigrants, those of racial minority, those with disability, those of lower socioeconomic status, and others. It is expected that graduates of the BCH concentration will be trained to be experts in community leadership, policy analysis, grass roots mobilization, and community health.

Course #	Title	Credits
HAX 640	Community Health and Community Based Participatory Research	3
HAX 641	Community Mental Health	3
HAX 642	Participation and Health in Pediatric and Educational Settings	3
HAX 647	Policies and Ethics in Behavioral and Community Health	3

#### Disability Studies Concentration

The DS concentration focuses on multiple social and environmental factors that influence the experience of chronic conditions and functional impairments. These factors range from architectural barriers to social discrimination and have a profound influence on access to education, employment, recreation, and participation in other community activities across the life cycle. Disability Studies draws from philosophy, history, anthropology, sociology, law, political sciences, economics, occupational sciences, bioethics, and many other fields. The goal of this concentration is to train researchers from clinical and non-clinical backgrounds to use quantitative, qualitative and community participatory methodologies to operationalize critical theories and focus on the practical and policy implications of disability with the intent of improving quality of life and community access to health services for the disabled. In addition to a critical consideration of ICF conceptualizations of health, activity, and participation, the DS concentration: (1) examines the role of power, social identity, and status as related to disability (2) considers the role of social and regional inequalities, and (3) assesses desired changes at the organizational, community, national, and international levels that might positively affect the disabled.

Course #	Title	Credits
HAX 664	Conceptual Foundations of Disability Studies 1890s-1990s	3
HAX 665	Disability, Participation and Justice	
HAX 667	Disability Studies Language, Narrative and Rhetoric	3
HAX 668	Emerging Topics in Disability Studies	3

#### Rehabilitation and Movement Science Concentration

The RMS concentration aims to train rehabilitation research clinicians and scientists who focus on the understanding of movement control through multiple types of measurement. This concentration examines body function/structure and activity in the able-bodied and in people with movement impairments to potentially enhance physical and psychosocial functioning. Additionally, research focuses on increasing participation among the functionally impaired, thereby impacting the quality of life of people with disabilities. This pursuit of scientific inquiry for RMS crosses all levels of the ICF model. Special emphasis is placed on the measurement of movement, including kinematics (position), kinetics (forces and moments) and EMG (muscle activity); muscle physiology and function (muscle physiological cross-sectional area), and energetics (metabolic and mechanical). These body and structure measurements are studied around the neuro-musculoskeletal basis of movement, given central nervous system mechanisms and the neurophysiology and neuroscience mechanisms underlying movement disorders. The RMS concentration is supported by theories of motor control, motor learning, and biomechanics. Areas of study may include balance and vestibular-ocular disorders; athletic performance; diabetes and wound healing physiology; body composition and obesity; physical interventions for cancer, and movement deficits in other disorders such as Parkinson's disease, Multiple Sclerosis, Huntington's disease, stroke and spinal cord injury. The RMS concentration uses quantitative methods in the measurement of body structure and function such as what is available in the Rehabilitation Research and Movement Performance Lab. In addition, students may experience studies in the Locomotion Learning Lab and the Shah Spinal Cord Injury Basic Science Lab. Students will also be required to relate these measurements to functional activities and societal participation and learn how these discoveries can improve clinical practice, and inform health policy.

Course #	Title	Credits
HAX 620	Rehabilitation and Disability	3
HAX 631	Electro/Neurophysiology: Topics for	3

Course #	Title	Credits
	Rehabilitation Research	
HAX 634	Motor Learning and Motor Control	3
HAX 635	Biomechanics of the Musculoskeletal System and Movement I	3

## Other Requirements

All students are to be enrolled as full time students (12 credits/semester for year 1 and 9 credits/semester for subsequent years).

All courses taken outside the department for application towards the Ph.D. degree requirements are subject to approval of the student's advisor and the graduate program director. The advisor may pose additional course requirements.

A maximum of 6 graduate credits from other programs, including those of other institutions, may be transferred toward the Ph.D. degree. Credits used to obtain any prior degrees are not eligible for transfer. Requests of credits must be approved by the graduate program director. Each student is required to complete a teaching practicum before graduation. Planning for this requirement is to be made with the student's primary advisor/mentor. Students who are currently educators or have experience teaching in their field of study, may have the teaching practicum waived, which must be approved by the graduate program director.

### Written Qualifying Examination

The written qualifying exams are offered every year after completion of the first 2 academic years, usually in the summer before the 3rd year. The written qualifying exam consists of 2 parts: Part I covers the required core courses and Part II consists of the required concentration course for each student's concentration. Upon passing the qualifying exams, the Ph.D. student advances to candidacy.

### Dissertation

Students choose their dissertation topics in consultation with his/her advisors as soon as possible. Dissertation research is a training experience for the candidate who, under the supervision of the primary advisor/mentor, carries out independent original work of significance. The student, in collaboration with his/her advisor must select a dissertation examining committee as soon as possible after the qualifying exams. The committee must include a Chair who must be within the department of Health and Rehabilitation Sciences, and a minimum of 3 other members of whom one is typically the primary advisor/mentor, and the remaining members are from within and outside Stony Brook University. The committee must be approved by the graduate program director upon the recommendation of the primary advisor. The dissertation examining committee provides a means of exposing the candidate to ideas, methodologies, and helps

guide the research process. Each year the committee meets to review the progress of the student.

### Dissertation Proposal

The student is required to submit a written dissertation proposal and present it at an oral examination conducted by the dissertation examining committee. The written dissertation proposal must be distributed to the committee members at least 2 weeks before the oral examination. This examination probes the student's ability and examines progress and direction, methodology and feasibility, which can be based on pilot data. The student will be examined based on knowledge and background on the topic, the aims/hypotheses or research questions, the methodology and any preliminary data.

### Dissertation Defense

At the completion of the dissertation, approval of the dissertation involves a formal oral defense which is open to all interested members of the University community. The candidate must fill out a doctoral dissertation defense form (available on the graduate school webpage) and must include the dissertation abstract and all relevant information. The form should be submitted to the graduate program director at least 4 weeks before the defense. This form is then submitted to the Dean of the Graduate School who is responsible for advertising the event to the University community. Copies of the dissertation are distributed at least 2 weeks before the defense date. One copy is kept in the department for examination by the faculty. The final approval of the dissertation must be a majority vote by the dissertation examining committee.

## Program in Health Care Policy and Management Leading to the Master of Science Degree

***The Master's Program in Health Care Policy and Management is no longer accepting applications for admission.***

This program is open to qualified health professionals who wish to pursue careers in health care management, health policy, and nutrition within their own professional fields.

### Program Requirements

Candidates must complete a minimum of 36 credits and satisfy the specific core, concentration, and practicum requirements described below. Courses are chosen with program advisement and approval.

**Core:** Candidates must successfully complete courses to demonstrate understanding and competence in the areas of medical care delivery, research methodology, statistics, and communication (12 credits).

**Concentration:** Candidates must select a specialty concentration in health care management, health policy, or nutrition and complete courses in the chosen area (15 credits).

**Practicum:** Candidates must complete a practicum in their specialty concentrations (3-6 credits).

**Thesis:** A master's thesis is optional (4-6 credits) and is in lieu of the practicum requirement.

Electives: Candidates must successfully complete 3-6 elective credits. Practicum credits do not apply.

## The Advanced Certificate Program in Health Care Management

Program Director: Brooke Ellison

The Advanced Certificate Program in Health Care Management is a professional development program intended for health practitioners who require management training and for managers who require specific management training in the health care field.

### Program Requirements

The program is jointly sponsored by the School of Health Technology and Management and the College of Business. The curriculum consists of 18 credits. Students must complete four required courses:

Course #	Title	Credits
HAS 530	Health Care Operations	3
HAS 534	Fundamentals of Health Care Management	3
HAS 538	Health Economics and Public Policy	3
HAS 545	Ethics and Health Care	3

Six remaining credits can be chosen from HAS courses, or from specified MBA and HAP courses, upon approval.

### Program in Healthcare quality and patient safety leading to the master of science degree

*The Healthcare Quality and Patient Safety Program is no longer accepting applications for admission.*

Interim Program Director: Deborah Zelizer

The School of Health Technology and Management offers a Master of Science degree in Healthcare Quality and Patient Safety. Healthcare Quality and Patient Safety is a part-time, 36 credit degree program. The program is designed specifically for clinical and non-clinical interdisciplinary health professionals who wish to develop the knowledge, skills, and competencies required to assume leadership roles in healthcare quality, healthcare risk management, patient safety and related fields. Graduates will be eligible to sit for the Certified Patient Safety Officer (CPSO) examination leading to certification.

#### Admissions Requirements

Preference for admission will be given to candidates with an overall 3.0 grade point average and baccalaureate degree

from an entry level clinical program, or a non-clinical degree and two years of full-time healthcare experience.

### Program Requirements

Candidates must complete a minimum of 36 credits. The curriculum requires a capstone project or thesis.

#### Core Curriculum

Course #	Title	Credits
HAU 500	Financing Healthcare Organizations	3
HAU 501	Patient Safety and the Management of Risk	3
HAU 502	Patient Safety and Health Law	3
HAU 503	Error Science, Human Factors and Patient Safety	3
HAU 504	Crew Resource Management, Team Performance, and Communication	3
HAU 505	Quality Improvement and Safety	3
HAU 506	Accreditation, Regulations, and National Patient Safety Goals	3
HAU 507	Planning, Evaluation, and Assessment of Patient Safety Initiatives	3
HAU 508	Statistics for Patient Safety Professionals	3
HAU 509	Research Design and Methodology for the Patient Safety Professional	3
HAU 510	Advanced Practice for Risk and Safety Officers	3
HAU 584	Capstone Project	3
HAU 594	Capstone Research-Based	3

## THE ADVANCED CERTIFICATE PROGRAM IN Healthcare Quality and Patient safety

*The Advanced Certificate in Healthcare Quality and Patient Safety Program is no longer accepting applications for admission.*

Interim Program Director: Deborah Zelizer

The advanced graduate certificate is designed for healthcare providers who have met the experiential requirements to sit for quality, risk management and safety national certification examinations with on-the-job experience, but do not possess the academic preparation in quality and safety. The curriculum consists of 18 credits.

### Admissions Requirements

Preference for admission will be given to candidates with an overall 2.8 grade point average and baccalaureate degree from an entry level clinical program, or a non-clinical degree and two years of full-time healthcare experience.

### Program Requirements

Course #	Title	Credits
HAU 501	Patient Safety and the Management of Risk	3
HAU 502	Patient Safety and Health Law	3
HAU 503	Error Science, Human Factors and Patient Safety	3
HAU 504	Crew Resource Management, Team Performance and Communication	3
HAU 505	Quality Improvement and Safety	3
HAU 506	Accreditation, Regulations and National Patient Safety	3

## Program in Health Science Leading to the Bachelor of Science Degree

Program Chair: Deborah Zelizer

The School of Health Technology and Management offers a [Bachelor of Science degree in Health Science \(BSHS\)](#), with clinical and non-clinical concentrations. Non-clinical concentrations of study include community health education, disability studies and human development, emergency and critical care, environmental health and safety, health care informatics, health care management, and public health. Clinical concentrations of study include anesthesia technology, healthcare quality: coding and reimbursement, medical dosimetry, nuclear medicine technology, radiation therapy, and radiologic technology. The curriculum requires that students receive a broad liberal arts education during their first three years. In the senior year, the curriculum focuses on health care-related topics. Graduates will be educated and knowledgeable about health care, and may expect to be employed by hospitals; integrated health care delivery systems; physician group practices; health departments; nursing homes; and managed care, corporate and not-for-profit organizations. They can also pursue clinical degrees through appropriate admissions processes.

While there is no formal application process, all students must complete the following requirements before advancing to the senior year curriculum.

\* 91 credits with a minimum grade point average of 2.0 including the following:

- All S.B.C. requirements
- A minimum of 16 credits of natural science coursework, including HAN 200 and HAN 202 (or equivalent anatomy and physiology courses)
- 21 credits of related electives including HAN 251 and HAN 312. Any natural science course taken beyond the minimum requirement of 16 credits can also satisfy the related electives requirement.
- 10 upper-division credits (300 and 400 level courses). Can be met with any course meeting S.B.C., natural science, or related electives requirements.

### Related Electives

Students are encouraged to take related electives designated:

- ECO, CSE and BUS for the Health Care Management concentration
- CSE, PSY, ECO and BUS for the Health Care Informatics concentration
- HIS, HBP, ECO, MEC, BCP, SOC and BUS for the Environmental Health concentration
- LHW, ECO, ANT, SOC, HMC, PSY and BUS for the Public Health concentration
- SOC, HWC, LHW, PSY, SSI and HMC for the Community Health Education concentration

Contact the [Health Science program](#) for advising and an extensive list of related electives or see the course descriptions listing in the University [Undergraduate Bulletin](#) for complete information.

\* All students need a minimum of 91 credits and all requirements met by the end of the spring semester of their junior year to advance to the fall senior year curriculum. Prerequisite courses (natural science and related electives) required for advancement to the senior year curriculum must be completed with a letter grade of C or better. A Pass/No Credit grade is not accepted.

## Program Requirements

### Required Core Courses: Fall Semester (Senior Year)

For the first semester of the last year of study (senior year), all students enroll in 15 credits of core health science courses including:

Course #	Title	Credits
HAN 300	Health Care Issues	3
HAN 333	Communication Skills	3
HAN 335	Professional Ethics	3
HAN 364	Issues in Health Care Informatics	3
HAN 383	Scholarly Writing in Health Science	3

### Special Academic Requirements

To be in good standing in the Health Science program, a student must maintain a 2.0 overall cumulative grade point average, with a 2.5 minimum professional grade point average in the required HAN (Health Science major) courses. All core Health Science program courses must be passed with a grade of C or better before a student is permitted to advance to the concentration courses. If a student receives a grade less than C in any of the HAN courses, the course must be repeated.

### Concentration Courses: Spring Semester (Senior Year)

During the last semester of the senior year, students must take one of the following concentrations of study. \*Approval for a generalist concentration of study may be granted if, upon judgment of the program director, there are exceptional circumstances.

#### Anesthesia Technology

This concentration provides the knowledge and skills required for students to function as integral members of anesthesia teams in surgical settings. After completion of this concentration, students can work as an assistant in the operating room and continue to the post-baccalaureate anesthesiology technologist program to be eligible for the

national certification examination. (Total length of program is 4+1=5 years.)

Course #	Title	Credits
HAN 434	Corporate Compliance and Regulation	4
HAN 481	Introduction to Anesthesia	2
HAN 483	Cardiopulmonary Physiology for Anesthesia Technology	3
HAN 485	Clinical Monitoring	1
HAN 489	Pharmacology for Anesthesia Technology	4

For admission requirements to the clinical concentrations, please refer to the SHTM website at <http://healthtechnology.stonybrookmedicine.edu/programs/hs>

### Community Health Education

This concentration provides students with the knowledge and skills needed to plan, implement, and evaluate health education programs in the community. Students who successfully complete this concentration may be eligible to apply for the national certification examination for health educators. Employment opportunities may be found in public and private health-related agencies, hospitals, and HMOs (Health Maintenance Organizations).

Course #	Title	Credits
HAN 440	Introduction to Community Health Education	3
HAN 442	Community Health Education Models and Resources	3
HAN 444	Teaching Strategies	4
HAN 456	Behavioral and Social Aspects of Health	3

### Disability Studies and Human Development

This concentration provides students with an interdisciplinary focus of study in areas such as independent living, employment, adults and children with disabilities, and health and community issues. Prepares students for entry-level professional and managerial positions in developmental or physical disability services agencies, independent living centers, mental health centers, and geriatric and vocational rehabilitation agencies.

Course #	Title	Credits
HAN 443	Aging and Disability	3
HAN 446	Disability Health and Community	3
HAN 447	Children with Disabilities	3
HAN 448	Disability and Employment	3
HAN 449	Project in Disability Studies	4

### Emergency and Critical Care

This concentration will serve the needs of those students interested in pursuing clinical graduate studies. Emphasis is placed on providing knowledge of the most frequently encountered medical emergencies, including trauma and resuscitation. In addition, due to the changing global environment, courses on hazardous materials and weapons of mass destruction will also be provided.

Course #	Title	Credits
HAN 416	Special Issues in Emergency Care and Resuscitation	3
HAN 417	Cardiac Emergencies	3
HAN 471	Trauma and Trauma Systems	3
HAN 472	Emergency Response to Hazardous Materials and Terrorism	3
HAN 477	Medical Emergencies	3

### Environmental Health and Safety

This concentration explores the concepts and principles of various environmental health issues including lead management, pest management, hazardous waste management, and food service sanitation. Emphasis is placed on the recognition, identification and control of environmental contaminants in the workplace; prevention and preparedness for hazardous material incidents; and compliance with various regulatory agencies.

Course #	Title	Credits
HAN 470	Occupational Health and Safety Engineering	3
HAN 474	Industrial Hygiene	4

Course #	Title	Credits
HAN 475	Fundamentals of Environmental Health	3
HAN 476	Hazardous Materials, Emergency Response and Environmental Auditing	4
HAN 478	Internship in Environmental Health	2

### Health Care Informatics

This concentration prepares students for a career in health care information systems, and processing and managing health care data with computer and communication technologies. Emphasis is placed on health care information systems' architecture, computerized medical data processing, and clinical decision support systems. Ten credits of computer science/information systems electives are strongly recommended as prerequisites (CSE 101, CSE 113 and CSE 114).

Course #	Title	Credits
HAN 462	Developing Health Information Systems	4
HAN 464	Health Information Systems Management	4
HAN 465	Concepts and Case Studies in Health Informatics	3
HAN 466	Applied Health Care Informatics	3
HAN 467	Utilization and Outcomes Research Methods	3

### Health Care Management

This concentration provides students with the knowledge and skills required to manage health care practices, plan health care programs and utilize the fundamentals of health care management and health services administration.

Course #	Title	Credits
HAN 432	Introduction to Health Care Management	4

Course #	Title	Credits
HAN 434	Corporate Compliance and Regulation	4
HAN 435	Sales and Marketing in Health Care	3
HAN 436	Continuous Quality Improvement in Health Care	3

### Healthcare Quality: Coding and Reimbursement

This concentration of study (AHIMA accreditation pending) is designed to develop the requisite knowledge, skills, and competencies required for entry level practice as a medical coder. Prepares students to take the nationally recognized Certified Coding Associate (CCA) credential, which distinguishes coders as possessing coding competencies across all settings, including hospitals (in-patient and ambulatory) and physician practices.

Note: Enrollment in HAN 424 Pathophysiology (3 credits) is required during the fall semester of the senior year as a prerequisite for this concentration. Acceptance into the concentration is required in order to register for the spring semester concentration coursework. In addition, a 3 credit, full-time 6 week 45 hour practicum during summer session I is required. Curriculum subject to change, please check with the department.

Course #	Title	Credits
HAN 409	Basic CPT Coding	3
HAN 410	ICD-10-CM for Coders	3
HAN 420	ICD-10-PCS for Coders	3
HAN 421	Advanced CPT Coding	3
HAN 422	Healthcare Reimbursement	3
HAN 423	Coding Practicum	3

For admission requirements to the clinical concentrations, please refer to the SHTM website at <http://healthtechnology.stonybrookmedicine.edu/programs/hs>

### Medical Dosimetry

A medical dosimetrist is a member of the radiation oncology team. Medical dosimetrists have the education and expertise necessary to generate radiation dose distributions and dose calculations for cancer patients in collaboration with the medical physicist and the radiation oncologist. After completion of this concentration, students continue on to the post-baccalaureate program in order to be eligible to take the

Medical Dosimetrist Certification exam. Job opportunities may be found in cancer treatment centers, community hospitals, free-standing clinics and medical schools. (Total length of program is 4 + 1 = 5 years.)

Note: Enrollment in HAN 395 Radiation Physics in Medicine (4 credits) is required during the fall semester of the senior year to submit an application for this concentration of study.

Acceptance into the post-baccalaureate clinical year is required in order to enter the concentration. The Medical Dosimetry program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 North Wacker Drive, Suite 2850 Chicago, Illinois 60606-3182, Phone: 312.704.5300, Email: [mail@jrcert.org](mailto:mail@jrcert.org)

Course #	Title	Credits
HAN 402	Radiographic Anatomy and Pathology	3
HAN 482	Introduction to Pathology	3
HAN 487	Introduction to Treatment Planning	3
HAN 490	Fundamentals of Medical Dosimetry and Contouring	3
HAN 492	Radiation Oncology/ Medical Physics II	4

For admission requirements to the clinical concentrations, please refer to the SHTM website at <http://healthtechnology.stonybrookmedicine.edu/programs/hs>

### Nuclear Medicine

This concentration is designed to educate students to meet a growing need for highly trained technologists who utilize rapidly developing technologies to image the distribution of radioactive agents in the human body. Nuclear medicine imaging is used for patients with cardiac conditions and cancer. After completion of this concentration, students continue on to the post-baccalaureate program in order to be eligible to take the national registry examination. Job opportunities may be found in hospitals, physician offices, and diagnostic laboratories. (Total length of program is 4+1=5 years.)

Note: HAN 395 Radiation Physics in Medicine (4 credits) is required during the fall semester of the senior year as a prerequisite to acceptance into the concentration. Acceptance into the post-baccalaureate clinical year is required in order to enter the concentration.

Course #	Title	Credits
HAN 401	Radiobiology and Health Physics	3

Course #	Title	Credits
HAN 402	Radiographic Anatomy and Pathology	3
HAN 426	Instrumentation for Nuclear Medicine Technology	3
HAN 427	Nuclear Medicine Procedures	6
HAN 429	Radiopharmacy and Therapy in Nuclear Medicine	3

For admission requirements to the clinical concentrations, please refer to the SHTM website at <http://healthtechnology.stonybrookmedicine.edu/programs/hs>

### Public Health

This concentration provides students with a basic foundation, including epidemiology and biostatistics, in public health. Students who graduate with this concentration may find employment in health departments, public health agencies, health maintenance organizations, and health-related corporations.

Course #	Title	Credits
HAN 450	Introduction to Public Health	4
HAN 452	Epidemiology and Biostatistics	3
HAN 454	Issues in Public Health	3
HAN 455	Health Literacy for Public Health	3
HAN 456	Behavioral and Social Aspects of Health	3

### Radiation Therapy

This concentration is designed to educate students to meet the growing demand for radiation therapists. Radiation therapists administer radiation and deliver patient care for the duration of the patients' treatment and are part of the radiation oncology team. Radiation is an effective tool to treat cancer and provide palliative care. After completion of this concentration, students continue on to the non-credit post-baccalaureate program in order to be eligible to take the national registry examination. The 12 month post-baccalaureate clinical rotations are conducted at the Mt. Sinai Health System. (Total length of program is 4+1=5 years.)

Note: HAN 395 Radiation Physics in Medicine (4 credits) is required during the fall semester of the senior year as a prerequisite to acceptance into the concentration. Acceptance into the post-baccalaureate clinical year is required in order to enter the concentration.

Course #	Title	Credits
HAN 401	Radiobiology and Health Physics	3
HAN 402	Radiographic Anatomy and Pathology	3
HAN 482	Introduction to Pathology	3
HAN 486	Principles and Practice of Radiation Therapy	3
HAN 492	Radiation Oncology/ Medical Physics II	4

For admission requirements to the clinical concentrations, please refer to the SHTM website at <http://healthtechnology.stonybrook.medicine.edu/programs/hs>

### Radiologic Technology

This concentration is developed to educate students to meet the growing demand for technologists who image the body through the use of radiation equipment (x-ray technology). As a member of the radiological team, technologists capture images of bones, organs, and blood vessels as prescribed by physicians to assist in the diagnosis of diseases or injuries. After completion of this concentration, students continue on to the post-baccalaureate program in order to be eligible to take the national registry examination. Job opportunities may be found in hospitals, physician offices, urgent care clinics, diagnostic laboratories, and industry. (Total length of program is 4+1=5 years.)

Note: HAN 395 Radiation Physics in Medicine (4 credits) is required during the fall semester of the senior year as a prerequisite to acceptance into the concentration. Acceptance into the post-baccalaureate clinical year is required in order to enter the concentration.

Course #	Title	Credits
HAN 401	Radiobiology and Health Physics	3
HAN 402	Radiographic Anatomy and Pathology	3
HAN 404	Radiology Instrumentation	3
HAN 405	Radiographic Technique	3
HAN 406	Radiographic Procedures and Positioning I	6

For admission requirements to the clinical concentrations, please refer to the SHTM website at <http://healthtechnology.stonybrookmedicine.edu/programs/hs>

## Program in medical molecular biology leading to the Master of science degree

Program Director: Gloria Viboud

The program is designed to provide clinical laboratory scientists with a strong foundation in the different molecular aspects of medical biology and the laboratory skills necessary to perform molecular-based techniques used in diagnostics, the research lab, and the medical biotechnology industry.

Learning outcomes will be consistent with those specified by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) for Diagnostic Molecular Scientists. This includes proficiency in a broad array of techniques used in molecular diagnostics, basic principles behind each test, applications to the diagnosis of genetic diseases, cancer and infectious diseases, interpretation of results, advantages and limitations of each method, and type of specimen required for each test. The program also emphasizes the importance of biosafety and proper decontamination procedures, and quality control to ensure accurate data for proper patient diagnosis.

Students will complete more than 50% of the course requirements in the distance-learning format. The program is offered as a two-year prescribed part-time program during the summer, fall and spring terms. The last term includes three clinical rotations in the areas of molecular diagnostics, cytogenetics and flow cytometry, and the program culminates with a capstone project. After completion of the program, students will be eligible to take the Technologist in Molecular Biology by the American Society for Clinical Pathology [MB(ASCP)] certification examination.

### Admission Requirements

- A New York State clinical laboratory technologist license
- Baccalaureate degree in a life science related field with a minimum undergraduate grade point average of 3.00.
- 12 credits of chemistry with labs (including organic chemistry and biochemistry), 8 credits of biology with labs (including cell biology and genetics), 3 credits of microbiology, 3 credits of immunology, 6 credits of mathematics (including statistics), 3 credits of pathophysiology (for those applicants without a clinical laboratory sciences undergraduate major).

### Program Requirements

Students must complete a total of 33 credits including the following required on-line and on-site courses.

### Professional Courses (Year One)

Course #	Title	Credits
HMM 500	Fundamentals of Molecular Biology Techniques*	3
HMM 510	Advanced Molecular Biology Laboratory**	3

Course #	Title	Credits
HMM 511	Application of Molecular Biology in Diagnosis	3
HMM 516	Application of Molecular Biology in Research*	3
HMM 520	Flow Cytometry Laboratory**	1
HMM 521	Flow Cytometry Methods and Applications*	2
HMM 540	Laboratory Operations in Molecular Biology*	2

### Professional Courses (Year Two)

Course #	Title	Credits
HMM 531	Cytogenetics Methods and Applications*	2
HMM 545	Ethics in the Laboratory*	2
HMM 551	Research Methods and Scientific Writing*	3
HMM 570	Journal Club on Molecular Biology*	1
HMM 581	Clinical Practicum in Molecular Diagnostics**	2
HMM 583	Clinical Practicum in Flow Cytometry**	2
HMM 585	Clinical Practicum in Cytogenetics**	2
HMM 596	Capstone Project in Medical Molecular Biology	2

\* On-line Course

\*\*On-Site Course

## Program in Occupational Therapy Leading to the Bachelor of Science in

## Health Science/Master of Science in Occupational Therapy Degrees

Interim Program Chair: Mary Squillace

The Department of Occupational Therapy offers an upper-division three-year program leading to the Bachelor of Science in Health Science/Master of Science in Occupational Therapy Degrees.

This degree program is offered in a traditional weekday format. Students must have all prerequisites completed by the start date of the program. Students who enter and remain in good standing will graduate in June, three years post entry.

Occupational therapy is the art and science of directing an individual's participation in selected tasks to restore, reinforce, and enhance performance in activities that are important and meaningful to their health and well-being. Reference to occupation in the title is in the context of an individual's goal directed use of time, energy, interest, and attention. An occupational therapist's fundamental concern is the client's development and maintenance of the capacity to perform, throughout the life span and with satisfaction to self and others, those tasks and roles essential to productive living and to the mastery of self and the environment.

Occupational therapy provides service to those individuals whose abilities to cope with tasks of living are threatened or impaired by developmental deficits, the aging process, poverty, cultural differences, physical injury or illness, or psychological and social disability.

Occupational therapy serves a diverse population in a variety of settings, such as hospitals and clinics, rehabilitation facilities, long-term care facilities, extended care facilities, sheltered workshops, schools and camps, private homes, and community agencies.

The Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE): c/o AOTA, 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3425. ACOTE's phone number is 301-652-6611 (x 2914). Graduates of the program will be eligible to sit for the national certification examination for the occupational therapist, administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). In addition, most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT certification examination. A felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or attain state licensure.

In addition to the baccalaureate and master's degrees, the school's Certificate of Professional Achievement in Occupational Therapy is awarded upon satisfactory completion of all required course work.

### Admission Requirements

Candidates for the occupational therapy program must meet the upper-division admission requirements of the School of

Health Technology and Management. The requirements may be fulfilled through previously completed college studies.

In addition to the general academic requirements of the School of Health Technology and Management, the occupational therapy program requires candidates to meet the school's natural science requirements by successfully completing eight credits of biology and four credits of anatomy, or four credits of biology and eight credits of anatomy and physiology, four credits of chemistry, and four credits of physics, all with laboratories and designated for science majors. Preference is given to those candidates who have completed science courses within the past ten years. A three-credit Introduction to Psychology course, a three-credit Abnormal Psychology course, a three-credit Introduction to Sociology or Anthropology course, and a three-credit statistics course are required. Candidates must complete required course work by the end of the spring term of the year for which application is made. Preference is given to applicants with a grade point average of 3.0 or higher. A minimum of 40 hours experience observing occupational therapy treatment in two different settings (outpatient rehabilitation, developmental disabilities, acute care, nursing homes, and schools) under the supervision of an occupational therapist (OTR) is also required for admission to the program. The observation must be supervised and documented in writing by the occupational therapists. No more than 50% of the minimum 40 required experience hours can be completed at a place of employment. Current certification in cardiopulmonary resuscitation (CPR) and first aid are required.

### Program Requirements

Occupational therapy students must complete the following course requirements of the School of Health Technology and Management.

### Basic Science Courses/Other Health Technology and Management Courses

Course #	Title	Credits
HBP 310	Pathology	3
HBV 350	Physiology	4

### Professional Course (Year One)

Course #	Title	Credits
HAO 310	Neuroscience	4
HAO 314	Introduction to Historical and Contemporary Practices of Occupational Therapy	3
HAO 315	Foundations of Occupational Therapy	3
HAO 319	Kinesiology for Occupational Therapy	4

Course #	Title	Credits
HAO 320	Life Span Growth and Development for Occupational Therapy	3
HAO 323	Mental Health Concepts	3
HAO 324	Psychosocial Theory and Practice	3
HAO 330	Occupational Therapy Theory and Practice in Pediatrics	4
HAO 331	Occupational Therapy Theory and Practice in Adults I	2
HAO 374	Professional Behaviors I	1.5
HAO 385	Conditions in Occupational Therapy	2
HAO 396	Fieldwork IA*	1
HAO 461	Functional Anatomy for Occupational Therapy	4

### Professional Courses (Year Two)

Course #	Title	Credits
HAO 332	Occupational Therapy Theory and Practice in Adults II	3
HAO 334	Acute Care	1
HAO 338	Substance Abuse and Occupational Therapy	2
HAO 340	Prosthetics and Orthotics	2
HAO 397	Fieldwork IB*	1
HAO 398	Fieldwork IC*	1
HAO 421	Physical Agent Modalities for the Occupational Therapist	1
HAO 430	Sensory Integration Theory and Practice in	2

Course #	Title	Credits
	Occupational Therapy	
HAO 440	Gerontology and Occupational Therapy	3
HAO 451	Introduction to Research for Occupational Therapy	3
HAO 485	Vision, Perception, and Cognition	2
HAO 517	Universal Design	3
HAO 542	Patient Education	2
HAO 551	Research Design for Occupational Therapy	3
HAO 574	Professional Behaviors II	1
HAO 596	Fieldwork Level IIA**	12

### Professional Courses (Year Three)

Course #	Title	Credits
HAO 530	Community, Occupation, and Health (Effective Summer 2017, 4 credits)	3
HAO 532	Emerging Areas of Practice	2
HAO 534	The Occupational Therapy Manager	3
HAO 562	Principles of Instruction	3
HAO 575	Professional Transition Seminar	2
HAO 580	Special Topics in Occupational Therapy	2
HAO 585	Disability Studies and Occupational Therapy	2
HAO 592	Case Studies II	2
HAO 593	Case Studies III (Effective Spring 2018, course title is Case Studies)	2

Course #	Title	Credits
HAO 597	Fieldwork Level IIB**	12
HAO 598	Fieldwork Level IIC**	10

\*Fieldwork level IA, IB and IC are pre-clinical experiences and generally consist of observation and very limited hands-on experience in mental health, physical disabilities, and pediatric settings. Each is a maximum of 40 hours in length.

\*\*Fieldwork level IIA, IIB, and IIC are full-time clinical experiences.

## Program in Occupational Therapy Leading to the Master of Science in Occupational Therapy Degree

Interim Program Chair: Mary Squillace

The Department of Occupational Therapy offers a three-year program leading to the Master of Science in Occupational Therapy Degree. This degree program is offered in a traditional weekday format.

Occupational therapy is the art and science of directing an individual's participation in selected tasks to restore, reinforce, and enhance performance in activities that are important and meaningful to their health and well-being. Reference to occupation in the title is in the context of an individual's goal directed use of time, energy, interest, and attention. An occupational therapist's fundamental concern is the client's development and maintenance of the capacity to perform, throughout the life span and with satisfaction to self and others, those tasks and roles essential to productive living and to the mastery of self and the environment.

Occupational therapy provides service to those individuals whose abilities to cope with tasks of living are threatened or impaired by developmental deficits, the aging process, poverty, cultural differences, physical injury or illness, or psychological and social disability.

Occupational therapy serves a diverse population in a variety of settings, such as hospitals and clinics, rehabilitation facilities, long-term care facilities, extended care facilities, sheltered workshops, schools and camps, private homes, and community agencies.

The Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE): c/o AOTA, 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3425. ACOTE's phone number is 301-652-6611 (x 2914). Graduates of the program will be eligible to sit for the national certification examination for the occupational therapist, administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). In addition, most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT certification examination. A felony conviction may affect

a graduate's eligibility to sit for the NBCOT certification examination or attain state licensure.

In addition to the master's degree, the school's Certificate of Professional Achievement in Occupational Therapy is awarded upon satisfactory completion of all required coursework.

### Admission Requirements

The occupational therapy program requires candidates to successfully complete eight credits of biology and four credits of anatomy, or four credits of biology and eight credits of anatomy and physiology, four credits of chemistry, and four credits of physics, all with laboratories and designated for science majors. Candidates need to have completed science courses within the past ten years. A three-credit Introduction to Psychology course, a three-credit Abnormal Psychology course, a three-credit Introduction to Sociology or Anthropology course, and a three-credit statistics course are required. Candidates must complete required course work by the end of the spring term of the year for which application is made. Preference is given to applicants with an overall GPA of 3.5 in all course work and a GPA of 3.0 in both the science prerequisites and the overall natural science GPA. A minimum of 40 hours experience observing occupational therapy treatment in two different settings (outpatient rehabilitation, developmental disabilities, acute care, nursing homes, and schools) under the supervision of an occupational therapist (OTR) is also required for admission to the program. The observation must be supervised and documented in writing by the occupational therapists. No more than 50% of the minimum 40 required experience hours can be completed at a place of employment. A baccalaureate degree is required as well as current certification in cardiopulmonary resuscitation (CPR) and first aid.

### Program Requirements

Occupational therapy students must complete the following course requirements of the School of Health Technology and Management.

### Professional Course (Year One)

Course #	Title	Credits
HAO 500	Functional Neuroscience	4
HAO 504	Introduction to the Historical & Contemporary Practices of Occupational Therapy	3
HAO 505	Foundations of Occupational Therapy	3
HAO 506	Life Span Growth and Development for Occupational Therapy	3

Course #	Title	Credits
HAO 507	Conditions in Occupational Therapy	2
HAO 508	Theories of Adult Rehabilitation	2
HAO 509	Occupational Therapy Theory and Practice in Pediatrics	4
HAO 519	Kinesiology for Occupational Therapy	4
HAO 523	Assessment & Intervention of Psychosocial Issues	4
HAO 561	Functional Anatomy Review	4
HAO 573	Professional Behaviors I	1.5
HAO 586	Fieldwork IA*	1

### Professional Courses (Year Two)

Course #	Title	Credits
HAO 517	Universal Design	3
HAO 520	Substance Abuse and Occupational Therapy	2
HAO 522	Assessment & Intervention of Adult Rehabilitation	3
HAO 524	Assessment & Intervention of the Upper Extremities	3
HAO 525	Vision, Perception, and Cognition	2
HAO 526	Gerontology and Occupational Therapy	3
HAO 527	Sensory Integration Theory and Practice in Occupational Therapy	2
HAO 542	Patient Education	2
HAO 549	Introduction to Research	3

Course #	Title	Credits
	Design for Occupational Therapy	
HAO 551	Research Design for Occupational Therapy	3
HAO 574	Professional Behaviors II	1
HAO 587	Fieldwork IB*	1
HAO 588	Fieldwork IC*	1
HAO 596	Fieldwork Level IIA**	12

### Professional Courses (Year Three)

Course #	Title	Credits
HAO 530	Community, Occupation, and Health	4
HAO 534	The Occupational Therapy Manager	3
HAO 562	Principles of Instruction	3
HAO 570	Global Communities, Occupation, and Health	2
HAO 575	Professional Transition Seminar	2
HAO 580	Special Topics in Occupational Therapy	2
HAO 585	Disability Studies and Occupational Therapy	2
HAO 593	Case Studies III	2
HAO 595	Service Learning & Capstone Project	2
HAO 597	Fieldwork Level IIB**	12

\*Fieldwork level IA, IB and IC are pre-clinical experiences and generally consist of observation and very limited hands-on experience in mental health, physical disabilities, and pediatric settings. Each is a maximum of 40 hours in length.

\*\*Fieldwork level IIA and IIB are full-time clinical experiences.

## PHLEBOTOMY TRAINING PROGRAM LEADING TO A CERTIFICATE

Program Director: Kathleen Finnegan

The phlebotomy program is a non-degree, non-credit ASPT (American Society of Phlebotomy Technicians) accredited program designed to train students in effective phlebotomy techniques. Graduates can be employed in a variety of settings including hospitals, private laboratories, and physicians' offices. The phlebotomy program consists of 60 hours of lecture and 30 hours of professional laboratory practice followed by 100 hours of clinical training at a local hospital.

### Admission Requirements

Applicants must be 18 years of age or older, have a high school diploma (or an equivalent), and a minimum grade point average of 80 (on a scale of 100) or 2.5 (on a scale of 4.0). Upon successful completion of the program, students receive a certificate of achievement and are eligible to take a national certifying examination in phlebotomy.

## Program in Physical Therapy Leading to the Entry-Level Doctor of Physical Therapy Degree

Program Chair: Eric Lamberg

Recent trends in health care have precipitated the development of a three-year entry-level graduate clinical doctorate program in physical therapy. These changes in health care include:

- Shorter lengths of stay in traditional environments.
- Higher acuity and survival as a result of medical science and technological advances.
- The need for health management via intervention, prevention, and maintenance, as well as the management of disease, impairments, and disabilities.
- Role and practice adaptations by physical therapists in anticipation of and in response to market changes.
- The development of strategies by payers that demand evidence-based justifications for interventions.
- Health care models that require greater risk assumption and accountability for outcomes of care. The three-year graduate program consists of 99 didactic credits and 36 clinical credits. Graduates of the program are prepared to provide care in a multitude of physical therapy settings. The program develops leaders who demonstrate evidence-based practice, critical inquiry skills, and clinical decision making skills needed for differential diagnosis and autonomous practice. In addition to direct patient care, graduates can pursue careers in research, administration, consultation, and community health. The Doctor of Physical Therapy Program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association (CAPTE/APTA). Graduates are eligible to sit for the national license exam. In addition to the doctor of physical therapy degree, the school's Certificate of Professional Achievement in Physical Therapy is awarded upon satisfactory completion of all coursework.

### Admission Requirements

Applicants for the entry-level doctor of physical therapy program must have a completed baccalaureate degree prior to enrollment in the program. Candidates must meet the school's natural science requirement by successfully completing two courses each of chemistry, physics, and biology. Each course must be designated for science majors and have a laboratory component. One course in anatomy and one course in physiology or two courses of anatomy and physiology are also required. Completion of required science courses must be within the past ten years. No more than two science prerequisites may be outstanding at the time of application; outstanding sciences cannot be in the same subject area. In addition, the department requires one course in psychology and one course in statistics. Candidates must complete required course work by the end of the spring term of the year for which the application is made. Certification in cardiopulmonary resuscitation (CPR) and first aid is required. A minimum of a 3.0 cumulative grade point average and a minimum of a 3.0 cumulative science grade point average is preferred. Applicants must submit Graduate Record Examination (GRE) scores. At least 100 hours of volunteer or work experience within a physical therapy facility is required. A varied exposure to the field is recommended.

### Program Requirements

Physical therapy students must complete the following required courses:

#### Professional Courses (Year One)

Course #	Title	Credits
HBA 540	Human Anatomy for Physical Therapists	6
HBA 542	Advanced Human Anatomy	0
HAY 500	Neuroscience for Physical Therapy I	4
HAY 517	Exercise Physiology	1
HAY 518	Foundations of Exercise and Movement in PT	3.5
HAY 519	Kinesiology	5
HAY 526	Clinical Medicine and Pharmacology I	3.5
HAY 527	Principles of Inpatient Care	4
HAY 528	Clinical Medicine and Pharmacology II	4
HAY 534	Motor Learning and Motor Control	4

Course #	Title	Credits
HAY 543	Wound Care in Physical Therapy	1
HAY 544	Modalities in Physical Therapy	3
HAY 552	Research Methods for Physical Therapists: Design and Statistics	5
HAY 557	Introduction to Evidence Based Practice	1
HAY 560	Foundations of Professional Practice in Physical Therapy	2
HAY 561	Teaching, Consulting, Communicating in Clinical Education	2
HAY 589	Case Studies I	1

### Professional Courses (Year Two)

Course #	Title	Credits
HAY 501	Growth and Development Across the Lifespan	4
HAY 502	Psychosocial Aspects of Disability I	1
HAY 503	Psychosocial Aspects of Disability II	1
HAY 504	Adult Neurological Assessment I	2
HAY 505	Adult Neurological Assessment II	2
HAY 506	Adult Neurological Interventions	4
HAY 507	Orthopedic Physical Therapy Ia	2
HAY 508	Orthopedic Physical Therapy II	3.5

Course #	Title	Credits
HAY 509	Pediatric Physical Therapy	5
HAY 512	Prosthetics and Orthoses	4
HAY 513	Orthopedic Physical Therapy Ib	1.5
HAY 590	Case Studies II	1
HAY 595	Clinical Internship I	6

### Professional Courses (Year Three)

Course #	Title	Credits
HAY 510	Cardiopulmonary Rehabilitation	4
HAY 524	Health, Wellness, and Prevention in Physical Therapy	3
HAY 525	Advanced Therapeutic Exercise	3
HAY 545	Ethics and Health Care for Physical Therapists	3
HAY 558	Evidence Based Practice Seminar	2
HAY 602	Issues in Health Care Administration	3
HAY 692	Clinical Internship II	8
HAY 693	Clinical Internship III	10
HAY 694	Clinical Internship IV	12

### Special Academic Requirements

In addition to the academic policies of the school, a minimum grade of C- in HBA 540 Regional Human Anatomy is required for continued matriculation in the physical therapy program. For the remaining courses, each student must achieve a minimum grade of C+. Additionally, students must maintain a 3.0 cumulative grade point average to remain in good academic standing and participate in clinical internships.

### Physician Assistant Program Leading to the Master of Science Degree

Program Chair: Peter Kuemmel

The Department of Physician Assistant Education currently offers a graduate program leading to the Master of Science degree and the school's Certificate of Professional Achievement for Physician Assistants. The program consists of approximately 100 weeks of pre-clinical and clinical instruction presented over a 24-month period.

The program educates skilled professionals who, with physician supervision, practice medicine in all specialties and settings. Emphasis is placed on preparing graduates to work with physicians across a wide range of primary and specialty care settings. Students learn to take medical histories, perform physical examinations, order/perform diagnostic procedures and develop patient management plans. Patient education, counseling, and health risk appraisal are also important aspects of physician assistant education and practice, as is preparation for responsibilities related to the prescribing of medications. Students and graduates are educated and employed in settings such as private and group practices, hospitals, managed care settings, nursing homes, rural and urban out-patient clinics, correctional facilities, medical research facilities, and health administration.

Physician assistants (PAs) are well utilized in health care because of the accessible, quality, cost effective care they provide. The physician assistant profession's contribution to providing primary and specialty care services to underserved areas and populations is well recognized. In keeping with this commitment, PA education at Stony Brook is heavily directed toward community medicine involvement in the provision of medical services and graduates are encouraged to work in areas of medical need.

The physician assistant program is fully accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) and the New York State Department of Education. Graduates are eligible to sit for the national certification examination for physician assistants, administered by the National Commission on Certification of Physician Assistants.

### Admission Requirements

The program Web site, <https://healthtechnology.stonybrookmedicine.edu/programs/pa/elpa> is the definitive source of information on admissions and provides comprehensive information on the program. For questions that are not addressed by the Website, please contact the program directly.

Candidates for the physician assistant program must meet the admission requirements of the School of Health Technology and Management. The requirements may be fulfilled through previously completed college studies.

In addition to the general academic requirements for graduate status in the school, the program specifies that fulfillment of the natural science requirement consists of completion of six courses in the biological sciences to include two courses in biology, one in genetics, one in microbiology, one in anatomy, and one in physiology. In addition, the completion of four courses in chemistry to include two courses in general chemistry, one in organic chemistry, and one biochemistry. Courses should be designated for science majors. Preference for interview is given to applicants who

will have completed all admissions requirements by the time of interview, whose courses are within seven years of application, and who apply early in the cycle.

The program also requires a minimum of one year or 1,000 hours of direct patient care experience. This requirement can be fulfilled by paid or volunteer experience as an EMT, medical assistant, emergency room technician, etc. For an application, please visit [www.caspaonline.org](http://www.caspaonline.org). A required supplemental application is also required and can be found under the program materials section on the caspa website.

### Program Requirements

The following professional courses must be completed prior to graduation from the Physician Assistant program:

#### Didactic Courses

Course #	Title	Credits
HAP 501	Community Health and Service Learning for Physician Assistant	2
HAP 504	Professional Practice Issues	2
HAP 509	Integrative System Physiology	4
HAP 510	Clinical Laboratory Medicine	3
HAP 512	Principles of Clinical Pharmacology	6
HAP 516	Problem Based Learning (PBL)	.5
HAP 518	Medical Director Presentation Rounds	.5
HAP 521	Clinical Medicine I	5
HAP 522	Clinical Medicine II	7
HAP 523	Clinical Medicine III	6
HAP 524	Clinical Medicine IV	9
HAP 528	Genitourinary, Sexual and Reproductive Health	4
HAP 532	Diagnostic Imaging	2

Course #	Title	Credits
HAP 534	Introduction to Clinical Psychiatry	3
HAP 545	Ethics and Health Care for PAs	3
HAP 549	Clinical Skills for the PA Student	1
HAP 551	Research Design and Evidence Based Medicine	2
HAP 561	Masters Project I	1
HAP 562	Masters Project II	1
HAP 563	Masters Project III	1
HBA 561	Human Gross Anatomy	5
HBP 511	Pathobiology	3

### Clinical Courses

Course #	Title	Credits
HAP 570	Internal Medicine Clerkship	5
HAP 571	Obstetrics and Gynecology Clerkship	5
HAP 572	General Surgery Clerkship	5
HAP 574	Emergency Medicine Clerkship	5
HAP 575	Psychiatry Clerkship	4
HAP 576	Medicine Preceptorship	5
HAP 577	Pediatric Preceptorship	5
HAP 579	Geriatrics Clerkship	5
HAP 580	Orthopedic Clerkship	4
HAP 581	Clinical Elective	4

### Special Academic Requirements

In addition to the academic policies of the school, each of the following courses must be passed with a minimum grade of C before a student is permitted to enter clinical clerkships:

Course #	Title	Credits
HAP 509	Integrative Systems Physiology	4
HBA 561	Human Gross Anatomy	5
HBP 511	Pathobiology	3
HAP 512	Principles of Clinical Pharmacology	6

Each of the following courses must be passed with a minimum grade of C+:

Course #	Title	Credits
HAP 501	Community Health and Service Learning for Physician Assistant	2
HAP 504	Professional Practice Issues	2
HAP 510	Clinical Laboratory Medicine	3
HAP 516	Problem Based Learning (PBL)	1
HAP 518	Medical Director Presentation Rounds	.5
HAP 528	Genitourinary, Sexual and Reproductive Health	4
HAP 532	Diagnostic Imaging	2
HAP 534	Introduction to Clinical Psychiatry	3
HAP 545	Ethics and Health Care for PAs	3
HAP 549	Clinical Skills for the PA Student	1
HAP 551	Research Design and Evidence Based Medicine	2
HAP 561	Masters Project I	1
HAP 562	Masters Project II	1

Course #	Title	Credits
HAP 563	Masters Project III	1

Clinical Medicine courses must be passed with a minimum grade of B-. A minimum cumulative GPA of 3.0 is required to remain in good academic standing. Students must achieve a minimum grade of C for each clinical clerkship/preceptorship/elective, maintain a minimum 3.0 cumulative grade point average for all clinical clerkships, and successfully complete all summative evaluation requirements.

## Post-Professional Physician Assistant Program Leading to the Master of Science Degree

Program Director: Lynn-Timko-Swaim

As providers of medical care and members of the health care team, PAs must respond to new standards of practice, evolving delivery systems, changes in reimbursement procedures, shifts in population demographics, and the opportunities and challenges of technology. This part-time graduate program provides an opportunity for PAs to meet these challenges while obtaining their Master of Science degree. The [Stony Brook Post-Professional Masters Program \(PPMP\)](#) increases the depth and breadth of student medical knowledge beyond that attained during entry level PA education and prepares graduates for career advancement and leadership in areas such as administration, management, education and research. Optimally, this results in improved services to the patients and the communities that PPMP graduates serve.

To satisfy program degree requirements, each student must complete a minimum of 30 credits including 18 required credits in the core curriculum and 12 elective credits. Core credits include evidence based medicine, ethics and health care, contemporary issues in health care delivery, clinical pharmacology, research writing, and clinical prevention and population health. Elective credits offer each student the opportunity to tailor the program to both his/her work setting and personal interests. The PPMP offers an on-line and an on-site format. Evening and weekend courses are offered at the Long Island and Manhattan locations in the traditional classroom-style setting for the on-site format program.

### Admission Requirements

Applicants must possess a baccalaureate degree from an accredited college or university and have graduated from an ARC-PA accredited PA Program. Current NCCPA certification is required and an overall GPA of 3.0 is preferred. Applications and complete program information can be accessed online on the [program's website](#). Applicants must select on their application either the on-site or online format.

### Program Requirements

Candidates must complete a minimum of 30 credits within five years. All core and elective requirements must be satisfied while maintaining a minimum program GPA of 3.0. The on-site format program requires that at least one course must be completed at the Stony Brook Long Island location. Students

in the online format program can complete all course work online.

### Core Courses

Candidates must complete the six core courses listed below (18 credits):

Course #	Title	Credits
HAP 505	Contemporary Issues in Health Care Delivery	3
HAP 511	Clinical Pharmacology Seminar for Physician Assistants	3
HAP 541	Principles and Practices of Clinical Prevention and Population Health	3
HAP 545	Ethics and Health Care	3
HAP 552	Evidence Based Medicine: Evaluating and Applying Clinical Research	3
HAP 554	Research Writing for Health Professionals	3

### Electives

In addition to those courses listed below, many courses in the SHTM Advanced Certificate in Health Care Management program can be used to fulfill elective requirements in the PA PPMP. These courses are described in the Advanced Certificate in Health Care Management section of this Bulletin. Registration for elective courses may require the permission of the Health Care Management program director. An added feature of the PA PPMP program is that students can apply for and complete the Advanced Certificate in Health Care Management while enrolled in the PA PPMP.

Candidates must complete four elective courses (12 credits) from among the following and/or courses in the Department of HCPM:

Course #	Title	Credits
HAP 556	Teaching Strategies	3
HAP 558	Epidemiology	3
HAP 588	Practicum	3

Registration for the Practicum (HAP 588) requires permission from the PPMP program director. Three to six credits

of tutorial work in the areas of research, education, or administration may be completed as practica.

## Program in Polysomnographic Technology Leading to the Bachelor of Science Degree

Program Director: Russell Rozensky

The Polysomnographic Technology Program offers a full-time curriculum leading to a Bachelor of Science degree.

Polysomnographic technologists are healthcare practitioners who use “high-tech” equipment to diagnose and treat patients with sleep disorders. They work with a wide variety of patients, from infants to the elderly. They provide services in many settings including hospitals, clinics, and physician offices. Students admitted into this program take several courses along with the students in the Respiratory Care program.

Stony Brook University is accredited by Middle States Commission on Higher Education (<http://www.msche.org>). The Polysomnographic Technology Program is also an education program approved by the New York State Department of Education. The Polysomnographic Technology Program at Stony Brook University is accredited by the Commission on Accreditation of Allied Health Education Programs (<http://www.caahep.org>). The initial accreditation is valid from July 21, 2016 until July 31, 2021.

### Admission Requirements

Candidates for the Polysomnographic Technology Program must meet the upper-division admission requirements of the School of Health Technology and Management. The requirements may be fulfilled through previously completed college studies. In addition to the general academic requirements for junior status in the School of Health Technology and Management, candidates must have a minimum grade point average (GPA) of 2.5 and a minimum science GPA of 2.0. All prerequisite courses must be completed with a grade of C or better. The program also requires candidates to meet the degree requirements for the bachelor of science and successfully complete: 3 credits of English composition; 3 credits of arts; 3 credits of humanities; 3 credits of introductory (100 level) and 3 credits of intermediate or higher (200 – 400 level) social and behavioral sciences; 8 credits of anatomy and physiology or general biology with labs; 8 credits of chemistry with labs, 4 credits of physics with a lab, and 3 credits of statistics. Certification in basic life support (BLS) from the American Heart Association is required prior to starting clinical rotations. To advance to junior status, Stony Brook students who declare polysomnographic technology as a four year major must meet the requirements described above and successfully complete HAT 210 with a grade of B or higher.

### Program Requirements

#### Basic Science/Other Health Technology and Management Courses

Course #	Title	Credits
HAS 351	Research Literature & Design	1
HAS 363	Computer Literacy for Health Professionals	1
HAS 490	Research Tutorial	2

#### Professional Courses (Junior Year)

Course #	Title	Credits
HAT 304	Cardiopulmonary Physiology	4
HAT 306	Patient Evaluation	2
HAT 309	Communication Skills for Health Care Professionals	2
HAT 315	Pharmacology	4
HAT 320	Cardiovascular Diagnosis and Treatment I	2
HAT 331	Respiratory Care Techniques I	3
HAT 470	Polysomnographic Technology I	3
HAT 471	Polysomnographic Technology II	2
HHO 322	Instrumentation in Polysomnography	2
HHO 324	Therapeutic Modalities in Sleep Medicine	3
HHO 326	Introduction to Dental Sleep Medicine	4
HHO 342	Sleep Disorder Pathophysiology	3
HHO 470	Basic Polysomnographic Technology Clinical	4
HHO 471	Intermediate Polysomnographic	4

Course #	Title	Credits
	Technology Clinical	

### Professional Courses (Senior Year)

Course #	Title	Credits
HAT 335	Medical Ethics	2
HAT 410	Introduction to Clinical Education	2
HHO 420	Polysomnographic Technology Management	3
HHO 430	Pediatric Polysomnography	3
HHO 440	Introduction to Electroencephalography	3
HHO 460	Polysomnographic Technology Board Review	1
HHO 472	Advanced Polysomnographic Technology Clinical	4
HHO 476	Pediatric Polysomnographic Clinical	3
HHO 479	Clinical Teaching in Polysomnographic Technology	4
HHO 480	Basic Electroencephalography Clinical	3
HHO 488	Polysomnographic Technology Management Clinical	4

## Program in Respiratory Care Leading to the Bachelor of Science Degree

Program Chair: Lisa Johnson

The respiratory care program offers a full-time upper-division program leading to the Bachelor of Science degree. Stony Brook freshmen are given the option to declare respiratory care as a lower-division major.

Respiratory therapists specialize in the diagnosis and treatment of patients with heart, lung, and sleep disorders. They work with a wide variety of patients, from premature infants to the elderly. They provide services in many settings including hospitals, clinics, physician offices, nursing homes,

and rehabilitation centers. Many are also taking advantage of opportunities in diagnostic labs (such as sleep, cardiac catheterization and pulmonary function) and in-home health care. Individuals who graduate from the program are employed as clinicians, managers, educators and researchers.

The respiratory care program is accredited by the Commission on Accreditation for Respiratory Care (CoARC) [www.coarc.com] located at 1248 Harwood Road, Bedford, Texas 76021-4244, (817) 283-2835. The respiratory care program is also an education program approved by the New York State Department of Education. Stony Brook University is accredited by Middle States Commission on Higher Education Accreditation (last reaffirmed 11/19/09) located at 3624 Market Street, 2nd Floor West, Philadelphia, PA, 19104, Telephone: (267) 284-5000, [www.msche.org](http://www.msche.org). Graduates of the respiratory care program are eligible to sit for national board exams offered by the National Board for Respiratory Care, Inc. ([www.nbrc.org/](http://www.nbrc.org/)) and may pursue state licensure.

The school's Certificate of Professional Achievement and the University's baccalaureate degree are awarded upon satisfactory completion of all coursework.

### Admission Requirements

Candidates for the respiratory care program must meet the upper-division admission requirements of the School of Health Technology and Management. The requirements may be fulfilled through previously completed college studies.

In addition to the general academic requirements for junior status in the School of Health Technology and Management, candidates must have a minimum grade point average (GPA) of 2.5 and a minimum science GPA of 2.0. All prerequisite courses must be completed with a grade of C or better. Minimum required courses include: 3 credits English composition; 3 credits of arts; 3 credits of humanities; 3 credits of introductory (100 level) and 3 credits of intermediate or higher (200 – 400 level) social and behavioral sciences; 8 credits of anatomy and physiology or general biology with labs; 3 credits of microbiology; 8 credits of chemistry with labs, 4 credits of physics with a lab, and 3 credits of statistics. Natural science courses (biology, chemistry, physics) less than 10 years old are preferred. The program also requires students to be certified in Basic Life Support (BLS) offered by the American Heart Association (valid certification card required) prior to starting clinical rotations. An additional physics course with lab, logical and critical reasoning, and introductory and intermediate psychology courses are recommended. Science courses designated for science majors are preferred.

To advance to junior status, Stony Brook students who declared a respiratory care major as freshmen must meet the requirements described above and successfully complete HAT 210 with a grade of B or higher.

### Program Requirements

All respiratory care students must complete the following courses for successful completion of the upper-division program leading to the baccalaureate degree.

**Basic Science/Other Health Technology and Management Courses**

Course #	Title	Credits
HAS 332	Management Concepts for Allied Health Professionals	1
HAS 351	Research Literacy/ Research Design	1
HAS 355	Integrative Systems Physiology (replaces HBY 350 effective fall 2017)	4
HAS 363	Computer Literacy for Health Professionals	1
HAS 490	Research Tutorial	2
HBA 461	Regional Human Anatomy	5
HBP 310	Pathology	3
HBY 350	Physiology (class of 2018 only)	

**Professional Courses (Junior Year)**

Course #	Title	Credits
HAT 304	Cardiopulmonary Physiology	4
HAT 306	Patient Evaluation	2
HAT 309	Communication Skills for Health Care Professionals (class of 2018 only)	2
HAT 315	Pharmacology	4
HAT 320	Cardiovascular Diagnosis and Treatment I	3
HAT 330	Pulmonary Pathology	3
HAT 331	Respiratory Care Techniques I	3
HAT 332	Respiratory Care Techniques II	3

Course #	Title	Credits
HAT 333	Pulmonary Diagnostic Techniques	3
HAT 340	Cardiovascular Clinical*	2
HAT 350	Basic Respiratory Care Clinical*	4
HAT 353	Pulmonary Diagnostic Clinical*	2
HAT 470	Polysomnographic Technology I	3
HAT 475	Polysomnographic Technology I Clinical*	2
HAT 487	Cardiopulmonary Rehabilitation Clinical*	2

**Professional Courses (Senior Year)**

Course #	Title	Credits
HAT 335	Medical Ethics	2
HAT 410	Introduction to Clinical Education	2
HAT 411	Clinical Teaching in Respiratory Care*	4
HAT 415	Respiratory Care Techniques IV	2
HAT 420	Cardiovascular Diagnosis and Treatment II	3
HAT 431	Respiratory Care Techniques III	4
HAT 432	Perinatal Respiratory Care	4
HAT 450	Critical Care Clinical*	5
HAT 451	Perinatal Care Clinical*	4
HAT 482	Physiologic Monitoring Clinical*	2
HAT 494	Respiratory Care Board Review	1

\*Clinical practice consists of full-time clinical instruction and practice at the clinical affiliates and other affiliated patient-care facilities.

# Course Listing

## HAD

### HAD 210 Introduction to Clinical Laboratory Sciences

Defines basic clinical laboratory sciences terminology and application. Introduces the specialties within the clinical laboratory sciences profession including microbiology, hematology, chemistry, immunohematology, and immunology and their roles in patient care. Reviews professional organizations and licensures. Examines employment opportunities. Visitation of clinical laboratories included. This course is not eligible for the G/P/NC option. Open to west campus students.  
1 credit

### HAD 302 Fundamental Concepts in Forensic Science

Introduces specialties within the broad definition of forensic science including criminalistics, crime scene analysis, physical evidence, instrumentation, drug analysis, and biological sciences. Explores up-to-date technologies utilized in crime laboratories to apprehend criminals and to exonerate the innocent. Includes DNA testing, the DNA national database (CODIS), finger print data bank (AFIS), the fired bullet data bank (IBIS), trace evidence techniques, and high-tech advances in crime scene investigation. Not to be taken for credit if completed HAD 304. This course is not eligible for the G/P/NC option. Open to west campus students.  
3 credits

### HAD 304 Introd to Forensic Science

Introduces the student to forensic science. Describes the interesting and diverse disciplines that comprise the field. Addresses the value of all physical evidence to criminal and civil investigations. Emphasizes forensic biology and chemistry, and the role of the forensic laboratory in the process of criminal investigation. This course is not eligible for the G/P/NC option. Open to west campus students.  
1 credit

### HAD 313 Clinical Biochemistry I

Examines the physiological, biochemical and mathematical relationships involved in the establishment and utilization of laboratory procedures in the clinical chemistry laboratory. Includes, principles of routine clinical chemistry analytical methods of analysis and the clinical significance of routine clinical chemistry analytes. Prerequisite: Admission to Undergraduate CLS Program.  
3.5 credits

### HAD 315 Hematology I

A comprehensive study of the human hematopoietic system and its relationship to other organ systems. Includes morphological identification and biochemical relationships of erythropoiesis and leukopoiesis in healthy vs. disease

states. Includes principles and applications of current methods in hematologic analysis, techniques and technology. Prerequisite: Admission to Undergraduate CLS Program.  
4 credits

### HAD 316 General Microbiology

Presents the biology of eukaryotic and prokaryotic microorganisms with special consideration to the microbial form, structure, function, physiology, metabolism, growth and genetics of bacteria, parasites, fungus and viruses. Introduces the world of microbiology with a human perspective providing a solid foundation in health related aspect of microbiology. Prerequisites: BIO 202, CHEM 132 Open to Non HSC students. This course is not eligible for the G/P/NC option. Open to west campus students.  
3 credits

### HAD 324 Pathology

Offers a comprehensive overview of human pathology and emphasizes the mechanisms of disease and diagnostic medicine. Provides two major categories: Part I introduces general pathology including the study of basic pathology processes that underlie all disease such as cellular pathology, inflammation, infection, immunology and neoplasia. Part II examines the pathology of major organ systems, and review of diagnostic tools. Prerequisite: Admission to Undergraduate CLS Program (HHCZB students only)  
3 credits

### HAD 330 Foundations in Phlebotomy

Introduces the student to the theory, principles and procedures of blood collection. Course is divided into a didactic portion for theory and principles of blood collection and a laboratory portion for blood collection procedures and techniques. Prerequisite: Admission to Undergraduate CLS Program  
1.5 credits

### HAD 331 Introduction to Biochemistry for CLS

Introduces biochemistry including all aspects of metabolism and the synthesis, structure and function of DNA, RNA and protein. Emphasizes the medical and clinical significance of these aspects of biochemistry. Prerequisite: Admission to Undergraduate CLS Program  
3 credits

### HAD 335 Medical Ethics in Health Care for CLS

Introduces health care professional students in clinical laboratory sciences to basic concepts and challenges in medical ethics. Provides overview of the ethics of health care in a rapidly changing society Approaches ethical dilemmas using theoretical frameworks and decision making processes. Explores ethical issues surrounding health care changes and public health policy. Includes distribution of resources and rationing of services. Includes varied topics such as euthanasia, reproduction, transplants, cloning and genetics from ethical perspectives. Reviews classic cases in health care ethics and their impact on health policy. Discusses

professional code of ethics and standards. Prerequisite: Admission to Undergraduate CLS Program  
1 credit

**HAD 340 Foundations in Clinical Laboratory Sciences**

Introduces the student to important issues in clinical laboratory sciences. Addresses personal and professional developments facing the clinical laboratory scientist. Includes the performance of basic laboratory techniques. Prerequisite: Admission to Undergraduate CLS Program.  
1.5 credits, S/F graded

**HAD 350 Systems Physiology**

Introduces the basic foundation of human integrative/systems physiology. Includes exposure to physiological control systems, while covering in detail each organ system. These will include membrane, muscle, central nervous system, sensory, cardiovascular, respiratory, renal, gastrointestinal, and endocrine physiology. The course utilizes didactic lecture material, the discussion of pathophysiology, and completion case study examples. The ultimate aim of the course is to solidify the structure and function of the human body under normal conditions and in response to disease states. Prerequisite: Admission to Undergraduate CLS Program (HHCZB students only).  
4 credits

**HAD 351 Research Literacy and Design**

Provides necessary tools for students to evaluate research as well as to initiate and complete appropriate quantitative research methods. Main objective is to help students write a research proposal to prepare them to test their own research hypothesis. Provides basic skills to enhance interpretation, evaluation and analysis of research articles, including hypothesis, literature review, design, methodology and data analysis. Prerequisite: Admission to Undergraduate CLS Program.  
1 credit

**HAD 363 Computer Applications in Clinical Laboratory Sciences**

Introduces various computer hardware systems and software applications used in both business and clinical laboratory settings. Includes utilization and multiple functions of computers in the clinical laboratory. Prerequisite: Admission to Undergraduate CLS Program  
2 credits

**HAD 380 Clinical and Medical Microbiology I**

Lectures cover the medical aspects of disease-causing bacteria, including the nature and epidemiology of infectious diseases and the role of microorganisms in health and disease. Emphasizes the related theory of microbiological procedures such as collection of specimens, staining techniques, culturing methods, biochemical basis of media and reagent tests, identification of commonly cultured bacteria, and antimicrobials used in clinical microbiology. Simulated clinical laboratory includes practical experience in the isolation, identification and antimicrobial susceptibility

testing of microorganisms commonly encountered. Includes morphologic, biochemical and serologic clinical laboratory techniques using microorganisms involved in human disease. Prerequisite: Admission to Undergraduate CLS Program.  
4 credits

**HAD 381 Clinical and Medical Microbiology II**

Covers the classification, identification, and pathology of disease-causing bacteria. Emphasizes the related theory and performance of microbiological procedures such as collection of specimens, staining techniques, culturing methods, identification of commonly cultured bacteria, and antibiotic susceptibility testing. Prerequisites: Admission to Undergraduate CLS Program; HAD 380  
4 credits

**HAD 390 Independent Study in Diagnostic Technologies**

Proposals for special projects involving advanced readings, reports and discussions, or research on selected topics must be submitted to the program director for approval prior to registration for this course. Prerequisite: Admission to Undergraduate CLS Program  
1-6 credits

**HAD 397 Clinical Microbiology Practicum**

Full-time instruction and practice of laboratory procedures in clinical microbiology in an approved hospital laboratory for a six-week period. Practice in the proper techniques for processing specimens for the isolation and identification of bacterial, fungal, and parasitic organisms commonly encountered in infectious processes. Instruction and practice in appropriate techniques for antimicrobial susceptibility testing are included. Prerequisites: Admission to Undergraduate CLS Program; HAD 425, HAD 380 and HAD 381.  
6 credits

**HAD 398 Clinical Hematology I Practicum**

Full-time instruction and practice of laboratory procedures in hematology and special hematology in an approved hospital laboratory for a three-week period. Prerequisites: Admission to Undergraduate CLS Program; HAD 315.  
3 credits

**HAD 399 Clinical Continuation**

This course is for clinical laboratory sciences students continuing with clinical.  
0 credit, S/F graded

**HAD 403 Medical Molecular Biology**

Provides an overview of the structure and function of genes. Includes theory and laboratory practice of diagnostic molecular biology techniques utilized in the clinical laboratory to analyze DNA. Prerequisites: Admission to Undergraduate CLS Program; Department Consent Required  
3 credits

**HAD 406 Introduction to Clinical Cytogenetics**

Introduces the student to cytogenetic principles utilized in the clinical laboratory. The lecture course is designed to introduce the theories, concepts and techniques applicable to the practice of clinical cytogenetics. Topics include morphology and behavior of human chromosomes, cytogenetic nomenclature, cytogenetic syndromes and cancer cytogenetics. Laboratory techniques such as fluorescence in situ hybridization (FISH) and various banding techniques are discussed. Prerequisites: Admission to Undergraduate CLS Program; Department Consent Required  
1 credit

**HAD 411 Clinical Biochemistry II**

A continuation of HAD 313. Prerequisites: Admission to Undergraduate CLS Program; HAD 313  
2.5 credits

**HAD 412 Clinical Biochemistry III**

Covers the clinical significance and analytical methods for special biochemistry analytes including hormones and metabolites, amino acids, trace elements and vitamins, porphyrins, etc. Prerequisites: Admission to Undergraduate CLS Program; HAD 313 and HAD 411  
2 credits

**HAD 414 Coagulation, Urinalysis and Body Fluids**

A comprehensive study of the function and disorders of hemostasis and thrombosis and anticoagulant therapy. Laboratory diagnosis and laboratory applications are presented. Includes the fundamental principals of urine and body fluid analysis with correlation of laboratory methods and practice. Prerequisites: Admission to Undergraduate CLS Program; HAD 315 and HAD 398  
4 credits

**HAD 415 Applied Immunology**

Introduces the applications of clinical immunology in the diagnosis and prognosis of human diseases and the fundamental working knowledge of basic principles of the human immune system function. Prerequisite: CLS students only.  
3 credits

**HAD 416 Immunohematology**

Examines basic immunology, the human blood groups and blood group genetics, hemolytic disease of the newborn, transfusion therapy and current blood bank practice. Includes the performance of clinical laboratory techniques that are routinely performed in an immunohematology laboratory and the interpretation of results. Prerequisites: Admission to Undergraduate CLS Program; HAD 315  
3.5 credits

**HAD 425 Parasitology/Mycology**

Encompasses two specialty areas in clinical microbiology, parasitology and mycology. The first part of the course

consists of a comprehensive study of parasites of human and related hosts with a special emphasis on those of medical importance. Host parasite relationships and the role of the parasite in pathogenesis are addressed in lecture. Laboratory exercises demonstrate current methods for identification of parasites of medical importance using prepared slides. The second part of the course consists of lecture and laboratory studies of fungi of medical importance. Prerequisite: Admission to Undergraduate CLS Program.  
3 credits

**HAD 432 Pharmacology**

Describes the basic concepts in pharmacology as they relate to the clinical toxicology laboratory. Presents principles and applications of therapeutics in clinical pharmacology. Prerequisite: Admission to Undergraduate CLS Program.  
1.5 credits

**HAD 440 Forensic Sciences Clinical**

Full time instruction and practice in a section of the medical examiner's office (e.g., forensic biology, forensic toxicology) to acquire hands-on experience with techniques utilized in the investigation of criminal activities. Prerequisites: Admission to Undergraduate CLS Program; HAD 304; Instructor Consent Required  
3-5 credits

**HAD 445 Selected Topics in Toxicology**

Familiarizes students with basic concepts of pharmacology and toxicology. Covers methods of analysis and interpretation of laboratory data. Prerequisites: Admission to Undergraduate CLS Program; HAD 331 and HAD 432; Department Consent Required  
1.5 credits

**HAD 460 Clinical Laboratory Quality Management**

Introduces students to total quality managed environments and provides tools to affect quality management programs as their careers progress into leadership roles. Prerequisite: Admission to Undergraduate CLS Program  
1 credit

**HAD 468 Laboratory Information Systems Internship**

Familiarizes students with responsibilities of a laboratory information systems (LIS) manager. Provides exposure to various operations involved with developing, maintaining and troubleshooting an LIS in the laboratory and medical informatics setting. Prerequisites: Admission to Undergraduate CLS Program; HAD 363; Additional Prerequisite Track Courses Required; Instructor Consent Required.  
1 credit

**HAD 490 Independent Study/ Clinical Laboratory Sciences**

Proposals for special projects in clinical laboratory sciences involving readings, research, and laboratory problems must be submitted to the program director for approval prior to

registration for this course. Prerequisites: Admission to Undergraduate CLS Program; Instructor Consent Required.  
1-6 credits

**HAD 492 Research Tutorial**

Provides students with an opportunity to apply both skills and knowledge acquired during their studies to formulate and design a research project. Students will then, under faculty mentorship, execute their project using appropriate research methods. They will also be expected to write and present a scientific paper on the completed research. Prerequisites: Admission to Undergraduate CLS Program.  
2 credits

**HAD 493 Advanced Seminar in Clinical Laboratory Sciences**

Prepares students for transition to entry-level clinical laboratory scientist employment. Exposes students to information on NY State licensure, and National Board of Certification (BOC) examination preparation, job search strategies including resume writing, and interviewing preparation. National BOC and other published examination review sources will be used as framework for students to practice and develop experience with the dynamics of analysis and synthesis of laboratory produced data from multiple clinical laboratory areas (i.e. chemistry, immunohematology, microbiology, etc.) and professional organizations. Case study methods will be used for didactic content regarding teaching techniques. Students will create and present a case study unit. . Prerequisites: Admission to Undergraduate CLS Program; HAD 313, 315, 380, 381, 411, 412, 414, 416, and 425.  
2 credits

**HAD 494 Clinical Chemistry Practicum**

Full-time instruction and practice of laboratory procedures in clinical chemistry and automation in an approved hospital laboratory. Prerequisites: Admission to Undergraduate CLS Program; HAD 313 and HAD 411  
4 credits

**HAD 496 Histocompatibility Practicum**

Full-time instruction and practice to introduce and expose the student to various methodologies and instrumental techniques used in a histocompatibility laboratory. Prerequisites: Admission to Undergraduate CLS Program; HBP 401; Instructor Consent Required  
1 credit

**HAD 497 Immunohematology Practicum**

Full-time instruction and practice of laboratory procedures in immunohematology (blood banking) in an approved laboratory. Emphasizes laboratory techniques used in the identification and resolution of problems encountered in current blood bank practice. Prerequisites: Admission to Undergraduate CLS Program; HAD 416  
3 credits

**HAD 498 Coagulation and Urinalysis Practicum**

Full-time instruction and practice of laboratory procedures in coagulation and urinalysis in an approved hospital laboratory. Prerequisites: Admission to Undergraduate CLS Program; HAD 414  
1 credit

**HAD 506 Clinical Cytogenetics Internship**

Introduces the students to clinical cytogenetic techniques and standard operating procedures utilized in a clinical cytogenetic laboratory. Permission of department is required. Prerequisites: Admission to Undergraduate CLS Program; HAD 406; Department Consent Required  
3-5 credits, Letter graded (A, A-, B+, etc.)

**HAD 590 Independent Study/ Clinical Laboratory Sciences**

Proposals for special projects in clinical laboratory sciences must be submitted to the program director for approval prior to registration. Prerequisites: Admission to Undergraduate CLS Program; Department Consent Required  
1-6 credits, Letter graded (A, A-, B+, etc.)

## HAL

**HAL 205 Introduction to Athletic Training**

Introduction to the health care profession of Athletic Training. Explores the global historical development of the profession and the concept of the sports medicine team, as well as medical terminology. Students are required to complete a 50 hour clinical observation. Open to west campus students with permission of department. G/P/NC grading option is not available.  
3 credits

**HAL 210 Emergency Care of Athletic Injuries**

Recognition and management of medical emergencies with emphasis on those conditions that are most commonly suffered by athletes. Successful completion of the course leads to Health Care Provider Cardio-Pulmonary Resuscitation(CPR), and Standard First Aid certification by the Emergency Care and Safety Institute. Open to west campus students. This course has an associated fee. Please see [www.stonybrook.edu/coursefees](http://www.stonybrook.edu/coursefees) for more information. Open to west campus students with permission of department. G/P/NC grading option is not available.  
3 credits

**HAL 300 Kinesiology**

The mechanical aspects of human motion and the structure and function of these motions in physically active individuals with or without pathological involvement. The student learns basic qualitative and quantitative clinical techniques used in identifying pathological movement. Open to west campus students with permission of department. G/P/NC grading option is not available.  
4 credits

<p><b>HAL 305</b>      <b>Prevention and Care of Athletic Injuries</b></p> <p>A course addressing the areas of knowledge, skills, and values needed by an entry-level athletic trainer needs to identify injury and illness risk factors encountered by athletes and others involved in physical activity and to plan and implement a risk management and prevention program. Prerequisite: Admission to Undergraduate Athletic Training Program 3 credits</p>	<p><b>HAL 306</b>      <b>Prophylactic Taping, Bracing and Equipment Fitting</b></p> <p>The student will demonstrate the ability to select and apply preventative and protective taping, wrapping, splinting, bracing, and rehabilitative devices in order to prevent further injury. Additionally, the student will identify, select and fit general protective and sports specific protective athletic equipment. Prerequisite: Admission to Undergraduate Athletic Training Program 2 credits</p>	<p><b>HAL 320</b>      <b>Clinical Evaluation and Diagnosis of Lumbar Spine/Lower Extremity</b></p> <p>Focuses on principles of orthopedic examination and assessment. Emphasizes the components of the comprehensive orthopedic clinical evaluation and diagnosis, including history, inspection, palpation, functional testing, and special evaluative techniques of the lumbar spine and lower extremity. Prerequisite: Admission to Undergraduate Athletic Training Program 3 credits</p>	<p><b>HAL 321</b>      <b>Clinical Evaluation and Diagnosis Head/Cervical Spine/ Upper Extremity</b></p> <p>This course focuses on the principles of orthopedic examination and assessment. Emphasis will be placed on the components of the comprehensive orthopedic clinical evaluation and diagnosis including: history, inspection, palpation, functional testing, and special evaluation techniques of the head, cervical spine and upper extremity. Prerequisite: Admission to Undergraduate Athletic Training Program 3 credits</p>	<p><b>HAL 345</b>      <b>Therapeutic Modalities</b></p> <p>Knowledge, skills, and values needed by the entry-level athletic trainer to plan, implement, document, and evaluate the efficacy of therapeutic modalities in the treatment of injuries and illnesses of athletes and others involved in physical activity. Prerequisite: Admission to Undergraduate Athletic Training Program 4 credits</p>	<p><b>HAL 351</b>      <b>Research Methods and Biostatistics</b></p> <p>This course introduces the student to research in athletic training. The student learns about the research process, reads, comprehends and appreciates journal articles and begins writing a research proposal on a topic related to</p>	<p>athletic training. Prerequisite: Admission to Undergraduate Athletic Training Program 3 credits</p>	<p><b>HAL 355</b>      <b>General Medical Conditions and Disabilities in the Physically Active</b></p> <p>Presents the pathophysiology and management of common diseases and other medical disorders or disabilities as they relate to athletes and the physically active. Prerequisite: Admission to Undergraduate Athletic Training Program 4 credits</p>	<p><b>HAL 360</b>      <b>Rehabilitation of Athletic Injuries</b></p> <p>Presents the principles and objectives inherent in rehabilitating athletic injuries. Discusses orthopedic rehabilitation fundamentals and specific conditioning and re-conditioning techniques. Exposes the student to different types of exercise and equipment used in rehabilitation. Provides laboratory experience in applying various rehabilitation techniques. Prerequisite: Admission to Undergraduate Athletic Training Program 4 credits</p>	<p><b>HAL 370</b>      <b>Exercise Physiology</b></p> <p>Offers the student an understanding and appreciation of the metabolic and physiological adaptations of exercise. In-depth presentation of muscle, cardiac, and pulmonary physiology related to the healthy human at various states: rest, acute exercise, long term exercise under normal and high stress environmental conditions. Includes presentation of food sources, production of energy, and energy systems. Includes information on how training enhances strength, anaerobic power, aerobic power and physique while slowing the effects of aging and aiding in disease prevention. Prerequisite: Admission to Undergraduate Athletic Training Program 4 credits</p>	<p><b>HAL 375</b>      <b>Supplement Use for Sport Performance</b></p> <p>Course introduces the use of supplements in sport from a sports medicine and athletic training perspective. Discusses the advantages and disadvantages of using dietary supplements. Presents scientific research on recommended dosage and potential side effects. Both competitive and recreational athletes' needs and concerns are addressed. Upon completion of course, students should be able to evaluate and make recommendations about dietary supplements. Open to west campus students. G/P/NC grading option is not available. Prerequisite: Completion of Any Undergraduate Biology Course or Equivalent 2 credits</p>	<p><b>HAL 376</b>      <b>Introduction to Nutrition</b></p> <p>Introduces students to fundamentals of nutritional science and food systems. Reviews dietary sources and functions of macro and micronutrients and the basic of their metabolism and impact on energy balance and common health problems. Explores types of food systems, including production, transformation, distribution, access and consumption and</p>
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Explores the impact on the environment and human health. Discusses contemporary issues and controversies such as eating disorders, diet trends and sports nutrition. Open to west campus students. G/P/NC grading option is not available. 2 credits

**HAL 435 Organization and Administration in Athletic Training**

Examines various issues, policies, and procedures involved with the ethical administration of athletic training in a managed-care model, including US federal health care laws, legal liability issues, personnel management, facility organization and design, equipment maintenance, budgeting, record keeping, health care services, counseling, and public relations. Prerequisite: Admission to Undergraduate Athletic Training Program  
3 credits

**HAL 450 Senior Research Seminar in Athletic Training**

Culmination of athletic training curriculum. Students complete and present their research study. Prerequisite: Admission to Undergraduate Athletic Training Program  
3 credits

**HAL 460 BOC Exam Primer**

This course is designed to provide students with information regarding study techniques, test taking strategies, and application procedures for the Board of Certification (BOC) exam. Prerequisite: Admission to Undergraduate Athletic Training Program  
1 credit, S/F graded

**HAL 481 Athletic Training Practicum I**

Assignments in clinical settings related to the students' area of study in prevention and care of athletic injuries, prophylactic taping, bracing and equipment fitting. Students are given the opportunity to observe and integrate skills under the supervision of a Preceptor. Students participate in a laboratory setting that re-evaluates students' skills through patient interaction, psychomotor and scenario simulations. Prerequisite: Admission to Undergraduate Athletic Training Program  
3-6 credits

**HAL 482 Athletic Training Practicum II**

Assignments in clinical settings related to the students' area of study in clinical evaluation and diagnosis. Students are given the opportunity to observe and integrate skills under the supervision of a Preceptor. Students also participate in a laboratory setting that re-evaluates students' skills through psychomotor and scenario simulations. Provides grand rounds forum. Prerequisite: Admission to Undergraduate Athletic Training Program  
7 credits

**HAL 483 Athletic Training Practicum III**

Assignments in clinical settings related to the students' area of study in clinical evaluation and diagnosis and therapeutic modalities. Students are given the opportunity to observe

and integrate skills under the supervision of a Preceptor. Students participate in a laboratory setting that re-evaluates students' skills through psychomotor and scenario simulations. Provides grand rounds forum. Prerequisite: Admission to Undergraduate Athletic Training Program  
7 credits

**HAL 484 Athletic Training Practicum IV**

Assignments in clinical settings related to the students' area of study in prevention and care of athletic injuries, prophylactic taping, bracing, equipment fitting, clinical evaluation and diagnosis. Students are given the opportunity to observe and integrate skills under the supervision of a Preceptor. Prerequisite: Admission to Undergraduate Athletic Training Program  
3-6 credits

**HAL 485 Athletic Training Practicum V**

This course offers assignments in clinical settings related to the students, area of study (rehabilitation of athletic injuries). This course will give the student the opportunity to observe and integrate skills under the supervision of a Preceptor. The student will also participate in a laboratory setting that will re-evaluate the students, previous skills through psychomotor and scenario simulations. This meeting time will also act as a venue to discuss current situations arising at the various sites that will provide for a grand rounds forum. Prerequisite: Admission to Undergraduate Athletic Training Program  
7 credits

**HAL 486 Athletic Training Practicum VI**

This course offers assignments in clinical settings related to the students, area of study (general medical conditions and disabilities). This course will give the student the opportunity to observe and integrate skills under the supervision of a Preceptor including rotations through Physicians practices. The student will also participate in a laboratory setting that will re-evaluate the students' previous skills through psychomotor and scenario simulations. This meeting time will also act as a venue to discuss current situations arising at the various sites that will provide for a grand rounds forum. Prerequisite: Admission to Undergraduate Athletic Training Program  
7 credits

**HAL 499 Athletic Training Teaching Practicum**

Advanced students assist faculty members teaching athletic training classes. In addition to working as tutors during instructional periods, students have regular conferences with a faculty supervisor. Students may not serve as teaching assistants in the same course twice. Prerequisite: Admission to Undergraduate Athletic Training Program. Instructor Consent Required  
2 credits, S/F graded

**HAL 510 Strength and Conditioning for the Healthcare Practitioner**

Designed to provide a comprehensive overview of strength and conditioning for the future or practicing healthcare practitioner. Emphasizes exercise sciences (including

anatomy, exercise physiology, and biomechanics), nutrition, exercise technique, program design, organization, administration, testing, and evaluation. Prepares students for nationally- accredited Certified Strength and Conditioning Specialist (CSCS) certification exam. Open to non SHTM students Prerequisite: ANP 300, HAN 200 or Equivalent Anatomy Course; Instructor Consent Required 3 credits, Letter graded (A, A-, B+, etc.)

## HAN

### HAN 200 Human Anatomy and Physiology for Health Science I

This is the first course in a two-part sequence that introduces the study of human anatomy and physiology at cell, tissue, and organ system levels of organization, with emphasis on understanding disease processes associated with systems. Laboratory sessions include virtual on-line exercises designed to illustrate principles learned and computer simulations in physiology and anatomy dissection. G/P/NC grade option is not available. Open to non HSC students. Prerequisite: one natural science course 4 credits

### HAN 202 Human Anatomy and Physiology for Health Science II

This is the second course in a two-part sequence that continues the study of human anatomy and physiology. Topics include the endocrine system, blood composition, the cardiovascular system, the lymphatic system, the immune system, the respiratory system, the digestive system, nutrition, the urinary system, the reproductive system, fluid, electrolyte, acid-base balance and heredity. Laboratory sessions entail virtual online exercises designed to illustrate principles learned and computer simulations in physiology and anatomy dissection. G/P/NC grade option is not available. Open to non-HSC students. Prerequisite: HAN 200 4 credits

### HAN 251 Research Methods in Health Science

Provides a foundation in quantitative, qualitative and mixed methods research design and methods. Emphasizes the relationship between literature review and the research process and the elements of a research proposal. Applies research designs and methods to case study research projects. Requires on-line CITI training in the protection of human subjects. G/P/NC grade option is not available. Open to non HSC students. 3 credits

### HAN 300 Health Care Issues

Provides students with an overview of the organization of the health care delivery system. Includes the role of health care professionals and health care organizations. Explores issues regarding health care insurance, the uninsured and underserved, managed care and changes in the health care marketplace. Provides an overview of major diseases including epidemics, chronic and acute illness. Discusses

the role of health promotion and disease prevention as well as alternative and complementary medicine. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS 3 credits

### HAN 312 Human Anatomy, Health and Medical Language

Develops a deeper knowledge of human anatomy and a working medical vocabulary the applies to clinical scenarios. Builds on a foundation of anatomy and physiology. Emphasizes the interrelationships among human anatomy, body systems, pathophysiology and clinical medicine. Introduces the medical professionals and the technology utilized to diagnose and treat patients. G/P/NC grade option is not available. Open to non-HSC students. Prerequisite: HAN 200 or ANP 300. 3 credits

### HAN 333 Communication Skills

Introduces the principles of effective communication and stages of group development. Offers theory and practice of interpersonal communication and groups. Provides specific topics related to health care teams. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS 3 credits

### HAN 335 Professional Ethics

Provides students with a framework for identifying ethical dilemmas in professional settings. Through the use of case studies and role-playing, students simulate ethical situations relating to confidentiality, informed consent and truth-telling, and explore various approaches for resolving these conflicts. Presents professional codes of ethics using small and large group discussions. Presents and discusses ethics-related topics such as genetics, transplants, cloning, advance directives, and health care accessibility. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS 3 credits

### HAN 364 Issues in Health Care Informatics

Acquaints students with the use and application of personal computers and medical information systems used in health care. Emphasizes the optimization and customization potential of computer functions for standard and specialized tasks. Examines the present and potential use of the Internet in the health care arena. Presents the application of medical informatics to health care delivery through classroom demonstrations and discussions. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS 3 credits

### HAN 383 Scholarly Writing in Health Science

This course is designed to challenge the undergraduate student to improve their skills in scholarly writing and professional communications through a variety of written and verbal formats in a logical, straightforward style. Students

will be shown strategies for writing with purpose, supporting detail, and organization. Students will be required to write for a variety of audiences and will conduct a limited literature review, design a research proposal, and create an evidence-based program to be presented to the class. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS  
3 credits

**HAN 395 Radiation Physics in Medicine**

Provides an introduction to radiological and radiation oncology physics for students interested in a career in either medical imaging or radiation therapy/oncology. Presents elements of mathematics and general physics relevant to the radiological sciences. Topics include production of radiation, radioactivity, interaction of radiations with matter, radiation detection, characteristics of high energy medical LINAC radiation, absorbed dose calculation and measurement, radiography, radionuclide imaging, imaging with ultrasound, imaging with magnetic resonance, and basic medical radiation safety. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS  
4 credits

**HAN 401 Radiobiology and Health Physics**

Presents an overview of the biological effects of radiation by examining the interaction of radiation with matter, macromolecules, cells, tissue and the whole body. Studies the clinical impact of responses to radiation. Introduces students to radiation safety through topics such as biologic consequences of irradiation, regulatory limitation of exposure, methods for exposure minimization, and radiation monitoring. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395  
3 credits

**HAN 402 Radiographic Anatomy and Pathology**

Provides basic radiographic anatomy from both the projection and cross sectional point of view. Introduces to basic disease processes, including the nature and causes of disease and injury. Examines these processes on medical images acquired through radiography, computed tomography, angiography, magnetic resonance, scintigraphy, emission computed tomography and ultrasonography. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395  
3 credits

**HAN 404 Radiology Instrumentation**

Expands imaging physics into the area of Radiologic Technology. Studies the physical basis, construction, operation, and quality control of radiographic, fluoroscopic, computed radiographic, direct radiographic, digital subtraction, and computed tomography systems. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395  
3 credits

**HAN 405 Radiographic Technique**

Focuses on production of radiographic image. Includes rationale for selection of technical factors, issues of image resolution and contrast, image receptor technology; film sensitometry; image intensification; film processing; grids; automatic exposure control; portable/surgical procedures; and basic contrast agent pharmacology, and administration directly related to the production of radiographic images. Presents an overview of the special modalities of computed radiography (CR), direct radiography (DR), fluoroscopy, digital fluoroscopy, digital subtraction angiography (DSA), computed tomography (CT), and picture archive communication systems (PACS). Special emphasis is placed on reducing patient exposure to radiation. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395  
3 credits

**HAN 406 Radiologic Procedures and Positioning I**

Examines routine clinical radiographic positioning of the upper and lower extremities, shoulder, spine, chest, pelvis skull, abdomen, and digestive and urinary systems. Includes portable studies, operating room applications, angiography and advanced imaging techniques. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395  
6 credits

**HAN 409 Basic CPT Coding**

Provides comprehensive introduction to the purpose and basic applications of the Healthcare Common Procedure Coding Set (HCPCS), which includes Current Procedural Terminology (CPT-4). Topics include coding conventions; formats and instructional notations; definitions of the classification system; and HCPCS/CPT nomenclature. Students will also apply basic guidelines from medical, surgical, evaluation/management, and diagnostic services to identify procedures and services which would be appropriate to code in various healthcare settings. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisites: HAN 200, HAN 202, HAN 312 & HAN 424.  
3 credits

**HAN 410 ICD-10-CM for Coders**

Focuses on the ICD-10-CM classification systems. Introduces the student to the professional standards for coding and reporting of diagnostic inpatient and outpatient services. Coding characteristics, conventions, and guidelines will be applied in identifying and accurately assigning codes to diseases and conditions. Health records, manual and computerized coding methods, and coding references will be utilized in the coding process. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisites: HAN 200, HAN 202, HAN 312 & HAN 424.  
3 credits

**HAN 416 Special Issues in Emergency Care and Resuscitation**

Explores issues in special patient populations and areas in emergency care. Covers pediatric emergencies, obstetric emergencies, neonatology, and geriatric emergencies.

Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 417 Cardiac Emergencies**

Exposes students to concepts and issues critical to assessment and care of patients presenting with cardiac emergencies. Covers cardiovascular pathophysiology; cardiac patient assessment and management; cardiac electrophysiology; cardiopulmonary resuscitation; and advanced cardiac life support. Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 420 ICD-10-PCS for Coders**

Focuses on the ICD-10-PCS classification system. Introduces professional standards for coding and reporting of inpatient procedure services. Coding characteristics, conventions and guidelines will be applied in identifying and accurately assigning codes to procedures. Health records, manual and computerized coding methods, and coding references will be utilized in the coding process. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisites: HAN 200, HAN 202, HAN 312 & HAN 424.  
3 credits

**HAN 421 Advanced CPT Coding**

Provides comprehensive advanced coding for the purpose of application of the Healthcare Common Procedure Coding Set (HCPCS), which includes Current Procedural Terminology (CPT-4). Topics include advanced coding conventions; formats and instructional notations; application of the complex areas of the classification system; and HCPCS/CPT nomenclature. Students will also apply advanced coding guidelines from medical, surgical, evaluation/management, and diagnostic services to identify complex procedures and services appropriate to code in various healthcare settings. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisites: HAN 200, HAN 202, HAN 312 & HAN 424.  
3 credits

**HAN 422 Healthcare Reimbursement**

Introduces the basics of healthcare reimbursement. Includes commercial, managed care and federal insurance plans and how reimbursement systems affect providers, payers and consumers. Emphasizes the prospective payment system, uniform hospital discharge data set, and utilizing inpatient coding knowledge to understand payment methodologies in acute care settings. Incorporates current reimbursement and payment issues mandated by the affordable care act, including accountable care organizations, value-based purchasing and recent PPS rules and regulations. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisites: HAN 200, HAN 202, HAN 312 and HAN 424  
3 credits

**HAN 423 Coding Practicum**

This 45 hour practicum capstone experience will require students to apply knowledge and skills acquired during the spring concentration's course work. The student will code actual medical records including physician's billing, facility emergency department, facility ambulatory surgery, and facility inpatient. The student will also shadow the Clinical Documentation Improvement staff to fully understand the physician query process and how it interacts with coding. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisites: HAN 409, HAN 410, HAN 420, HAN 421, and HAN 422.  
3 credits

**HAN 424 Pathophysiology for Healthcare Professionals**

Provides broad but significant immersion in pathophysiology to develop an understanding of common conditions treated in the inpatient and ambulatory settings. Emphasizes a systems based approach to disease states. Highlights the pathophysiology, clinical presentation, diagnostic evaluation, and pharmacologic treatment and monitoring of the common diseases within each body system that coders encounter in the medical record. Prerequisite: Advancement to Health Sciences Senior Year Curriculum - HANBS.  
3 credits

**HAN 426 Instrumentation for Nuclear Medicine Technology**

Expands on HAN 395, specifically in the area of Nuclear Medicine Technology. Examines the physical basis, construction, operation and quality control of radiation detection, pulse height analysis, planar imaging, Single Photon Emission Tomography (SPECT) imaging and Positron Emission Tomography (PET) imaging devices. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395  
3 credits

**HAN 427 Nuclear Medicine Procedures**

Covers principles, methods and instrumentation used in Nuclear Medicine imaging. Examines the preparation and performance of planar, Single Photon Emission Tomography (SPECT) and Positron Emission Tomography (PET) nuclear medicine imaging procedures. Provides information needed to perform a variety of imaging and/or functional studies (e.g. liver, spleen, hepatobiliary, gastric reflux, gastrointestinal bleeds, lung, endocrine, central nervous system). Presents in vitro nuclear medicine procedures. Principles of sensitivity, specificity, accuracy, and predictive values of diagnostic testing are also examined. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395  
6 credits

**HAN 429 Radiopharmacy and Therapy in Nuclear Medicine**

Examines the production, labeling, quality control, clinical biodistribution, and application of radionuclide tracers for nuclear medicine imaging. Covers radionuclide and radiopharmaceutical characteristics that provide suitable imaging properties. Discusses various aspects of

laboratory procedures (e.g. safe handling of radionuclides, radiation safety surveys, hot laboratory instruments, radiopharmaceutical preparation, quality control and sterile technique). Explores pathologies, radiopharmaceuticals, dosage calculation and administration, and patient management issues related to radionuclide therapy. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395  
3 credits

**HAN 432 Introduction to Health Care Management**

Introduces students to the practices and theories of health care policy and management. Presents an overview of the trends in public policy and management techniques. Restricted to students approved for appropriate senior year track in the Health Science major.  
4 credits

**HAN 433 Statistics for Healthcare Management**

Assists students in defining and understanding the terms used in the statistical treatment of data. Students will perform descriptive and inferential statistical treatments of data (i.e., perform and interpret hypothesis testing). Prerequisite: Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 434 Corporate Compliance and Regulation**

Provides an overview of recently enacted legislation requiring health care institutions' compliance programs. Introduces regulations and compliance including anti-trust, controlled substances, Americans with Disabilities Act, Occupational Safety and Health Act, Joint Commission on Accreditation of Health Care Organizations, Department of Health jurisdiction over hospitals and licensure requirements. Restricted to students approved for appropriate senior year track in the Health Science major.  
4 credits

**HAN 436 Continuous Quality Improvement in Health Care**

Provides basic principles associated with Total Quality Management (TQM) and Continuous Quality Improvement (CQI). Aids identification and quality problem-solving found in all health care organizations utilizing CQI tools and techniques. Through the use of case studies, current events, and textbook materials, students will learn how to identify problems, recommend improvements, and collect data to demonstrate process improvement. Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 440 Introduction to Community Health Education**

Introduces students to the foundation of planning, implementing and evaluating community-based health

education programs. Presents classic theories of health education including the social learning theory, health belief model, and the attribution theory. Reviews relevant health education programs. Examines various learning styles and skills. Basic health education models are introduced and critiqued through individual and group projects. Reviews health education professional organizations and associations. Each student is required to design a health education program for a selected population. Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 441 Empower SCI: Disability Studies and Independent Living**

Provides an experiential exploration of independent living and disability studies through readings, visuals and activities in the EmpowerSCI program. Readings will introduce students to concepts of independent living as a social and political movement, and practical strategies for its establishment. Prerequisite: Must be involved in the EmpowerSCI program as participant, staff or volunteer. Permission of Instructor.  
3 credits

**HAN 443 Aging and Disability**

Provides comprehensive overview of aging and disability. Includes introduction to the field of geriatrics, age related disabilities, and the experiences of people with disabilities as they age. Presents an interdisciplinary perspective. Incorporates social, environmental, cultural, economic and historical issues related to disability and aging. Film, narrative, biography and guest speakers provide students with first-hand accounts of elders with disabilities. Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 445 Independent Living and Disability**

Interdisciplinary exploration of how independent living has evolved as a social and political movement. Topics include analyzing current legislation, social issues and living philosophies. Guest speakers will facilitate the students gaining a multi-layered understanding of the issues faced by people with disabilities who are living independently. Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 446 Disability Health and Community**

Presents a comprehensive view of health and community concerns experienced by people with disabilities. Explores historical analysis, biomedical discourse, cultural critique, and field research to understand the evolution of medical practices, cultural beliefs, and social structures influencing the treatments, services, and opportunities available to people with disabilities in the United States and internationally. Includes gender, sexuality, race, poverty, "invisible disabilities", eugenic sterilization, assisted suicide topics. Guest speakers will facilitate a multi-layered understanding of the issues faced by people with disabilities and their families. Restricted to students approved for appropriate senior year track in the Health Science major.

3 credits

**HAN 447 Children with Disabilities**

Provides a comprehensive overview of the theories of child development and issues related to children with developmental spectrum disorders, neurodevelopmental disorders, and communication and learning disorders. Includes behavioral, developmental, language, medical, motor and sensory needs of children with developmental disabilities. Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 448 Disability and Employment**

Presents a comprehensive overview of the Disability and Employment field. Explores pertinent employment-related legislation, the vocational rehabilitation system, the structure of existing governmental and not-for-profit programs, and current disability employment practices, through the use of didactic and experiential techniques. Emphasizes the key roles of placement professionals. Provides individualized learning opportunities for individuals with disabilities who happen to be job seeking. Restricted to students approved for appropriate senior year track in the Health Science major  
3 credits

**HAN 449 Project in Disability Studies**

Students will develop independent projects in topic area of disability studies. They will be required to develop a set of readings, engage in a minimum of 15 hours of experiential learning [in the form of community site-visits, volunteerism, or internships]. Course instructors and assigned mentors will assist students during bi-weekly group meetings and by scheduled appointments. Restricted to students approved for appropriate senior year track in the Health Science major.  
4 credits

**HAN 450 Introduction to Public Health**

Introduces the principles and practices of public health, including definitions and concepts, history and development, determinants of health, and ethical and legal aspects of public health. Orients students to various public health settings such as local and state health departments, not-for-profit community organizations, and agencies for special populations. Provides students with basic knowledge and skills for conducting community needs assessment with diverse populations. Addresses infectious disease control, environmental health, chronic disease control, tobacco and drug control, maternal and child health, women's health, and injury control topics. Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 452 Epidemiology and Biostatistics**

Provides students with the basic knowledge and skills for studying diseases of individuals and groups. Introduces biostatistical approaches and skills for collecting and organizing data of communities to meet health needs. Addresses epidemiological concepts, limitations and resources. Through the use of case studies, students study

various epidemiological models used regionally, nationally and internationally. Includes discussions about ethical situations related to research and statistical studies. Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 455 Health Literacy for Public Health**

Explores the ways in which health literacy impacts patient care and the delivery of community health/public health services. Students will learn the skills needed to relay, process, and explain basic health information and services to assist patients and their families to make appropriate health decisions. Examines and analyzes issues of low health literacy, including populations at risk, research, measurement tools, writing in plain language and health communication techniques. Prerequisite: Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 456 Behavioral and Social Aspects of Health**

Introduces social and behavioral factors as determinants of health. Explores theories of human and group behavior and health behavior change models through lecture and case study. Explores the dynamics between health behaviors and culture, gender, age and socioeconomic status. Students study various inventory tools for measuring health-related knowledge and methods for measuring behavior change. Restricted to students approved for appropriate senior year track in the Health Science major.  
3 credits

**HAN 462 Developing Health Information Systems**

Introduces students to fundamental hardware and software concepts, operating systems, GUI or desktop environments and system development life cycles. Reviews Windows applications such as spreadsheet, database, forms, queries and reports. Restricted to students approved for appropriate senior year track in the Health Science major.  
4 credits

**HAN 464 Health Information Systems Management**

The course includes organizational change issues in health care environments, resource management (inventory, tracking and acquisition) and the role of policy formulation. Consumer issues, standards and security and the provision of health information resources to healthcare workers will also be covered. Relevant applications and issues related to health services will also be explored. Restricted to students approved for appropriate senior year track in the Health Science major.  
4 credits

**HAN 465 Concepts and Case Studies in Health Informatics**

Explores and showcases various health care organizations' selection, implementation and evaluation of current and emerging technologies in Health Care Informatics (HCI).

Explores practical applications of health care project management skills obtained from ongoing HCI courses. Analyzes case studies within the HCI sector through a series of dynamic discussions and group projects making recommendations based on research and industry best practices. In a simulated project management environment, students evaluate leadership challenges and methodologies of health informatics applications. Restricted to students approved for appropriate senior year track in the Health Science major.

3 credits

**HAN 466 Applied Health Care Informatics**

Provides overview of the role of information systems in health care organizations. Emphasizes the integration of evidence-based research into clinical decision-making and the influence of information systems on health outcomes. Explores technical, organizational and cost-benefit issues related to health care information systems, including clinical decision-support, integrated networking and distributed computing technologies, telemedicine applications and artificial intelligence solutions. Through a combination of classroom-based seminars, group case studies, and computer laboratory exercises, students will develop and exercise analytical skills for appraising health information systems, as well as acquire practical experience using biomedical research databases, desktop application software, and electronic communication systems. Restricted to students approved for appropriate senior year track in the Health Science major.

3 credits

**HAN 467 Utilization and Outcomes Research Methods**

Provides the necessary tools to evaluate and implement research methods and utilize outcomes within the health care system. Presents an overview of statistics and research methods and evaluation techniques by utilizing group discussions and case studies. Demonstrates the utilization of technology as a resource for existing research as well as management tools. Restricted to students approved for appropriate senior year track in the Health Science major.

3 credits

**HAN 470 Occupational Health and Safety Engineering**

Provides fundamentals of occupational safety and health. Emphasizes safety engineering regulations, codes and practices, safety program administration, recognition of hazards, and implementation of hazard controls. Restricted to students approved for appropriate senior year track in the Health Science major.

3 credits

**HAN 471 Trauma and Trauma Systems**

Explores concepts and issues that are critical to the assessment and care of trauma patients. Covers kinematics, pathophysiology, trauma patient assessment and management, and trauma system development. Restricted to students approved for appropriate senior year track in the Health Science major.

3 credits

**HAN 472 Emergency Response to Hazardous Materials and Terrorism**

Students will learn how healthcare providers recognize and respond to hazardous material (HAZMAT) and terrorist incidents. Includes management strategies for hazardous materials incidents; identification of on-scene indicators of a suspicious incident; recognition of the tactics and objectives of terrorism; and scene/perimeter control issues unique to a terrorist incident. Restricted to students approved for appropriate senior year track in the Health Science major.

3 credits

**HAN 474 Industrial Hygiene**

Introduces basic concepts of industrial hygiene. Presents the methodology and procedures that professionals in the field use to identify, measure, and correct hazards in the work environment. Restricted to students approved for appropriate senior year track in the Health Science major.

4 credits

**HAN 475 Fundamentals of Environmental Health**

Introduces the key areas of environmental health. Utilizes a population health perspective. Emphasizes core concepts in environmental health (i.e. environmental epidemiology, environmental toxicology, environmental policy and regulation); agents of environmental diseases (i.e. microbial agents, ionizing and nonionizing radiation); and applications and domains of environmental health (i.e. water and air quality, food safety, waste disposal, occupational health, and injuries). Restricted to students approved for appropriate senior year track in the Health Science major.

3 credits

**HAN 476 Hazardous Materials, Emergency Response and Environmental Auditing**

Concentrates on the nature of hazardous materials and how they are handled in the workplace. Presents the fundamentals of emergency response planning and how to perform environmental audits. Restricted to students approved for appropriate senior year track in the Health Science major.

4 credits

**HAN 477 Medical Emergencies**

Presents concepts and issues critical to assessment and care of patients presenting with medical emergencies. Covers pathophysiology, medical patient assessment, and management of medical emergencies. Restricted to students approved for appropriate senior year track in the Health Science major.

3 credits

**HAN 478 Internship in Environmental Health**

A 90 hour internship experience provides real-time work experience and opportunity for students to apply knowledge and skills learned in environmental health concentration courses. Restricted to students approved for appropriate senior year track in the Health Science major.

2 credits

**HAN 481 Introduction to Anesthesia**

Introduces the basics of the anesthesia specialty. Defines the role of the anesthesia specialist as an integral part of the patient care team. Through the use of lecture, video, tour, and hand-on demonstration, students will gain a working knowledge of how to assist anesthesiologists and anesthetists in the acquisition, preparation and application of equipment and supplies required for the administration of anesthesia. Restricted to students approved for appropriate senior year track in the Health Science major.

2 credits

**HAN 482 Introduction to Pathology**

Pathology is the branch of medicine devoted to the study and understanding of disease. This course will introduce the student to the concept of disease. The types of growth, causative factors and biological behavior of neoplastic diseases are discussed. Staging procedures are introduced. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395

3 credits

**HAN 483 Cardiopulmonary Physiology for Anesthesia Technology**

Familiarizes students with the anatomical structures and physiological mechanisms and functions of the cardiopulmonary system. Reviews mathematical formulas and calculations used in clinical applications of physiologic concepts. Restricted to students approved for appropriate senior year track in the Health Science major.

3 credits

**HAN 485 Clinical Monitoring**

Provides students with a working knowledge of clinical monitoring devices and their application to clinical settings. Covers duties of anesthesia technologist including the provision of technical support to professional staff in order to facilitate anesthesia departmental function. Student develops skills to maintain and organize the anesthesia environment, equipment and supplies. Restricted to students approved for appropriate senior year track in the Health Science major.

1 credit

**HAN 486 Principles and Practice of Radiation Therapy**

Introduces practice and technical aspects of radiation therapy, including techniques specific to anatomical sites and treatment outcome statistics and options available to cancer patients. Includes cancer statistics; epidemiology; etiology; patient education and assessment; a review of the emotional and physical needs of cancer patients; and pharmacology and drug administration. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395

3 credits

**HAN 487 Introduction to Treatment Planning**

Provides a detailed exploration of treatment planning in the field of radiation therapy. Includes, but is not limited to, in-depth instruction in planning algorithms, data transfer, dose computation, plan evaluation and implementation, and Quality Assurance (QA). Reviews and discusses a variety of treatment planning systems and treatment machines. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395

3 credits

**HAN 488 Medical Imaging and Radiographic Anatomy**

Presents an overview of a variety of diagnostic imaging modalities and therapeutic applications and procedures provided by modern health care facilities. Discusses imaging equipment and procedures, and includes recording images on film media and operation of photochemical processing equipment. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395

3 credits

**HAN 489 Pharmacology for Anesthesia Technology**

Presents basic principles of pharmacologic properties and clinical applications. Through the use of lectures and scenarios, provides working knowledge base of drug classifications and their modes of action to produce therapeutic effects on target sites. Restricted to students approved for appropriate senior year track in the Health Science major.

4 credits

**HAN 490 Fundamentals of Medical Dosimetry and Contouring**

Covers a variety of Radiation Therapy disease sites that are fundamental to the planning competencies required during the clinical year. Includes radio-geographical cross-sectional anatomy using Computerized Tomography (CT), Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI) imaging; full-body anatomical contouring; tolerance doses for critical organs; patient treatment setup; immobilization devices; beam modifiers; Dose Volume Histograms and electron planning including but not limited to 3 Dimensional (3D) planning vs. Intensity Modulated Radiation Therapy (IMRT) of all competency sites. Discussions include Radiation Therapy Oncology Group (RTOG) protocols of all competency sites. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395

3 credits

**HAN 492 Radiation Oncology/Medical Physics II**

Provides students interested in a career in medical dosimetry with an introduction to medical physics for radiation oncology. This is the second course in a two-part series that provides the basis for further study of the applications of radiation oncology physics to radiation treatment planning and radiation dose calculations. Covers topics such as radiation dose distribution, patient dose calculations, treatment planning,

electron beam therapy, brachytherapy, modern treatment delivery, and radiation protection. Restricted to students approved for appropriate senior year track in the Health Science program. Prerequisite: HAN 395  
4 credits

**HAN 499 Health Science Teaching Practicum**

Advanced students assist faculty members teaching Health Science courses. In addition to working as tutors during instructional periods, students have regular conferences with a faculty supervisor. Students are not allowed to apply more than 6 Teaching Practicum credits toward their Bachelor's degree. Permission of the instructor is required.  
1-2 credits

## HAO

**HAO 310 Neuroscience**

Presents an integrated approach to the general principles of organization and function of the autonomic, peripheral and central nervous system. Presents principles in a Systems Approach to Neuroscience. The anatomy of a system is followed with its physiology, pathophysiology and clinical relevance to the occupational therapist. Clinical topics include neurological testing, control of posture and balance, pain, muscle tone and spasticity, feedback vs. feedforward control, reflex vs. voluntary control, control of reaching and locomotion, perception and learning. Prerequisites: HBA 461, HBY 350, HAO 319  
4 credits

**HAO 313 Introduction to Occupational Therapy**

Introduces the history and essential aspects of occupational therapy. Examines philosophical base, definitions related to the practice, scope of practice and role delineations. Provides an orientation to professional organizations, statutes, and credentialing. Open to west campus students.  
1 credit

**HAO 314 Introduction to Historical and Contemporary Practices of Occupational Therapy**

Introduces values and philosophies that influenced the development of the occupational therapy profession and those that continue to influence current practices. Explores conceptual foundations, ideas, evidence, and resources to promote students' development of applied skills and clinical reasoning to support their clients in achieving greater participation in occupations.  
3 credits

**HAO 315 Foundations of Occupational Therapy**

Explores major theories and practice frameworks underlying contemporary occupational therapy practice. Reviews sociological and anthropological themes, as well as the impact of the delivery of health care services. Presents theoretical

constructs of occupation, purposeful activity and occupational science. Introduces activity analysis, structured observation and documentation. Professional terminology will be studied.  
3 credits

**HAO 319 Kinesiology for Occupational Therapy**

Explores the kinetics and kinematics of normal, purposeful human movement. Integrates knowledge of human anatomy, physiology, and physics and biomechanics of the human body. Evaluation procedures such as manual muscle testing and measurement of joint range of motion are studied. Emphasizes importance of human movement as it relates to human function in occupational roles. Prerequisite: HBA 461; Corequisite: HBP 310  
4 credits

**HAO 320 Life Span Growth and Development for Occupational Therapy**

Provides students with knowledge of the major developmental theories and factors influencing the normal developmental process. Examines developmental norms and sequences and emphasizes physical (sensory and motor), cognitive, language and psychosocial tasks. Discusses cultural and environmental influences on development. The coursework covers the entire lifespan, from prenatal and child, through adolescence and adult life stages to dying and death.  
3 credits

**HAO 323 Mental Health Concepts**

Explores the psychosocial aspects of disability as they affect the function of the individual, the family and the community. Includes lectures and presentations related to the recognition of psychosocial problems and how they can be better understood, minimized, or eliminated. Delineates the provision of mental health services across all levels of care. Includes the process of applying evidence based practices. Discusses multicultural factors as they relate to mental illness and the recovery process. Exposes the student to the DSMIV diagnoses and pharmacology of major psychiatric illnesses and reviews psychological theories. Interviewing skills are demonstrated and practiced in the lab sessions. Emphasizes the importance of group dynamics in the student's personal and professional growth. Focuses on the use of group theories, the structure and function of groups in treatment, the analysis of group treatment and group activities, and the therapeutic use of self.  
3 credits

**HAO 324 Psychosocial Theory and Practice**

Offers increased understanding of the identification and treatment of psychosocial disabilities across the life span. Teaches major assessment tools and practice frameworks used in contemporary occupational therapy mental health practice and documentation skills. Presents additional therapeutic activities, their use and gradation in psychosocial practice. Addresses the history, practice and legislation concerning community mental health practice, psychiatric rehabilitation, and work with developmentally disabled populations.

3 credits

**HAO 330 Occupational Therapy Theory and Practice in Pediatrics**

Presents occupational therapy theories, assessments, and treatment processes as they pertain to current pediatric practice. Reviews the predominant models of current practice and integrates effective treatment interventions. Emphasizes abnormal development, acute and chronic medical conditions and their resulting effects on the central nervous system, orthopedic and musculoskeletal systems. Reviews major causes of disability, the etiology and prognoses. Discusses the impact on the family system and the cultural implications. Students learn to select and adapt age and developmental stage appropriate evaluation and treatment intervention strategies. Teaches students to analyze occupationally-based activities. Prerequisites: HAO 315, HAS 300, HAO 320, HBA 461, HAO 319, HBP 310, HBY 350; Corequisite: HAO 310  
4 credits

**HAO 331 Occupational Therapy Theory and Practice with Adults I**

First of two course sequence the provides entry level knowledge and attitudes necessary to effectively work as an occupational therapist with adult populations in multiple settings. Supports occupational therapy performance and quality of life. Introduces core concepts of the occupational therapy and physical disabilities environment. Offers opportunity to define the role of occupational therapists and the impact of a multidisciplinary team on their role as a team member within the continuum of care. Prerequisites: HAO 315 and HAO 385  
2 credits

**HAO 332 Occupational Therapy Theory and Practice with Adults II**

Second of two part course sequence that focus on evaluation and treatment of adults with physical disabilities. Focuses on the evaluation and treatment of adults with physical disabilities. Examines injury, illness, disease and the effects on occupational performance in the areas of work, self-care and leisure. Presents relevant occupational therapy theories and practice. Explores practice frameworks, evaluation/assessments, treatment interventions, selection of age-appropriate occupation-based activities, and activity analysis. Offers opportunity to further refine documentation and clinical reasoning skills through written and verbal assignments. Prerequisites: HAO 315, HAO 331, HAO 385  
3 credits

**HAO 334 Acute Care**

This course covers the occupational therapist's scope of practice, as well as the current assessment, treatment, and documentation methods utilized by occupational therapists in an acute care setting. Students are introduced to high technology equipment found in an acute care setting, i.e. life support, ICU, CCU, PCU, and NICU monitoring devices. Areas discussed include acute care risk factors, the complicated diagnoses often seen in this setting, the role of occupational therapists within this setting, frames of references and treatment techniques, modalities utilized.

1 credit

**HAO 338 Substance Abuse and Occupational Therapy**

Utilizes a life-span approach to examining the physiological, psychological and societal effects of substance abuse on the individual and their family system. Reviews the major categories of drugs, specific drugs in each category, and the effects and withdrawal symptoms. Discusses major theories of substance abuse and philosophies, treatment models, and age specific interventions. Emphasizes the role of the occupational therapist in the identification and evaluation of the individual using/abusing substances. Students learn to design group and individual treatment interventions for specific populations.  
2 credits

**HAO 340 Prosthetics and Orthotics**

Utilizes lecture, discussion and laboratories to teach students about the design, biomechanical principles, fit, function, use, care and patient education involved with upper extremity orthotics. Although there is an emphasis on the design, fabrication and use of upper extremity orthotics, students are introduced to upper and lower extremity prosthetic devices, as well as the use of splints in burn care.  
2 credits

**HAO 374 Professional Behaviors I**

Focuses on expectations of professional behavior at fieldwork sites. Integrates reflective journals and professional portfolio to document clinical competence. Examines the nature of the supervisory process and how to maximize the use of clinical and administrative supervision. Explores cultural competency and the scope of diversity in healthcare.  
1.5 credits

**HAO 385 Conditions in Occupational Therapy**

Provides foundation of clinical diagnoses, symptomatology, and prognosis of common medical conditions across the life span. Emphasizes the impact of disease on society, families and individual physical, cognitive and emotional function.  
2 credits

**HAO 396 Fieldwork IA**

The first of three introductory level clinical experiences. Offers opportunity to identify symptomatology, observe treatment interventions, and formulate treatment plans in a mental health setting. Promotes effective communication skills used with patients and professionals. Uses reflective journals to monitor development of professional behaviors and skills.  
1 credit

**HAO 397 Fieldwork IB**

The second of three introductory level clinical experiences. Offers opportunity to identify symptomatology, observe treatment interventions, and formulate treatment plans in a pediatric practice setting. Promotes effective communication skills used with patients and professionals. Uses reflective

journals to monitor development of professional behaviors and skills. Prerequisites: HAO 310, 320, 330, 323, 324, 374, 385  
1 credit

**HAO 398 Fieldwork IC**

The third of three introductory level clinical experiences. Offers opportunity to identify symptomology, observe treatment interventions, and formulate treatment plans in an adult physical disabilities practice setting. Promotes effective communication skills used with patients and professionals. Uses reflective journals to monitor development of professional behaviors and skills. Prerequisites: HAO 310, 320, 323, 324, 332, 374, 385  
1 credit

**HAO 421 Physical Agent Modalities for the Occupational Therapist**

Presents physical agent modalities utilized as adjuncts to occupational therapy treatment. Reviews therapeutic applications of heat and cold, ultrasound, paraffin, TENS and functional electric stimulation. Provides opportunity to practice applications. Addresses physiological effects of physical agent modalities and their clinical uses and contraindications.  
1 credit

**HAO 430 Sensory Integration Theory and Practice in Occupational Therapy**

Enhances basic knowledge and skills regarding sensory integration theory and techniques. Identifies types of sensory integrative dysfunction, reviews approaches to clinical assessment, outlines characteristics of both direct and indirect modes of intervention, and addresses the issue of effectiveness research. Prerequisites: HAO 310, HAO 315, HAO 320, HAO 330  
2 credits

**HAO 440 Gerontology and Occupational Therapy**

Focuses on the role of occupational therapists with older adults and families across the continuum of care. Addresses the influence of aging processes on physical, sensory, and cognitive function and their relationship to functional capabilities. Discusses psychosocial aspects of aging, and how environment, culture, and values impact lifestyle and occupational performance. Theories, issues, and clinical skills specific to practice in geriatric rehabilitation, home health care, long term care, adult day care programs, hospice, and community practice, including wellness and prevention programs are addressed. The role of practitioners with older adults with Alzheimer's disease and related dementias, lifestyle redesign, the use of assistive technology to promote safety and functional capability, and the role of occupational therapy with the elderly driver is emphasized. Discusses the role of occupational therapy in supporting older adult's health, quality of life and community living. Students learn methods of assessment, use of EMB to help guide treatment, interdisciplinary approaches of providing treatment and methods of utilizing community resources to maximize the functional capabilities of older adults.  
3 credits

**HAO 451 Introduction to Research for Occupational Therapy**

Provides a foundation for future professional and scholarly activities and stresses the importance of research for informed practice decisions. Students learn basic research concepts and statistical applications for the research process. Students learn to review and critique published, peer-reviewed research, identify research topics of interest, and initiate the literature review process. Presents tools needed to critique assessment tools in occupational therapy and interpret standardized scores. Requires the CORIHS human subjects research training. Emphasizes professional writing skills for publications and professional presentations.  
3 credits

**HAO 461 Functional Anatomy for Occupational Therapy**

Presents an anatomical review of all bodily systems for students to acquire a working knowledge of the functional structure of the human body. Provides foundational knowledge for all other courses in the OT program. Builds on the students' prerequisite anatomy and physiology courses. Provides the anatomical knowledge related to the bodily systems in order to understand movement and function and selected pathological conditions, and their relationship to occupational therapy performance deficits in the physical domain.  
4 credits

**HAO 485 Vision, Perception and Cognition**

Provides students with theoretical rationale and necessary skills to evaluate and treat a wide range of visual, perceptual and cognitive task components. Through a combination of lecture, demonstrations, readings and assignments, students will evaluate patients with visuocognitive dysfunction. Presents a variety of treatment approaches/techniques that can improve functional performance and outcome.  
2 credits

**HAO 500 Functional Neuroscience**

Presents an integrated approach to the general principles of organization and function of the autonomic, peripheral and central nervous systems. Presents these principles in a systems approach to neuroscience. The anatomy of a system will be followed with its physiology, pathophysiology relation to human function and clinical relevance to the occupational therapist. Clinical topics will include neurological testing, control of posture and balance, pain, muscle tone and spasticity, feedback versus feed-forward control, reflex versus voluntary control, control of reaching and locomotion, perception, and learning. Prerequisite: HAO 519, HAO 561  
4 credits, Letter graded (A, A-, B+, etc.)

**HAO 504 Introduction to the Historical and Contemporary Practices of Occupational Therapy**

Introduces occupational therapy students to the values and philosophies that influenced the development of the profession, and those that continue to influence current practices. Explores conceptual foundations, ideas, evidence,

and resources that allow learners to begin developing applied skills and clinical reasoning skills to support clients in achieving greater participation in the occupations they want and need. The goal of the course is to have learners develop beginning skills for conducting contemporary occupational therapy practices.

3 credits, Letter graded (A, A-, B+, etc.)

**HAO 505 Foundations in Occupational Therapy**

Provides a conceptual foundation for occupational therapy theory and practice. Instructs students on the concepts of occupation, activity, purposeful activity and participation. Through lecture and laboratory sessions, students will experience working with the concepts they are learning. Examines the philosophical base of the profession, and explores the meaning and diversity of the frames of reference in contemporary occupational therapy practice. Emphasizes the centrality of occupation in health and wellness, through balance in performance areas and contexts. Explores the impact of disability, disease, and injury on the person, their family and society. Students will learn how to break down and analyze activities for their performance components, as well as how to grade and adapt activities for therapeutic purposes. Group discussions on social and political systems will focus on how they influence the delivery of health care services. Introduces the impact of culture on treatment and health practices. Explores the concept of theory development, and how theories, models of practice and frames of reference impact occupational therapy evaluation/treatment.

3 credits, Letter graded (A, A-, B+, etc.)

**HAO 506 Life Span Growth and Development for Occupational Therapy**

Provides students with a knowledge of developmental theories and factors influencing the normal developmental process. Developmental norms and sequences are examined with emphasis on physical (sensory and motor), cognitive, and psychosocial tasks. Discusses cultural and environmental influences on development. The coursework covers prenatal, child, adolescent, and adult development utilizing many frames of references from occupational therapy points of view regarding development.

3 credits, Letter graded (A, A-, B+, etc.)

**HAO 507 Clinical Conditions in Occupational Therapy**

Addresses clinical diagnoses, symptomatology, and prognosis of many major clinical conditions commonly encountered in current practice. Emphasize the impact of disease on individual physical, cognitive and emotional function and on families and society. Case studies will be utilized within this course to enable students to relate major theories and frames of reference to treatment approaches for common diagnoses and medical conditions. The course is intended to help build a foundation for subsequent occupational therapy theory and practice courses and to provide a foundation for Fieldwork II experiences. Prerequisites: HAO 505; HAO 519; HAO 561

2 credits, Letter graded (A, A-, B+, etc.)

**HAO 508 Theories of Adult Rehabilitation**

Provides entry-level knowledge and attitudes necessary to effectively work as an occupational therapist with the adult population in multiple settings to support occupational performance and quality of life. Discusses and evaluates the core concepts of the occupational therapy and physical disabilities environment. Students will be able to define the role of the occupational therapist as well as the impact of a multidisciplinary team on their role as a team member and within the continuum of care of adults while applying evidence based practice. Prerequisites: HAO 505; HAO 507

2 credits, Letter graded (A, A-, B+, etc.)

**HAO 509 Occupational Therapy Theory and Practice in Pediatrics**

Presents occupational therapy theories, assessments, and treatment processes as they pertain to the pediatric population. Integrates several of the predominant models in current practice with material from previous and concurrent coursework. Covers abnormal development, acute and chronic medical conditions, their effect on the CNS, orthopedic and musculoskeletal systems. Reviews major causes of disability, the etiology and prognoses. Discusses the impact on the family and cultural implications. Students learn about selecting age and developmental stage appropriate evaluations, treatment techniques/procedures. Students enhance their activity analysis skills, assessment, treatment planning, documentation skills, and professional interaction through laboratory, class assignments, and fieldwork.

Prerequisite: HAO 505; HAO 507; HAO 561

4 credits, Letter graded (A, A-, B+, etc.)

**HAO 517 Universal Design**

Focuses on adapting the environment to improve the client's quality of life. Examines the therapist's ability to help the patient reintegrate into society. Covers Americans with Disabilities Act; mobility (power and manual); seating/positioning systems; adapted toys; augmentative communication systems; computer access; environmental control units; independent living aids; and vocational adaptations. Provides foundation and knowledge of ergonomic, work hardening, functional capacity evaluations, and vocational programs. Exposes students to different occupational therapy work settings and employment, awareness of federal regulations for work-related programs, and certification requirements for this emerging practice area. The lab sessions offer practical applications of principles discussed in lectures.

3 credits, Letter graded (A, A-, B+, etc.)

**HAO 519 Kinesiology for Occupational Therapy**

Kinesiology is the study of human motion. Designed to establish a working knowledge of biomechanical principles as well as detailed understanding of the osteokinematics and arthokinematics of the various joints of the body. Students will be able to apply their knowledge of biomechanics into real life functional applications for a variety of occupations. The course consists of both lecture and laboratory sessions. Laboratory sessions provide the student with practical applications of principles discussed in lecture. In addition, the laboratory

sessions will allow the student to become proficient in the areas of surface anatomy and palpation, manual muscle testing, and goniometry. The student will study normal and pathological movement, including its impact on function.

Prerequisite: HAO 561

4 credits, Letter graded (A, A-, B+, etc.)

**HAO 520 Substance Abuse and Occupational Therapy**

Addresses physiological, sociological, and psychological effects of substance abuse on the abuser and his/her environment. Presents drug classifications, along with effects and withdrawal symptoms. Discusses treatment models, philosophies, and methods. Students will learn how to design both individual and group interventions. Explores in detail the occupational therapists role in the evaluation and treatment of substance abuse across the life-span and across disabilities. Reviews the use of 12-step programs and alternative treatment models, as well prevention programs, such as smoking cessation. Requires Internet Explorer 10, 9, or 8; Firefox; Chrome; Windows 8, 7, Vista or XP; Mac OS X 10.6, 10.7 and 10.8; or Safari 5.1 and 6 Prerequisites: HAO 523, HAO 505

2 credits, Letter graded (A, A-, B+, etc.)

**HAO 522 Assessment and Treatment of Adult Rehabilitation**

This is the second part of a two part course where learning activities focus on the valuation and treatment of adults with physical disabilities. Examines injury, illness, disease and the effect on occupational performance in the areas of work, self-care and leisure. Occupational therapy theories and practice are learned, including frames of reference, evaluation/assessments, treatment interventions, selection of age-appropriate occupation-based activities, and activity analysis are explored. Students will have the opportunity to further refine their documentation and clinical reasoning skills through written and verbal assignments and apply evidence based practices. Prerequisites: HAO 505, HAO 507, HAO 508

3 credits, Letter graded (A, A-, B+, etc.)

**HAO 523 Assessment and Intervention of Psychosocial Issues**

Explores the psychosocial aspects of disability as they affect the function of the individual, the family and the community. Lectures and presentations will be related to the recognition of psychosocial problems and how they can be better understood, minimized, or eliminated. Provision of mental health services across all levels of care will be delineated. Multicultural factors will be discussed as they relate to mental illness and the recovery process. The course exposes the occupational therapy student to the DSM-V and the pharmacology of major mental illnesses. Psychosocial theories guiding assessment and intervention will be thoroughly discussed. Interviewing skills are demonstrated and practiced in the lab sessions. The use of group theories, the structure and function of groups in treatment, the analysis of group treatment and group activities and the therapeutic use of self are the focus in laboratory and lectures. Students will be introduced to and given the opportunity to practice a variety of assessments utilized in psychosocial occupational

therapy practice. This course is to provide the student with the knowledge, skills, and attitudes necessary to function as an occupational therapist in a psychosocial/mental health treatment setting. Prerequisite: HAO 504

4 credits, Letter graded (A, A-, B+, etc.)

**HAO 524 Assessment & Interventions of the Upper Extremities**

Through lecture, student/instructor interaction, projects, and laboratory experience, students will develop a knowledge base of fundamental upper extremity therapy topics that will provide a foundation for clinical reasoning and treatment approach. Topics will include anatomy, common pathologies, orthotics, evaluation, and treatment. The course will teach students about the design, biomechanical principles, fit, function, use, care and patient education involved with upper extremity orthotics; students are introduced to upper and lower extremity prosthetic devices. Lecture and laboratory study will enable the occupational therapy student to gain an understanding of various physical agents currently used in the rehabilitation practices. Prerequisite: HAO 500, HAO 507, HAO 508, HAO 519, HAO 522

3 credits, Letter graded (A, A-, B+, etc.)

**HAO 525 Vision, Perception, and Cognition**

Focuses on principles and techniques for the rehabilitation of visuocognitive dysfunction. Presents the theoretical rationale and specific skills needed to evaluate and treat a wide range of visual, perceptual and cognitive performance components. Includes a systematic bottom up approach to the evaluation of the adult patient with visuocognitive dysfunction. Explores a variety of treatment approaches and specific treatment techniques that can improve functional performance and outcomes, drawing from both the neurosciences and Occupational Therapy frames of reference. Emphasizes clinical reasoning and the use of both remediation and compensatory strategies within the framework of Occupational Therapy practice. Prerequisites: HAO 505, HAO 507, HAO 508

2 credits, Letter graded (A, A-, B+, etc.)

**HAO 526 Gerontology and Occupational Therapy**

Focuses on the role of occupational therapy with the aged within geriatric rehabilitation settings (in-patient, out-patient and home care); long-term care programs; wellness and safety programs; hospice; community based programs (socialization, day treatment, adult day care programs), and alternative housing environments. Addresses the aging process and its physiological, sociological, and psychological effects, with attention to heterogeneity and older person's strengths and capabilities. Presents common impairments and disabilities and rehabilitation needs of older persons. Students will develop and demonstrate skills in evaluation, treatment planning and therapeutic adaptation, documentation, and discharge planning (including collaborative client and family education), and demonstrate knowledge of assistive devices, equipment, and technology/ environmental modifications to support community living and to improve the quality of life of older persons. Addresses the importance of evidence-based practice, including occupational therapy, life-long learning

and professional development, the benefits of collaborative OT-OTA partnerships and the relationships between policy, legislation and practice. Include aging and gender issues, successful aging, and community and home safety. Provides a conceptual framework for the study of gerontology as it relates to occupational therapy and develops the skills and knowledge to understand major issues in theory, research, and practice related to the older adult. Prerequisites: HAO 505, HAO 507, HAO 508, HAO 522

3 credits, Letter graded (A, A-, B+, etc.)

**HAO 527 Sensory Integration Theory and Practice in Occupational Therapy**

Presents understanding of how sensory integration as a brain function as it relates to everyday occupations and how sensory integration is manifested in the daily life problems of children who experience difficulty with sensory integration. Expands sensory integration knowledge base and skills as a clinical frame of reference by identifying types of sensory integrative dysfunction; reviewing approaches to clinical assessment; outlining the characteristics of both direct and indirect modes of intervention; and addressing the issue of effectiveness research. Prerequisites: HAO 509, HAO 506, HAO 505

2 credits, Letter graded (A, A-, B+, etc.)

**HAO 530 Community, Occupation and Health**

Presents the importance of occupation as a precursor to health, and of occupational therapy as a health promoting profession. Examines the theories and applications of occupational science through a review of the professional literature and class discussion. This occupational perspective of health will be the foundation for each student's design of a community-based practice program. Reviews social theories, socio-cultural and socio-political trends that impact the individual's health status and the delivery of health care services. Offers experience in designing/administering needs assessments in the community, and in organizing outcome data.

4 credits, Letter graded (A, A-, B+, etc.)

**HAO 532 Emerging Areas of Practice**

Discusses the delivery of occupational therapy services in emerging areas of practice. Provides students with alternative models of service delivery and occupational therapy practice. Explores role development and delineation; ethical practice; malpractice; liability concerns; insurance reimbursement; scope of practice and licensure statutes related to emerging areas. Prerequisites: HAO 323, 324, 330, 332, 440, 530

2 credits, Letter graded (A, A-, B+, etc.)

**HAO 534 The Occupational Therapy Manager**

This course builds on previously learned management concepts examining in greater detail the specific responsibilities of the manager of occupational therapy services. Students will learn the mechanics of designing and implementing an occupational therapy department, program or practice. Financial, legal and administrative issues will be discussed, along with marketing strategies. Lectures and

class discussions will prepare the student for the culminating course assignment of designing a unique occupational therapy practice. Prerequisite: successful completion of undergraduate Occupational Therapy curriculum.

3 credits, Letter graded (A, A-, B+, etc.)

**HAO 542 Patient Education**

Provides working knowledge of the theories, approaches, and procedures utilized in communicating health and disease information to patients, their families, collateral staff and the community at large. Concepts of health, disease, and health promotion are examined, along with the health belief models. Further develops the students' ability to communicate effectively with a wide variety of audiences. Topics include evaluation of literacy, design of instructional materials, evaluating audiovisual materials, health promotion strategies, marketing educational interventions, and measuring outcomes of interventions. Lectures, learning activities and classroom presentations will be utilized to meet the course objectives.

2 credits, Letter graded (A, A-, B+, etc.)

**HAO 549 Introduction to Research for Occupational Therapy**

Description: Provides a foundation for future professional and scholarly activities and stresses the importance of research for informed practice decisions. Presents basic research concepts and statistical applications for the research process. Presents methods to review and critique published, peer-reviewed research, identify research topics of interest, and initiate the literature review process. Provides tools needed to critique commonly used assessment tools in occupational therapy and to use and interpret standardized scores. Requires the CORIHS human subjects research training. Emphasizes professional writing skills for publications and professional presentations. Explores current research methodologies used in occupational therapy to facilitate beginning research skills. Prerequisite: Completion of all first year courses.

3 credits, Letter graded (A, A-, B+, etc.)

**HAO 551 Research Design and Methods for OT**

Provides students beginning research and critical inquiry skills through learning current occupational therapy related research methods and by the design of research grant proposals. Students gain fundamental critical inquiry and writing skills necessary to identify appropriate funding sources and write grant proposals for research and program development. Students learn to design qualitative research projects and analyze qualitative data.

3 credits, Letter graded (A, A-, B+, etc.)

**HAO 561 Functional Anatomy Review**

Provides an anatomical review of all bodily systems in order for students to acquire a basic working knowledge of the functional structure of the human body. Provides foundational knowledge for all other courses in the Occupational Therapy Program. Students will apply knowledge learned to formulate hypotheses about occupational dysfunction associated with abnormalities within systems. Utilizes critiques of research to expand on knowledge from lecture and lab.

4 credits, Letter graded (A, A-, B+, etc.)

**HAO 562 Principles of Instruction**

Examines theories of adult learning and education. Focus on principles of curriculum design, various curriculum models, and instructional methods used in various educational settings including professional education, professional development, work place learning and community education. Reviews evaluation and measurement methods. Students design course objectives and outcomes. Discusses elements of successful oral presentations and effective use of instructional media. Prerequisites: Open to third year OT students  
3 credits, Letter graded (A, A-, B+, etc.)

**HAO 570 Global Communities, Occupations and Health**

Explores innovative, non-traditional and emerging areas of occupational therapy practice. Students meet and dialog with occupational therapy practitioners and/or other health care professionals who have developed private practices, are consultants, and are involved in emerging areas of practice. Presents timely articles concerning health care trends and non-traditional/emerging practice areas. Builds upon student's prior knowledge and coursework and integrates AOTA's Standards of Practice, Core Values and Attitudes of OT, and AOTA's Code of Ethics, with attention to current and potential OT/OTA partnerships in community and non-traditional settings. Prerequisite: Fall Year three courses.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAO 573 Professional Behaviors I**

Introduces professional behaviors, including basic communication and documentation skills, with a focus on expectations of fieldwork sites. Students will learn the concept of reflective practice, and how to use a reflective journal. Introduces the professional portfolio as a means to document clinical competence. Examines the nature of the supervisory process with strategies to maximize the use of clinical and administrative supervision. Explores cultural competency and the scope of diversity in health care. Emphasizes the importance of life-long learning through continuing education and other methods. Includes lectures, presentations, role-plays and other exercises to achieve learning objectives. Prerequisite: Year One Summer and Fall Courses  
1.5 credits, Letter graded (A, A-, B+, etc.)

**HAO 574 Professional Behaviors II**

Builds on previously learned material covered in Professional Behaviors I. Students will work on more advanced documentation and communication skills required for entry-level practice. Provides opportunity to discuss professional behavior expectations from their clinical fieldwork assignments. Use of the reflective journal to enhance professional development, and the continuation of the professional portfolio will assist students in developing and documenting their clinical competence. Explores the supervisory process in greater detail, in the context of its use for personal and professional growth. Discusses the role of the occupational therapy assistant as a colleague and collaborator. Continues to emphasize the importance of life-long learning. Lectures, role-plays, presentations and experiential activities will be used to achieve learning

outcomes. Prerequisite: successful completion of undergraduate Occupational Therapy curriculum  
1 credit, Letter graded (A, A-, B+, etc.)

**HAO 575 Professional Transitional Seminar**

Discusses issues related to transition of student to entry-level practitioner role. Presents information on licensure, certification exam preparation, NBCOT certification, AOTA specialty examinations, models of supervision, mentoring, job search strategies, marketing skills, malpractice, continuing competency, professional organizations, networking and career goal planning.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAO 580 Special Topics in Occupational Therapy**

Offers students the opportunity to explore and expand knowledge and skills in a practice area of specific interest.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAO 585 Disability Studies and Occupational Therapy**

Introduces a social model of disability and explores the ethical and psychological issues faced by people with disabilities across their lifespan. Presents historical analysis, healthcare discourse, and cultural critique to understand the evolution of health practice, cultural beliefs and social structures influencing the treatments, services, and opportunities available to people with disabilities in the United States and internationally. Offers students a multi-layered understanding of the issues faced by people with disabilities and their families. Includes assigned readings, films, guest speakers, site visits, and one-on-one interactions with people with disabilities.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAO 586 Fieldwork Level IA**

The first of three introductory level clinical experiences. Offers the opportunity to identify symptomatology, observe treatment interventions and formulate treatment plans in a psychosocial practice setting. Promotes effective communication skills used with patients and professionals. Uses reflective journals to monitor development of professional behaviors and skills. Prerequisite: HAO 523  
1 credit, Letter graded (A, A-, B+, etc.)

**HAO 587 Fieldwork Level IB**

This is the second of three introductory level clinical experiences. It provides students with the opportunity to identify symptomatology, observe treatment interventions, and formulate treatment plans in an adult physical disabilities setting. It is designed to promote effective communication skills used with patients and professionals. Reflective practice journals will be used to monitor professional behaviors and skills. Prerequisites: HAO 508 HAO 586.  
1 credit, Letter graded (A, A-, B+, etc.)

**HAO 588 Fieldwork Level IC**

The third of three introductory level clinical experiences. Offers the opportunity to identify symptomatology, observe treatment

interventions and formulate treatment plans in a pediatric practice setting. Promotes effective communication skills used with patients and professionals. Uses reflective journals to monitor development of professional behaviors and skills.  
Prerequisites: HAO 586, HAO 587  
1 credit, Letter graded (A, A-, B+, etc.)

**HAO 590 Independent Study in Occupational Therapy**

Students develop and/or implement their research projects under the mentorship of the course instructor and a faculty advisor who has expertise in their chosen topic. Literature reviews are completed and the project is prepared in a format appropriate for professional publication or presentation.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAO 592 Case Studies II**

This seminar-style course further develops the student's clinical reasoning skills. Building on experiences from Case Studies I, students are expected to synthesize knowledge gained from basic science and theory/practice courses, along with initial Level I fieldwork experiences to formulate treatment planning on hypothetical cases. Covers the current assessment, treatment, and documentation methods utilized by occupational therapists in a variety of physical disabilities settings. Students have the opportunity to work independently as well as in small groups when reviewing and discussing patient cases that concern areas such as complicated diagnoses, risk factors, the role of occupational therapy within the specific setting, frames of references, treatment techniques/modalities, discharge planning, safety issues, and follow up. Cases are presented in written as well as oral formats.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAO 593 Case Studies III**

The third in a series of three clinical reasoning seminars, this course will focus on the synthesis of all clinical and academic coursework in formulating a comprehensive plan of care. Greater emphasis on students responding spontaneously to case presentations in class, much as they would be expected to do in the clinical setting.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAO 595 Service Learning and Capstone Project**

Incorporates in-depth theoretical and practical knowledge for maximum integration of service and classroom work. Includes discussion, journals, essays and other reflective writing methods. Explores reflection, action skill building, and examination of theory and practice of citizenship as applied through community involvement. Students provide 30 hours of service learning. A scholarly project will be the culminating activity for the program. Students will present outcomes of their service learning project in poster format. Pre-requisite: HAO 597.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAO 596 Fieldwork Level IIA**

Fieldwork IIA is an in-depth clinical experience in the delivery of occupational therapy services. According to AOTA guidelines, this fieldwork is designed to promote clinical reasoning and reflective practice; transmit values and beliefs that enable the application of ethics related to the profession; enable the student to communicate and model professionalism as a developmental process and career responsibility; and develop and expand a repertoire of occupational therapy assessments and interventions related to human occupation and performance. This first of two level II fieldwork experiences exposes the student to a variety of clinical conditions in a specific practice area for 12 weeks on a full time basis.  
12 credits, S/F graded

**HAO 597 Fieldwork IIB**

This second clinical fieldwork experience provides the occupational therapy student with opportunities to apply the knowledge and skills learned thus far in the curriculum. Students will be assigned to a fieldwork site for 12 weeks on a full time basis in a particular area of practice.  
12 credits, S/F graded

**HAO 598 Fieldwork IIC**

Fieldwork IIC is the third of three in-depth clinical experiences in the delivery of occupational therapy services, designed to promote clinical reasoning and reflective practice; transmit values and beliefs that enable the application of ethics related to the profession; enable the student to communicate and model professionalism as a developmental process and career responsibility; and to develop competency and expand a repertoire of occupational therapy assessments and interventions related to human performance. The three Level II fieldwork experiences expose students to a variety of clinical conditions and practice areas across the life span. Students are assigned to a fieldwork site for 10 weeks on a full time basis.  
10 credits, S/F graded

**HAO 599 Fieldwork Continuation**

This course is for occupational therapy students continuing with Fieldwork.  
0 credit, S/F graded

## HAP

**HAP 501 Community Health and Service Learning for Physician Assistant**

Provides opportunities for PA students to learn and reinforce medical knowledge and skills through service to local and international communities. Learning methods will enhance the acquisition of clinical skills, cultural competencies and expand knowledge of community resources for underserved populations. Open to entry-level PA students only.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAP 504 Professional Practice Issues**

Provides information critical to understanding the development and organization of the physician assistant profession in the

United States. Explores the dynamics of PA practice, including such issues as responsibilities to patients and the public, professional regulation and involvement, team care, cultural diversity, and developing trends in PA practice. Encourages the exploration, critiques, and evaluation of professional practice issues related to the quality, delivery and cost-effectiveness of our nation's health care system. Open to entry-level PA students only.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAP 505 Contemporary Issues in Health Care Delivery**

Provides physician assistants an overview of important information and trends in health care delivery in the 21st century. Includes topics such as health care systems; health policy and advocacy; information technology; medical genetics and pharmacogenomics; geriatrics; health law; health literacy; health disparities; and other contemporary topics. Presents opportunities for students to explore in depth one special interest area. Open to post professional PA students only.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 509 Integrative Systems Physiology**

Introduces students to human integrative systems physiology. Includes exposure to physiological control systems, emphasizes in detail each organ system and how homeostasis is maintained. Includes membrane, muscle, central and peripheral nervous system, cardiovascular, respiratory, renal, gastrointestinal, and endocrine physiology. Presents material and incorporates select examples of pathophysiology to emphasize relevance of material. Students will solidify an understanding of the structures and functions across all systems in the human body under normal conditions and select pathophysiology. Knowledge gained of normal function will be applied towards making predictions about physiologic function in response to disease states. Students are expected to gain a cumulative understanding of physiologic function and are challenged to apply this knowledge towards problem solving and interpreting physiologic scenarios.  
4 credits, Letter graded (A, A-, B+, etc.)

**HAP 510 Clinical Laboratory Medicine**

Presents fundamental principles of laboratory medicines. Strengthens the student's ability to select, perform and interpret the results of basic clinical laboratory procedures to aid in formulating a preliminary diagnosis and management plan. The course is offered after students have acquired a foundation in human physiology and anatomy. Open to entry-level PA students only.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 511 Clinical Pharmacology Seminar for Physician Assistants**

Provides an opportunity for physician assistants to enhance their ability to rationally prescribe pharmaceuticals. The on-line seminars/case discussions integrate information presented via classroom and web-based lectures. At the completion of this course, students will have deepened their understanding of how to appropriately select medications in various clinical settings, with knowledge of potential advantages,

disadvantages, and relative costs. Post-professional PA students only.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 512 Principles of Clinical Pharmacology**

Physician assistant students will learn to rationally and safely prescribe pharmaceuticals for patients in a variety of clinical settings. Emphasizes the integration of pharmacologic principles and properties with the clinical uses of the most commonly prescribed medications and provides an opportunity for students to deepen understanding and application of knowledge in the setting of patient clinical cases. Reinforces and integrates course information with content learned during the Clinical Medicine courses of the PA curriculum. Open to entry-level PA students only.  
6 credits, Letter graded (A, A-, B+, etc.)

**HAP 514 The Problem Oriented Medical Record-History and Physical Examination**

The course provides students with an organized, sequential approach to the history and physical examination. Students will be able to perform both complete and directed histories and physical examinations and accurately document their findings. Open to entry level PA students only.  
5 credits, Letter graded (A, A-, B+, etc.)

**HAP 516 Problem Based Learning (PBL)**

Provides students with the opportunity to develop critical thinking and problem solving skills in a seminar, small group environment. Students will learn to connect the knowledge and attitudes developed in behavioral, basic and clinical science courses and apply it to patient care. Increases student capacity to seek and apply knowledge as individual problem solvers and members of a health care team. Open to entry level PA students only.  
1 credit, Letter graded (A, A-, B+, etc.)

**HAP 518 Medical Director Presentation Rounds**

Provides students with feedback on oral presentations derived from patient history and physical examinations completed by students. Evaluations are based on student's ability to critique an incomplete history and physical, identify issues that require further discussion in the HPI and physical exam, write a complete problem list, and document an assessment and plan. Open to entry level PA students only.  
.5 credit, Letter graded (A, A-, B+, etc.)

**HAP 521 Clinical Medicine I**

Focuses on mastery of the knowledge, skills, and attitudes necessary to construct a comprehensive patient database and management plan. Students are introduced to, and become proficient in, medical interviewing and performing a physical examination. Emphasizes the process of synthesizing data to formulate a diagnostic plan through learning activities such as lectures, small group process, problem based learning, case studies, and clinical skills laboratories. Teaches data gathering and recording in the problem oriented medical

record format. The diagnostic process is taught in an organ systems (or medical subspecialty) approach. Students learn to recognize and manage physical and mental health problems. Students are encouraged to think critically as an integral part of developing a logical, sequential and humanistic approach to their patient responsibilities and mastering medical information. The ultimate goal of these clinical medicine courses is to insure that students are optimally prepared to participate in the delivery of high quality medical care in both an in-patient and out-patient setting. Prerequisites: HAP 504 and HBA 561 (minimum grade of C) Open to entry-level PA students only.

5 credits, Letter graded (A, A-, B+, etc.)

**HAP 522 Clinical Medicine II**

Focuses on mastery of the knowledge, skills, and attitudes necessary to construct a comprehensive patient database and management plan. Students are introduced to, and become proficient in, medical interviewing and performing a physical examination. Emphasizes the process of synthesizing data to formulate a diagnostic plan through learning activities such as lectures, small group process, problem based learning, case studies, and clinical skills laboratories. Data gathering and recording are taught in the problem oriented medical record format. The diagnostic process is taught in an organ systems (or medical subspecialty) approach. Students learn to both recognize and manage physical and mental health problems. Students are encouraged to think critically as an integral part of developing a logical, sequential and humanistic approach to their patient responsibilities and mastering medical information. The ultimate goal of these clinical medicine courses is to insure that students are optimally prepared to participate in the delivery of high quality medical care in both an in-patient and out-patient setting. Prerequisite: HAP 521 (minimum grade of B-). Open to entry-level PA students only.

7 credits, Letter graded (A, A-, B+, etc.)

**HAP 523 Clinical Medicine III**

Focuses on mastery of the knowledge, skills, and attitudes necessary to construct a comprehensive patient database and management plan. Students are introduced to, and become proficient in, medical interviewing and performing a physical examination. Emphasizes the process of synthesizing data to formulate a diagnostic plan through learning activities such as lectures, small group process, problem based learning, case studies, and clinical skills laboratories. Data gathering and recording are taught in the problem oriented medical record format. The diagnostic process is taught in an organ systems (or medical subspecialty) approach. Students learn to recognize and manage physical and mental health problems. Students are encouraged to think critically as an integral part of developing a logical, sequential and humanistic approach to their patient responsibilities and mastering medical information. The ultimate goal of these clinical medicine courses is to insure that students are optimally prepared to participate in the delivery of high quality medical care in both an in-patient and out-patient setting. Prerequisite: HAP 522 (minimum grade of B-). Open to entry-level PA students only.

6 credits, Letter graded (A, A-, B+, etc.)

**HAP 524 Clinical Medicine IV**

Focuses on mastery of the knowledge, skills, and attitude necessary to construct a comprehensive patient database and management plan. Students become proficient in utilizing the history and physical information as they begin to synthesize data to formulate a diagnostic plan. This is emphasized through learning activities such as lectures, small group process, case studies, and clinical skills laboratories. The diagnostic process is taught in an organ systems approach. Students learn to both recognize and manage physical and mental health problems. Students are encouraged to think critically as an integral part of developing a logical, sequential and humanistic approach to their patient responsibilities and mastering medical information. Open to entry level PA students only. Prerequisite: HAP 523 (minimum grade of B-). Open to entry-level PA students only.

9 credits, Letter graded (A, A-, B+, etc.)

**HAP 528 Genitourinary, Sexual and Reproductive Health**

A comprehensive introduction to obstetrics and gynecology (OB/GYN), female and male genitourinary system (GU) and human sexuality. Students will learn about structures, function, evaluation and treatments of the various diseases and conditions. Open to entry level PA students only.

4 credits, Letter graded (A, A-, B+, etc.)

**HAP 532 Diagnostic Imaging**

Provides an overview of common diagnostic imaging modalities and their indications, limitations, benefits and potential risks. Students learn how to utilize plain radiographs and other imaging studies in the diagnosis of disease with an emphasis on recognition of normal findings and their comparison to the abnormalities found in disease processes. Open to entry-level PA students only.

2 credits, Letter graded (A, A-, B+, etc.)

**HAP 534 Introduction to Clinical Psychiatry**

Presents key principles of psychiatric evaluation and interviewing to include the mental status exam. Focuses on psychiatric problems seen in primary care, introduces the differential diagnosis and treatment of major psychiatric disorders such as anxiety, personality and mood disorders, psychosis, substance abuse, and somatoform disorders. Fosters an awareness of social patterns that exert an impact on mental functioning. Open to entry-level PA students only.

3 credits, Letter graded (A, A-, B+, etc.)

**HAP 538 Clinical Aspects of Palliative Care**

Provides students with knowledge and skills relevant to the practice of hospice and palliative medicine. Involves care of patients at all stages of progressive disease, including symptom management, restoration and maintenance of quality of life. Focuses on patient-directed goals. Explores coordination of services and care, using a holistic, team-based model and communication tools. Open to any healthcare professional who has an interest or work experience in hospice and palliative medical care.

3 credits, Letter graded (A, A-, B+, etc.)

**HAP 539 Hospice and Palliative Care Policy Issues**

Introduces healthcare professionals to policy issues and fundamental tools relevant to the delivery of hospice and palliative care. Addresses aging population; workforce issues; healthcare expenditures and reimbursements; and advancement of medical technology. Includes ethics, barriers to practice, and medical legal issues. Open to any healthcare professional who has an interest or work experience in hospice and palliative medical care.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 541 Principles and Practices of Clinical Prevention and Population Health**

This course provides clinically practicing physician assistants an in-depth understanding of health promotion, disease prevention and population health and resources for utilization of this information in their clinical practices. The framework for the course consists of four components including evidence base for practice; clinical prevention services-health promotion; health systems and health policy; and community aspects of practice. Includes both individually-oriented and population-oriented preventative efforts, as well as interaction between the two. Students will be required to complete a health promotion or disease prevention project relevant to their community or clinical practice. Post-professional PA students only.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 545 Ethics and Health Care for Physician Assistants**

Provides an overview of ethics in health care in a rapidly changing society. Teaches students to approach ethical dilemmas using theoretical frameworks and decision making processes. Explores ethical issues surrounding health care reform and public health policy and includes distribution of resources and rationing of services. Introduces students to the ethical perspectives of euthanasia, reproduction, transplants, genetics, research on human subjects, pediatrics, cloning, stem cells and mental health through case studies. Reviews classic cases in health care ethics and their shaping of health policy. Discusses patient education and the Physician Assistant professional codes of ethics and standards. Open to PA students only.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 549 Clinical Skills for the Physician Assistant Student**

The clinical skills course provides the physician assistant student with an overview of common clinical procedural skills and their indications, limitations, benefits and potential risks. Students are taught how to perform a number of commonly performed clinical procedures. Open to entry level PA students only.  
1 credit, S/F graded

**HAP 551 Research Design and Evidence-Based Medicine**

Provides students with basic knowledge and skills needed to formulate research questions and hypotheses, develop research protocols, critically evaluate and analyze scientific and medical journals, and to conduct computerized searches and literature reviews. Describes principals of Evidence-Based

Medicine and emphasizes various types of clinical questions and tools available to answer them. By the end of this course, the student will choose a proposed topic for their capstone project. Open to entry-level PA students only.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAP 552 Evidence Based Medicine: Evaluating and Applying Clinical Research**

Provides practicing PAs with the knowledge and skills to develop and evaluate clinical research questions, hypotheses, designs and protocols, and to critically evaluate and analyze scientific and medical journals. Students will learn to conduct computerized searches and literature reviews. Introduces the principles and practice of Evidence-Based Medicine, with emphasis on various types of clinical questions typically encountered in PA practice, and tools available to answer them. Course will focus on student areas of interest, and projects will be based on clinical cases encountered in the student's practice. Students will apply their knowledge of research and EBM by designing a clinical question and conducting and reporting on a thorough literature search on their topic of choice. Post-Professional PA students only.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 554 Research Writing for Health Professionals**

This course prepares students to write and edit the components of research proposals and essays. Students will review required components for research proposals and practice writing and editing components and other assigned essays. Students will learn a six phase editing process to apply to their own writing and will learn to critique the writing of other students.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 556 Teaching Strategies**

This course provides an overview of the principles associated with effective teaching. Students will combine theory and practice while developing teaching skills that promote learning and diversity within a variety of education settings. Topics emphasize the practical aspects of teaching and include teaching models, student learning styles, course objectives, learning outcomes evaluation, and classroom ethics. Students will be required to complete a final project that will be presented, discussed and evaluated in class. For post-professional PA students only or with permission of the Program Director.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 557 Introduction to Clinical Informatics**

Introduces health care professionals to concepts surrounding clinical information systems and the practical applications of these concepts. Provides an overview of the Clinical Informatics field including definitions, theory, technologies, and workflows. Focuses on topics related to the delivery of health care within the realm of the electronic medical record systems, including policy, leadership, regulatory affairs and administration. Includes synchronous and asynchronous on-line learning activities.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 558 Epidemiology**

Presents epidemiologic concepts used to study health and disease in populations. Provides information about the major causes of morbidity and mortality, including methods of measurement and data sources. Observational and experimental epidemiologic studies will be described and their advantages and disadvantages compared. Students will develop skills needed to critically review epidemiologic research studies published in peer-reviewed journals. Introduces various areas of epidemiologic study, including cancer, molecular/genetic, environmental, occupational, social and behavioral, and infectious disease/surveillance. For post-professional PA students only or permission of the Program Director.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 559 Complementary and Alternative Medicine**

Examines the theory, philosophy, and applications of complementary and integrative medicine within today's health care system. Presents many alternatives to traditional Western or allopathic medicine, and how these various models, systems and therapies impact the delivery of health care in the United States. Prepares students to best respond to consumers requests for information on the use of therapies. Emphasizes an evidence based approach and promotes awareness of clinical research currently done in these areas. Exposes various methods of access to resources and how to incorporate these approaches into clinical practices.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAP 561 Master's Project I**

Students will work with a faculty mentor to develop a clinical question and perform an initial literature search on a topic of interest. Topics should be well-focused and may include psychological, economic or ethical issues in health care as well as diagnostic or treatment-related questions. Following review by a faculty mentor, the student will submit summaries of selected articles as well as a outline. Open to entry-level PA students only. Prerequisite: HAP 551  
1 credit, Letter graded (A, A-, B+, etc.)

**HAP 562 Masters Project II**

Students will work with their faculty mentor to refine a clinical question and revise the presentation outline and article summaries submitted at the end of HAP 561. Emphasis will be placed on thoroughness of the literature search and clarity of the presentation. By completion of this course, students should have the presentation in its final form, and have developed a draft of a final paper. Open to entry-level PA students only. Prerequisite: 561  
1 credit, Letter graded (A, A-, B+, etc.)

**HAP 563 Masters Project III**

Students will revise the presentation submitted at the end of HAP 562 with input from their faculty mentor, who will guide them in developing a concise, professional-appearing product, suitable for presentation at a professional conference. Students will present this to the faculty and other members of the class, and will be evaluated on the content, visual, and

oral components of their work. Students will also complete and submit their final paper. Open to entry-level PA students only. Prerequisite: HAP 562  
1 credit, Letter graded (A, A-, B+, etc.)

**HAP 570 Internal Medicine Clerkship**

Provides practical clinical experience in caring for adult hospitalized patients on a medical service. Strengthens the student's skills in developing a comprehensive database with regard to a wide variety of common inpatient medical problems, stressing mastery of cognitive and affective information that enables the student to recognize normal and assess deviation from normal, and effectively consult and refer. Exposure to out-patient care is often included. Students learn to address personal and social issues that influence the care of the medical patient. Prerequisite: Successful completion of preclinical year courses.  
5 credits, Letter graded (A, A-, B+, etc.)

**HAP 571 Obstetrics and Gynecology Clerkship**

Provides students with practical clinical experience in the differential diagnosis, evaluation, management, and consultation and referral for normal and abnormal conditions in obstetrics and gynecology. Students will gain skills in obtaining patient histories, physical diagnosis and medical decision making through exposure to a broad base of patients with a wide variety of personal and social issues that influence patient care. Prerequisite: Successful completion of preclinical year courses.  
5 credits, Letter graded (A, A-, B+, etc.)

**HAP 572 General Surgery Clerkship**

Provides students with practical clinical experience in the evaluation and management of surgical patients. Through exposure to a broad base of surgical patients, students will master the knowledge, attitudes and skills necessary to obtain focused patient histories and physical exams, construct a differential diagnosis, make sound medical decisions, and effectively consult and refer. Students will learn to address a variety of personal and social issues that influence the care of the surgical patient. Prerequisite: Successful completion of preclinical year courses.  
5 credits, Letter graded (A, A-, B+, etc.)

**HAP 574 Emergency Medicine Clerkship**

Provides students with practical clinical experience in the medical care of acutely ill or injured patients. Students will enhance skills in obtaining focused patient histories, performing focused physical examinations, mastering emergency medical management and decision making, and effective consultation and referral. Emphasis is placed on student recognition of life threatening situations and the response to such situations. Students will learn to address a wide variety of personal and social issues that influence the care of the emergency medical patient. Prerequisite: Successful completion of preclinical year courses.  
5 credits, Letter graded (A, A-, B+, etc.)

**HAP 575 Psychiatry Clerkship**

Provides students with practical experience in the recognition, evaluation and management of patients with mental illness. Through clinical interaction with mental health patients and workers, students will develop an understanding of the biological and psychosocial factors that influence a variety of psychiatric conditions, and effectively consult with other professionals and refer patients to the support services that are required to optimize the care of the psychiatric patient. Students will learn to address a wide variety of personal and social issues that influence the care of this patient population. Prerequisite: Successful completion of preclinical year courses.

4 credits, Letter graded (A, A-, B+, etc.)

**HAP 576 Medicine Preceptorship**

Provides students with practical clinical experience working with the ambulatory medical patient. This preceptorship augments and develops directed data collection skills emphasizing a wide range of primary care medical problems and their management. Cognitive and affective skills that enable the student to recognize normal and assess abnormal findings and effectively consult and refer are a key aspect of learning during this experience. Students will learn to address a wide variety of personal and social issues that influence the care of the medical patient. Prerequisite: Successful completion of preclinical year courses.

5 credits, Letter graded (A, A-, B+, etc.)

**HAP 577 Pediatric Preceptorship**

Provides students with practical clinical experience working with ambulatory pediatric patients. Through exposure to a wide variety of primary care pediatric problems, students will develop directed data collection and patient management skills and learn how to effectively consult and refer. The preceptorship stresses those cognitive and affective skills that enable the student to recognize normal findings and assess abnormal findings. Students will learn to address a wide variety of personal and social issues that influence the care of the pediatric patient.

5 credits, Letter graded (A, A-, B+, etc.)

**HAP 579 Geriatrics Clerkship**

Provides students with practical clinical experience in working with elderly patients. Augments and strengthens students' skills in developing a thorough database and enhances student understanding of when to request a consultation or make a referral. Students work with a wide variety of common geriatric problems and learn how to appropriately modify their management approach to the indications, limitations, and methodology of diagnostic procedures and therapeutic regimens in the elderly. Students will also learn to address a wide variety of personal and social issues that influence the care of the geriatric patient. Prerequisite: Successful completion of preclinical year courses.

5 credits, Letter graded (A, A-, B+, etc.)

**HAP 580 Orthopedic Clerkship**

Provides students with practical experience in the care of patients with musculoskeletal disorders and acute injuries in the primary care setting. Students will develop the knowledge, attitudes and skills necessary to obtain directed patient

histories, perform focused physical exams, make sound clinical decisions, and effectively consult and refer through exposure to patients with a wide variety of orthopedic problems. Students will learn to address a wide variety of personal and social issues that influence the care of the orthopedic patient. Prerequisite: Successful completion of preclinical year courses.

4 credits, Letter graded (A, A-, B+, etc.)

**HAP 581 Clinical Elective**

Provides students with the opportunity to explore an area of medical or surgical practice beyond basic required rotations. Students are encouraged to choose an area of emerging importance in health care and PA practice and/or a potential employment setting. This elective clerkship further augments and develops patient management skills in the chosen medical or surgical discipline and must be selected in consultation with the student's program faculty advisor. Students will learn to address a wide variety of personal and social issues that influence the care of many patients. Prerequisite: Successful completion of preclinical year courses.

4 credits, Letter graded (A, A-, B+, etc.)

**HAP 588 Practicum**

Provides post-professional Physician Assistant students opportunities to apply theories and skills learned in the program. A limited number of students are allowed to develop a practicum project that is uniquely designed to meet his/her needs. Students will plan and implement a project within one of the following areas: 1.) research, 2.) administration and management, 3.) education, 4.) leadership/professional development, or 5.) professional writing. Acceptable projects must include design, implementation and analysis phases as well as a bibliography. Projects are approved by the Program Director and a mentor is assigned to assist in the development of a practicum proposal. Enrollment requires permission of the Program Director. The course may be repeated once.

3 credits, Letter graded (A, A-, B+, etc.)

## HAS

**HAS 190 Introduction to the Health Professions**

Presents topics of interest to students considering careers as health professionals. Introduces the student to basic concepts of health, factors influencing health care, health care settings, and selected health professions. May not be taken for credit in addition to LHW 102. Open to west campus students.

1 credit

**HAS 300 Issues in Health Care**

Examines major issues influencing health care delivery. Emphasizes analysis of significance of these issues to the health professions. Covers organization of the delivery system, professional roles, quality control, cost controls, health agencies and alternative delivery models, consumer life-styles, and health statistics. Integrates current trends in managed care, reimbursement, health policy and reform.

Discusses infectious disease and nutrition. Allows for discipline-specific program development and implementation through HSC outreach efforts.

2 credits

**HAS 332 Management Concepts for Health Professionals**

Addresses the operations within healthcare institutions from macro to micro levels of management. Analyzes the philosophy and significant occurrences affecting healthcare operations in the past, present and future. The divisions within healthcare operations (clinical, support and informational services, nursing, finance and ambulatory care) will address the following aspects of management: financial forecasting and monitoring, staffing, employee productivity and morale, customer service, cost containment, decision making and total quality management. Emphasizes hospital operations and presents nursing home and community healthcare center operations. Open to CLS and RC students only.

1 credit

**HAS 335 Medical Ethics**

Introduces health professional students to basic concepts and challenges in medical ethics. Uses a framework and decision-making process to help students learn how to approach ethical dilemmas. Explores current topics in health care ethics including advance directives, assisted dying, genetics, cloning, transplants, confidentiality, informed consent, and professional conduct.

1 credit

**HAS 350 Introduction to Statistics**

Discusses elements of biostatistics, graphs and tables, descriptive statistics, probability, populations of samples, normal distribution, hypothesis testing, and computers.

2 credits

**HAS 351 Research Literacy/Research Design**

Prepares students to perform a literature search in their respective disciplines to find scientific and health articles and books in the Health Sciences Center Library. Presents research terminology, methods, and design. Provides basic skills to enhance interpretation, evaluation and analysis of research articles, including the hypothesis, literature review, design, methodology, and data analysis.

1 credit

**HAS 355 Integrative Systems Physiology**

Introduces students to human integrative systems physiology. Includes exposure to physiological control systems, emphasizes in detail each organ system and how homeostasis is maintained. Includes membrane, muscle, central and peripheral nervous system, cardiovascular, respiratory, renal, gastrointestinal, and endocrine physiology. Presents material and incorporates select examples of pathophysiology to emphasize relevance of material. Students will solidify an understanding of the structures and functions across all systems in the human body under normal conditions and select pathophysiology.

4 credits

**HAS 363 Computer Literacy for Health Professionals**

Surveys the uses of computers for health practitioners. Offers practical experience in literature database searching and use of applications software.

1 credit

**HAS 391 Readings in Health**

Supplementary specialized readings under faculty supervision. Topics determined by mutual agreement between undergraduate student and faculty and must have the approval of the program director in the School of Health Technology and Management prior to registration.

1-3 credits

**HAS 399 Independent Study in Health**

A special project involving advanced readings, reports, discussions, research, or special course work on topics or problems of the student's choosing, with the guidance of an assigned faculty member. Projects must have the approval of the program director in the School of Health Technology and Management prior to registration.

1-6 credits

**HAS 490 Research Tutorial**

An original research project is conducted. Prerequisite: HAS 351

2 credits

**HAS 503 Issues, Trends and Challenges in Nutrition**

Analyzes and integrates current trends and issues in food and nutrition. Evaluates complementary and alternative forms of medical nutrition therapy, functional foods and nutraceuticals. Examines evidence regarding efficacy, safety and cost of new products. Discusses applications in practical professional settings.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 504 Survey of Nutrition Practices**

Prepares students to function effectively in area of nutrition in public health, food service, and health care settings. Emphasizes critical thinking skills, problem solving, continuous quality improvement processes, and management techniques. Fosters skill development through case studies, problem based learning scenarios, and simulations.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 506 Food Nutrition Policies: Cultural, Behavioral, Social Aspects**

Introduces health care professionals to existing food and nutrition policies, the types of data that these policies are based on and the process by which they are developed. Offers skills needed to critically analyze the process and resulting policies, and those used in developing new policies and securing funds for such projects.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 507 Fundamentals of Nutrition Policy and Management**

This course is designed for nutritionists who want to develop effective management skills in the food service and clinical areas with an emphasis placed on clinical dietetics. Case studies, problem-based learning scenarios, and role-playing scenarios will complement lectures and provide students with an opportunity to problem solve and apply information acquired. Personnel issues, cost containment and management principles pertinent to clinical and food service functions will be discussed and applied to real life situations. Reviews safety and sanitation procedures with practical applications. The survey process and accreditation standards will be covered.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 513 Health Care and Older People**

Course is designed to maximize a student's understanding of policy and administrative issues in delivering health care to older people. Highlights examples of policy directions on the national, state and local levels and the practical application of administrative tools in managing health facilities mandated for older people.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 516 Health and the Aging Process**

An overview of information and issues pertinent to physical and psychosocial health of aging Americans. Includes demographics, attitudes, physiological and psychological changes, health promotion, disease prevention, health care delivery settings, and ethical and legal issues.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 518 Women and Health Care**

This course provides an overview of women as users and providers of health care in the United States. Attention is given to women as active participants in their health care today as compared to historical times when women were encouraged to be passive. Throughout the course, case studies are introduced to demonstrate the contemporary utilization patterns of health care by women, including the use of managed care companies, women's public health agencies and grassroots health organizations. In addition, a number of issues are addressed regarding the role of women in providing health care, specifically from a public health management perspective. The course includes examples and presentations of national and regional women's health concerns, such as breast cancer, reproductive choices, heart disease, tobacco use, menopause-related issues, and domestic violence. Special populations are also discussed as they relate to women and health care, including adolescents, older women, homeless women, working women, caretaking women and middle-class uninsured women. Traditional and alternative health care strategies are offered as acceptable methods for meeting the growing and changing needs of women presently and in the future.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 521 Disability and Health Promotion**

Examines the life experiences of people with disabilities from a disability studies perspective. Includes a study of the history, sociology, and psychology of disability, and looks at interactions between people with disabilities and health care providers in terms of miscommunication, prejudice, communication, and health promotion. Explores the larger systems that can help or hinder health promotion including structural barriers of poverty, lack of insurance, inaccessibility of services, architectural barriers and lack of transportation. Addresses particular health care challenges faced by women and ethnic, racial, and sexual minorities who have disabilities.

**HAS 525 Complementary and Alternative Medicine**

Examines the theory, philosophy and applications of complementary and alternative medicine within today's health care system. Presents the many alternatives to traditional Western or allopathic medicine, and how these various models, systems and therapies impact on the delivery of health care in the United States. Addresses skills needed to best respond to consumers' requests for information about these approaches. Students will examine the current body of research available on complementary and alternative medicine and be introduced to the vast array of resources available, the type of training involved in license/certification, and how to incorporate these approaches into their clinical practices. This course will combine lecture, readings, speakers, independent research and some experiential, hands-on work.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 526 Community Mental Health Programs**

Provides a critical examination of the mental health system as it has evolved in the United States. Focuses on the service delivery system: how it has developed, what it is today and where it is going. Deals with the mental health system as a business: how it operates, how it is funded, who it employs and how it will develop in the new managed care environment.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 527 Principles and Practice of Public and Community Health**

Provides an overview of the public health system, the philosophy and purpose of public and community health, the managerial and educational aspects of public health programs, how the public health sector responds to disease prevention, environmental issues, community public health provisions and other core public and community health components. The impact of federal health care reform on the public health delivery system and the economic and fiscal implications of the system on state and local governments will be discussed. Students will analyze the critical elements of a health care system.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 528 Long Island's Community Health**

Provides students with an overview of community health concerns of Long Island and information and resources for addressing them. Presents conditions that are associated with

special populations such as the Native Americans, baymen, homeless, migrant workers, rural residents, urban residents, and the uninsured middle-income residents. Community health problems with high incidence on Long Island including breast cancer, Lyme disease, AIDS, and tuberculosis will be covered. Reviews Long Island's environmental health problems with special emphasis on those associated with drinking and swimming water, agriculture, pesticides, and transportation. Discusses and presents the community health care delivery system and model programs and resources. 3 credits, Letter graded (A, A-, B+, etc.)

**HAS 529 Community Health and Patient Education**

Provides information on current trends in patient education program development. Emphasizes techniques used by health professionals in planning, implementing and evaluating patient education programs in hospitals and other health care organizations concerned with the educational component of patient care. 3 credits, Letter graded (A, A-, B+, etc.)

**HAS 530 Health Care Operations**

Addresses the operations within health care institutions from the macro to the micro levels of management. Analyzes philosophy and significant occurrences affecting health care operations in the past, present, and future. Divisions within health care operations (clinical, support and informational services, nursing, finance, and ambulatory care) will address the following aspects of management: financial forecasting and monitoring, staffing, employee productivity and morale, customer service, cost containment, decision making, total quality management, and managed care. Emphasizes hospital operations, and presents nursing home and community health care center operations. 3 credits, Letter graded (A, A-, B+, etc.)

**HAS 531 Health Care Delivery Systems**

Provides overview of health care delivery enterprise in the United States and the various forces that shape this enterprise. Discusses dynamics of care, evolving public and private regulations and guidelines, and rapid technological advances. 3 credits, Letter graded (A, A-, B+, etc.)

**HAS 533 Communication and Group Dynamics**

Assists students in understanding and improving interpersonal communication skills through structured exercises in speaking, writing and interacting. Emphasizes leadership skills in group interactions especially in the health care fields. 3 credits, Letter graded (A, A-, B+, etc.)

**HAS 534 Fundamentals of Health Care Management**

Provides students with a realistic knowledge of management, not only the theories and techniques, but the ways in which they are worked out in practice. Emphasizes the essentials of management pertinent to practicing managers, e.g., organizational profiles, political and power

relationships, planning, organizing, staffing, directing, leading, controlling and evaluating. Looks at essentials as a system interacting with the manager's total environment - economic, technological, social, political and ethical. 3 credits, Letter graded (A, A-, B+, etc.)

**HAS 535 Essentials of Health Care Finance**

The course is designed to introduce the student to those types of financial decisions that health care executives are most likely to be involved with, and to provide material that will help them understand the conceptual basis and mechanics of financial analysis and decision-making as it pertains to health care. 3 credits, Letter graded (A, A-, B+, etc.)

**HAS 536 Health Law**

Acquaints students with the general applicability of law to the health field and the health delivery system. Covers specific areas of laws (including statutory law, common law and rules and regulations) applicable to and controlling the operation of hospitals, long-term care facilities, medical practices, health professional practices and other institutions and individuals involved in the delivery of health care. Identifies legal problems affecting the delivery of health care and addresses problems encountered by institutions and individuals. 3 credits, Letter graded (A, A-, B+, etc.)

**HAS 538 Health Economics and Public Policy**

Presents an in-depth analysis of the effects of economic principles on health care and the effect of health policy and economic forces on the health care delivery system. Examines the ways in which these concepts may be used to analyze health policy and improve the delivery of health care services. The effect of changes in market forces, human resources needs, formation of integrated delivery systems, health promotion initiatives and the impact of technology will be studied. 3 credits, Letter graded (A, A-, B+, etc.)

**HAS 539 Strategic Planning for Health Programs, Facilities and Networks**

Conveys to prospective and current health program managers the fundamentals of strategic thinking and planning and the integration of these processes into executive management functions. Prepares prospective and current managers to fulfill their roles and responsibilities within a dynamic, changing medical marketplace where health care entities are undergoing a major paradigm shift, changing from independent organizations that provide illness-focused episodic care to networks and systems of entities that address the health care needs of populations over entire lifetimes. 3 credits, Letter graded (A, A-, B+, etc.)

**HAS 541 Strategic Management in Health Care**

Designed for health services organization managers. Provides exposure to varied theories of organization and management to prepare students to predict and explain organizational and managerial actions and responses relative to public

policy. Readings focus on four major themes: organization/environment relationships, organization complexity, strategic management, and the significance of economic theory in understanding organization and systems behavior.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 542 The Impact of the Political Setting on Health Policy and Management**

Examines the influences and effects of politics on the implementation of health policy at federal, state and local levels of government. Analyzes the roles and consequences of various governmental and social entities involved in policy implementation including structure and process. Reviews outcomes of selected public policies within the legislative or administrative context.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 543 Health Policy**

Provides students with an overview of health care policy making principles. Specific policy formats will be analyzed using examples of local and national policies. Students will learn to develop selective health policies using case studies.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 544 Principles of Managed Care**

Provides an in-depth understanding of the meaning of managed care in the context of the United States health care system. Reviews the history, components and various organizational forms of managed care systems. Potential benefits, inherent limitations, and the legal, social and ethical implications of managed care as a health care delivery system will be discussed.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 545 Ethics and Health Care**

Provides an overview of ethics in health care in a rapidly changing society. Teaches students to approach ethical dilemmas using theoretical frameworks and decision making processes. Explores ethical issues surrounding health care reform and public health policy and includes distribution of resources and rationing of services. Introduces students to the ethical perspectives of euthanasia, reproduction, transplants, and HIV/AIDS through case studies. Reviews classic cases in health care ethics and their shaping of health policy. Discusses patient education and professional codes of ethics and standards. Cannot receive credit for this course and HAP 545 or HAY 545.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 546 Stem Cells and Society**

Provides a multifaceted and interdisciplinary look at issues surrounding stem cell research, taking into consideration the basic science, history, public policy (both federal and state), economics, and ethics. Students will gain an understanding of how each of these disciplines affects the complete issue. Presents the basic fundamental concepts underlying the research, what factors characterize different types of stem cells (adult, embryonic, ips) and how they pertain to a quest for disease cures. Investigates policies and legislative underpinnings of stem cell research that have shaped the

course of stem cell research in the United States. Explores the ethical concerns surrounding stem cell research and the related impact on policy.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 547 Grantsmanship in the Health Professions**

Introduces the grantsmanship process, in both federal and private domains. Focuses on research, design, preparation, and submission of grant applications.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 550 Statistics and Data Analysis**

Teaches the use of descriptive statistics such as means, medians, standard deviations and histograms to report results of experiments. Illustrates how inferences can be made from hypothesis testing and regression analysis. Includes analysis of the validity and appropriateness of statistical techniques employed by researchers in the health field.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 551 Research Design and Proposal Writing**

This course is designed to acquaint students with the research and proposal writing process in preparation for a practicum or research project, including: identifying a problem within an area of health care management, policy, and/or practice; formulating a research question or hypothesis; reviewing and critically appraising relevant literature; designing a realistic study and selecting appropriate scientific methods to answer the proposed question (or test the hypothesis); articulating the major strengths and limitations of the proposed study; considering expected results and potential impact of study findings on health care management, policy, and/or practice; and communicating the proposal in a well-referenced and clearly written plan. Prerequisite: HAS 550

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 553 Research Methods and Design**

Presents process and skills needed to develop a research study, formulate a research question or hypothesis, conduct literature searches, use library resources, critically appraise scientific literature, select an appropriate research design and methods for data collection, and consider the protection of human subjects and health information, including policies and procedures of the Committee on Research Involving Human Subjects (CORIHS). Prerequisite: HAS 550. Permission of instructor required. Cannot receive credit for this course and HAS 551.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 554 Marketing in Health Services**

Provides an introductory explanation of marketing as a requisite component of modern business. While presenting the basic principles and general philosophies of marketing, the course concentrates on the importance of marketing in health care service delivery in a managed care environment.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 555 Essentials of Health Care Sales and Marketing**

Introduces strategic selling methodology and looks at the health care buying decision. Focuses on the health care customer's needs, both organizational and personal. The resultant analysis will allow the student to better determine how to add value to the health care customer's organization and create a long-term business relationship that benefits all parties. Focuses on the key principles, methodologies and strategies of marketing, and expands these basic concepts to include an analysis of the health care value chain: trading relationships between the producers (manufacturers) of the health care products, purchasers of those products (groups purchasing organizations, wholesalers/distributors), and health care providers (hospital customers) that are end users of these products.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 556 Foundations of Health Care Quality Management**

Introduces health care quality management methodologies and examines their impact on health care productivity, quality, and patient safety. Utilizes concepts of performance improvement and continuous process improvement to improve product and service quality and competitiveness. Presents history of quality improvement in health care and application of quality concepts to improve clinical outcomes, patient safety, patient satisfaction, financial outcomes, and employee and physician satisfaction. Emphasizes importance of data usage to monitor performance improvement activities.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 557 Planning and Implementing Community Health Programs**

Prepares students to conduct needs assessments of various diverse populations and to plan, implement and evaluate programs to meet the needs. Plans include detailed goals, behavioral objectives, methods, resource and budget allocation, including grant and contract considerations.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 558 Epidemiology and Health Policy**

Presents the concepts, principles and applications of epidemiology through the use of public health case studies. Examines the distributions and determinants of disease, human morbidity and mortality, the characteristics of populations and the biological bases of health and disease. Prerequisite: HAS 550

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 560 Evaluation of Community Health Initiatives**

Prepares students to plan, implement, and utilize an evaluation of a community health initiative. Addresses basic principles and practices of evaluation, including identifying goals of a community health initiative; designing an evaluation plan that can determine if the initiative's goals are achieved; implementing an evaluation plan; interacting with stakeholders; and using evaluation results to improve performance. Students are required to design an evaluation

component for the community health program developed in HAS 557.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 563 Computer Case Studies in Health Care Management**

Examines problem solving in health care management through the application of personal computers and case studies. Prerequisite: Knowledge of spreadsheets

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 564 Health Information and Communication Systems**

Course acquaints students with the types of information systems available in health care and their applications to health care delivery. Includes an overview of various health care networks, patient centered information systems, and imaging systems. Reviews system platforms, electronic medical records and computer assisted instruction. Students discuss the integration of health information systems with communication systems such as E-mail, fax, pagers and wireless telephones. Through the use of classroom demonstrations and site visits, students gain hands-on experience with several health related information and communication systems.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 568 HIV/AIDS: A Continuing Societal Challenge**

Examines the social, psychological and medical issues of the HIV/AIDS epidemic in relation to the concerns of educators. Explores and assesses how personal values and attitudes impact on the delivery of educational programs.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 570 Business Aspects of Managed Care**

Introduces the students to and expands on their knowledge base of the business and financial aspects of the managed care delivery system. Trends in the financing of health care will be explored, as well as the practical application of developing and writing a formal business plan.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 571 Issues in Health Care Management**

The course is designed to introduce the student to current trends in the United States health care system, including trends in medical-legal issues, labor relations, cost accounting and managed care. Models of progressive programs and health care delivery systems will be reviewed and discussed.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 572 Ambulatory Care Management**

Familiarizes the student with areas of ambulatory care management. Identifies national and local trends and practical applications needed to administer outpatient care programs and facilities.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 573 Statistical Process Control for Health Care Quality Management**

Teaches health care management professional how to incorporate quantitative performance measurement into daily work routines to form the foundation for quality improvement-oriented culture. Provides strategies to gather and analyze data needed to plan, implement, monitor, and evaluate health care quality improvement initiatives. Prerequisites: HAS 556 and HAS 550 (with minimum grades of B).

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 574 Group Practice Management**

Introduces the student to the practices and theories of Group/Physician Practice Management. Provides fundamental understanding of the financial and regulatory issues that influence today's medical practice. Presents issues such as leadership, operations, compensation, and clinical productivity for review.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 575 Long Term Care**

Enhances the student's understanding of health care options for the elderly, the existing system of long term care delivery and particularly, the administrative aspects of operating a nursing home. The course will include actual exposure to clinical and operational departments in a nursing home and their roles in the interdisciplinary process. It will also include a review of the rules and regulations governing nursing homes in New York State and the financial implications and reimbursement methodologies that impact upon them.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 576 Workplace 2020**

Provides an overview of issues affecting the American workplace in the future through the year 2020. Expected working conditions, human resources, schedules and technology are explored as students learn how to plan for advances and changes in the health system. Through the use of case studies, introduces students to early experiments in organizational evolution and resulting applications to the health care environment. Discusses issues related to diversity, team building and employee education.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 577 e-Healthcare: e-Commerce and e-Care**

Introduces students to e-trends and their impact on healthcare. Revisits the traditional models of healthcare delivery and disease management. Introduces students to the evolution of e-care models. Addresses the use of the Web in healthcare organizations, hospitals, medical offices and pharmaceutical companies. Includes e-business strategies, planning and development, e-health and law concepts related to e-services in healthcare.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 578 Leadership in Health Care**

Focuses on the future role of the leader in the emerging society of organizations. Draws on lessons learned from the past, in both theory and practice. Examines the impact of

leadership on the future quality of life, business, learning institutions and society. Defines difference between management and leadership skills and strategies for balancing and developing each skill set.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 579 Advanced Seminar in Health Policy, Persuasion and Communication**

Analyzes the principle of health policy-making. The goal of the session is a complete health policy statement/paper deliverable to the appropriate policy-maker/legislator. Students will have round table discussions about general public health topics and develop their own health policy project.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 583 Scientific Writing for Thesis and Publication**

Provides basic skills and information to plan, research and execute the writing of a scientific abstract, thesis outline, research proposal and develop current literature and raw data into a form for written presentation to support or refute a hypothesis. Focuses on scholarly writing and deductive logic, through the use of scientific data (whether from the literature or the research data book) to support an argument. Permission of instructor required.

3 credits, Letter graded (A, A-, B+, etc.)

**HAS 584 Practicum: Community Health Education**

Open only to degree candidates in the community health planning and education track. Allows student to test, under supervised circumstances, his or her ability to apply knowledge learned in courses to the health care field.

1-6 credits, Letter graded (A, A-, B+, etc.)

**HAS 586 Practicum: Health Professions Management**

Open only to degree candidates in the management track. Allows student to apply theory learned while functioning as a manager in health practice.

1-6 credits, Letter graded (A, A-, B+, etc.)

**HAS 588 Practicum: Health Policy**

Open only to degree candidates in the research track. Allows student to apply and demonstrate knowledge of research methodology by either conducting or participating in a major research effort under the supervision of an experienced researcher.

1-6 credits, Letter graded (A, A-, B+, etc.)

**HAS 590 Independent Study**

Independent study proposals in health sciences. Must have the approval of the Research and Directed Study Committee of the School of Health Technology and Management prior to registration.

1-6 credits, Letter graded (A, A-, B+, etc.)

**HAS 591 Independent Readings**

Supplementary specialized readings for graduate students under faculty supervision. Topics include but are not limited to: community and public health, mental health, health policy, health care management, health care ethics, gerontology, patient education and health economics and policy. Approval must be obtained from the Research and Directed Study Committee of the School of Health Technology and Management prior to registration.  
1-3 credits, Letter graded (A, A-, B+, etc.)

**HAS 592 Special Topics**

Presents a comprehensive look at specific aspects of health policy from all relevant perspectives. Synergizes scientific, legislative and ethical points of view and how their relationship to policy formulation and implementation. Students will expand skills to effectively articulate details of the policy and develop an educated position on it. Dynamic discussion, essay writing and debate will be utilized to gauge information comprehension and opinion development.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAS 598 Thesis Seminar**

Complements thesis research. Includes presentation by degree candidate of research purpose, methodology and findings and culminates in presentation and discussion of final results.  
1 credit, Letter graded (A, A-, B+, etc.)

**HAS 599 Thesis Supervision**

Topic, statement of intent, and thesis committee membership must be approved prior to registration.  
4-6 credits, Letter graded (A, A-, B+, etc.)

## HAT

**HAT 210 Introduction to Respiratory Care**

Provides an introduction to the science of respiratory care, sleep technology, and cardiac care. Examines current trends in professional practice. Offers each student the opportunity to research and present a topic concerning the contemporary practice of a respiratory therapist, polysomnographic technologist, or cardiovascular technologist. Designed for lower-division four year respiratory care and polysomnographic technology majors. This course is not eligible for the G/P/NC option. Open to west campus students.  
1 credit

**HAT 304 Cardiopulmonary Physiology**

Presents a detailed study of the physiology of human respiration and circulation. Topics include functional cardiopulmonary anatomy, embryology, ventilation, diffusion, blood flow, gas transport, acid-base states, mechanics and regulation of ventilation and basic cardiac function.  
4 credits

**HAT 306 Patient Evaluation**

Provides concept of data base, historical information, medical terminology, chief complaint and present illness, and chest physical examination. Applies problem based learning to the study of clinical assessment skills.  
2 credits

**HAT 309 Communication Skills for Health Care Professionals**

Provide the student with an understanding of the importance of effective communication by a health care professional. Through lecture, discussion, and role playing, in large and small groups, students will learn appropriate verbal, non-verbal, and written communication skills to improve interactions with patients, families, various members of the health care team, and the greater community.  
2 credits

**HAT 315 Pharmacology**

Covers the basic principles that govern the use of drugs in the clinical practice of Respiratory Therapists and Sleep Technologists. Develops specific knowledge for classes of drugs, important distinctions among members of each class, and both their relation to the organ systems they affect and the diseases they treat, including drug dosages and calculations.  
4 credits

**HAT 320 Cardiovascular Diagnosis and Treatment I**

Provides the basic cardiac function, practical skills of electrocardiography, diagnosis and treatment of arrhythmias, cardiac medications and noninvasive cardiac diagnostic techniques. Examines theory and practical applications of electrocardiography, exercise stress testing, and Holter monitoring. Includes in-depth study of cardiac anatomy and electrophysiology. Prerequisite: HAT 304  
3 credits

**HAT 330 Pulmonary Pathology**

A comprehensive study of the etiology, diagnosis, pathogenesis, pathophysiology, treatment, and prognosis of various types of pulmonary pathologies. Prerequisite: HAT 304  
3 credits

**HAT 331 Respiratory Care Techniques I**

Introduces the history and global significance of the practice of respiratory care, including the beginning skills and therapies that are utilized. Major topics include the global history that led to the creation of the profession; the global need to provide quality respiratory care; principles of infection prevention and control; a review of the basic physics of respiratory care; medical gas storage, delivery and therapy; humidity and bland aerosol administration; bedside monitoring; and lung expansion and airway clearance therapies. Laboratory sessions will provide practical experience in the clinical application of the therapeutic modalities discussed.  
3 credits

**HAT 332 Respiratory Care Techniques II**

Course is second in a four part sequence. Continues the review of basic therapeutic modalities of respiratory care. Major topics include drug aerosol therapy, airway pharmacology, airway management, and blood gases. Emphasizes the clinical use of cardiopulmonary rehabilitation, alternative site care, and disease and disaster management. Prerequisite: HAT 331  
3 credits

**HAT 333 Pulmonary Diagnostic Techniques**

Provides the basic technical skills of pulmonary function testing, including an introduction to the instrumentation and physical principles of clinical measurement; procedures for measuring the lung functions of ventilation, mechanics, diffusion, gas distribution and exchange; and interpretation of tests results and their relation to various pathophysiologies. Prerequisite: HAT 304  
3 credits

**HAT 335 Medical Ethics**

Reviews professional guidelines for ethical conduct and approaches to ethical dilemmas for respiratory therapists and polysomnographic technologists. Explores ethical issues including the distribution of resources and rationing of services. Examines health care services in the United States and the rights of the U.S. citizen under federal and state health care laws. Discusses physician assisted suicide; terminal weaning; brain death; genetics; cloning and euthanasia; advance directives; confidentiality; informed consent; patient rights; professional conduct; and the legal issues that impact healthcare practice in the United States.  
2 credits

**HAT 340 Cardiovascular Clinical**

Provides clinical practice in cardiovascular technology, including both invasive and noninvasive techniques. Students will be introduced to clinical EKG's, Holter scanning, stress testing, and general noninvasive cardiography. Prerequisite: HAT 320  
2 credits

**HAT 350 Basic Respiratory Care Clinical**

An introduction to the clinical application of basic respiratory procedures such as oxygen administration, aerosol therapy, positive airway pressure therapy, arterial punctures and other monitoring and diagnostic procedures. Prerequisite: HAT 331 and HAT 332  
4 credits

**HAT 353 Pulmonary Diagnostic Clinical**

Clinical application of spirometry, diffusion studies, blood gas analysis, flow volume loops, body plethysmography, helium dilution, nitrogen washouts, and bronchodilator responses. Prerequisite: HAT 333  
2 credits

**HAT 410 Introduction to Clinical Education**

Introduces clinical teaching to senior students. Modalities include the decision making process, teaching strategies,

classroom management, instructional design, and formative and summative evaluation.  
2 credits

**HAT 411 Clinical Teaching in Respiratory Care**

An extension of HAT 410. Develops skills for senior students to conduct clinical teaching strategies under faculty supervision. Prerequisite: HAT 410  
4 credits

**HAT 415 Respiratory Care Techniques IV**

Introduces advanced concepts, equipment and procedures used in adult, pediatric and neonatal critical care. Provides students with decision making skills for initiation and management of advanced ventilator technology. Explores functions, clinical applications and troubleshooting of selected advanced instrumentation. Reviews equipment limitations, quality assurance, equipment maintenance and cost/benefit analysis where applicable. Prerequisites: HAT 320, HAT 332, HAT 420, HAT 431 and HAT 432  
2 credits

**HAT 420 Cardiovascular Diagnosis and Treatment II**

Examines the theory and practical applications of invasive physiologic monitoring, including metabolic and hemodynamic monitoring, Swan-Ganz catheterization, cardiac output measurement and aseptic technique. Also contains an in depth study of the etiology, pathology and treatment of advanced cardiac disease, including congenital heart disease. Prerequisite: HAT 320  
3 credits

**HAT 431 Respiratory Care Techniques III**

Introduces the concepts of advanced airway management and mechanical ventilation used in the respiratory support of the critically ill patient. Emphasizes the physiological basis for ventilator use, indications for ventilation, parameters monitored during ventilation, and ventilator design, function and clinical application. Prerequisite: Admission to upper division Respiratory Care Program; HAT 332  
4 credits

**HAT 432 Perinatal Respiratory Care**

Examines anatomy, physiology, and pathology relating to management of the neonatal/pediatric patient. Includes analysis of neonatal and pediatric ventilator function in terms of mechanics and suitability in clinical application. Gives students the knowledge and skills needed to perform neonatal resuscitation. Prerequisite: HAT 332  
4 credits

**HAT 450 Critical Care Clinical**

Develops clinical skills in the management of the critical care patient. Includes specialized learning experiences in therapeutic modalities, mechanical ventilation, cardiovascular monitoring and home care ventilation. Prerequisites: HAT 350, HAT 431  
5 credits

**HAT 451 Perinatal Care Clinical**

Develops clinical skills in the management of pediatric and neonatal critical care patients. Includes specialized learning experiences in therapeutic modalities, mechanical ventilation, and emphasizes specific technical procedures that differ from the adult patient. Prerequisite: HAT 432  
4 credits

**HAT 470 Polysomnographic Technology I**

Designed to provide entry-level personnel with both didactic and laboratory training in polysomnographic technology. Presents medical terminology, instrumentation setup and calibration, recording and monitoring techniques, documentation, professional issues and patient-technologist interactions. Lab sessions will provide practical experience in the skills required of an entry-level polysomnographic technologist. Prerequisites: HAT 331  
3 credits

**HAT 471 Polysomnographic Technology II**

Provides training in more advanced aspects of polysomnographic technology. Students become familiar with the skills and knowledge needed to obtain and evaluate high quality sleep recordings. Covers all the aspects of sleep scoring and event recognition, recording and monitoring techniques, documentation, professional issues, therapeutic interventions, and patient-technologist interactions related to polysomnographic technology. Prerequisite: HAT 470  
2 credits

**HAT 475 Polysomnographic Technology I Clinical**

Provides clinical training in the basics of polysomnographic technology. Familiarizes students with instrumentation setup and calibration, recording and monitoring techniques, documentation, professional issues, and patient-technologist interactions related to polysomnographic technology. Provides patient contact in a sleep lab. Presents opportunity to observe, perform (under supervision) and evaluate sleep studies. Prerequisite: HAT 470  
2 credits

**HAT 476 Polysomnographic Technology II Clinical**

Provides clinical training in advanced aspects of polysomnographic technology. Familiarizes students with practical aspects of therapeutic intervention, sleep scoring equipment troubleshooting and artifact recognition. Prerequisites: HAT 470; HAT 471 and HAT 475  
2 credits

**HAT 482 Physiologic Monitoring Clinical**

Provides a clinical experience in the hemodynamic and metabolic monitoring of patients in critical care units/labs. Covers invasive diagnostic cardiovascular procedures, including cardiac catheterization, intra-arterial pressure monitoring, and indwelling arterial catheter insertion and monitoring. Prerequisites: HAT 420, HAT 431  
2 credits

**HAT 487 Cardiopulmonary Rehabilitation Clinical**

A clinical experience concentrating on program planning and evaluation of patients with chronic cardiopulmonary disorders. Includes discharge planning, rehabilitative services, stress testing, graded exercise and other supportive techniques. Prerequisites: HAT 320 and HAT 332  
2 credits

**HAT 490 Independent Study**

Proposals for independent study in respiratory care must be submitted through the program director to the Committee on Research and Directed Study for approval prior to registration for this course.  
1-6 credits

**HAT 494 Respiratory Care Board Review**

A practical discussion and seminar course that prepares the student to take the national certification and registry examinations. Each student will take self-assessment exams that analyze their technical and clinical skills in the areas of data collection and interpretation, as well as decision making skills. Prerequisites: Admission to upper division Respiratory Care Program; HAT 420, HAT 431 and HAT 432  
1 credit

## HAU

**HAU 500 Financing Healthcare Organizations**

Focuses on historic and current issues that impact US healthcare organizations with a primary focus on how health care is delivered, organized and financed. Emphasizes the impact of financing on safety, quality, and the management of risk within healthcare organizations, especially the provider and payment sectors of healthcare. Explores the transformation of healthcare reimbursement from fee-for-service to value-based purchasing, pay-for-performance, and other evolving changes in the financing of healthcare.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAU 501 Patient Safety and the Management of Risk**

Provides a strong foundation in the theory of patient safety, quality improvement, and health care risk management in the context of the shifting paradigm in health care. Focuses on the interdisciplinary prevention and management of and response to medical errors. Analysis of risk management as it relates to patient safety standards, quality in health care delivery, health care management paradigms, accreditation, risk finance, and the development of a just culture.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAU 502 Patient Safety and Health Law**

Provides an in-depth analysis of the intersection of federal and state laws with an emphasis on how legislation and policy are transforming the US health care industry. Students will analyze trends in national and state legislation and

evaluate the effects of legislation and policy on clinical patient care, medical malpractice, the creation of patient safety organizations, apology statutes and disclosure of unanticipated outcomes.

3 credits, Letter graded (A, A-, B+, etc.)

**HAU 503 Error Science, Human Factors and Patient Safety**

Explores best practices from error science and human factors science that can be applied to the healthcare delivery environment to improve quality and reduce medical and human error. Examines various error science theory and human factors (such as fatigue) that contribute to medical errors and how human factors principles are key causes of most adverse events in healthcare. Studies failure mode effects analysis and root cause analysis principles and tools as strategies to reduce and respond to medical error. Explores systems and process analysis as mechanisms to improve patient safety.

3 credits, Letter graded (A, A-, B+, etc.)

**HAU 504 Crew Resource Management, Team Performance, and Communication**

Explores evidence-based high-performing team strategies and communication strategies utilized by aviation, nuclear power and other high reliability organizations (HROs) and analyzes the methods to apply such skills to the health care delivery system. Explores how team building and communication techniques are necessary components to create a patient centered, high quality, patient safety culture within their respective institutions. Explores how continuous quality improvement techniques are utilized to benchmark and assess patient safety.

3 credits, Letter graded (A, A-, B+, etc.)

**HAU 505 Quality Improvement and Safety**

Provides a foundation of skills in Total Quality Management (TQM) and Continuous Quality Improvement (CQI). Students will learn how to identify problems, collect data, recommend improvements, and use tools and techniques required in CQI. Explores how technological advances have impacted the quality movement. Examines how CQI techniques are utilized to benchmark quality and foster patient safety.

3 credits, Letter graded (A, A-, B+, etc.)

**HAU 506 Accreditation, Regulations, and National Patient Safety Goals**

Explores various accreditation requirements that health care professionals and health care organizations must meet. Focuses on the Joint Commission's National Patient Safety Goals by analyzing the purposes for each goal and exploring mechanisms for implementation and measurements of success in meeting the elements of performance.

3 credits, Letter graded (A, A-, B+, etc.)

**HAU 507 Planning, Evaluation, and Assessment of Patient Safety Initiatives**

Provides a strong foundation for program development of patient safety interventions. Utilizing the PRECEDE-PROCEED framework, students will explore techniques and strategies used for designing, implementing, and evaluating patient safety programs. Topics will include the development of programmatic goals and objectives, assessment, selection of methods and strategies, pre-testing of program materials, adoption and implementation plans, data collection, and evaluation indicators. Recommended: HAU 508, HAU 509

3 credits, Letter graded (A, A-, B+, etc.)

**HAU 508 Statistics for Patient Safety Professionals**

Quantitative data analysis techniques utilized in patient safety research are explored. Topics include descriptive, inferential, and correlational statistics. Students learn to use available computer programs to conduct a variety of descriptive, inferential, and correlational statistical tests.

3 credits, Letter graded (A, A-, B+, etc.)

**HAU 509 Research Design and Methodology for the Patient Safety Professional**

Provides an in-depth overview of quantitative, qualitative, and mixed-methods research designs and methodologies. The student will analyze and evaluate the philosophical foundations, the characteristics, strengths, and limitations of quantitative, qualitative, and mixed methods research designs and methodologies.

3 credits, Letter graded (A, A-, B+, etc.)

**HAU 510 Advanced Practice for Risk and Safety Officers**

Students will analyze advanced practice methods and tools utilized to implement and measure patient safety initiatives, and identify and mitigate error and risk within the healthcare context. Explores issues such as occupational and environmental hazard risk reduction, enterprise risk mitigation planning, medical staff credentialing, and the role of the Governing Board. Prerequisites: HAU 501, HAU 503, HAU 508.

3 credits, Letter graded (A, A-, B+, etc.)

**HAU 584 Capstone Project**

The capstone is designed to allow students to select an area of patient safety, quality, or risk management and demonstrate mastery of the curriculum. This can be accomplished by practicum project or internship experience. The capstone will require students to demonstrate scholarly activity, critical thinking, evidence-based practice, leadership, and professionalism; while affirming the importance of ethical behavior, human diversity, and just culture within a team approach to patient-centered, high quality and safe delivery of health care. The students are expected to put in 45 hours per credit of capstone. Course registration and capstone project is subject to departmental approval. Prerequisite: Departmental approval required for this course.

3 credits, Letter graded (A, A-, B+, etc.)

**HAU 594 Capstone Research-Based**

Designed to allow students to select an area of patient safety, quality, or risk management and conduct original research. This course encompasses the development of the IRB application through the writing of the graduate thesis. Throughout this course, the student will work with their committee to complete the research project. Prerequisite: departmental approval, HAU 508 and HAU 509. 3 credits, Letter graded (A, A-, B+, etc.)

## HAX

### HAX 600 Doctoral Seminar

Provides a venue for faculty and doctoral students to discuss all aspects of their research. Researchers will present different branches of translational science and discuss linkage between research agendas. Provides opportunity for data to be viewed and analyzed by investigators with different perspectives and tools for analysis. Offered in the Fall, 0 credit, S/U grading

### HAX 602 Frameworks, Models and Classification Systems in Health and Rehabilitation Sciences

Examines the dynamic interaction between health, disability, and community and contextual factors as identified using different frameworks and models. These frameworks and models will be expounded to recognize the influence of each solely and collectively in terms of health and rehabilitation research, disability studies, and behavioral and community health research. Explores parallels and divergences in approaches with particular attention to analyzing how students in varied concentrations can work together to engage in meaningful translational research within the domains of historical and present-day society and research paradigms. 3 credits, Letter graded (A, A-, B+, etc.)

### HAX 605 Research Ethics

Presents a broad overview of research ethics and regulation. Conveys the moral bases of scientific ethics, the historical evolution of social science and biomedical research ethics, and the development, implementation and limitations of U.S. human subjects regulations. Includes ethics and morality in science; science in society; scientific integrity; misconduct; whistle blowing; conflicts of interest; collegiality; publication and authorship; peer review; history and development of human experimentation ethics and regulations (HHS, FDA); Institutional Review Boards; informed consent, waivers, vulnerable populations; privacy and confidentiality of records; epidemiology; and research using animal subjects. 3 credits, Letter graded (A, A-, B+, etc.)

### HAX 620 Rehabilitation and Disability

Introduces the Science of Rehabilitation and the Science of Disability. Presents models of rehabilitation and disability research and discusses controversies and commonalities between these areas. Forms the groundwork of future coursework in rehabilitation and movement sciences. 3 credits, Letter graded (A, A-, B+, etc.)

### HAX 626 Outcome Measurement in Rehabilitation Research

Introduces outcome measures relating to impairments, functional limitations and disability, general health status, and patient/client satisfaction. These outcome measures are used to guide research outcomes. Explores measurement properties and discusses strategies to appropriately assess and select various outcome measurement scales. Critical appraisal of the literature will provide the basis for making research methodological decisions regarding selection of the most effective outcome measures. 3 credits, Letter graded (A, A-, B+, etc.)

### HAX 629 Evidence Based Pediatric Rehabilitation Research

Provides students an opportunity to develop an overview of issues related to the health of America's children and adolescents. Emphasizes chronic disease and disability, nutrition, fitness, educational accommodations, and trends in long term health services and health policy. Explores the growing need for evidence based practice and outcomes assessment necessary for the development of strategies for optimal function of children with disease/disability and their families. Students will review and analyze evidence for interventions for a specific pathology/disability. 3 credits, Letter graded (A, A-, B+, etc.)

### HAX 630 Exercise Physiology and Physical Activity

Provides key elements of exercise physiology and instructs students in measurement techniques for the assessment of exercise capacity and physical activity. Reviews normal physiology of the cardiopulmonary system and presents normal immediate response to exercise, and long-term effects of exercise in the healthy individual. Explores foodstuffs for energy production, metabolic pathways for production of ATP, and energy systems used in aerobic and anaerobic activities. Principles of physical activity assessment and body composition and examines qualitative and quantitative measurement techniques across the lifespan and in disability. Assimilates, via lab manual, literature reviews of articles addressing measurement. 3 credits, Letter graded (A, A-, B+, etc.)

### HAX 631 Electro/Neurophysiology: Topics for Rehabilitation Research

Introduces basic methodology of clinical electrodiagnostic measures of EEG, EMG, nerve conduction velocity studies (NCV), H-reflex and evoked potentials. Interpretation of these measures provides access to the physiological basis of disability in peripheral or central nerve damage and potentials for recovery. Examines the interventions using peripheral and central electrical stimulation modalities on muscle, bone, cardiovascular and autonomic systems. Includes lab activities of selected modalities such as E-stim, FES, TMS, EEG, EMG, NCV, and H-reflex. 3 credits, Letter graded (A, A-, B+, etc.)

### HAX 632 Teaching and Learning

This course will introduce students to adult learning principles and strategies for effective teaching of cognitive psychomotor and affective skills and behaviors in academia. Individual teaching/learning philosophical orientations, characteristics of the adult learner, learning styles, self-directed learning, and reflective practice will be explored.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 634 Motor Learning and Motor Control**

This course will introduce the various theories underlying human motor control. Students will actively synthesize and analyze current theory and research related to motor control and skill acquisition through examination of relevant literature. This course places emphasis on determining the implications of this work for future research, educational and/or clinical practice. Includes early and contemporary theory, skill acquisition facilitation, practice, feedback, transfer of training, modeling, part vs whole training, imagery, implicit learning, explicit learning and memory systems.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 635 Biomechanics and Movement I**

Introduces students to principles and interrelationships of biomechanics and movement. Includes physical biomechanics of the extremities as a foundation from which to apply biomechanical principles. Involves learning to use mathematical approaches to solving static problems and lay the groundwork for solving dynamic biomechanical problems. Reinforces biomechanical theoretical concepts and mathematical models with lab experiments that involve the manipulation of 3D kinematic, kinetic and EMG data

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 636 Biomechanics of the Musculoskeletal System and Movement II**

Provides advanced concepts of kinetics in the field of biomechanics. Explores biomechanical concepts during lecture and reinforces those applications with associated lab experiments. Provides viscoelastic characteristics of biological tissues as a foundation applied to human motion. Includes mathematical models of the musculoskeletal system and analysis of the dynamics of human motion. Collection and analysis of gait and other movement kinematics, kinetics and muscle activation by electromyography (EMG) are components of lab activities.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 637 Orthopedic and Anatomical Principles I**

Provides advanced concepts of orthopedics and anatomy. Focuses on best evidence of examination, evaluation, diagnosis, prognosis, and procedures used for a variety of orthopedic conditions of the spine and pelvis. Requires active engagement in problem solving by identifying research problems, searching for evidence, and evaluating and synthesizing the evidence to answer research questions. Includes examination of select advanced procedures and principles to enhance research investigations.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 638 Orthopedic and Anatomical Principles II**

Continues and expands on advanced concepts of orthopedic interventional research. Focuses on best evidence of examination, evaluation, diagnosis, prognosis, and intervention of orthopedic conditions of the extremities.

Requires active engagement in problem solving by identifying research problems, searching for evidence, and evaluating and synthesizing the evidence to answer research questions. Student directed pilot study will incorporate knowledge of select advanced techniques and technologies.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 639 Technology and Medical Imaging in Rehabilitation**

Examines a range of medical imaging techniques available for use and interpretation in rehabilitation research. Includes radiographs, fluoroscopy, MRI, fMRI, CT, qCT, MEG, TMS and diagnostic US. Synthesizes the technologies and their limitations, the methods of capture and interpretation. Reviews evidence supporting or refuting the sensitivity of these techniques in determining outcomes in rehabilitation.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 641 Community Mental Health**

Explores the policies and programs that address mental health needs of individuals with a community health focus. Students will apply models of behavior and health to explore topics of mental health including stigma, marginalization, self-determination. Discusses challenges to service provision. Focuses on the ethics of research with this population as a central theme.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 642 Participation and Health in Pediatric and Educational Settings**

Explores policies and programs that inform pediatric services and community based research. Focuses on pediatric programs that influence health and community participation. Includes programs that support health, wellness, and community participation as well as those influenced by the Individuals with Disabilities Education Improvement Act (IDEA) that supports children with disabilities from Birth to 21 years. Prerequisites: 24 credits of HAX core courses or permission of Instructor.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 643 Healthcare Systems and Policy Analysis**

Provides students with an overview of the US healthcare system and major health policy challenges we face. Explores the history and state of the US healthcare system, and circumstances that have given rise to current problems such as employer-based health insurance, challenges in access to and quality of care, and the rising costs associated with the US healthcare model. Discusses ways to improve upon the system, importantly including the Affordable Care Act, and how this legislation was enacted with close attention paid to the policymaking process, roles of political actors, and the importance of policy analysis.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 644 Ethics, Health Disparities and Social Justice**

Examines aspects of inequality and health status as an injustice within the context of ethical theories (utilitarian, libertarian, deontological, equalitarian). Determines the influence on case studies of health disparities and inequalities. Discusses cases such as global and U.S. racial, class and gender disparities and in developing countries. Presents ethical issues relative to different methods of measuring health inequalities and related policies.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 645 Organizational Theory, Management and Leadership**

Examines theoretical and conceptual framework for understanding leadership and management styles of health and human services organizations and how they operate in a broader community. Identifies and applies strategic models to analyze organizational problems, organizational behaviors and processes, formulate strategic solutions, and make sound decisions. This knowledge is critical for the behavioral and community health field to understand how individuals influence and are influenced by organizations.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 646 Social Behavior and Community Health Change**

Examines the nature of the behavior that takes place within social systems and how to effectuate change in these systems. Analysis of behavior and possibilities for change will be placed in the context of health and public health questions and will draw upon theories of organizational behavior, leadership, and mechanisms for action.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 647 Policies and Ethics in Behavioral and Community Health**

Explores health care policies of the US health care system and the influence on public health and programs in behavior and community health. Includes access and utilization of health care, barriers to care, prevention programs, and health disparities and ethics. Addresses the perspectives of the consumer, provider and the institution.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 653 Research Methods: Design and Statistics**

This course presents process and skills needed to develop independent research studies, including but not limited to, formulating a research question or hypothesis, conducting literature searches, critically appraising scientific literature, and selecting appropriate research designs and methods. This information will be presented in the context of protecting human subjects and health information based on the policies and procedures of the Committee on Research Involving Human Subjects (CORIHS) and IACUC.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 656 Qualitative Research**

Students will learn the basic principles and techniques of effective analysis and interpretation of the merits of qualitative data. Examines how qualitative research captures complex phenomena that span the international classification of function (ICF) and impact on quality of life, illness/injury experience and recovery. Students will learn the strengths and limitations of qualitative analysis and how it complements quantitative analysis. Emphasizes several methods to represent data, such as the mixed method approach, and students will apply a range of analysis techniques through research exercises.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 663 Disability, Occupation and Community**

Inspired by disability justice social movements in the US and abroad, this course presents politically engaged critical approaches to disability that intersect community organizations, the arts and academic fields including occupational therapy, disability studies and anthropology. Broader than a medical category, disability identity recognizes the political and economic dimensions of disability inequity as it related to other forms of inequality and disadvantage. Themes include all permutations of the concept of occupy;disability justice/decolonization; [participation and training for collaborations; marginalization and minoritization; technology; struggle, creativity, and change.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 664 Conceptual Foundations of Disability Studies 1890s-1990s**

Present conceptual foundations of disability studies beginning with the 19th and early 20th century theories and scholarships. Theorists from the 1960s and 1970s who influenced the theoretical development of the new field of disability studies will be discussed. The course will explore foundational disability studies scholarship of the 1980s and 1990s as the field established itself first in the social sciences and then the humanities.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 665 Disability, Participation and Justice**

Explores concepts of "Participation" and "Justice" as they relate to disability experience. Introduces research strategies, participatory methods and methodologies for disability studies research in the applied social and health sciences. Discusses ethical issues in disability research and what it means to disabled people in daily life. Examines social analysis, healthcare discourse, and research on the evolution of healthcare practices, cultural beliefs, and social structures influencing the treatments, services, and opportunities available to disabled people in the United States and internationally.

3 credits, Letter graded (A, A-, B+, etc.)

**HAX 667 Disability Studies Language, Narrative and Rhetoric**

Focuses on how language and rhetoric frame how disability is perceived, experienced, and treated. Included critical and rhetorical analysis of professional discourses as well as personal disability narratives and memoirs. The society for Disability Studies, an interdisciplinary organization, says in its mission statement, disability is a key aspect of human experience. So is language. This course explores the interdisciplinary nature of disability studies and the roles language and rhetoric play in representations of disability. Some questions to be explored include: In what ways do clinical or professional discourses and personal narratives reveal experience of power and powerlessness? How is the bodily experience of disability described in professional contexts as compared to personal narratives? How does description and perception influence the practice of professionals and quality of life for people with disabilities? What assumptions about disability are revealed through rhetorical analysis? These questions will frame our attention to representations of disability in a variety of texts: academic, professional, literary, clinical, personal, and visual. Not to be taken for credit with ESL 592  
3 credits, Letter graded (A, A-, B+, etc.)

**HAX 668 Emerging Topics in Disability Studies**

Focuses on the intersections of disability with other emerging area studies such as gender, class, sexuality, race and global studies. Encompass study of different emerging disciplinary areas of disability studies in the social sciences, health sciences, humanities, business, and technology. Explores the connections between disability activism, art, and scholarship in the 21 century. Traces emerging regional distinctions in disability studies research and scholarship, especially between Northern and Southern Countries  
3 credits, Letter graded (A, A-, B+, etc.)

**HAX 669 Disability and Health in Local and Global Contexts**

Critically examines the experiences of people with disabilities in a local and global context and examines the connections between the two contexts. Utilizes policy documents, ethnographies, memoirs, program evaluations, and multi-media and provides the tools to critically evaluate local and global disability experiences as well as programs and interventions.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAX 690 Independent Study in Health and Rehabilitation Sciences**

Independent study proposals in health and rehabilitation sciences. Approval of independent study proposal and credit hours required prior to registration.  
1-3 credits, Letter graded (A, A-, B+, etc.)

**HAX 693 Directed Readings**

Provides faculty directed readings and guided discussion to synthesize selected content related to the current course curriculum and/or to the students' research interests. Through the guided readings, the students will learn foundational and advanced theoretical constructs that will be important underpinnings of their future studies and doctoral research.

Specifically, studies may focus in the concentration areas of rehabilitation and movement science, disability studies or behavioral and community health. A critical analysis of readings may include theoretical constructs, methodologies, and/or interpretation of results. The course will include analytical writings and a summative paper.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAX 699 Dissertation Research On Campus**

Dissertation research under direction of advisor. Prerequisite: Advancement to candidacy (G5). Major portion of research must take place on SBU campus.  
1-9 credits, S/U grading

**HAX 700 Dissertation Research Off Campus- Domestic**

Dissertation research under direction of an advisor. Prerequisite: Advancement to candidacy (G5). Major portion of research will take place off-campus, but in the United States and/or U.S. provinces. All international students must enroll in one of the graduate student insurance plans and should be advised by an International Advisor.  
1-9 credits, S/U grading

**HAX 701 Dissertation Research Off Campus International**

Dissertation research under direction of an advisor. Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place outside of the United States and/or U.S. provinces. Domestic students have the option of the health plan and may also enroll in MEDEX. International students who are in their home country are not covered by mandatory health plan and must contact the Insurance Office for the insurance charge to be removed. International students who are not in their home country are charged for the mandatory health insurance. If they are to be covered by another insurance plan they must file a waiver by the second week of classes. The charge will only be removed if other plan is deemed comparable. All international students must receive clearance from an International Advisor.  
1-9 credits, S/U grading

## HAY

**HAY 500 Neuroscience for Physical Therapy**

Presents neuroscience in a systems approach and integrates general principles of organization and function of the autonomic, peripheral and central nervous system's approach to neuroscience. The anatomy of a system will be followed with its physiology, pathophysiology and clinical relevance to the physical therapist. Clinical topics include neurological testing, control of posture and balance, pain, muscle tone and spasticity, feedback vs. feedforward control, reflex versus voluntary control, control of reaching and locomotion, perception and learning. Prerequisites: First Year Summer Courses  
4 credits, Letter graded (A, A-, B+, etc.)

**HAY 501 Growth and Development Across the Life Span**

Presents an integrated approach to normal human growth and development throughout the life-span. Examines developmental norms and sequences with emphasis on biophysical (motor and sensory), cognitive, language, and psychosocial tasks. Discusses social/cultural/environmental influences. The coursework covers developmental issues during prenatal, infant, child, adolescent, adult and geriatric time periods. Prerequisites: First Year Courses  
4 credits, Letter graded (A, A-, B+, etc.)

**HAY 502 Psychosocial Aspects of Disability I**

Emphasizes the psychosocial aspects of disability as they affect the life of the individual. Topics include identification of pre-morbid factors that contribute to positive adjustment or maladaptive responses to disability; the influence of culture on individual and family expectations of the health care system; patient perspectives as consumers of the health care system; and changing roles in the family. Students will practice techniques of positive listening and role-play to develop skills in recognizing psychosocial factors during acquisition of patient history. Emphasizes utilization of psychosocial information in the establishment of a plan of care for patients across the life span. Prerequisites: First Year and Second Year Summer Courses  
1 credit, Letter graded (A, A-, B+, etc.)

**HAY 503 Psychosocial Aspects of Disability II**

Explores the interactions of the individual with disability within the community. Focuses on concerns of the individual beyond physical rehabilitation. Topics include concomitant mental health issues; the mind-body connection; humor in medicine; complementary and alternative medicine; technology and disability; vocational rehabilitation; sexuality; domestic violence and interpersonal abuse; substance abuse; and terminal illness. Promotes identification and communication with local, regional and national resources that enable individuals with disabilities to engage in recreational, vocational, or educational endeavors. Prerequisites: Second Year Fall Courses.  
1 credit, Letter graded (A, A-, B+, etc.)

**HAY 504 Adult Neurological Assessment I**

Prepares students to examine, assess, establish problem lists, and determine and write appropriate goals for individuals with neurological disorders. Presents fundamental testing and evaluation skills including sensory, musculoskeletal, tone and coordination, motor control, balance, postural stability, and function. Trains students through role playing, videotape analyses and clinical patient experiences. Students will develop assessment skills appropriate for various patients who present with neurological disorders as introduced in Clinical Medicine. Lab experiences and reports require written and verbal justification for student clinical decisions. Provides students with experiences choosing appropriate outcome measures and develops competence in performing these measures on volunteer patients. Prepares second year physical therapy students to assess and begin basic

treatment of patients with neurological dysfunction during clinical experiences. Prerequisites: First Year Courses  
2 credits, Letter graded (A, A-, B+, etc.)

**HAY 505 Adult Neurological Assessment II**

Prepares students to examine, assess, establish problem lists, and determine and write appropriate goals for individuals with various neurological disorders. Fundamental testing and assessment skills include advanced sensory, advanced balance, levels of consciousness, cranial nerve, electromyography, nerve conduction velocity, vestibular assessment and function. Students develop assessment skills appropriate for various patients who present with neurological disorders. Provides experiences for students to choose appropriate outcome measures and perform these measures on volunteer patients. Prerequisites: First Year Courses and Second Year Summer Courses  
2 credits, Letter graded (A, A-, B+, etc.)

**HAY 506 Adult Neurological Interventions**

Examines the impact of adult neurological conditions on activities identified by an individual as essential to support physical, social and psychological well being and create a personal sense of meaningful life. Students will continue with practice of synthesis of examination data during the evaluation process. Emphasizes the development and implementation of appropriate intervention strategies based on best evidence available for peoples with neurological or neuromuscular disorders. Prerequisites: Second Year Fall Courses  
4 credits, Letter graded (A, A-, B+, etc.)

**HAY 507 Orthopedic Physical Therapy Ia**

Introduces concepts of musculoskeletal concepts within patient/client management model. Sharpens student's evaluation skills as clinical decision-making and differential physical therapy diagnosis, prognosis and intervention are introduced in the framework of musculoskeletal dysfunction. Explores functional anatomy, including the osteokinematics, arthrokinematics, myology and neurology of the lower extremities as they relate to surgical and non-surgical musculoskeletal conditions.. Prerequisites: First Year Courses  
2 credits, Letter graded (A, A-, B+, etc.)

**HAY 508 Orthopedic Physical Therapy II**

Builds on the concepts and skills of Orthopedic Physical Therapy I by integrating clinical decision-making and differential physical therapy diagnosis, prognosis and intervention of the lower extremities with the spine and upper extremities. Various musculoskeletal dysfunctions of the trunk and upper extremities are explored. Functional anatomy, including the osteokinematics, arthrokinematics, myology and neurology of the trunk and upper extremities are discussed as they relate to surgical and non-surgical musculoskeletal conditions. Prerequisite: Second Year Fall Courses  
3.5 credits, Letter graded (A, A-, B+, etc.)

**HAY 509 Pediatric Physical Therapy**

Emphasizes the study of atypical movement patterns in children. Presents developmental and long-term effects of neuromuscular and musculoskeletal dysfunction as they relate

to movement. Students learn examination and interventions for subtle and complex movement dysfunctions resulting from a variety of musculoskeletal and neuromuscular diagnoses, conditions, and syndromes including but not limited to preterm birth, torticollis, developmental hip dysplasia, OBPI, cerebral palsy, Down syndrome, autism, developmental coordination disorder (DCD), Spina Bifida and Duchenne Muscular Dystrophy. Explores strategies for working with children presenting at the opposite ends of functional abilities (severe/multiple vs minimal handicapping conditions). Addresses the role of the physical therapist during transitions between delivery settings. Prerequisite: Second Year Fall Courses 5 credits, Letter graded (A, A-, B+, etc.)

**HAY 510 Cardiopulmonary Rehabilitation**

Utilizes the patient-client management model. Spans in-patient, out-patient rehabilitation and home care settings. Includes interpretation of electrocardiograms and grades exercise tests, and chest physical therapy techniques to mobilize secretions. Explores exercise prescription for aerobic endurance training for individuals with cardiac and pulmonary disease and the use of appliances in elderly patients with cardiac and pulmonary disease. Emphasizes the use of physical examination findings that direct chest physical therapy interventions, exercise prescription, and a total plan of care. Prerequisites: Second Year Courses 4 credits, Letter graded (A, A-, B+, etc.)

**HAY 512 Prosthetics and Orthoses**

Studies prosthetic and orthoses management as applied to a variety of patient populations across a life span. Addresses considerations of various pathology and medical surgical management to formulate appropriate patient examinations, evaluation, diagnosis, prognosis and intervention that are consistent with physical therapy practice guidelines. Principals of normal biomechanics, pathomechanics, physiology and pathophysiology will be a major focus for evaluation, intervention and education of the vascular, neuromuscular, and / or musculoskeletal compromised patient that may utilize prosthetic or orthotic devices. Basic principles of mechanical physics and material characteristics will be applied. Clinical site visits are scheduled to observe and practice patient evaluation, treatment and education techniques. Prerequisites: First Year Courses and Second Year Summer Courses 4 credits, Letter graded (A, A-, B+, etc.)

**HAY 513 Orthopedic Physical Therapy Ib**

A continuation and application of HAY 507. Explores concepts of musculoskeletal concepts within patient/client management model. Sharpens student's evaluation skills as clinical decision-making and differential physical therapy diagnosis, prognosis and intervention are introduced in the framework of musculoskeletal dysfunction. Applies general skills to various neuromusculoskeletal dysfunctions of the lower extremity. Explores functional anatomy, including the osteokinematics, arthrokinematics, myology and neurology of the lower extremities as they relate to surgical and non-surgical musculoskeletal conditions. Prerequisites: Second Year Summer Courses 1.5 credits, Letter graded (A, A-, B+, etc.)

**HAY 515 Foundations of Kinesiology**

Explores the essential topics of Kinesiology and establishes a basis for future study of applied kinesiology. Introduces the study of normal human movement including topics such as movement description, muscle function, and biomechanics. 1 credit, Letter graded (A, A-, B+, etc.)

**HAY 517 Exercise Physiology**

Reviews the normal physiology of the cardiopulmonary system. Presents the normal immediate response to exercise and long-term effects of exercise in the healthy well individual. Includes presentation of foodstuffs for energy production, metabolic pathways for production of ATP, and energy systems used in aerobic and anaerobic activities. The course includes strength and endurance exercise prescription for the healthy well individual. Also includes laboratory experiences for the measurement of vitals and select exercise testing. Prerequisites: First Year Summer Courses 1 credit, Letter graded (A, A-, B+, etc.)

**HAY 518 Foundations of Exercise and Movement in PT**

Presents an introduction to the fundamental principles of strength and flexibility. Fundamentals of muscle and connective tissue function from microstructure to macrostructure are considered in health and dysfunctional states through the life span. These basic principles will be expanded to explore the concept of myofascial mobility, extensibility and length. Students will combine the skills learned in Kinesiology with those learned in this course to begin the process of examination, evaluation and designing intervention programs for the movement dysfunction. Prerequisites: First Year Summer Courses 3.5 credits, Letter graded (A, A-, B+, etc.)

**HAY 519 Kinesiology**

Explores the kinetics and kinematics of normal, purposeful human movement. Integrates knowledge of human anatomy, physiology, mechanics and biomechanics as it applies to movement of the extremities and spine. Includes evaluation procedures such as manual muscle testing and measurement of joint range of motion. Direct patient contact is scheduled. Prerequisites: First Year Summer Courses 5 credits, Letter graded (A, A-, B+, etc.)

**HAY 520 Biomechanics**

Biomechanics uses laws of physics and engineering to describe the motion undergone by various body segments and the forces acting on these body parts during activities. Considers the application of classic mechanics, including statics, dynamics, solid mechanics, and fluid mechanics to describe movement and the loads placed on biological tissue. Uses a quantitative biomechanical approach to analyze loads on joints and soft tissue during movement, skill performance especially related to sports, the efficiency of movement and the biomechanical rationale for specific physical therapy intervention. Students analyze a movement biomechanically using appropriate mathematical formulas and analyze and critique relevant quantitative information from the literature.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 524 Health, Wellness and Prevention in Physical Therapy**

Presents issues related to promotion of health and wellness and concepts of integrative medicine. Examines and integrates general fitness into the following clinical environments: obstetrics, occupational health and injury prevention, ergonomics, sports medicine (pre, post, and in season), obesity, chronic pain, pediatrics, geriatrics, and athletic programs for the physically and/or mentally challenged. Students will perform screening techniques for the assessment of the following wellness issues: school-based scoliosis, safety and accessibility of children play areas, cardiovascular fitness, and fall prevention in the elderly. Based upon the findings of screens and individual client goals, students will develop, implement and assess the effectiveness of a cohesive wellness program. Introduces issues related to the development of a wellness center and visits to established prevention programs in the community. Prerequisites: Second Year Courses

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 525 Advanced Therapeutic Exercise**

Provides students with the opportunity to apply and analyze therapeutic exercise techniques in order to formulate exercise programs for diverse patient and client populations. Students will be encouraged to discuss and build upon their knowledge of basic therapeutic techniques attained from previous coursework and clinical training experiences. Advanced techniques will be demonstrated and practiced in lab. Students will evaluate, set goals, develop therapeutic exercise programs and measure outcomes. Issues regarding frequency, intensity and duration of treatment will be discussed throughout the course. Prerequisites: Second Year Courses

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 526 Clinical Medicine and Pharmacology I**

Provides a foundation in medicine and differential diagnosis. Introduces the Nagi's model of disablement and the International Classification of Functioning, Disability and Health (ICF), the Patient/Client Management model and outcomes management that guide the process of clinical decision-making. Principles of pharmacology, medical imaging and laboratory diagnostic testing will be integrated to facilitate safe and effective patient management planning. Familiarizes students with medical terminology and abbreviations for efficient and effective chart reviewing and documentation. Explores select systemic diseases will be explored, focusing on epidemiology, pathology, histology, etiology, as well as primary and secondary clinical characteristics. Medical and surgical management will be discussed and integrated to formulate appropriate intervention indications, precautions and contraindications. . Prerequisites: First Year Summer Courses 3.5 credits, Letter graded (A, A-, B+, etc.)

**HAY 527 Principles of Inpatient Care**

Emphasizes use of the patient-client management model focused on the acute care in-hospital setting and the acute

rehabilitation and sub-acute rehabilitation settings. Includes fundamental skills of chart review and documentation; body mechanics; examination techniques; turning and positioning; bed mobility; transfer training; ambulation training; wheelchair management; deep breathing exercises; and discharge planning. Discusses special populations relevant to the in-patient environment. Includes post-operative orthopedic patients; patients with acute neurological disorders and acute cardiothoracic disorders; and pediatric, geriatric, and general medicine patients. Designed to prepare entry level physical therapy students to evaluate and treat patients during their first clinical affiliation. Prerequisites: First Year Fall Courses 4 credits, Letter graded (A, A-, B+, etc.)

**HAY 528 Clinical Medicine and Pharmacology II**

This course continues to build a foundation in medicine and differential diagnosis. Utilize the concepts of evidence-based practice, ICF and Nagi's model of disablement, and the Patient/Client Management model as frameworks for clinical decision-making. Presents in-depth exploration of frequently encountered pathologies and injuries across the life span. Presents epidemiology, pathophysiology, etiology, clinical characteristics with subsequent medical and surgical management of each pathology/injury. Students are required to apply knowledge of pharmacology, diagnostic radiology and laboratory testing into safe and effective patient management through clinical case study exercises. Focuses on the formulation of appropriate rehabilitation intervention indications, precautions and contraindications. Students will continue to build a repertoire of medical terminology, medical chart abbreviations and clinical outcome measures. Proficiency is expected with an actual medical record review and analysis, and the synthesis of an appropriate patient/client management plan consistent with the Guide to Physical Therapist Practice. Prerequisites: First Year Fall Courses 4 credits, Letter graded (A, A-, B+, etc.)

**HAY 529 Principles in Pharmacology**

Examines the general principles of pharmacology including pharmacokinetics, pharmacodynamics and toxicology of common drugs used in clinical medicine. Explores implications of the use of pharmacological agents for the central nervous, cardiovascular, pulmonary, neuromusculoskeletal, and endocrine systems, as well as chemotherapeutics, as it relates to physical therapy patient/client management across the lifespan.

4 credits, Letter graded (A, A-, B+, etc.)

**HAY 530 Differential Diagnosis**

Introduces students to the role that health screenings and systems review play in the process of making physical therapy diagnoses. Evidence based clinical decision making consistent with the patient client management model will be the foundation upon which differential diagnoses are made. Case studies will be used to integrate screening information in determining a physical therapy diagnosis and making decision regarding intervention versus referral.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 531 Motor Learning**

Synthesizes and analyzes current theory and research related to skill acquisition through examination of historical and current literature. Places emphasis on determining the implications of this work for future research, educational and/or clinical practice. Includes early and contemporary theory, skill acquisition facilitation, practice, feedback, transfer of training, modeling, part vs. whole training, imagery, implicit learning, explicit learning, and memory systems.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAY 533 Implicit vs Explicit Learning**

Explores memory systems active in implicit and explicit motor learning. Critically evaluates and integrates current research related to implicit and explicit learning. Research will include developmental and neuropsychological approaches to learning for rehabilitation. Students will determine the usefulness of the methodology, task design and the results of each study.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 534 Motor Learning and Motor Control**

Establishes a context for the major explanatory concepts applied to the issues of coordination and skill and learning. Foundational material from Neuroscience will support the application and theory addressed throughout the course. Uses academic rationalization and cognitive processing philosophies to develop and refine intellectual processes. Students learn from historical perspectives of motor control to develop skills necessary to pose and solve problems, to infer, to hypothesize, and to locate needed resources for theoretically sound clinical judgments. Students read original research papers and current literature pertaining to motor learning, motor programs and dynamic pattern theory. Student will analyze papers examining loss of function related to disease or injury. Prerequisite: First Year Fall Classes  
3 credits, Letter graded (A, A-, B+, etc.)

**HAY 535 Issues in Motor Control**

Establishes historical context for the major explanatory concepts applied to issues of coordination and skill during the last century. Compares readings of original work of Bernstein to current literature pertaining to motor programs, dynamic pattern theory and computational models. Students will critically evaluate papers related to the control of locomotion and the control of reaching and grasping skills.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 536 Introduction to Motor Control**

Establishes historical context for major explanatory concepts applied to issues of coordination and skill during the last century. Presents readings of original work of leading theoreticians and researchers who have made significant contributions during this period. Students will critically evaluate papers related to reflex theory, serial order, servocontrol, information processing theory, motor programs, dynamic pattern theory and computational models.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 537 Neuroplasticity**

Presents an overview of recovery of function mechanisms. Critically analyzes animal and human research literature examining spinal cord, somatosensory cortex, motor cortex and neural plasticity. Addresses effectiveness of different human research paradigms exploring the issue of neural changes. Explores the effects of age, nature of lesion, environment and pharmacology on recovery of function. Links neural plasticity research to conceptual frameworks for clinical practice.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 541 Physical Agents and Wound Care in Physical Therapy**

Physical modalities including superficial and deep thermal agents, hydrotherapy, aquatic therapy, intermittent compression, and mechanical traction, Emphasis on evidence-based practice with ample opportunity to learn from experienced clinicians through guest lectures and site visits. Students focus on pre-treatment assessment and physiological response to treatment as the basis for clinical decision making. Patient education, treatment preparation and performance, indications and contraindications will be covered for each modality. Supervised laboratory sessions provide a safe atmosphere for the administration of these agents as well as direct observation of clinical effects. Laboratory sessions and group discussions will be case study driven to foster critical thinking and collaborative learning.

1.5 credits, Letter graded (A, A-, B+, etc.)

**HAY 542 Electrotherapy in Physical Therapy**

Presents principles of electrophysics and the application to the human body in health and disease and relates principles to the use of electrophysiologic stimulators and testing equipment in physical therapy clinical practice. Discusses properties of excitable membranes and effects of electrical stimulation on muscle and nerve tissue. Promotes evidence-based practice through analysis of appropriate literature. Covers electrotherapeutic management of impairments and pathology of musculoskeletal system, neuromuscular system, cardiopulmonary system and the integument. Explores the role of electrotherapy as adjunctive modality in a comprehensive physical therapy treatment plan. Discusses fundamental skills for application of biphasic pulsed current, monophasic pulsed current, uninterrupted direct current, interferential electrical stimulation, Russian stimulation, microstimulation (MENS), transcutaneous nerve stimulation (TENS), neurostimulation (NMES), functional electrical stimulation (FES) and iontophoresis. Introduces biofeedback and electrodiagnostic testing: nerve conduction velocity (NCV) and electromyography (EMG).

2.5 credits, Letter graded (A, A-, B+, etc.)

**HAY 543 Wound Care in Physical Therapy**

Introduces the physical therapist's role in management of chronic wounds. Focuses on performing a comprehensive assessment designed to identify challenges to proper wound closure. Students will use the results of this assessment to form an appropriate plan of care based on the clinical presentation of the wound and the individual needs of each patient/client. Discusses mechanisms of integumentary

healing in the human body including potential difficulties posed by cardiovascular, orthopedic, neurological and endocrinologic/metabolic disorders. Considers local factors implicated in delayed wound closure. Students learn to set appropriate goals and apply treatment interventions including wound irrigation and debridement, pressure relief, and choice of topical agents and dressing to promote efficient closure. Emphasizes evidence-based practice: focuses on pre-treatment assessment physiological response to treatment, and best available research as the basis for clinical decision making. Covers patient education, treatment preparation and performance, indications and contraindications for intervention. Laboratory sessions and group discussions will be case study driven to foster critical thinking and collaborative learning. Prerequisites: First Year Fall Courses 1 credit, Letter graded (A, A-, B+, etc.)

**HAY 544 Modalities in Physical Therapy**

Introduces physical modalities including superficial and deep thermal agents, hydrotherapy, aquatic therapy, intermittent compression, and mechanical traction. Presents principles of electrophysics and the application to the human body in health and disease. Includes polarity, voltage, current, Ohm's law and the use of electrophysiologic stimulators and testing equipment in physical therapy clinical practice. Discusses properties of excitable membranes and effects of electrical stimulation on muscle and nerve tissue. Promotes evidence-based practice through analysis of appropriate literature. Covers electrotherapeutic management of impairments and pathology of musculoskeletal system, neuromuscular system, cardiopulmonary system and the integument. Presents fundamental skills for application of electrical stimulation including biphasic pulsed current, monophasic pulsed current, uninterrupted direct current, interferential electrical stimulation, Russian stimulation, microstimulation (MENS), transcutaneous nerve stimulation (TENS), neurostimulation (NMES), functional electrical stimulation (FES) and iontophoresis. Prerequisites: First Year Summer Courses 3 credits, Letter graded (A, A-, B+, etc.)

**HAY 545 Ethics and Health Care for Physical Therapists**

Provides an overview of the ethics of health care in a rapidly changing society. Explores ethical issues surrounding health care changes and public health policy. Includes an overview of the ethics within patient education and discussions involving the physical therapy professional codes of ethics and standards. Students will learn how to approach ethical dilemmas using theoretical frameworks and decision-making processes. Introduces the student to the ethics within physical therapy and other health care professions through the use of case studies. Includes a review of classic cases in health care ethics, involving issues such as euthanasia and organ transplants, from an ethical, legal and historical perspective. Prerequisites: Second Year Courses 3 credits, Letter graded (A, A-, B+, etc.)

**HAY 548 Medical Imaging**

Introduces equipment, procedures and use of medical imaging for examination and evaluation of dysfunction. Examines topics such as radiographs, arthrography, CT scans, MRI, and

nuclear studies. Case studies will be used to integrate imaging data into the patient/client management plan. 2 credits, Letter graded (A, A-, B+, etc.)

**HAY 550 Statistics**

Presents the fundamentals of statistical analysis. Includes performing basic statistical analyses using at least one computer program. Topics include descriptive statistics, statistical inference, tests for experimental comparisons, correlation, regression, and nonparametric tests. Addresses the relationship between statistics and research design by introducing relevant research articles in the field of physical therapy. 3 credits, Letter graded (A, A-, B+, etc.)

**HAY 551 Introduction to Research Methods and Design**

Introduces basic concepts of scientific design and methodology for the critical examination of scientific literature. Explores the relevance of research application and evidence-based practice in physical therapy. Introduces concepts of dependent, independent variables, hypothesis testing, sampling, and experimental controls. Addresses ethical issues, informed consent and human subject constraints. Measurement reliability and validity will be emphasized with application to outcomes management. Explores a variety of research designs including experimental, quasi-experimental, descriptive, correlation, qualitative and single case study designs. Basic concepts of statistical analyses will be integrated through discussion and literature learning projects. 3 credits, Letter graded (A, A-, B+, etc.)

**HAY 552 Research Methods for Physical Therapists**

First of three courses designed to prepare students to search for and critically appraise scientific literature as well as understand the fundamentals of research methods, design, and statistics. Includes principles of evidence based practice, use of electronic data bases to search for evidence, research and measurement reliability and validity, research design, descriptive statistics, statistical inference, tests for experimental comparison, correlation, regression, and nonparametric tests. Addresses the relationship between statistics and research design by introducing relevant research articles in the healthcare field. Prerequisites: First Year Fall Courses 3 credits, Letter graded (A, A-, B+, etc.)

**HAY 553 Computer Literacy and Evidence Based Practice**

Addresses the foundational skills practicing therapists need to effectively manage, integrate, and communicate information for clinical practice, research and professional activities. This course exists in three parts. Part I focuses on accessing and evaluating clinical information. Part II focuses on information organization and manipulation. Part III focuses on the management and professional communication of information. 1-2 credits, Letter graded (A, A-, B+, etc.)

**HAY 556 Outcomes Measurement and Analysis**

Introduces students to various outcome measures relating to impairments, functional limitations and disability, general health status, and patient/client satisfaction used to guide physical therapy practice across the lifespan. Measurement properties will be explored and strategies discussed to appropriately assess and select various outcome measurement scales. Critical appraisal of the literature will provide the basis for making clinical decisions regarding selection of the most beneficial outcome measure for an individual patient/client, service and/or program.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAY 557 Introduction to Evidence Based Practice**

Addresses foundational skills practicing therapists need to effectively access, manage, integrate and communicate information for clinical practice, research and professional activities. Uses core electronic information resources, including clinical decision-support databases and knowledge management tools to quickly locate and effectively assess the quality of clinical and healthcare bibliographic databases such as PubMed and CINAHL. Emphasizes citation tracking tools and critical clinical decision support tools including Web of Science and Cochrane Database of Systematic Reviews. Trains students in the use of citation management software (EndNoteX6) to support research. Prerequisites: First Year Courses  
1 credit, Letter graded (A, A-, B+, etc.)

**HAY 558 Evidence Based Practice Seminar**

Explores a broad spectrum of research literature examining physical therapy practice. Uses literature as a tool to integrate students critical inquiry skills and depth of knowledge in biomechanical analysis, musculoskeletal measurement, cardiopulmonary functions, motor control and motor learning theory. Students judge the strength of the evidence of each paper and draw conclusions regarding its clinical significance in neuromotor and musculoskeletal rehabilitation. When lacking evidence, challenges students to suggest ways to strengthen the current evidence. Prerequisites: Second Year Courses  
1-3 credits, Letter graded (A, A-, B+, etc.)

**HAY 560 Professional Practice I: Foundations**

First of three courses regarding the developing physical therapy professional. Discusses historical, ethical and legal foundations and current and emerging issues affecting change within the profession. Introduces the format and function of the APTA at the national and state levels. Examines the roles and responsibilities of the physical therapist, the physical therapist assistant and the physical therapist aide in the present healthcare environment. Explores dynamics of professional interactions with patients, families and other healthcare providers.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAY 561 Teaching, Consulting, Communicating in Clinical Education**

Examines different learning styles and their effect on the learning environment. The fundamentals of teaching as they apply to patient education, professional inservices, and clinical education are presented and practiced. Students are introduced to aspects of verbal and nonverbal communication, with the opportunity to work in small groups for application of these principles. The aspect of physical therapy consultation in clinical experiences as well as professional opportunities is explored. Preparation for the first clinical education experience, specifically clinical site and academic program expectations, professional behavior, and student responsibilities, are discussed in detail. Prerequisites: First Year Fall Courses  
2 credits, Letter graded (A, A-, B+, etc.)

**HAY 562 Selected Topics in Clinical Education and Professional Development**

Provides framework for assuming the roles of a clinical instructor. Includes the preplanning period, structuring the actual clinical experience, and types of evaluation provided to physical therapy students. Explores various models of clinical education and opportunities for APTA Residencies and Fellowships. Emphasizes self assessment, communication skills and professional development. Links discussions with concurrent learning experiences in Clinical Internship II including learning opportunities, patient care and teaching styles. Explores in detail selected topics from APTA clinical performance instruments. Uses a case study for students to delve deeper into plan of care for a patient receiving treatment during the Clinical Practice II.  
2 credits, Letter graded (A, A-, B+, etc.)

**HAY 563 Teaching and Physical Therapy Practice**

Introduces students to adult learning principles and strategies for teaching in the academic and clinical environments. Explores teaching/learning philosophies, characteristics of the adult learner, learning styles, self-directed learning, and reflective practice. Discusses the clinical environment as a community of practice, with emphasis on the student, clinical instructor and community as a learning triad. Students will be given the option to become credentialed clinical instructors through the American Physical Therapy Association.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAY 576 Clinical Decision Making**

Explores various theories and concepts of clinical decision-making and physical therapy diagnosis. Clinical reasoning including hypothesis generation and refinement applied within the context of the NAGI Disablement Model and patient/client management model as outlined in The Guide to Physical Therapy Practice. Clinical cases will be used to explore the diagnostic practice patterns across the lifespan.  
3 credits, Letter graded (A, A-, B+, etc.)

**HAY 580 Practicum**

A limited number of students may enroll in 3-6 credits of independent study in research, education, clinical practice, or management/administration. Each practicum project is uniquely designed to meet the needs of the student. Mentored by faculty with expertise in the area of study. Acceptable projects must include design, implementation and analysis phases. 3-6 credits by permission of the Program Director. 3-6 credits, Letter graded (A, A-, B+, etc.)

**HAY 589 Case Studies I**

Develops students' ability to utilize and apply relevant knowledge and skills within the patient management model including examination, evaluation, and development of intervention strategies. Students will discover how the four systems (neuromotor, cardiopulmonary, musculoskeletal, and integumentary) work together to influence function through problem-based activities and case studies. Culminates in student group presentations with defense of clinical decisions for assigned case studies at the end of this integrative experience. Prerequisites: First Year Fall Courses 1 credit, S/F graded

**HAY 590 Case Studies II**

Second in a two-course sequence to further develop students' ability to utilize and apply relevant knowledge and skills within the patient management model. With each Case Studies course, the demand on students for synthesis and integration increases. Requires students to examine, evaluate, determine differential diagnosis, prognosticate, develop and integrate intervention strategies for patients of varying ages from diverse cultural backgrounds with complex neuromotor, cardiopulmonary, musculoskeletal, and or integumentary pathology/dysfunction. Culminates in student group presentations with defense of clinical decisions for assigned case studies at the end of this integrative experience. Prerequisites: Second Year Fall Courses 1 credit, S/F graded

**HAY 595 Clinical Internship I**

An eight-week course that provides students with their first full-time clinical experience. A licensed physical therapist is responsible for close supervision and guidance during the learning experience. Provides students with the opportunity to utilize the patient management model of care. Students participate in documentation, coordination of care and discharge planning. Students will perform reexaminations, measure patient outcomes, and modify interventions accordingly. Students will perform an in-service during this clinical experience. Students are required to submit guided journals to DCE via email to promote reflective thinking during clinical experience. Prerequisites: Second Year Summer Courses 6 credits, S/F graded

**HAY 601 Issues in Global Health Care**

Examines theories of health and wellness in the context of national and international public health initiatives. Explores epidemiology of intrinsic and extrinsic high risk factors and the social and political context of professional practice. Current and projected roles of the physical therapist and other health care workers in evolving health care environments are

explored, examining various health care models to determine the current impact on practice outcomes and to hypothesize future effectiveness.

2 credits, Letter graded (A, A-, B+, etc.)

**HAY 602 Issues in Health Care Administration**

Provides an understanding of the role of manager/supervisor as it relates to the goals and objectives of a physical therapy practice or department. Topics include communication skills in business management; ethical decision making in physical therapy practice; delivery systems; legislation and regulation; business planning; marketing and public relations. Prerequisites: Second Year Courses 1-3 credits, Letter graded (A, A-, B+, etc.)

**HAY 608 Orthopedic Examination and Intervention I**

Combining lectures, demonstrations, and hands on laboratory sessions, this course will emphasize the application of evidence-based practice in all areas of spinal management. Where little evidence exists, a pragmatic approach integrating basic principles of biomechanics and pathokinesiology will be used. Provides an introduction to the biomechanical, dysfunction types, and their respective terminology. Presents an integrated model of physical therapy examination and evaluation of spinal disorders. Discusses and incorporates a physical therapy management approach of manual therapy of the spine and pelvis combined with patient education and exercise. The course will devote lab time to carefully monitor skills of palpation, examination, and interventions. 3 credits, Letter graded (A, A-, B+, etc.)

**HAY 610 Fitness and Wellness**

Examines and integrates the principles of strength, endurance, speed and agility training to formulate a wellness screening and program design. These principles will be used as a framework to examine the physical therapist's role in women's health, occupational health and injury prevention, sports medicine (pre-, post-, and in-season), obesity and athletic programs for the mentally and physically challenged. Students will explore the evidence for various fitness techniques.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 611 Complementary and Alternative Approaches to Rehab and Wellness**

Examines and integrates the principles of complementary and alternative approaches such as Pilates, Yoga, T'ai Chi, Acupuncture, and Feldenkrais into physical therapy directed wellness programs. Explores the evidence for utilization of these techniques in selected patient populations.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 612 Sports and Exercise Nutrition**

Integrates the concepts of nutrition, bioenergetics, and energy expenditure into a broad understanding of the role of nutrition in daily activity, wellness parameters, and exercise performance. Emphasis will be placed on the topics of macro-

and micro- nutrients and their effects during exercise and training, nutrient bioenergetics, thermoregulation, ergogenic aids, body composition, energy balance and weight control, and optimal nutrition for healthy lifestyles.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 615 Applied Physiological Foundations of Exercise**

Explores literature related to the physiological basis for exercise, in healthy and at risk populations, and in patients with disease, at the multi-system level. Moves from substrates and their effects on exercise, through metabolic processes, to energy systems. Identifies various exercise states, and explores the body's immediate response and long-term adaptation. Nutrition and its impact on movement will be detailed. Information from metabolic gas analysis will be coupled with other clinical tests and measures to design exercise programs. Culminates in the application of principles of exercise physiology in the prescription of exercise for health and prevention across the lifespan and in the treatment of various patients and at risk populations. Current research will provide the basis for examining the evidence underlying principles of exercise for various populations across the lifespan.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 616 Exercise Prescription**

Presents issues related to exercise prescription for health, wellness and prevention in various healthy and at risk populations across the lifespan. Explores various physiological principles and topics in fitness and cardiopulmonary care through case studies. Examines various patient/client types and health and prevention settings (e.g. cardiac, high risk populations, obstetrics, occupational health and injury prevention, ergonomics, sports medicine (pre, post and in-season), obesity, athletic programs for the physically and/or mentally challenged, falls prevention in the elderly and cardiac fitness programs) and integrates general fitness.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 622 Current Topics in Pediatrics**

Emphasizes the examination, evaluation, assessment, intervention and outcome measure of children with disabilities. Topics will enhance and challenge those physical therapists that practice in a pediatric setting. Explores the use of current and future adaptive equipment in pediatrics as well as the role of the pediatric physical therapist in a variety of contexts and environments.

3 credits, Letter graded (A, A-, B+, etc.)

**HAY 692 Clinical Internship II**

An eight week full-time clinical experience and is the second clinical experience in the curriculum. Students will provide direct patient care, collaborate with other health care professionals, coordinate care of patients, delegate and supervise support personnel and promote wellness and prevention services. Student will incorporate outcome measures into the evaluation process and suggest specific measure useful for the clinical setting. Students will perform an in-service and communicate regularly with DCE to promote

reflective thinking during clinical experience. Prerequisites:

Second Year Courses

8 credits, S/F graded

**HAY 693 Clinical Internship III**

A ten-week full-time clinical experience. A licensed physical therapist is responsible for supervision during the learning experience. The students will provide direct patient care, collaborate with other health care professionals, coordinate care of patients, delegate and supervise support personnel, and promote wellness and prevention services. Students are able to incorporate outcome measures into the evaluation process and suggest specific measures useful for their particular clinical setting. Students will perform an in-service during this clinical experience and communicate regularly with DCE via email to promote reflective thinking during clinical experience. . Prerequisites: Third Year Fall Courses

10 credits, S/F graded

**HAY 694 Clinical Internship IV**

A twelve week full-time capstone clinical experience. A licensed physical therapist is responsible for supervision during the learning experience. Students will render evidence-based practice and perform as an entry-level physical therapist upon completion of this clinical experience. Students are expected to fully participate in all aspects of physical therapist's scope of practice including direct patient care, documentation, consultation, education, critical inquiry, and administration in the clinical setting. perform as an entry-level physical therapist upon completion of this clinical experience. Students will perform an in-service during this clinical experience and communicate regularly with DCE via email to promote reflective thinking during clinical experience. Student will explore an area of interest outside patient management through the completion of a project designed to meet the needs of the clinical site in coordination with the DCE and clinical site CCCE. Prerequisites: Third Year Summer and Fall Courses; HAY 693

12 credits, Letter graded (A, A-, B+, etc.)

**HAY 699 Clinical Continuation**

This course is for physical therapy students continuing with clinical.

0 credit, S/F graded

## HBA

**HBA 325 Anatomical/Bio Illustration**

This course will offer an introduction to human anatomy for the studio artist who is interested in biological illustration. It will provide an introduction to techniques of illustration utilizing as subject matter the live model, skeleton, prosection and cadaver dissection. Details of human anatomy will often be discussed by comparison of humans with other vertebrates. Lectures will precede each lab/ studio class and involve topics such as size and shape, developmental changes in proportion, topographic and surface anatomy, bone-muscle relationships and human movement, comparative form of visceral organs, and the comparative

anatomy of humans and higher primates. This course will be open to all students who have had introduction to life drawing (or its equivalent) and/or introduction to the biological sciences (or its equivalent). We expect that this offering will benefit artists who are interested in developing their representational drawing skills and enhancing their knowledge of anatomy and morphology, AND students in the life sciences who are interested in enhancing their drawing skills. This course is offered as both HBA 325 and ARS 355.

3 credits

**HBA 398 Research Project in Anatomical Sciences**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project and be able to discuss his or her work. Open to juniors and seniors. May be repeated.

2-4 credits, S/U grading

**HBA 399 Research Project in Anatomical Sciences**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project and be able to discuss his or her work. Open to juniors and seniors. May be repeated.

2-4 credits, S/U grading

**HBA 461 Regional Human Anatomy**

An overview of the gross anatomy of the human body. Dissection of the entire human body. Includes neuroanatomy. Associated course fee - \$88.00. Prerequisite: Permission of instructor for non-Health Sciences students.

5 credits

**HBA 521 Gross Anatomy of Head, Neck, and Trunk**

Tutorial laboratories with emphasis on dissections of the human head, neck, and trunk.

8 credits, Letter graded (A, A-, B+, etc.)

**HBA 531 The Body**

A lecture and laboratory with emphasis on dissection of the entire human body. Topics include functional and topographic anatomy, embryology, clinical correlations, and an introduction to radiology.

8 credits, S/F graded

**HBA 540 Human Anatomy for Physical Therapists**

A lecture and laboratory course that includes dissections of the entire human body. The course is organized in three modules: (1) thorax and abdomen, (2) head and neck, including neuroanatomy, and (3) limbs. It covers regional and conceptual information on the gross anatomy of all organ systems in the human body. Prerequisite: permission of

instructor for students that are not enrolled in Stony Brooks Physical Therapy Program.

6 credits, Letter graded (A, A-, B+, etc.)

**HBA 541 Evolutionary Anatomy**

A lecture and laboratory with emphasis on dissection of the entire human body. Includes functional and comparative anatomy with special emphasis on the musculoskeletal morphology of humans and higher primates. This course is offered as both DPA 541 and HBA 541.

Fall, 8 credits, Letter graded (A, A-, B+, etc.)

**HBA 542 Advanced Human Anatomy for Physical Therapists**

Regional approach to the gross anatomy of the lower limb for physical therapy graduate students (DPT). The course is presented in conjunction with HYA519, Kinesiology for Physical Therapists. This module will offer an expanded view of the functional anatomy and arthrology of the hip, thigh, leg and foot. Labs will be three hours, one day per week. Enrollment will be limited to DPT students.

0 credit, S/U grading

**HBA 550 Vertebrate Evolution**

Survey of the fossil record of vertebrate evolution. The course emphasizes the origin, phylogeny, comparative and functional morphology, biogeography, and paleontology of vertebrate animals. Laboratory included. The lectures and laboratories will utilize an extensive collection of comparative anatomical material, fossil casts, and slides.

Spring, alternate years, 4 credits, Letter graded (A, A-, B+, etc.)

**HBA 551 Phylogenetic Systematics, Biogeography and Comparative Methods**

This course will provide students with a familiarity in the practical application of modern phylogenetic methods and the use of phylogenies in framing evolutionary hypotheses. The course will have both a lecture and laboratory component with lectures including in-class discussions of assigned readings. Lab exercises will be devoted to hands-on experience with available software for phylogenetic and comparative methods. Comparative methods examined will include a focus on historical biogeography as well as ancestral state reconstruction, rates of evolution and diversification, and analysis of adaptation and key innovations.

4 credits, Letter graded (A, A-, B+, etc.)

**HBA 560 Advanced Regional Anatomy**

Advanced human gross anatomy for graduate students or advanced undergraduates in biology, anthropology and other life sciences.

Fall, Summer, 3-8 credits, Letter graded (A, A-, B+, etc.)

**HBA 561 Human Gross Anatomy**

A lecture and laboratory course that includes dissections of the entire human body. The course is organized in three modules: (1) thorax and abdomen, (2) head and neck, including neuroanatomy, and (3) limbs. It covers regional and

conceptual information on the gross anatomy of all organ systems in the human body. Prerequisite: permission of instructor for students that are not enrolled in Stony Brook's Occupational Therapy, Physician Assistant or Respiratory Therapy programs.

Summer, 5 credits, Letter graded (A, A-, B+, etc.)

**HBA 563 Aspects of Animal Mechanics**

An introduction to biomechanics. Covers freebody mechanics and kinetics as applied to vertebrate locomotion. Considers the structure and physiology of muscle as it relates to adaptations of the musculoskeletal system. This course is offered as both HBA 563 and DPA 563.

Spring, odd years, 2 credits, Letter graded (A, A-, B+, etc.)

**HBA 564 Primate Evolution**

The taxonomic relationships and evolutionary history of primates as documented by their fossil record and structural and chemical evidence. Emphasis on primates prior to the origin of the human lineage. This course is offered as ANT 564, DPA 564 and HBA 564.

Spring, even years, 4 credits, Letter graded (A, A-, B+, etc.)

**HBA 565 Human Evolution**

A survey of the fossil record of hominid evolution through the Pliocene and Pleistocene with emphasis on the morphological structure and function of locomotor, masticatory, and neural systems. Includes utilization of comparative anatomical material and an extensive cast collection. This course is offered as ANT 565, DPA 565 and HBA 565.

Fall, even years, 4 credits, Letter graded (A, A-, B+, etc.)

**HBA 566 Studies in Functional Morphology**

Introduction to the theory and methods of functional morphology. Various methods of analysis and the application of experimental techniques such as electromyography or bone strain analysis are discussed as they pertain to the understanding of the interaction between form and function. Special emphasis is placed on the analysis of human and nonhuman primate morphology, and the application of this analysis to interpretation of the fossil evidence for human and nonhuman primate evolution. This course is offered as both HBA 566 and DPA 566.

Spring, even years, 2 credits, Letter graded (A, A-, B+, etc.)

**HBA 582 Comparative Anatomy of Primates**

The comparative anatomy of living primates. Laboratory dissection with emphasis on relating structural diversity to behavior and biomechanics. This course is offered as both HBA 582 and DPA 582.

Spring, alternate years, 4 credits, Letter graded (A, A-, B+, etc.)

**HBA 590 Projects in Anatomical Sciences**

Individual laboratory projects closely supervised by faculty members to be carried out in staff research laboratories.

Fall and Spring, 1-6 credits, S/U grading

**HBA 690 Graduate Seminar**

Seminars by graduate students on current literature in the areas of the anatomical sciences.

Fall and Spring, 1 credit, S/U grading

**HBA 692 Advanced Topics in Anatomical Sciences Literature**

Tutorial readings in anatomical sciences with periodic conferences, reports and examinations arranged with the instructor.

Fall and Spring, 1-2 credits, S/U grading

**HBA 695 Practicum in Teaching**

Practical instruction in the teaching of anatomical sciences carried out under faculty supervision.

1-4 credits, S/U grading

**HBA 699 Dissertation Research on Campus**

Original investigation under supervision of thesis adviser and committee.

Fall, Spring, and Summer, 1-9 credits, S/U grading

**HBA 700 Dissertation Research off Campus - Domestic**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place off-campus, but in the United States and/or U.S. provinces. Please note, Brookhaven National Labs and the Cold Spring Harbor Lab are considered on-campus. All international students must enroll in one of the graduate student insurance plans and should be advised by an International Advisor.

Fall, Spring, 1-9 credits, S/U grading

**HBA 701 Dissertation Research off Campus - International**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place outside of the United States and/or U.S. provinces. Domestic students have the option of the health plan and may also enroll in MEDEX. International students who are in their home country are not covered by mandatory health plan and must contact the Insurance Office for the insurance charge to be removed. International students who are not in their home country are charged for the mandatory health insurance. If they are to be covered by another insurance plan they must file a waiver be second week of classes. The charge will only be removed if other plan is deemed comparable.

Fall, Spring, 1-9 credits, S/U grading

**HBA 800 Full-Time Summer Research**

Full-time laboratory research projects supervised by staff members.

0 credit, S/U grading

## HBC

**HBC 331 Introductory Biochemistry**

An introduction to biochemistry including all aspects of metabolism and the synthesis, structure, and function of DNA,

RNA, and protein stresses the medical significance of these aspects of biochemistry. Prerequisite: Organic Chemistry 3 credits

**HBC 531 Molecular Foundations of Medicine**

An integrated course covering the important aspects of biochemistry, cell biology, human and molecular genetics, and histology. Includes lectures, small group conferences and laboratories and stresses the clinical relevance of the basic science material.

8 credits, Letter graded (A, A-, B+, etc.)

## HBH

**HBH 330 Fundamentals of Pharmacology I**

HSC Bulletin Information Covers the basic principles that underlie the action of drugs on physiological processes. These principles are applied to the specific action of drugs on the autonomic nervous system. In addition, the pharmacology of cardiovascular drugs are covered in detail.

2 credits

**HBH 331 Fundamentals of Pharmacology II**

A continuation of HBH 330. Covers the action of drugs on individual systems as well as drug-drug interactions emphasizing the mechanisms of drug action. Surveys therapeutic applications and adverse drug reactions.

3 credits

**HBH 333 Principles of Pharmacology**

This course presents the basic scientific principles that underlie the mechanism of action of the major classes of various drugs and their effects on patho-physiologic processes in humans. A prototype approach is used to assist students in organizing and learning the major drug classifications. A major emphasis is placed on the development of clinical decision-making and critical thinking skills as essential components of the role of the baccalaureate-prepared registered professional nurse.

4 credits

**HBH 396 Research Project in Pharmacology**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project. May be repeated. May not be taken for credit in addition to BCP 487.

0-6 credits

**HBH 398 Research Project in Pharmacology**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project. May be repeated. May not be taken for credit in addition to BCP 487.

1-6 credits

**HBH 399 Research Project in Pharmacology**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project. May be repeated. May not be taken for credit in addition to BCP 487.

1-6 credits

**HBH 501 Principles of Pharmacology**

Basic principles and mechanism of drug distribution, absorption, metabolism and elimination. Principles of chemical carcinogenesis and tumor promotion. Autonomic, Smooth Muscle and CNS Pharmacology. Pharmacology of specific drugs of historical interest including alcohol, antibiotics, aspirin, nicotine and morphine. Review of anticoagulants & thrombolytic agents, antiparasitic, and drugs for the treatment of allergic conditions and gout. Includes discussion of specific cases taken from clinical practice and a presentation based on a set of selected readings. Crosslisted with BCP 401

Fall, 4 credits, Letter graded (A, A-, B+, etc.)

**HBH 502 Advanced Principles of Pharmacology**

Advanced concepts of drug metabolism, pharmacokinetics, biochemical and molecular mechanisms of drug action and drug resistance in human disease states. Toxicological agents and environmental pollutants. The pharmacology of autocoids, anti-inflammatories, immunosuppressants and anti-asthmatics. Rational drug design and drug receptor interactions using computer molecular modeling techniques. Includes discussion of specific cases taken from clinical practice and a presentation based on a set of selected readings. Cross-listed with BCP 402

Spring, 4 credits, Letter graded (A, A-, B+, etc.)

**HBH 505 Pharmacology to Pharmacy: Practical Clinical Aspects for Non-Clinicians (Didactic)**

This course, to be offered exclusively online, is designed for students interested in health care (either basic medical science-oriented or clinical). The class introduces many aspects of clinical pharmacology, but is geared toward non-clinicians. Clinical Vignettes and case discussions will be presented. Several medical procedures will be first described and then demonstrated. Understanding these procedures will be integral to appreciating the vignettes and clinical case discussions. The multidisciplinary course faculty will include physicians, scientists, educators, nurses and pharmacists. Enrolled students will have the opportunity to ask questions directly through online chats.

0-3 credits, S/U grading

**HBH 506 Graduate Pharmacology Colloquium**

Research seminars in pharmacology and toxicology presented by faculty and distinguished scientists from academic and industrial institutions. A 1 hr. Journal Club/Discussion Session precedes seminar to review a reference paper relevant to the research concepts to be presented. Students are expected to develop an understanding of the scientific principles given

in the colloquium. Students are required to give a formal presentation. Co-scheduled with BCP 406. Offered Spring, 2 credits, Letter graded (A, A-, B+, etc.)

**HBH 510 Practical Clinical Exposure for Translational Basic Scientists Hospital Clinical Rotations-Physician**

Course faculty will arrange two, two-week-long rotations (four weeks total). The following services are committed to participate: Anesthesiology-students will be offered opportunities in operating room (OR) observation; pre-admission patient evaluations; pain management clinic; and others depending upon availability. Internal Medicine-students will be offered opportunities in the medical intensive care unit (MICU); coronary care unit (CCU); medical oncology; and others depending upon availability. Others depending upon availability. Student will be expected to spend 3-4 hours daily in their assigned clinical activities (15-20 hours weekly; 60-80 hours for the course). In addition, they will be asked to participate in special medical exercises arranged for them on an ad hoc basis by course faculty, both in the hospital pharmacy and elsewhere. Finally all students will attend weekly case conferences, 2hr each for all 4 weeks. At these conferences, students will be asked to prepare and present two clinical cases, based on two of the patients they have seen on their clinical rotations. It is expected that each student will be responsible for at least two presentations during the four-week course. Presentations will be graded by course faculty, S (satisfactory) or U (unsatisfactory). The final grade for the course, also S or U, will be determined both by these grades as well as by overall attendance at all course activities. 0-3 credits, S/U grading

**HBH 531 Principles of Medical Pharmacology**

Basic principles that underlie actions of drugs on physiological processes with particular reference to their therapeutic and toxic actions. For medical and dental students. 5 credits, Letter graded (A, A-, B+, etc.)

**HBH 545 Biochemical Laboratory Techniques**

Introduces theoretical principles and experimental techniques used in modern biochemical research. Lectures and homework assignments explore topics in basic molecular and cellular techniques. Prerequisites: Admission to Health Sciences Center program. Fall, 1 credit, Letter graded (A, A-, B+, etc.)

**HBH 546 Biochemical Laboratory Techniques**

Continuation of HBH545. Lectures and demonstrations present topics in chromatography, mass spectrometry, protein sequencing, sedimentation, electrophoresis, ligand binding, basic pharmacological methods and statistical analysis of data. Includes procedures for the safe handling of toxic chemicals and radioisotopes. Prerequisites: Permission of instructor, admission to graduate Health Sciences Center program. Spring, 1 credit, Letter graded (A, A-, B+, etc.)

**HBH 550 Statistics in Life Sciences**

This course covers statistical concepts and issues in the life sciences. Basic algebra is assumed as a prerequisite. Topics covered include: descriptive statistics, foundation of statistical inference, sampling distribution, point estimate and confidence interval, comparison of independent and paired samples, analysis of categorical data, correlation, ANOVA, linear regression, and nonparametric test. 1 credit, S/U grading

**HBH 560 Proposal Preparation in Regulatory Biology**

A literature-based course focusing on major research areas in molecular and biochemical pharmacology. The first part of the course will expose students to a series of examples of recent grant proposals. The second part of the course will feature student presentations of their research proposals. Due to the coordination of this course with the Qualifying Exam, registration is limited to Pharmacology graduate students. Fall and Spring, 2 credits, S/U grading

**HBH 580 Selected Topics in Pharmacology**

Student seminars and readings on topics arranged through consultation with staff. 0-1 credits, Letter graded (A, A-, B+, etc.)

**HBH 585 Advanced Structural Biology/ Structural Methods in Drug Discovery**

This course is designed for students that want to gain theoretical and practical experience in macromolecular structure determination through NMR spectroscopy and/ or X-ray crystallography. The course is organized into two modules: NMR spectroscopy and X-ray crystallography. Students may elect to take one or both modules. Emphasis will be placed on practical aspects of structural determination, including sample preparation, data collection and processing. In each of the modules, students will be guided through a complete structural determination project. A final project report per module will be required. Familiarity with Linux is desirable. Students are encouraged to contact instructors prior to enrolling. Crosslisted as BSB580 and HBH585. Spring, 0-4 credits, S/U grading

**HBH 590 Pharmacology Seminars**

Advanced research seminars by staff and visiting lecturers. Fall and Spring, 0-1 credits, S/U grading

**HBH 599 Graduate Research in Pharmacological Sciences**

Original research projects under faculty supervision. Fall, Spring, and Summer, 0-12 credits, Letter graded (A, A-, B+, etc.)

**HBH 601 Practicum in Teaching Pharmacology**

Practical experience and instruction in the teaching of pharmacology carried out under faculty orientation and supervision.

Fall and Spring, 0-1 credits, Letter graded (A, A-, B+, etc.)

**HBH 631 Graduate Pharmacology I**

Basic principles of pharmacology will be discussed including pharmacokinetics and pharmacodynamics in both normal and various disease states. Major problems in human pharmacology will be considered including obesity, diabetes, hypertension and heart failure. Underlying physiology as well as pathophysiologic background will be presented. Drug design and development will be discussed from both scientific and socio-economic perspectives.

Fall and Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HBH 632 Graduate Pharmacology II**

This course introduces second-year graduate students to chemotherapy agents used to combat bacterial and viral infections as well as cancers. The course develops a detailed understanding of the strategies involved in identifying drug targets in these two diverse therapeutic settings. The antibacterial lectures emphasize the problem of drug resistance and the need to develop new agents to combat resistant organisms. The anti-cancer lectures begin with a comprehensive analysis of the molecular basis of cellular transformation leading to neoplastic disease. Lectures on cancer therapy emphasize the contrast between conventional cytotoxic chemotherapy and novel therapeutic approaches guided by recent developments in cancer research. Novel computational biology and structural biology approaches are featured throughout the course. Each student is expected to make two formal journal-club style presentations during the course and to actively participate in group discussion.

0-3 credits, Letter graded (A, A-, B+, etc.)

**HBH 655 Neuropharmacology**

An advanced course for graduate students interested in developing an understanding of neuropharmacology and research on this topic. Following a general introduction to the nerve cell structure, synaptic and chemical transmission, three themes receptors, receptors as channels, and G-protein-coupled receptors are developed. Recent advances in cell and molecular biology provide the framework for instruction and discussion. This course is offered as both HBH 655 and BNB 655. Prerequisite: Admission to Graduate Health Sciences Center Program.

Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HBH 656 Cell Biology**

Introduction to the structural and functional organization of cells and tissues and to the way structure relates to function. Particular emphasis is placed on nuclear and chromosomal structure, signal transduction, protein translocation, the cytoskeleton and the extracellular matrix. The interaction of cellular structures and components and their regulation is stressed as is the organization and interaction of cells in tissues. The course is comparative and includes examples of cells and tissues from vertebrates, invertebrates, plants, and prokaryotic systems. Prerequisite: matriculation in graduate program or permission of instructor.

Spring, 3-4 credits, Letter graded (A, A-, B+, etc.)

**HBH 699 Dissertation Research in Campus**

Original investigation undertaken as part of the Ph.D. program under supervision of thesis adviser and committee. Prerequisite: Advancement to candidacy (G5); permission of thesis advisor. Major portion of research must take place on SBU campus, at Cold Spring Harbor, or at the Brookhaven National Lab.

Fall, Spring, and Summer, 0-9 credits, S/U grading

**HBH 700 Dissertation Research off Campus - Domestic**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place off-campus, but in the United States and/or U.S. provinces. Please note, Brookhaven National Labs and the Cold Spring Harbor Lab are considered on-campus. All international students must enroll in one of the graduate student insurance plans and should be advised by an International Advisor.

Fall, Spring, 1-9 credits, S/U grading

**HBH 701 Dissertation Research off Campus - International**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place outside of the United States and/or U.S. provinces. Domestic students have the option of the health plan and may also enroll in MEDEX. International students who are in their home country are not covered by mandatory health plan and must contact the Insurance Office for the insurance charge to be removed. International students who are not in their home country are charged for the mandatory health insurance. If they are to be covered by another insurance plan they must file a waiver by second week of classes. The charge will only be removed if other plan is deemed comparable.

Fall, Spring, 1-9 credits, S/U grading

**HBH 800 Full-Time Summer Research**

Full-time laboratory research projects supervised by staff members. Summer Term. Prerequisites: Full-time pharmacology graduate status.

0 credit, S/U grading

## HBI

**HBI 398 Research Projects in Biomedical Sciences**

An independent research project under faculty supervision. Emphasizes the principles of experimental design, data collection, evaluation of findings and reporting of results. Project report required. May be repeated.

2-4 credits

**HBI 599 Graduate Research in Radiation Oncology Medical Physics**

Original research projects under the faculty supervision in areas of medical physics relating to radiation oncology.

1-8 credits, Letter graded (A, A-, B+, etc.)

# HBM

## **HBM 320 General Microbiology**

A study of the molecular structure, functional anatomy, growth, genetics, and pathogenic mechanisms of microbial agents, with an emphasis on bacteria and viruses. Non-specific and specific host defenses and the control of microorganisms will also be covered. Not for credit in addition to BIO 315. Satisfies the microbiology requirement for admission to most allied health, nursing, optometry, and veterinary medicine professional schools.  
3 credits

## **HBM 321 General Microbiology Laboratory**

Complementing the lecture material of HBM 320, this optional laboratory covers basic and applied microbiological methods. Students are introduced to methods for isolating pure cultures, microscopy and staining, quantitation of bacteria and determination of sensitivity to antimicrobial agents. This laboratory is limited to pre-allied health, pre-nursing, and pre-veterinary students. This course has an associated fee. Please see [www.stonybrook.edu/coursefees](http://www.stonybrook.edu/coursefees) for more information.  
1 credit

## **HBM 398 Research Project in Microbiology**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. Project report required. May be repeated.  
0-4 credits

## **HBM 399 Research Project in Microbiology**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. Project report required. May be repeated.  
0-4 credits

## **HBM 503 Molecular Genetics**

Introduces the classical work and current developments in lower and higher genetic systems. Covers gene structure and regulation in prokaryotic and eukaryotic organisms, mutational analysis and mapping, transposable elements, and biological DNA transfer mechanisms. Bacteriophage as well as lower and higher eukaryotic systems are used to illustrate aspects of molecular genetic structure and function. This course is offered as both MCB 503 and HBM 503. Prerequisite: matriculation in graduate program or permission of instructor  
Fall, 3 credits, Letter graded (A, A-, B+, etc.)

## **HBM 509 Experimental Molecular Genetics and Microbiology**

An introduction to modern microbiological research. The selection of laboratories is made in consultation with the student's advisory committee. By taking part in ongoing projects the student will learn experimental procedures

and techniques and become acquainted with research opportunities in the department.  
Fall, 1-8 credits, S/U grading

## **HBM 510 Experimental Molecular Genetics and Microbiology**

An introduction to modern microbiological research. The selection of laboratories is made in consultation with the student's advisory committee. By taking part in ongoing projects the student will learn experimental procedures and techniques and become acquainted with research opportunities in the department.  
Spring, 1-8 credits, S/U grading

## **HBM 522 Biology of Cancer**

A short course with the emphasis on cancer as a disease of man. Lectures address human cancer as seen by the clinician and as basic research relates to human disease. This course provides students with a link between courses in cell and molecular biology and the application of this basic information to tumor management. Offered as HBM 522 and HPH 659.  
Offered Spring  
2 credits, Letter graded (A, A-, B+, etc.)

## **HBM 599 Graduate Research in Molecular Genetics and Microbiology**

Original investigations under faculty supervision.  
Fall and Spring, 1-9 credits, S/U grading

## **HBM 640 Molecular Mechanisms of Microbial Pathogenesis**

This course covers the principles and molecular mechanisms of pathogenesis of a selected group of the best understood viral and bacterial pathogens. A major focus of the course relates to pathogen modification of host extracellular and intracellular signalling events, as well as pathogen-host interactions pertaining to the innate, humoral and cellular responses to infection. The material is presented by invited lecturers who are leaders in their fields. This course is directed to graduate students, post-doctorate and medical fellows, and advanced medical students, who are contemplating careers in infectious disease research.  
Prerequisite: HBM, BMO 503 and BMO 520  
4 credits, Letter graded (A, A-, B+, etc.)

## **HBM 690 Molecular Genetics and Microbiology Seminar**

A weekly meeting devoted to current work in the department. Enrolled students present seminars each week throughout the term.  
Fall and Spring, 0-1 credits, S/U grading

## **HBM 691 Readings in Molecular Genetics and Microbiology Literature**

Readings in microbiology literature covering areas of molecular biology and genetics.  
Fall, 1 credit, Letter graded (A, A-, B+, etc.)

**HBM 692 Experimental Methods in Molecular Genetics and Microbiology**

The goal of this course is to introduce students to the rationale underlying the wide array of new methods in biology, as well as to promote the critical analysis of scientific literature. Lectures will be given about various scientific methods and approaches, and journal articles relating to the concepts introduced will be assigned. A separate discussion section will be held to review and critique the articles, to be led by the students.

1 credit, Letter graded (A, A-, B+, etc.)

**HBM 693 Research Proposal Preparation in Molecular Genetics and Microbiology**

A course, based upon the literature in molecular genetics and microbiology, to instruct students in scientific writing and the preparation of research proposals. The course will be organized in three parts. In the first section of the course, students will become familiar with the components of the research proposal and will read and evaluate proposals written by the training faculty. Lectures given by the course co-directors will cover the basics of scientific writing, research proposal preparation and the problems and concerns commonly voiced by reviewers of research proposals. In the second section, students will develop two short proposals in the area of molecular genetics and microbiology that are unrealed to their graduate research. One of these short proposals will be selected for development into a full proposal. In the third section, students will develop and write the full proposal. The students' skills in proposal preparation will be enhanced by critiquing the short and full proposals presented by other students in the second and third sections of the course.

Spring, 1-3 credits, Letter graded (A, A-, B+, etc.)

**HBM 695 Advanced Readings in Molecular Genetics and Microbiology**

A seminar in changing topics in molecular genetics and microbiology such as virology, bacteriology, cancer biology, vaccines, drug discovery, mycology and parasitology.

1 credit

**HBM 699 Dissertation Research on Campus**

For the student who has been advanced to candidacy. Original research will be under the supervision of the thesis advisor and advisory committee.

Fall, Spring, and Summer, 1-9 credits, S/U grading

**HBM 700 Dissertation Research off Campus - Domestic**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place off-campus, but in the United States and/or U.S. provinces. Please note, Brookhaven National Labs and the Cold Spring Harbor Lab are considered on-campus. All international students must enroll in one of the graduate student insurance plans and should be advised by an International Advisor.

Fall, Spring, 1-9 credits, S/U grading

**HBM 701 Dissertation Research off Campus - International**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place outside of the United States and/or U.S. provinces. Domestic students have the option of the health plan and may also enroll in MEDEX. International students who are in their home country are not covered by mandatory health plan and must contact the Insurance Office for the insurance charge to be removed. International students who are not in their home country are charged for the mandatory health insurance. If they are to be covered by another insurance plan they must file a waiver be second week of classes. The charge will only be removed if other plan is deemed comparable.

Fall, Spring, 1-9 credits, S/U grading

**HBM 800 Full-Time Summer Research**

Full-time laboratory research projects supervised by staff members.

0-1 credits, S/U grading

## HBN

**HBN 531 Neuroscience**

## HBP

**HBP 310 Pathology**

A study of the basic mechanisms of disease and the pathophysiology of the important human illnesses. Primarily for Health Sciences Center students; others admitted with special permission.

3 credits

**HBP 393 Special Topics from Pathology Literature**

Tutorial readings in pathology, with periodic conferences, reports, and examinations arranged with the instructor. May be repeated.

1-2 credits

**HBP 394 Special Topics from Pathology Literature**

Tutorial readings in pathology, with periodic conferences, reports, and examinations arranged with the instructor. May be repeated.

1-2 credits

**HBP 398 Research Project in Pathology**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project and be able to discuss his or her work. May be repeated.

0-4 credits

**HBP 399 Research Project in Pathology**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project and be able to discuss his or her work. May be repeated. Prerequisite: Laboratory experience.  
0-4 credits

**HBP 511 Pathobiology for Graduate Health Care Practitioners**

For graduate students who have obtained primary health care baccalaureate degrees through the case study approach. Covers the underlying principles of modern experimental pathology. Focuses on the clinical aspects of the body system, including relevant underlying biochemistry, structure, or pathophysiology at the organ, tissue, cell or molecular level.  
Fall and Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HBP 533 Immunology**

Principles of immunology for graduate students in the biological sciences, including definition of antigens and antibodies, specificity of the immune response, immunoglobulin structure, the genetics of immunoglobulin synthesis, cellular cooperation in the immune response, hypersensitivity, tolerance immunogenetics. Open to advanced undergraduates.  
Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HBP 556 Laboratory Medicine**

A four-week full-time (6 hr, day) course dealing with clinical laboratory decision making and the basis for the laboratory evaluation of human evaluation of human disease. Didactic and practical presentations by interdepartmental faculty. Intended principally for senior medical students, but also for advanced microbiology or biochemistry students interested in clinical applications.  
Spring, 6 credits, Letter graded (A, A-, B+, etc.)

**HBP 590 Seminars in Immunology**

A series of monthly seminars focusing on research in progress by the participants, current journal articles in the field of immunobiology, and prepared reviews of specified areas in the general field.  
Fall and Spring, 1 credit, S/U grading

**HBP 622 Clinical Pathologic Correlations: Gross Pathology**

Correlative exercises in clinical pathology and human gross anatomic pathology including surgical biopsy material. Open to students in medical sciences.  
Fall, 1-3 credits, Letter graded (A, A-, B+, etc.)

**HBP 691 Journal Club in Pathology**

Provides students with a forum for acquiring skills involved in the critical analysis and presentation of scientific data by active participation in seminars of major topics in cellular and molecular pathology, and critical discussion of selected topics with presentation of papers from the literature.

Fall and Spring, 1 credit, Letter graded (A, A-, B+, etc.)

**HBP 966 Hematology Conference**

Teaches a given aspect of hematology, oncology or immunology. Staff from medicine, pathology, and nuclear medicine participate, and usually presents a case to introduce the subject. Various teaching aids, such as review of pathological material, are used. Primarily for health sciences professionals.  
1-3 credits, Letter graded (A, A-, B+, etc.)

**HBP 967 Tumor Conference**

Considers problems in the management of patients with a malignancy and recommendations for a course of therapy for each patient including a review of a particular aspect of cancer treatment or natural history in depth. Functions as the link between the hospital and the Eastern Oncology Cooperative Group. Primarily for health science professionals.  
1-3 credits, Letter graded (A, A-, B+, etc.)

**HBP 968 Advanced Clinical Pathologic Correlations: Gross Pathology**

Postgraduate correlative exercises in human gross pathologic anatomy that emphasize the gross pathologic basis for altered function and clinical manifestations of disease. Open to physicians and others with advanced degrees in medical sciences.  
1-3 credits, Letter graded (A, A-, B+, etc.)

**HBP 969 Anatomical and Surgical Pathology for Residents in Pathology**

To provide practical and clinical experience in tissue pathology. During the four week elective the student is given the opportunity to participate in all aspects of autopsies as well as gross and microscopic examination of surgical specimens. There is ongoing review of general and organ system pathology to reinforce structural-functional correlations. This elective is selected by students who plan a career in pathology as a "hands-on" introduction to the specialty. The elective is also chosen by others, particularly individuals who will enter radiology, and who seek to correlate radiographic and pathologic anatomy. Students who are sufficiently interested and motivated may become involved in relatively independent work-up of selected cases. Primarily for health sciences professionals.  
1-3 credits, Letter graded (A, A-, B+, etc.)

**HBP 971 Renal Clinicopathologic Correlations**

A case-oriented, postgraduate course in renal biopsy interpretation and its relationship to patient management.  
1 credit, Letter graded (A, A-, B+, etc.)

**HBY****HBY 350 Physiology**

The normal functioning of human tissues and organs and their regulation by the nervous and endocrine systems. Special emphasis is given to physiological control systems and the preservation of the constancy of the internal environment. Lectures, conferences, demonstrations. Only for Health Sciences Center students.  
4 credits

**HBY 390 Topics in Physiology**

Seminar in advanced topics taught in conjunction with HBY 350 Physiology. Only Fall.  
1 credit

**HBY 393 Special Topics from Physiology and Biophysics Literature**

Tutorial readings in physiology and biophysics and periodic conferences, reports, and examinations arranged with the instructor. May be repeated. Only Fall.  
1-2 credits

**HBY 394 Special Topics from Physiology and Biophysics Literature**

Tutorial readings in physiology and biophysics and periodic conferences, reports, and examinations arranged with the instructor. May be repeated. Only Fall.  
1-2 credits

**HBY 398 Research Project in Physiology and Biophysics**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project and be able to discuss his or her work. May be repeated. Only Spring.  
0-6 credits

**HBY 399 Research Project in Physiology and Biophysics**

An independent research project under faculty supervision, with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project and be able to discuss his or her work. May be repeated. Only Spring.  
0-6 credits

**HBY 500 Short Term Research Projects in Physiology and Biophysics**

Short term research project (rotation) under the supervision of a staff member.  
Spring, 1-12 credits, Letter graded (A, A-, B+, etc.)

**HBY 501 Physiology**

Introduces normal function of human tissues and organs and their regulation by nervous and endocrine systems. Emphasizes the organization and function of physiological control systems and the maintenance of a constant internal environment. Enrollment restricted to fully matriculated graduate students, with permission of instructor. Only Fall.  
4 credits, Letter graded (A, A-, B+, etc.)

**HBY 530 Cellular Physiology and Biophysics**

Cellular structure and function. Topics include ion channels, excitability, transport, energetics and metabolism, contraction, secretion, and communication within and between cells. Emphasizes quantitative analysis of cellular processes.  
1-3 credits, Letter graded (A, A-, B+, etc.)

**HBY 531 Medical Physiology**

A graduate-level introduction to the physiology of the organ systems with ultrastructural correlations. Ultrastructural correlations are demonstrated in a laboratory setting using histological preparations in conjunction with electron micrographs illustrating the relevant ultrastructure needed to understand the normal functioning of tissues and organs. The physiology of the major organ systems is addressed in a lecture format with the emphasis on problem solving. Relevant clinical correlations are addressed at the end of each block in so far as they illustrate how symptoms and signs of disease result from disordered physiology. Organ Systems addresses the structure and function of the cardiovascular, respiratory, renal, gastrointestinal, endocrine, skeletal, reproductive, and integumentary systems. Prerequisites: Admission to medical or dental school and permission of instructor. Only Spring.  
8 credits, Letter graded (A, A-, B+, etc.)

**HBY 554 Principles of Neuroscience**

The aim of this course is to highlight and create an understanding as to how the human nervous system operates.  
3 credits, Letter graded (A, A-, B+, etc.)

**HBY 557 Advanced Physiology**

This course is designed to introduce students to integrative approaches in biomedical research. Emphasis will be placed on the primary physiological concepts of control, communication, signal processing, metabolism and replication. Prerequisites: Systems Physiology, Biochemistry and Permission of Instructor.  
Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HBY 561 Statistical Analysis of Physiological Data**

Statistical methods useful in analyzing common types of physiological data. Topics include probability, data distributions, hypothesis testing with parametric and non-parametric methods, ANOVA, regression and correlation, and power analysis. Emphasis is on experimental design and appropriate, efficient use of statistical software.  
Spring, 1 credit, Letter graded (A, A-, B+, etc.)

**HBY 562 Model-based Analysis of Physiological Data**

The analysis of common biochemical and physiological data by non-linear regression of data models and biophysical models of physiological and biochemical processes. Examples include binding kinetics, compartmental mass transfer and spectral analysis.  
Fall, 1 credit, Letter graded (A, A-, B+, etc.)

**HBY 564 Experimental Techniques in Systems Physiology**

A series of lectures and laboratory exercises designed to introduce students to in vivo experimental techniques used in systems physiology. Emphasis will be placed on the ethical use of rodents in biomedical research and the measurement of physiological variables. Data acquisition and analysis procedures used in cardiovascular, respiratory, neural, and renal physiology will also be covered. Only 2 credits, Letter graded (A, A-, B+, etc.)

**HBY 570 Student Journal Club**

Graduate student presentation on a selected topic with faculty consultation.  
1 credit, Letter graded (A, A-, B+, etc.)

**HBY 590 Special Topics in Physiology and Biophysics**

Students seminars on topics to be arranged through consultation with faculty members. Prerequisite: Permission of instructor.  
Fall and Spring, 1 credit, S/U grading

**HBY 591 Physiology and Biophysics Research**

Original investigation under the supervision of a staff member.  
1-12 credits, Letter graded (A, A-, B+, etc.)

**HBY 690 Seminar in Physiology and Biophysics**

Seminars and discussions on major topics in physiology and biophysics by students, staff, and visiting scientists. Prerequisite: Permission of instructor  
0-1 credits, S/U grading

**HBY 695 Practicum in Teaching in Physiology and Biophysics**

Practical experience and instruction in the teaching of physiology and biophysics carried out under faculty orientation and supervision.  
1 credit, Letter graded (A, A-, B+, etc.)

**HBY 699 Dissertation Research on Campus**

Original (thesis) research undertaken with the supervision of a member of the staff. Prerequisite: Advancement to candidacy (G5); permission of thesis advisor. Major portion of research must take place on SBU campus, at Cold Spring Harbor, or at the Brookhaven National Lab.  
1-9 credits, S/U grading

**HBY 700 Dissertation Research off Campus - Domestic**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place off-campus, but in the United States and/or U.S. provinces. Please note, Brookhaven National Labs and the Cold Spring Harbor Lab are considered on-campus. All international students must enroll in one of the

graduate student insurance plans and should be advised by an International Advisor.  
1-9 credits, S/U grading

**HBY 701 Dissertation Research off Campus - International**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place outside of the United States and/or U.S. provinces. Domestic students have the option of the health plan and may also enroll in MEDEX. International students who are in their home country are not covered by mandatory health plan and must contact the Insurance Office for the insurance charge to be removed.  
1-9 credits, S/U grading

**HBY 800 Full-Time Summer Research**

Full-time laboratory research projects supervised by staff members.  
0 credit, S/U grading

## HCB

**HCB 501 Compassionate Care, Medical Humanities, and the Illness Experience**

This course will introduce students to major interpretations of the illness experience, to several classical biographical and autobiographical accounts of illness, and to the important dynamic of compassionate care in the healing relationship. The patient-as-person will be emphasized throughout, as well as the ways in which respect for and empathy toward the patient impacts diagnostic accuracy, patient adherence, and patient and professional satisfaction. Some emotional dynamics of the illness experience will be addressed, such as hope, through the work of eminent physician-writers such as Jerome Groopman, MD. The dynamics of medical mistakes and forgiveness will be explored through psychiatrist Aaron Lazarre's influential writings on effective medical apologies. Some philosophical and metaphysical aspects of personhood and self-identity will be introduced.  
Offered in Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 502 Landmark Cases in Bioethics**

What is a life worth living? How do we decide, and who decides, when to use medical technologies such as incubators, ventilators, transplants and reproductive technologies? This is an intensive introduction to some of the cases in medical ethics that have changed the ways that we are born, cared for, and die in American hospitals. Examples of topics include: vaccination and public health; eugenics and human subjects research ethics; the right of privacy and health care; end-of-life planning and treatment; women's bodies and fetal rights; disability rights; religious beliefs and health care; triage and allocation of scarce resources; mental illness and individual rights; global clinical trials; and, bioethics and culture.  
Offered in Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 503 Traditions and Values in Bioethical Conflicts**

This course serves as an introduction to Western moral and religious traditions and to the positions about killing, saving, and enhancing that these traditions have informed. It explores the interface between religion and biomedical ethics and then delves into specific issues in health care in light of more general normative concerns such as justice, love, autonomy and rights, utilitarianism, self-sacrifice, gender, virtue, and community. The issues with which the course deals address the plights of real people, in the concrete, who come from particular backgrounds and whose set of values may make them sometimes recalcitrant to possibilities that technology has made (or is just now making) available.  
Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 504 Special Topic in Biotechnology**

Just because we can do it, does this mean that we should do it? This course takes a focused look at controversial practices in health care settings, such as organ donation and enhancements, which have been (and are continuing to be) made available with the advancement of technology. Ought we to regard that which technology makes available as uncontroversially good? If not, why not? What sorts of new issues regarding distributive justice, autonomy, utility, and compassion are ours to consider carefully because of the changing world in which we live?  
Offered in Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 510 Literature, Compassion, and Medical Care**

How does literature help us understand the nature of human illness and suffering? Can written works of art, ancient and contemporary, that depict moments of compassion and compassionate acts lay bare the moral, spiritual, psychological, and physical reality of suffering? There is a long association between literature and medicine, from the viewpoint of physician-writers, such as Anton Chekhov and William Carlos Williams, whose literary skills have eclipsed their medical backgrounds. Sherlock Holmes and Doctor Watson were the creations of a physician-writer, Arthur Conan Doyle. Physicians portrayed in literature, such as Dr. Bernard Rieux, in Albert Camus *The Plague*, have also explored the relationship between patient and doctor, the nature of healing. This semester-long course will study these relationships through reading of poetry, drama, fiction, memoir, and essay and reflect on the nature of suffering, the intrinsic human need for compassion, and the implications for health and healing.  
Offered in Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 511 Bioethics, Disability & Community**

Most people will experience disability at some point in their lives, and for some it will shape their social, personal, family, educational, and employment experiences. Viewpoints on disabilities which have emerged in policy and the broader culture have been explicitly challenged by emerging communities of people with disabilities who seek to speak for themselves and claim full inclusion in society. In this context, bioethicists and disability scholars have found points of both common cause and stark disagreement over issues such as neonatal and end-of-life care, the value and

values inherent medical decisions and their outcomes. These bioethical debates occur in the context of debates over the rights of individuals with disabilities to self-determination, accommodations for work and schooling, and the potential for people with disabilities to make unique contributions because of--rather than despite--their disabilities. This course will consider major debates in bioethics in light of recent scholarship in disability studies, drawing on perspectives from philosophy, literature and narrative, history, and sociology.  
Offered in Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 512 Altruism and Bioethics**

What is altruism, and what are its evolutionary roots as a moral dynamic? What impact does altruistic action have on the human agent? Does it impact flourishing and health? When is it experienced as overwhelming by medical professionals? Where does altruism fit within medical and nursing professionalism? How is it related to compassionate care? What about the duty to treat in time of epidemic, auto-experimentation, pro-bono medical treatment, high-risk provision of healthcare in time of conflict, healthcare activism, and the commitment to the patient's good as a guiding professional ideal? How does the practitioner strike a balance between the care of patients and the care of the nearest and dearest or the care of the self? How does altruism correlate with pro-social behavior, happiness, and health?  
Offered in Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 513 Disease and Society**

What is disease? How do the beliefs, politics, and economies of particular societies shape how diseases are defined, experienced, and treated? In this seminar, students will explore these questions by analyzing historical documents, scientific reports, and historical scholarship. We will look at disease from multiple perspectives as a biological process, clinical entity, population phenomenon, historical actor, and personal experience. We will pay special attention to how diseases have been recognized, diagnosed, named, classified and counted in different times, places, cultures, and settings based on different environmental and social conditions, medical ideas, diagnostic technologies, and available treatments. The course will begin with a review of major approaches to understanding the manifold relationships between disease and society. The remainder of the course will view disease and society relationships through the lens of specific issues, such as epidemic disease, consumption and affluence, globalization, and risk.  
Offered in Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 514 Global Bioethics**

Bioethics is an American invention. Ideas about medicine and morality, of course, go back to antiquity and are documented as medical ethics in Europe, medical morality in China, and under many other names in cultures around the world. Recently, the process of globalization of ideas, medical practices, clinical trials, and migration of patients has led to clashes of culture around issues such as the appropriate standards and control groups for clinical trials, organ transplantation, brain death, and end-of-life care. Issues of religion, morality, public policy, disability rights and policy, and health system structure and payment all shape how

particular societies decide to manage divisive issues such as the beginning and end of life. This course will draw on a growing literature on global and transnational cases, policies, and traditions in the ethics of health, public health, and health care.

Offered in Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 515 Health Policy, History & Ethics**

Who gets sick? Who gets health care, what kind, and in what setting? This course covers the major health policy issues of the United States today, including the health status of the U.S. as a whole, the social and economic determinants of health, the role of personal and public health services in affecting health, the organization and financing of health services, and the multiple factors affecting health policies. We will explore the evolution of the US health care system in the past century, and debates about rights to health care or lack thereof, health disparities, conflicts of interest, and the ethics of health policy and practice.

Offered in Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 516 Ethical Issues in Human Reproduction**

New technologies have modified human reproduction in numerous ways, raising profound questions about the moral status of human life and the nature of parental and sibling obligations. This course will investigate the values that attach to different relationships, both familial and general. It will cover questions around the treatment of infertility, surrogate mothering, the commodification of the body, and the elevated expectations of familial obligations that correspond to new reproductive technologies.

Offered in Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 517 The Problem of Evil: Philosophical, Biological, and Social Dimensions**

What is the nature of evil? Can it be the result of brain malfunction, something that is genetically predetermined? Or, is evil something which is part of or at least necessary to know the good? Alternatively, is evil an arbitrary designation, a perspective from which we can wrest ourselves given the right sort of reinvention? In this class, we shall address the problem of evil from scientific, social-scientific, and philosophical perspectives, using fiction and non-fictional sources. Examples of medical evil, such as the Nazi doctors or Tuskegee, can be introduced as case studies.

Offered in Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 518 Empirical Bioethics**

The formal study of bioethics attempts to define ethical courses of action in a world ever increasing in complexity. But in day to day practice, ethical outcomes are expressed through the individual decisions and resulting actions--of human agents. How do individuals form these judgments? How do people become motivated to engage in behaviors that are designed to benefit someone else? We will explore current scientific approaches to these questions with several areas of emphasis, including a) the neuroscience of compassionate care and altruism, b) cognitive and neuroscientific approaches to understanding judgment and decision making in ethical

domains, and c) empirical approaches to quantifying the effects of ethically based policy decisions.

Offered in Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 519 Public Health Law**

This course is a survey of legal and policy issues that have special relevance for public health professionals. Topics may vary, but typically will include many of the following: structure of the U.S. legal system; power of state and federal governments in matters affecting health care; governmental power and the right to privacy; constitutional issues in social welfare benefits; governmental regulation of health care providers and payers; the scope and discretion of administrative agencies in health care; the antitrust laws; the fraud and abuse laws; and negligence in the delivery and financing of health care. The course is taught primarily by Socratic method.

Offered in Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 520 Bioethics and Film**

Film and television, both fiction and nonfiction, capture many of the human tragedies, challenges, and possibilities that are debated in bioethics books, articles, newspapers, on hospital ethics committees, and in daily clinical care. This course will explore themes of birth, death, hope, fear, faith, finitude and resource allocation through watching, analyzing, and reading about bioethics issues in visual media. The course will draw on material from philosophical ethics to history, health policy, and film criticism to place these issues and their portrayals in context.

3 credits, Letter graded (A, A-, B+, etc.)

**HCB 521 Clinical Ethics Practicum**

As difficult as settling abstract ethical issues in medicine may be, the delivery of ethical care presents its own set of difficulties. This course aims to introduce students to the practices hospitals employ to ensure the care they deliver meets the relevant legal and moral requirements. At the end of this course, students will have been exposed to many basic, and some advanced, aspects of clinical ethics theory and practice. They will be able to identify, describe, and analyze ethical dilemmas in clinical cases, and will develop an appreciation for the complexity and multi-disciplinary nature of ethical dilemmas in clinical medicine and will be able to apply what they have learned to assess ethical, social, and legal aspects of cases.

3 credits, Letter graded (A, A-, B+, etc.)

**HCB 522 The Role of Virtue Ethics in Medicine**

Aristotle's Nicomachean Ethics and the role of virtue ethics are central to many religious traditions including Buddhism, Christianity, Confucianism, and the philosophical traditions. Key virtues include honesty, courage, generosity, prudence, justice, compassion, benevolence, loyalty, and hospitality. This course explores the real and potential role of virtue on the development of virtuous physicians. The course's texts offer two diametrically opposed views on the role of virtue in medicine, i.e., one is that virtue can be channeled into the training of medical professionals, whereas the other is that bioethics has extracted virtue from medicine. Through

readings, documentaries, dialogue and active leadership of sessions by students, the course will interrogate the claims as well as possibilities for a role of virtue in medicine.

3 credits, Letter graded (A, A-, B+, etc.)

**HCB 523 Special Topics in Medical Humanities**

As with all multidisciplinary pursuits, the medical humanities project is characterized by an ongoing negotiation among its practitioners over methods, scope and goals. This course will examine, in detail, one of the latest debates within the field. 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 524 Special Topics in Bioethics**

Bioethicists are frequently asked to consider the ethical ramifications of new research findings and emerging technologies as they arise. This course will examine one such issue in close detail. 3 credits, Letter graded (A, A-, B+, etc.)

**HCB 598 Independent Study**

3 Credits, ABCF Grading  
0-4 credits, Letter graded (A, A-, B+, etc.)

**HCB 599 Special Projects Capstone Course**

This course, to be offered in the second (spring) semester, is designed to satisfy the special projects requirement of our program. The first part of the course will be devoted to readings and discussions that further illuminate the methodologies of the interdisciplinary field of medical humanities, compassionate care, and bioethics. Students will develop an appreciation for the standards of high quality scholarship and research through review of carefully selected readings. This will prepare them for the second part of the course, where they pursue and present their own research based on the existing literature. This capstone course will be highly collaborative, entail substantial peer review, and be organized around the development of significant student projects which are intended to represent the beginnings of publishable papers. Our entire faculty will be involved in these projects according to their specific areas of expertise. Offered in Spring, 3 credits, Letter graded (A, A-, B+, etc.)

## HD

**HD 495 Research Fellowship for Entering Dental Students**

This course is a research fellowship program designed for students who have been accepted into the DDS program and will matriculate in the fall semester. The students in the fellowship program will work closely with their mentor to carry out a literature review, develop a research study design and/or participate in an ongoing study. The students will be required to formulate a specific aim and a hypothesis based on a research question. They are also required to present a poster or oral presentation from their results, based on the literature and on preliminary data from their research at the annual Student Research Day. 0 credit, S/U grading

## HDC

**HDC 601 Children's Dentistry I**

This course offers an introduction to pediatric dentistry and orthodontics taught in units of growth and development in preparation for clinical responsibilities and general practice. The course consists of lectures, problem-based discussions, Simulation Laboratory exercises, and self-learning/assessment programs on Blackboard. 0 credit, Letter graded (A, A-, B+, etc.)

**HDC 621 Year II Children's Dentistry Clinic**

Provides clinical experience for the preventive, interceptive, corrective, operative, surgical treatment of children. Faculty supervision. 45 course hours. Prerequisite: HDC 601 Laboratory Component 0 credit, Letter graded (A, A-, B+, etc.)

**HDC 701 Children's Dentistry II**

Advanced Seminars in Children's Dentistry builds on the foundation of Comprehensive Pediatric Oral Health and allows students to build competence and confidence through active learning and case based presentations. The four didactic units are behavior management, special needs patients, orthodontic diagnosis, and trauma management. Prerequisite: HDC 601 0 credit, Letter graded (A, A-, B+, etc.)

**HDC 721 Year III Children's Dentistry Clinic**

Year III Children's Clinic is a full year clinical experience in pediatric dentistry through patient care in the Dental Care Center's Pediatric Dental Clinic. Students will perform the full range of pediatric procedures, advanced behavior management, and fabricate orthodontic appliances. Prerequisite: HDC 621 0 credit, Letter graded (A, A-, B+, etc.)

**HDC 821 Year IV Dental Care for the Developmentally Disabled Clinic**

Persons with developmental disabilities often present with medical and behavioral issues which require treatment planning skills that differ from management of the "well" patient. This course teaches the provision of comprehensive dental care for the developmentally disabled individual. Students learn to assess the risks to oral disease, develop treatment plans appropriate to the developmentally disabled patient's profile and provide treatment in a clinic setting, learning specific behavioral modification and management techniques. The course consists of lectures and clinical experience. 0 credit, Letter graded (A, A-, B+, etc.)

## HDE

**HDE 611 Endodontic Technique**

This course focuses on the biology and pathology of the pulpal and periapical tissues. A particular concentration is placed on the basic principles of endodontic procedures

aimed at diagnosis and management of pulpal and periapical pathology. The application of endodontic procedures is performed on mounted simulated teeth, simulating clinical situations.

0 credit, Letter graded (A, A-, B+, etc.)

**HDE 615 Introduction to Endodontics**

The goal of this course is to provide the student with knowledge of classic and contemporary endodontic science. Students will develop an overall understanding of endodontic pathosis, its diagnosis, as well as management.

0 credit, Letter graded (A, A-, B+, etc.)

**HDE 725 Year III Endodontics Clinic**

This course is designed to give students hands on experience in diagnosis, radiographic interpretation, endodontic anesthesia, and management of patients with pulpal and periradicular diseases. The selection and use of endodontic instruments and materials are demonstrated and discussed during clinic sessions.

0 credit, Letter graded (A, A-, B+, etc.)

## HDG

**HDG 299 Introduction to Research in General Dentistry**

This course provides an introduction to research in general dentistry with initial training in study design, and clinical and/or laboratory procedures, under the guidance of a faculty member in the Department of General Dentistry. May be repeated up to a maximum of 12 credits.

0-3 credits, S/U grading

**HDG 399 Supervised Research in General Dentistry**

This course provides training in clinical and/or laboratory techniques and procedures used in dental research, under the direct supervision of a faculty member in the Department of General Dentistry. May be repeated up to a maximum of 12 credits.

0-6 credits, S/U grading

**HDG 499 Independent Research in General Dentistry**

This course is for students interested in carrying out independent research projects under the auspices of a faculty member in the Department of General Dentistry. The student must propose, design, and carry out the research project, as well as analyze and write up the results in a form acceptable to the sponsor.

0-6 credits, Letter graded (A, A-, B+, etc.)

**HDG 511 Dental Morphology and Occlusion**

This module emphasizes tooth morphology and basic concepts of dental occlusion. It includes both theoretical and practical involvement. The course incorporates tooth identification, waxing/carving techniques, and digital scanning with CAD/CAM.

0-3 credits, Letter graded (A, A-, B+, etc.)

**HDG 512 Operative Dentistry I**

HDG 512 is a pre-clinical course in operative dentistry. This course introduces basic principles and techniques of tooth preparation as well as restoration of a tooth structure damaged by caries, fractures or trauma, with direct restorative materials. This course also introduces variations of tooth preparations based on the extent of the lesion, the restorative materials selected, and functional and/or esthetic requirements.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 521 Clinical I: Introduction to Patient Care**

The purpose of this course is to reinforce foundation knowledge with an introduction the dental clinical setting. The students will be paired with an upper class student and have opportunity to practice the clinical procedures they learned in the prerequisite course, Patient I, as well as observe many procedures within the whole spectrum of dentistry. In addition, the course will reinforce doctor-patient management and communication practices discussed in Patient I within a patient-centered treatment model.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 522 Cariology**

Cariology is a preclinical course taught in Year 1. This course introduces basic principles of cariology such as caries etiology and progression, different methods of diagnosis and classification of lesions. This course also focuses on control of caries progression, describing home and office fluoride treatment, dietary control, oral hygiene, patient education and motivation. Surgical treatment is introduced in this course as concepts and practical exercises of caries removal with hand and rotary instruments in extracted teeth. Caries Management by Risk Assessment (CAMBRA) is presented in this course based on a critical discussion of risk indicators, risk factors, destructive and protective factors associated with caries to determine interventions.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 601 Health Care Systems and Clinical Practice**

The course is to serve as an introduction to the organization and component aspects of the health care delivery system of this country, as well as an awareness of professional ethics and responsibilities. The course focuses on competencies related to practice management, health systems (standards 2-17, 2-18, 2-19) and ethics and professionalism (standard 2-20). The course consists of 28 hours of lectures and debates. The course introduces the factors that affect the quality of health services, the multiple practice arrangements for the delivery of health services, including concepts of an office team and office system, and the many government and community agencies that affect practice arrangements in providing health and social services. This is followed by an introduction to the general principles of insurance, health insurance and other forms of insurance. In addition, the legal concepts and issues affecting patient care are considered. These many issues are brought together in a series of student

debates to review current dental, general health and social issues.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 614 Operative Dentistry II**

This course focuses on conservative esthetic treatments, indirect esthetic posterior preparations and cementation, and CAD/CAM technology. Prerequisites: HDG 512, HDI 505, HDG 521, and good standing as a Year I student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 621 Year II Operative Dentistry Clinic**

HDG 621 is the student's introduction to the General Dentistry Clinic and patient treatment in operative dentistry. This course focuses on patient-centered comprehensive Operative Dentistry. It is designed to prepare students to practice operative restorative dentistry by providing experiences in adult patient oriented care. Students develop the skills necessary to perform simple, comprehensive restorative dentistry in a preventive general practice environment. Emphasis is on the development of clinical critical thinking skills necessary for advancement. Students will work with faculty dentists and all sessions involve direct patient care, including the formulation of simple treatment plans, the placement of simple operative restorations and the administration of local anesthesia. The successful completion of a patient Operative diagnosis/treatment planning competency, CAMBRA competency, and a patient based caries removal competency examinations are requirements for advancement. Prerequisites: HDG 512, HDG 521, HDI 505, and good standing as a Year II student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 704 Practice Development I**

This course is designed as the introduction to Clinical Practice Management. A series of 2 hour lectures will present the introductory concepts for developing a business plan for a successful dental practice. In addition, this course is designed to instruct the student to utilize and train dental auxiliary personnel in order to practice dentistry in an efficient and productive manner. Techniques of four-handed dentistry, infection control, patient management, and duty delegation will all be blended to provide a format for dental practice which is ergonomically sound. The concepts discussed will build upon those presented in the Health Care Systems courses and will provide foundational knowledge and skills necessary to obtain competency in the Year 4 Clinical Practice Management II course.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 706 Implantology**

This course focuses on the utilization of the osseous integrated implant in routine clinical practice. Students will learn the theory of osseous integration to bio-acceptable materials. They will learn how to treatment plan prospective cases utilizing clinical examinations, study models and radiographs including computerized tomography. Students will learn the fabrication of radiographic and surgical stents. Students will have the full surgical techniques explained for partially edentulous patients. The general dentist is capable of restoring many of the implant prosthesis. Students will learn

many of the techniques needed to restore the various oral scenarios as well as the selections criteria for the appropriate treatment. Overall, this course is designed to prepare the general practitioner to serve as the team leader in the osseous integrated prosthesis oral restoration.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 721 Year III Operative Clinic**

This course focuses on patient-centered comprehensive Operative Dentistry. It is designed to prepare students to practice operative restorative dentistry by providing additional experience in adult patient oriented care. Students develop the skills necessary to perform comprehensive restorative dentistry in a preventive general practice environment. Emphasis is on the development of clinical judgment and expertise through experience of a wide range of clinical procedures. Students will work with faculty dentists and perform the full range of operative dental procedures, including diagnosis, treatment planning, consultation, comprehensive operative restorative treatment, basic patient management skills and basic communication skills. Prerequisites: HDG 621, good academic standing as a Year II student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 803 General Dentistry Seminar IV**

This course is designed to evaluate the student's ability to access, critically appraise, demonstrate applicability, and communicate scientific and lay literature as it relates to the provision of evidence-based general dentistry. Using skills attained in HDI 601, and three years of clinical practice experience the students will select, research, and present a current topic to their peers and an interdisciplinary panel of faculty members. The topics selected will cover a range of subjects that affect the practitioner's daily performance and are critical to the practitioner's knowledge base. The course will also serve to provide the students with further experience in researching, preparing, and presenting to their colleagues.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 804 Practice Development II**

Practice Development II consists of two main components. The first component is a lecture series designed to provide the student with an in-depth understanding of practice management concepts introduced in Practice Development I. The second component to this course is a group project and presentation. The class is divided into 20 groups, with each group to present an assigned topic. The topics cover a spectrum of issues/concepts necessary to start and operate a successful private practice.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 805 Care of Medically Compromised and Geriatric Patients**

The didactic and clinical components of the Year IV course Care for the Medically Compromised Patient HDG 805 gives instruction and practice in managing the unique needs of the medically frail elderly. Students will also have unique interprofessional educational experiences focusing on health promotion and disease prevention in medically complex and geriatric patients. The didactic component of HDG-805

consists of small group discussion with quizzes related to the assigned readings. The course provides the pre-doctoral dental student with the knowledge necessary to deliver dental care for the medically complex older adult.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 821 Clinic IV: General Practice Program I**

The General Practice Program is the major clinical experience of the dental students during their fourth year. The course is designed to prepare the student for the practice of general dentistry after graduation. It integrates all disciplines of dentistry. Students work with general dentists and are referred to dental specialists in a mode that resembles the private practice of dentistry. Students are assigned responsibility for patients whom they treat comprehensively. The General Dentistry faculty supervise all aspects of care. They direct the students to seek consultation from specialist dentists in developing plans of treatment and in delivering aspects of care as appropriate for individual students and patients. Principles of basic science, medicine and dentistry are integrated. Prerequisites: HDG 721 and good standing as a Year IV student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 822 Clinic IV: General Practice Program II**

The General Practice Program is the major clinical experience of the dental students during their fourth year. The course is designed to prepare the student for the practice of general dentistry after graduation. It integrates all disciplines of dentistry. Students work with general dentists and are referred to dental specialists in a mode that resembles the private practice of dentistry. Students are assigned responsibility for patients whom they treat comprehensively. The General Dentistry faculty supervise all aspects of care. They direct the students to seek consultation from specialist dentists in developing plans of treatment and in delivering aspects of care as appropriate for individual students and patients. Principles of basic science, medicine and dentistry are integrated. Prerequisites: HDG 721 and good standing as a Year IV student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDG 824 Year IV Clinical Management of Dental Emergencies II**

The fourth year dental student will be assigned rotations to the Urgent Care Center to attain clinical experience in the ability to triage, differentially diagnose, treat and/or refer patients who present themselves with dental and/or orofacial emergencies. Students will treat patients under the supervision of assigned faculty. Consultation with Specialists and /or referrals will be made when necessary.

0 credit, Letter graded (A, A-, B+, etc.)

## HDH

**HDH 301 Independent Readings and Research**

The student conducts his or her research project under the supervision of one or more members of the Department of Dental Health. The student is expected to submit a written report detailing his or her research activities and conclusions. This course is offered for undergraduate students who demonstrate an interest in the health care delivery system of the United States.

3 credits

## HDI

**HDI 501 Foundations in Dental Professional Development I**

This course is the first of a series of four yearly offerings that are designed as a vertically integrated stream within the predoctoral dental curriculum. As a continuum, the four courses build on competencies related to professionalism and ethics (CODA predoctoral standards 2-20-2.22). This first year course will feature interactive lectures, panel discussions, case-based teaching, required readings and journal reflection. The course will meet four times over the academic year. Principal course content areas will include: 1) defining the roles of "doctor" and "professional;" 2) honesty and academic integrity; 3) formative moments of a doctor; and 4) general ethical principles related to health care and patients (beneficence, nonmaleficence, autonomy, justice and veracity).

0 credit, S/U grading

**HDI 505 Patient I: Communication and Examination**

The purpose of this course is to provide students with an introduction to patient-centered clinical dental care. The first unit focuses on communication strategies and developing rapport, and introduces students to psychosocial factors that influence the etiology, diagnosis, and treatment of oral diseases. The second unit provides an introduction to the clinical setting with instruction in electronic record, patient charting, infection control procedures, and HIPPA and OSHA policies. Simulation sessions will provide students the opportunity to practice clinical procedures and protocol and prepare them for patient care in the Clinic I course.

0 credit, S/U grading

**HDI 601 Evidenced Based Dentistry and Critical Thinking**

This course consists of eight 2 hour learning modules designed to develop in dental students the basic skills needed to recognize the quality of evidence and journals it is published in, to carry out evidence-based analysis of the literature; to formulate hypotheses and design, analyze data, and give an effective power point presentation. Each module will begin with a brief 15 minute power point orientation by the facilitator, followed by student participation in small groups, lead by a student group leader, selected by the group.

0 credit, Letter graded (A, A-, B+, etc.)

**HDI 602 Year II Research Selective**

This course is a lab-, clinic- or IT-based practical course that begins in the summer of Year II (as students transition from Year I to Year II). There will be a formal selection process, based on academic eligibility, administered by the Office of Research and Faculty Development, in conjunction with Academic Dean's office and the Academic standing committee. Students will be selected in April and May preceding the summer. Participants, with the assistance of the Office of Research and Faculty Development, will obtain necessary regulatory approvals/training to conduct human, animal research or handle biohazardous materials. Students will choose a lab and mentor from among a list provided by the Office of Research and Faculty Development and spend approximately 2 months in the summer and continue into year 2, to carry out a clearly defined research project.  
0 credit, S/U grading

**HDI 604 Foundations in Dental Professional Development II**

This course is the second in a series of four courses that focus on competencies related to professionalism and ethics (CODA predoctoral standards 2-17 and 2-20). The course will feature formal lectures, small group discussions, case-based teaching, and journal reflection and will meet two times per semester (approximately 1.5 hours per session). The topics to be included in the course are: 1) the impact of culture on the Doctor-Patient Relationship; 2) the historical development of bioethics; 3) medical mistakes; and 4) ethics related to research involving human subjects.  
0 credit, S/U grading

**HDI 605 Patient II: Team-Based Oral Diagnosis**

"Patient II" expands on the knowledge and skills acquired in the "Patient I" course, and provides a solid foundation for Diagnosis and Treatment Planning skills throughout the predoctoral curriculum. The course will focus on competencies related to behavioral sciences (standards 2-15 and 2-16), biomedical sciences (standard 2-13, 2-14), critical thinking and problem-solving (standard 2-9), practice management and health care systems (standard 2-19), and clinical sciences (standard 2-22, 2-23a, b, c, d, k, m). The course will consist of lectures, seminars, and small group sessions.  
0 credit, Letter graded (A, A-, B+, etc.)

**HDI 612 Community I: Population, Oral Health and Epidemiology**

This course is part of a major, vertically integrated stream within the four-year predoctoral dental curriculum (patient and community-centered care). The course will focus on those competencies related to epidemiology (2-13, 2-15, 2-21, 2-23d). The course will feature interactive lectures and small group discussion seminars.  
0 credit, Letter graded (A, A-, B+, etc.)

**HDI 704 Foundations in Dental Professional Development III**

The course utilizes interactive lectures and small group activities to illustrate various ethical and professional dilemmas faced by dental practitioners. Guest lectures with expertise in ethics and professionalism will provide an

introduction to the core principles underlying ethical behavior and conduct. A model of ethical decision making will be presented followed by opportunities for the analysis of various case situations important to dental and medical practice.  
0 credit, S/U grading

**HDI 705 Patient III: Interdisciplinary Treatment Planning**

The skills of developing and delivering a comprehensive treatment plan is an essential step in providing care to patients. This course expects each student to develop and present a comprehensive treatment plan to his/her fellow students and faculty. The student is expected to consider the existing medical, dental, psychological, and financial considerations including the patient's desires in formulating diagnoses, etiology, prognosis, and treatment plan options. These skills will be tested to competency using standardized cases in the Comprehensive Treatment Planning Competency.# In addition, the ability to communicate with the patient and deliver a treatment plan will be tested to competency in a videotaped standardized patient encounter. The Health Science Simulation Center utilizing scripted patient #actors# offers a unique platform for this educational experience.  
0 credit, Letter graded (A, A-, B+, etc.)

**HDI 732 Community II: Service Learning Experience**

The student will participate in the delivery of dental health care services appropriate to the site and the experience level of the student. The student will be exposed to and interact with patients who may have diminished access to health care due to socioeconomic or cultural backgrounds, medical conditions, or disabilities. Depending on the site, students may be immersed in a culture that is unfamiliar to them.  
0 credit, Letter graded (A, A-, B+, etc.)

**HDI 802 Diagnosis and Management of Oro-Facial Pain**

A series of lectures/seminars focusing on differential diagnosis and treatment of facial pain.  
0 credit, Letter graded (A, A-, B+, etc.)

**HDI 804 Foundations in Dental Professional Development IV**

The course utilizes small group activities to illustrate various ethical and professional dilemmas faced by dental practitioners. This course continues Foundations in Dental Professional Development III where students were provided with an introduction to the core principles underlying ethical behavior and conduct. Students will meet (four class sessions) with members of the American College of Dentists where there will be opportunities for the analysis of various case situations important to dental and medical practice. The course concludes with a competency examination where students will independently evaluate a case utilizing the model of ethical decision making presented in Foundations in Dental Professional Development III.  
0 credit

**HDI 806 Year IV Elective Ethics and Professionalism**

The seminar will address pressing ethical/professional challenges concerning the delivery of health care and profession of dentistry in the 21st century. It will be structured as an advanced introduction to professional dental ethics designed to afford the interested senior student an opportunity to meaningfully discuss and seek a reasoned position on an assortment of challenging ethical issues currently facing our profession. Selections from the current literature and relevant case studies will be utilized.  
0 credit, S/U grading

**HDI 832 Community II: Service Learning Experience**

The student will participate in the delivery of dental health care services appropriate to the site and the experience level of the student. The student will be exposed to and interact with patients who may have diminished access to health care due to socioeconomic or cultural backgrounds, medical conditions, or disabilities. Depending on the site, students may be immersed in a culture that is unfamiliar to them.  
0 credit, Letter graded (A, A-, B+, etc.)

**HDI 840 Year IV Children's Dentistry Selective**

Clinical observation and self-study experience to gain an understanding of the operations of the CFPC Center and patient management of children born with craniofacial and cleft palate deformities by various specialists of the CPT.  
Prerequisite: HDC 721  
0 credit, S/U grading

**HDI 842 Year IV Endodontics Selective**

This course allows students to expand upon the foundations of endodontology taught in Years II and III. Four Year IV students are selected who have successfully completed Introduction to Endodontics, Endodontic Technique, and Year III Endodontic Clinic. Students are exposed to advanced concepts in endodontic science with particular focus on evidence based literature supporting these concepts. Students are also provided opportunity to manage endodontic patients utilizing technology seen in the contemporary endodontic operatory (e.g. surgical operating microscope, active irrigation, rotary instrumentation, ultrasonic instrumentation, warm obturation techniques).  
0 credit, S/U grading

**HDI 843 Year IV Oral and Maxillofacial Surgery Selective**

The senior selective in oral and maxillofacial surgery offers the student opportunities to perform more complex oral and maxillofacial surgical procedures, and to assist oral and maxillofacial surgery attendings and residents in advanced procedures in the clinic, emergency room, and operating room settings.  
0 credit, S/U grading

**HDI 844 Year IV Orthodontics Selective**

Advanced selective course in the treatment of dental malocclusions.  
0 credit, S/U grading

**HDI 845 Year IV Periodontics Selective**

The Selective in Periodontics exposes the 4th year dental students to advanced topics in periodontology. The students will read and be prepared to discuss selected periodontal articles, literature reviews, and clinical reports and critically analyze the findings with the assigned faculty. The students will have the opportunity to attend surgical seminars at the postdoctoral level and to perform limited periodontal surgical procedures under direct faculty supervision. The selective students will also gain teaching experience by participating in the pre-clinical exercises of the second year dental students, teaching periodontal probing, scaling and root planing and ultrasonic instrumentation.  
0 credit

**HDI 846 Year IV Research Selective**

This course is a lab-, clinic- or IT-based practical course that begins in the summer of year 4 (as students transition from year 3 to year 4). There will be a formal selection process, based on academic eligibility, administered by the Office of Research and Faculty Development, in conjunction with Academic Dean's office and the Academic standing committee. Students will be selected in April and May preceding the summer. Participants, with the assistance of the Office of Research and Faculty Development, will obtain necessary regulatory approvals/training to conduct human, animal research or handle biohazardous materials. Students will choose a lab and mentor from among a list provided by the Office of Research and Faculty Development and spend approximately 2 months in the summer and continue into year 4, to carry out a clearly defined research project. The summer will be devoted to developing the skill-set needed for the project and will continue throughout the year, culminating in a Research Presentation on Student Research Day, during the spring semester. The quality of the presentation will be judged by peers and by faculty attending. There will be a 1st, 2nd & 3rd place awards.  
0 credit

**HDM****HDM 601 Professional Responsibility I**

Ethical and legal considerations in the practice of dentistry. The Dental Care Center is used as the practical laboratory for practice management. Ethics management law, and compliance with the rules of the clinic are monitored by faculty. 6 hours  
0 credit, Letter graded (A, A-, B+, etc.)

**HDM 801 Professional Responsibility II**

A continuation of HDM 601 where the Dental Care Center is the practical laboratory to demonstrate and reinforce effective principles of practice management and acceptable ethical behavior toward the patients, associates and staff. Includes small group discussion of comprehensive patient

care in terms of variations of medical, psychological and economic factors which could impact treatment planning and/or treatment period. Record audits are conducted and reviewed by students under faculty supervision. 14 course hours Prerequisite: HDM 601  
0 credit, Letter graded (A, A-, B+, etc.)

## HDO

### HDO 320 Research: Oral Biology and Pathology

Fall, 2-4 credits

### HDO 321 Oral Biology Research II

The student conducts an independent research project under the supervision of one or more members of the Department of Oral Biology and Pathology. The student is expected to submit a written report detailing experimental methods, results, and conclusions. A copy of the student's transcript must be submitted with the application to the Department. Fall or Spring research.  
2-4 credits

### HDO 322 Summer Research: Oral Biology Pathology

Summer Research: Oral Biology Pathology  
2-4 credits

### HDO 420 Oral Biology Research III

The student conducts a research project under the supervision of one or more members of the Department of Oral Biology and Pathology. The student is expected to submit a written report detailing experimental methods, results, and conclusions. A copy of the student's transcript must be submitted with the application to the Department. Fall or Spring research.  
2-4 credits

### HDO 421 Oral Biology Research IV

The student conducts a research project under the supervision of one or more members of the Department of Oral Biology and Pathology. The student is expected to submit a written report detailing experimental methods, results, and conclusions. A copy of the student's transcript must be submitted with the application to the Department. Fall or Spring research.  
2-4 credits

### HDO 422 Summer Research Oral Biology and Pathology

Summer Research: Oral Biology and Pathology  
2-4 credits

### HDO 500 Biology of the Oral Mineralized Tissues

This course deals with the basic chemistry, crystallography, ultrastructure, and metabolism of the calcium phosphates involved in the formation and physiological and pathological

resorption of the various mineralized tissues found in or associated with the oral cavity (enamel, dentin, cementum, bone). Ectopic calculus formation will be examined. Prerequisites: HDO 560, 561, 562, and 563 or their equivalent. Fall and Spring  
3 credits, Letter graded (A, A-, B+, etc.)

### HDO 510 Salivary Metabolism and Secretion

Consideration is given to the normal and abnormal structure and function of the glandular systems found in the oral cavity. The composition, regulation, and functions of the secretions from the major and minor salivary glands will receive particular attention.  
3 credits, Letter graded (A, A-, B+, etc.)

### HDO 520 Oral Microbial Systems

Consideration is given to the structural composition, metabolism, and environmental relationships of the bacterial systems formed on and in association with the oral hard and soft tissues. Specific and mixed bacterial populations, such as those resident on extra-oral mucosal surfaces and the skin and their role in oral disease will be dealt with. Prerequisite: HDO 560, 561, 562, and 563 or their equivalent. Fall and Spring  
3 credits, Letter graded (A, A-, B+, etc.)

### HDO 530 Molecular Biology and Pathology of the Periodontium

This course deals with the ultrastructure and biochemical composition of the periodontal tissues, remodeling of the extracellular matrix with an emphasis on the role of metalloproteinases; the microbial interrelations with the organic and inorganic components of the periodontal tissues, the biochemical dynamics of gingival inflammation and wound healing, and the metabolic processes responsible for the composition and flow of gingival crevicular fluid. Prerequisites: HDO 560, 561 and 563 or their equivalent. Fall and Spring  
2 credits, Letter graded (A, A-, B+, etc.)

### HDO 531 Normal and Reparative Tissue Development in the Oral Cavity

This course includes a series of lectures and student-led discussions dealing with specific oral tissues, biologic mineralization, osseointegration, hard and soft tissue development, and tissue regeneration. The molecular aspects leading to oral cancer and osteonecrosis will also be presented and discussed.  
2 credits, Letter graded (A, A-, B+, etc.)

### HDO 532 Host-Parasite Interaction

This course includes a series of lectures and student-led discussions dealing with specific oral tissues, growth factors, cytokines, prostaglandins, biologic mineralization and wound healing. The biology of the immune system and phagocytic cells is presented, including the relationship of nutrition to inflammation and oral health. The microbiology of the oral cavity in health and disease as well as oral mucosal infections is presented as the basis of the understanding of immunopathobiology of dental caries and periodontal disease. The oral manifestations of pharmacologic agents are reviewed

in terms of both their immunologic and non-immunologic mechanisms of pathology. Finally, antimicrobial chemotherapy and principles of infection control are reviewed in terms of clinical practice of dentistry.

2 credits, Letter graded (A, A-, B+, etc.)

**HDO 535 Epithelial Keratinization and Differentiation**

The course examines the growth and differentiation of stratified squamous epithelia. Particular emphasis is placed on molecular events involved in the differentiation program. Consideration is also given to mechanisms involved in oral and cutaneous disorders.

Fall and Spring, 2 credits, Letter graded (A, A-, B+, etc.)

**HDO 550 Oral Diagnostics and Therapeutic Technology, Lectures and Laboratory Techniques**

Recent advances in the use and development of research technology for the early diagnosis and treatment monitoring of oral and systemic disease. Special attention is paid to the principles of technology transfer including patents and patenting; searching of on-line databases is a key component. The course includes relationships of dry mouth to salivary physiology, diabetes, and drug medications; salivary film measurements, wetting of oral surfaces, viscoelasticity and lubricity; the use of the Periotron and enzyme assays for the diagnosis of gingivitis and periodontal disease; instrumentation used in sensitive teeth measurement and evaluation of treatment effectiveness using oral compositions and iontophoresis; oral candidiasis and denture stomatitis and early detection and causes of dental caries; oral malodor measurements including use of the Halimeter and its use in the formulation of oral compositions. Application to clinical practice and clinical studies is covered.

3 credits, Letter graded (A, A-, B+, etc.)

**HDO 560 Oral Biology and Pathology I**

The first of four comprehensive courses on molecular structure, biochemical and physiological function, developmental anatomy and pathology of the various systems that constitute the oral apparatus. Covers the embryological development of the face and oral cavity and the biology and pathology of the oral mineralized tissues. Prerequisites: Undergraduate degree in basic science; permission of instructor. Fall and Spring

3 credits, Letter graded (A, A-, B+, etc.)

**HDO 561 Oral Biology and Pathology II**

The second of four comprehensive courses on molecular structure, biochemical and physiological function, developmental anatomy and pathology of the various systems that constitute the oral apparatus. Covers the biology and pathology of the periodontal structures and the microbiology of the oral cavity. Prerequisites: Undergraduate degree in basic science; permission of instructor. Fall and Spring

3 credits, Letter graded (A, A-, B+, etc.)

**HDO 562 Oral Biology and Pathology III**

This course is the third of four comprehensive courses on molecular structure, biochemical and physiological function, developmental anatomy, and pathology of the various systems that constitute the oral apparatus. The course consists of the following two units of instruction; (1) the biology and pathology of the salivary glands and their products and (2) the biology and pathology of the periodontal structures. Prerequisites: Undergraduate degree in basic science and permission of instructor Fall and Spring

3 credits, Letter graded (A, A-, B+, etc.)

**HDO 563 Oral Biology and Pathology IV**

This course is the last of four comprehensive courses on molecular structure, biochemical and physiological function, developmental anatomy and pathology of the various systems that constitute the oral apparatus. Covers the biology and pathology of the oral sensory systems and the biology and pathology of oral motor systems. Prerequisites: Undergraduate degree in basic science and permission of instructor. Admission to Graduate Health Sciences Center Program.

3 credits, Letter graded (A, A-, B+, etc.)

**HDO 590 Research Projects in Oral Biology and Pathology**

Individual laboratory projects closely supervised by faculty members to be carried out in their research laboratories.

3 credits, Letter graded (A, A-, B+, etc.)

**HDO 599 Graduate Research**

Original investigations undertaken with supervision of a faculty member.

1-12 credits, Letter graded (A, A-, B+, etc.)

**HDO 690 Oral Biology and Pathology Seminars**

Research seminars by students, staff, and visiting scientists.

Prerequisite: permission of instructor, Fall and Spring  
1 credit, Letter graded (A, A-, B+, etc.)

**HDO 695 Oral Biology and Pathology Teaching Practicum**

Practice instruction in the teaching of oral biology and pathology at the undergraduate level carried out under faculty orientation and supervision.

3 credits, Letter graded (A, A-, B+, etc.)

**HDO 699 Thesis Research Oral Biology and Pathology**

Dissertation Research, Prerequisite: Advancement to Candidacy Passing,

Fall, Spring, and Summer, 1-9 credits, Letter graded (A, A-, B+, etc.)

**HDO 700 Dissertation Research off Campus - Domestic**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place off-campus, but in the United States and/or U.S. provinces. Please note, Brookhaven

National Labs and the Cold Spring Harbor Lab are considered on-campus. All international students must enroll in one of the graduate student insurance plans and should be advised by an International Advisor.

Fall, Spring, 1-9 credits, S/U grading

**HDO 702 Oral Pathology**

Covers the clinical and histopathologic manifestations of acquired, inherited and neoplastic diseases of the human oral cavity. Includes benign and malignant tumors of bone, odontogenic and non-odontogenic cysts and tumors, mucosal and salivary gland diseases, and oral manifestations of systemic diseases.

0 credit, Letter graded (A, A-, B+, etc.)

**HDO 704 Translational Oral Biology**

Covers the biochemical, physiological, microbiological and electronic principles involved in a variety of techniques used as aids in the diagnosis of oral diseases.

0 credit, Letter graded (A, A-, B+, etc.)

**HDO 705 Oral Medicine**

Introduces the principles of patient care related to stomatologic and dermatologic disease, neurologic abnormalities, hematologic disturbances, and the medically compromised patient. 16 course hours Prerequisites: HDO 701

0 credit, Letter graded (A, A-, B+, etc.)

**HDO 706 Oral Facial Genetics**

Focuses on the utilization, preparation and analysis of basic human genetics in clinical situations. Covers genetic disorders of the craniofacial complex and dentistry for the multiple handicapped patient. 30 course hours Prerequisite: HD 501 or permission of instructor

0 credit, Letter graded (A, A-, B+, etc.)

**HDO 707 Clinical Pharmacology**

Covers pharmacology in dental practice emphasizing clinical usage of antibiotics, sedatives, tranquilizers and analgesics. Drug interactions and side effects are discussed. 18 course hours Prerequisite: HD 608

0 credit, Letter graded (A, A-, B+, etc.)

**HDO 803 Oral Pathology Conference II**

Clinicopathologic case presentations and development of differential diagnosis skills. 11 course hours Prerequisites: HDO 702, HDO 703

0 credit, Letter graded (A, A-, B+, etc.)

**HDO 805 Summer Research**

SUMMER RESEARCH

0 credit, S/U grading

**HDO 821 Year IV Clinic: Oral Diagnostics**

The clinical continuation of HDO 704 in which the principals of oral diagnostics are applied to patient care.

0 credit, Letter graded (A, A-, B+, etc.)

## HDP

**HDP 320 Introduction to Periodontal Research**

The student is taught various techniques and procedures used in current periodontal research. The student is expected to undertake a small research project implementing these techniques.

0-4 credits

**HDP 321 Introduction to Periodontal Research**

The student is taught various techniques and procedures used in current periodontal research. The student is expected to undertake a small research project implementing these techniques.

0-4 credits

**HDP 322 Introduction to Periodontal Research**

The student is taught various techniques and procedures used in current periodontal research. The student is expected to undertake a small research project implementing these techniques.

0-4 credits

**HDP 420 Research in the Biology and Pathology of Periodontium**

An independent research project under faculty supervision with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project and be able to discuss his or her work. Open to upper-division students. May be repeated up to a maximum of eight credits.

0-4 credits, S/U grading

**HDP 421 Research in the Biology and Pathology of Periodontium**

An independent research project under faculty supervision with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project and be able to discuss his or her work. Open to upper-division students. May be repeated up to a maximum of eight credits.

0-4 credits, S/U grading

**HDP 422 Research in the Biology and Pathology of Periodontium**

An independent research project under faculty supervision with emphasis on the principles of experimental design, data collection, evaluation of findings, and reporting of results. The student is expected to prepare a report on the project and be able to discuss his or her work. Open to upper-division students. May be repeated up to a maximum of eight credits.

0-4 credits, S/U grading

**HDP 501 Introduction to Periodontics**

This course utilizes lectures and problem-based cases to introduce the student to the field of periodontology. The first part of the course introduces the student to the clinical presentation of the normal periodontium, gingivitis and periodontitis. A series of lectures then introduces the student to basic patient care which positions them for their initial clinic rotations. Lectures continue with a discussion of histopathology of gingivitis and periodontitis, the bacterial composition of plaque in health and disease, and the pathologic mechanisms of bacterial virulence factors in altered connective tissue remodeling and alveolar bone loss. The potential activities of virulence factors including endotoxin are described in the context of the environmental influences of the gingival crevice and its contents. The response of the host elicited by plaque and bacterial virulence factors is then presented in a series of lectures which review the dynamics of gingival crevicular fluid, effector molecules (prostaglandins and cytokines), the neutrophil and innate defense factors, and the immune system.

0 credit, Letter graded (A, A-, B+, etc.)

**HDP 601 Diagnosis and Treatment of Periodontal Diseases I**

Lectures, problem-based cases, laboratory, and clinical exercises are utilized to review the etiology, pathogenesis, treatment, and prevention of periodontal diseases. The first component of the course uses lectures, problem-based cases, and clinical exercises to provide students the knowledge and skills required to provide patient care. The next series of lectures uses the basic science component of the course as a foundation to discuss the etiology, pathogenesis, and treatment of various clinical conditions related to the periodontium including aggressive periodontitis, necrotizing ulcerative gingivitis, gingival overgrowth, herpetic and apthous lesions. Lectures and problem-based cases are used to expose students to various surgical procedures including gingivectomy, gingivoplasty, and periodontal flap surgery. The course will culminate in a series of treatment planning presentations in which students will utilize prior coursework to prepare an oral and written clinical case presentation.

0 credit, Letter graded (A, A-, B+, etc.)

**HDP 621 Year II Periodontics Clinic**

Applying didactic knowledge to actual clinical situations is required as the student examines the patient, formulates a treatment plan, and renders treatment. In this regard, the student should be able to determine the chief complaint of the patient, obtain a detailed past and present medical history, family medical history, past personal and family dental history, social history including patient's attitude towards his/her dentition and expectations of treatment. The student should be able to obtain vital signs and perform extra-oral (head and neck) and intra-oral examinations. The intra-oral examination will consist of a hard and soft tissue exam including the teeth and the periodontium. In addition, an examination of the patient's occlusion and the temporomandibular joints will be completed. The student is expected to interpret the radiographic findings detected in the panoramic, bite-wings and periapical radiographs, and determine whether they are normal or abnormal. The student will correlate the radiographic finding with the clinical findings and then arrive at the diagnosis of the patient's condition.

The student will identify the etiological factors (local and systemic) which contribute to the development of disease and prognosticate the patient's overall dental and periodontal condition as well as that of the individual teeth. Subsequently, the student should be able to formulate an adequate treatment plan, render periodontal treatment (whether preventive or therapeutic) as outlined, evaluate the outcome of the treatment, and schedule periodontal maintenance. At the periodontal maintenance appointment, the student should be able to update the medical history, conduct a clinical examination to determine periodontal health status, obtain additional radiographs when necessary, review or institute corrective measures for plaque control and render adequate treatment when deemed necessary.

0 credit, Letter graded (A, A-, B+, etc.)

**HDP 701 Diagnosis and Treatment of Periodontal Disease II**

At the conclusion of HDP 601 the basic surgical techniques used to treat periodontal diseases were introduced. HDP 701 will continue to discuss in greater depth the surgical component of periodontal therapy. Evidence-based presentations by cases and problem-based learning will discuss the indications, contraindications, and success rates reported for various surgical techniques including osseous grafts, hemisection, root resection, and guided tissue regeneration procedures. Aspects of periodontal wound healing will be discussed prior to the introduction of guided tissue regeneration procedures. The interrelationship between the periodontium and restorative dentistry will be examined including a discussion of dental implants and pre-prosthetic surgical procedures such as crown lengthening and ridge augmentation procedures. Periodontal plastic procedures performed to prevent or correct anatomical, developmental, traumatic, or plaque induced defects of the periodontium will be discussed. Common acute periodontal conditions will also be examined including a discussion on the diagnostic criteria utilized to differentiate between pathology of periodontal or endodontic origin. Referral guidelines including reasons and criteria for referral will be discussed in a case based format.

0 credit, Letter graded (A, A-, B+, etc.)

**HDP 702 Periodontal Clinical Seminar**

Lectures and problem-based cases are used to integrate and reinforce the didactic and clinical information covered in previous periodontal courses. An interactive forum is used in which students and periodontal faculty and residents discuss in greater depth advances achieved in periodontics and their relevance to clinical practice.

0 credit, Letter graded (A, A-, B+, etc.)

**HDP 721 Year III Periodontics Clinic**

Emphasizes the application of knowledge in the treatment of patients with advanced disease. 111 course hours

0 credit, Letter graded (A, A-, B+, etc.)

**HDP 821 Year IV Clinic: Periodontics I**

The fourth year component of clinical periodontics continues to develop and reinforce the student's ability to recognize and diagnose periodontal diseases. In a simulated general practice environment, the student provides comprehensive

care including periodontal therapy under the supervision of general dentistry faculty. This experience enables students to understand the role of general dentists in treating and managing patients presenting with various levels of disease including referral to a specialist when appropriate. Students are required to seek consultation with periodontal faculty when patients exhibit clinical and radiographic findings consistent with periodontitis such as probing depth measurements # 5 mm. The periodontal faculty provides coverage for consultation, competency exams, and periodontal surgical procedures.

0 credit, Letter graded (A, A-, B+, etc.)

**HDP 822 Year IV Clinic: Periodontics II**

The fourth year component of clinical periodontics continues to develop and reinforce the student's ability to recognize and diagnose periodontal diseases. In a simulated general practice environment, the student provides comprehensive care including periodontal therapy under the supervision of general dentistry faculty. This experience enables students to understand the role of general dentists in treating and managing patients presenting with various levels of disease including referral to a specialist when appropriate. Students are required to seek consultation with periodontal faculty when patients exhibit clinical and radiographic findings consistent with periodontitis such as probing depth measurements # 5 mm. The periodontal faculty provides coverage for consultation, competency exams, and periodontal surgical procedures.

0 credit, Letter graded (A, A-, B+, etc.)

## HDR

**HDR 503 Radiology I**

This course introduces the fundamental principles of radiation physics, radiation biology and protection, radiographic image production and interpretation as applied to dental radiographic imaging. Students gain knowledge of the intraoral and extraoral radiographic techniques commonly used in dental practice, of the principles and techniques of film processing, digital imaging, image quality assurance, and radiation protection; students learn to recognize normal intraoral and panoramic anatomy and to interpret and stage caries and marginal periodontal status based on their radiographic appearance. In small group rotations at the conclusion of the course, students learn to set up the operator for intraoral radiographic examinations, to take intraoral film radiographs on the mannequin, to develop radiographs using an automatic film processor and they review the appearance and causes of film imaging artifacts based on provided cases.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 611 Fixed Partial Prosthodontics Technique**

The purpose is to provide an understanding of basic diagnostic skills and restorative techniques in fixed prosthodontics that will enable students to begin patient care in Year III Clinic. Prerequisites: Successful completion of all Year I dental courses and good standing as a Year II student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 613 Removable Prosthodontics Technique**

This course provides an understanding of basic diagnostic skills and restorative techniques used in complete and partial removable prosthodontics that will enable students to provide patient care in the discipline of removable prosthodontics.

Prerequisites: Successful completion of all Year I dental courses and good standing as a Year II student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 622 Year II Radiology Clinic**

In this clinical radiology course students apply the principles of intraoral imaging techniques and radiation safety presented in the didactic course Radiology I to clinical situations. Additional emphasis is placed on small groups discussions on radiologic anatomy, diagnosis, and treatment implications. Prerequisites: HDG521, HDR503, and good standing as a Year II student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 708 Advanced Esthetic Concepts**

The treatment of dental esthetic issues is a necessary part of current dental education and comprehensive care given to patients. In this course, the students will familiarize themselves with the available approaches to creating harmony and beauty in a smile. The available cosmetic restorations on the market will be covered: their indications, contraindications, advantages, disadvantages, and techniques. Porcelain laminate veneers will be covered, particularly preparation design. Treatment planning, and then getting the desired results will also be covered. Prerequisites: HDR 611, HDR 613, and good standing as a Year III student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 709 Oral and Maxillofacial Radiologic Interpretation**

The Oral and Maxillofacial Radiologic Interpretation course consists of didactic and seminar components that build on the basic notions of image interpretation acquired in Radiology I and Year II Radiology Clinic courses. This course focuses on the interpretation of intraoral images utilized in dental practice, and the rationale, design and execution of intraoral radiographic examinations. Prerequisite: HDG 622, good standing as a Year III student.

0 credit

**HDR 722 Year III Fixed Partial Prosthodontics Clinic**

During this course the student treats patients who require relatively simple fixed prosthodontic therapy. The student should develop the judgment and insight necessary to provide fixed prosthodontic treatment, which is coordinated with the other disciplines of General Dentistry, Periodontics and Oral Surgery. Techniques performed will be based on skills in the preceding clinical and laboratory courses. Prerequisites: HDR 611, HDG 621 and good standing as a Year III student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 723 Year III Removable Prosthodontics Clinic**

HDR 723 is the initial clinical experience in removable prosthodontics and provides the student with the clinical experience in this discipline. Emphasis is placed on the development of clinical judgment and expertise gained through providing a range of clinical treatment modalities in removable prosthodontics, such as: complete dentures, removable partial dentures, immediate dentures, over dentures, transitional and/or interim dentures, repairs, relines, and tissue treatments. Prerequisites: HDG 613, HDG 621 and good standing as a Year III student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 726 Year III Radiology Clinic**

Year III Radiology Clinic builds on the basic technical and image interpretation material from Radiology I and Year II Radiology clinic, emphasizing adequate selection and execution of radiographic examinations; integration of imaging information in the treatment planning process; recognition of the need for any further imaging, additional examinations, or specialty consultation based on the patient's individual circumstances. Prerequisite: HDG 622 and good standing as a Year III student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 804 Year IV Esthetic Dentistry Elective**

This is an advanced course for those students who want more thorough knowledge, skill, and general preparation to practice esthetic dentistry. Various lecturers elaborate in their particular areas of expertise. Some years a prominent outside lecturer comes to give a continuing education course for faculty and outside dentists, for their benefit, but primarily for the benefit of the participants in this course. Prerequisites: HDR 611, HDR 613 and good standing as a Year IV student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 806 Advanced Imaging Techniques**

Three-dimensional imaging is increasingly utilized in maxillofacial diagnosis and treatment planning. The advanced imaging course builds upon knowledge of conventional diagnostic imaging and gives students a working knowledge of current advanced imaging modalities utilized in dentistry: fan-beam CT, magnetic resonance imaging, ultrasound and, with particular emphasis, cone-beam CT (CBCT). Through a series of lectures, hands-on demonstrations, case discussions and an individual project assignment, students acquire a working knowledge of operation principles of advanced imaging modalities, CBCT anatomy, common incidental findings on CBCT images, selection criteria for CBCT imaging, and basic processing of the CBCT volume. Prerequisites: HDR 709, HDR 726 and good standing as a Year IV student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 807 Advanced Removable Prosthodontics**

In Year IV, twelve hours are devoted to additional didactic instruction in clinical applications of removable prosthodontics. These hours are used for the review and reinforcement of subjects previously taught, and the introduction of new concepts and techniques. The topics are selected to be of benefit to students who have begun to treat patients in

this discipline. Prerequisites: HDR 611, HDR 613 and good standing as Year IV student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 821 Year IV Advanced Prosthodontics Selective**

One to three predoctoral dental students are invited to participate in this selective based upon demonstrated skills and expressed interest in fixed prosthetics after successfully completing Year 2 and Year 3 preclinical and clinical courses. The student(s) may have the opportunity to send cases out to a private laboratory facility and spend more time observing a master technician. Prerequisites: Successful completion of all Year I, II & III dental courses and good standing as a Year IV student.

0 credit, Letter graded (A, A-, B+, etc.)

**HDR 823 Year IV Radiology Clinic**

In Year IV Radiology Clinic (HDR 823), students perform intraoral radiographic examinations, selected periapical and bitewing views, full mouth intraoral radiographic surveys) as set forth in faculty-approved treatment plans for their patients; interpret (in consultation with faculty, whenever confronted with unusual findings, or otherwise deemed necessary), and record imaging findings into the axiUm patient management system. Prerequisites: HDR 726 and good standing as a Year IV student.

0 credit, Letter graded (A, A-, B+, etc.)

## HDS

**HDS 601 Oral and Maxillofacial Surgery**

The General Dentist must be able to establish a diagnosis and manage conditions which require oral and maxillofacial surgical procedures. In addition, the dentist must be able to perform basic surgical procedures within their scope and knowledge. This course provides a comprehensive overview of diseases and conditions, as well as the medical and surgical management provided by oral and maxillofacial surgeons for those conditions. In depth discussions on dentoalveolar surgical procedures provide a foundation for managing patients in the oral and maxillofacial surgery clinic courses in Year II, III and IV.

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 602 Pain Control I**

The administration of local anesthesia is often a necessity in maintaining patient comfort during the delivery of dental care. This course covers all phases of the administration of local anesthetics, including the selection of appropriate agents and intraoral injection techniques based on the needs of the individual patient and the specific procedure to be performed. The course consists of lectures, videotapes, and small group clinic laboratory sessions.

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 603 Medical Emergencies I**

The dentist must be prepared to manage medical emergencies that may occur during the course of dental

therapy. This course presents a number of medical emergencies that may be caused by specific disease states, medications administered in the dental office, or by anxiety related to the dental visit. Prevention of medical emergencies is emphasized, as well as diagnosis and management. The course consists of three lectures in a case based format, and encourages class participation.

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 604 Pain Control II**

Dental patients often present to the office with a great deal of anxiety related to the treatment to be rendered. This course presents pharmacological and non-pharmacological methods that can be utilized to reduce patient anxiety in the dental office. The use of nitrous oxide/oxygen analgesia in the dental practice setting is emphasized. The course will consist of lecture, laboratory, and clinical sessions.

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 605 Physical Diagnosis: Introduction to Family Medicine**

Since dentistry shares with all health professionals a common obligation to insure the welfare of their patients, all practitioners have the responsibility of evaluating the capability of their patients to withstand and successfully tolerate the anticipated proposed treatment regimens. Because of the varied effects that systemic diseases have on dental procedures, as well as the possible effect of dental treatment on systemic health problems, there is a need for dentists to be properly trained in the evaluation of their patients. This course introduces clinical medicine and its relationship to dentistry. It covers the clinical physical signs, symptoms, and laboratory values of the various organ systems in both health and disease, and the application of this knowledge to patients in ambulatory care and hospital settings, and emphasizes the oral manifestations and dental treatment modifications required by the medically compromised patient.

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 621 Year II Oral and Maxillofacial Surgery Clinic**

In this introductory clinical course in oral and maxillofacial surgery, the student acquires clinical experience in taking a comprehensive outpatient oral and maxillofacial surgery history, takes pre-operative and post-operative vital signs, establishes and reviews the surgical treatment plan, assists upper classmates in the removal of single and multiple teeth and minor oral surgery procedures, begins to apply basic sciences, behavioral, and surgical knowledge and acquire the skills for uncomplicated tooth removal, reviews postoperative care with the patient, and writes prescriptions for medications including analgesics and antibiotics.

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 701 Advanced Oral and Maxillofacial Surgery Treatment Planning**

The course consists of three seminar sessions discussing a total of nine case studies of patients with significant medical conditions who require oral surgical care. The class is divided into groups of four students. Approximately three weeks prior to each scheduled seminar, case studies are distributed; the

material includes the patient's chief complaint, past medical history, physical examination and laboratory studies, as appropriate. Each group is responsible for preparing an oral presentation of the case and appropriate written handouts for the other members of the seminar group. The presentations should include: differential diagnosis, methods of diagnosis, presumptive diagnosis, current therapy and management for that diagnosis, and influence of the diagnosis on the oral surgery management.

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 703 Medical Emergencies II**

The dentist must be prepared to manage medical emergencies that may occur during the course of dental therapy. This course presents a number of medical emergencies that may be caused by specific disease states, medications administered in the dental office, or by anxiety related to the dental visit. Prevention of medical emergencies is emphasized, as well as diagnosis and management. The course consists of a case based session with active class participation as a method of review of material presented in Medical Emergencies I (HDS 603).

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 721 Year III Oral and Maxillofacial Surgery Clinic**

In this clinical course in oral and maxillofacial surgery, the student acquires additional clinical experience in taking a comprehensive outpatient oral and maxillofacial surgery history, takes pre-operative and post-operative vital signs, establishes and reviews patient surgical treatment plans, and applies basic science knowledge and clinical skills for uncomplicated single and multiple tooth and root removal and alveoplasty procedures, reviews post-operative care with the patient, and writes prescriptions for medications including analgesics and antibiotics.

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 803 Medical Emergencies III**

Practice Development II consists of two main components. The first component is a lecture series designed to provide the student with an in-depth understanding of practice management concepts introduced in Practice Development I. The second component to this course is a group project and presentation. The class is divided into 20 groups, with each group to present an assigned topic. The topics cover a spectrum of issues/concepts necessary to start and operate a successful private practice.

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 821 Year IV Oral Surgery Clinic**

In this clinical course in oral and maxillofacial surgery, the student independently formulates and reviews comprehensive patient surgical treatment plans, and receives experiences in the more complex minor outpatient surgical procedures including multiple extractions, alveoplasty, root recovery, biopsy technique, pre-prosthetic surgery, and infection management. Prior to completion of this course, the student will attain competence in the routine extraction of teeth.

0 credit, Letter graded (A, A-, B+, etc.)

**HDS 822 Year IV Oral Surgery Clinic (Hospital Rotation)**

In HDS 822 (Year IV Hospital Oral and Maxillofacial Surgery Rotation), students are exposed to advanced patient care in the clinic, emergency room, and operating room settings. At a minimum, students continue performing simple and surgical extractions in the outpatient setting, and may participate in more advanced cases depending upon availability in this rotation at University Hospital Medical Center. In addition, students participate in the management of patients receiving intravenous sedation and general anesthesia in the outpatient setting.

0 credit, Letter graded (A, A-, B+, etc.)

**HFN****HFN 500 Survey of Nutrition Concepts**

This online course is designed to introduce students to the fundamentals of nutrition science. Dietary sources and functions of macro and micronutrients are reviewed, as well as the basics of their metabolism and their impact on disease prevention, energy balance and common health problems. Prerequisite: Prior Undergraduate or Graduate Physiology course. Department consent required  
3 credits, Letter graded (A, A-, B+, etc.)

**HFN 502 Contemporary Issues in the Global Food System**

Taking a multi-disciplinary approach, this online course will draw on everything from economics and ecology to sociology, anthropology, and the arts to demonstrate why agriculture and food are the single biggest way that humans touch the planet. Each week, we will examine topics ranging from organic agriculture, school lunch reform, food safety, animal welfare, hunger and food security, farm bill reform, farm-to-school efforts, urban agriculture, food sovereignty and local food economies. Students will gain the ability to evaluate and understand contemporary food issues as they relate to local and global challenges. Course materials will draw on current events, popular media and published research in food and drink, and also be guided by the student's own interests and particular career needs.

3 credits, Letter graded (A, A-, B+, etc.)

**HFN 503 Nutrition in the Media: Making Sense of the Science**

This online course will increase students awareness of the pervasive nature of food and nutrition messaging and the varied motivations behind them. Basic concepts related to nutrition and food science will be presented along with the skills and resources needed to critically evaluate future issues and trends in nutrition. Topics to be discussed include popular supplements, fad diets, common chronic diseases and related dietary recommendations, sustainable food practices and food labeling.

3 credits, Letter graded (A, A-, B+, etc.)

**HFN 505 Current Topics: Maternal and Child Nutrition**

This online course examines current trends in research on nutrition topics related to maternal and child health with a focus on evidence-based recommendations. Topics include fertility, intrauterine influences on development, maternal nutrition and infant feeding, breastfeeding, supplementation, asthma and allergic disease, nutrition and neurological development, gut microbiota in early life, links between early life and adult disease and environmental influences on early childhood feeding challenges. Prerequisite: HFN 500, or equivalent upon approval  
3 credits, Letter graded (A, A-, B+, etc.)

**HFN 510 Issues and Trends in Nutrition**

This online course will provide an overview of current and emerging issues in food and nutrition with a focus on topics that impact nutrition recommendations for patients or the public. Students will explore how these trends may shape patient recommendations and barriers to implementing such recommendations. Students will also examine the disconnect between the research and current food policy, as well as existing evidence to support broad-based change to alleviate chronic disease risk and soaring health care costs. Prerequisite: HFN 500, or equivalent upon approval  
3 credits, Letter graded (A, A-, B+, etc.)

**HFN 512 Macronutrients and Metabolic Regulation**

This online course is designed to promote an in depth understanding of the role of macronutrients in human health and nutrition. The digestion, absorption and metabolism of carbohydrates, proteins and fats and the relationship of energy metabolism will be extensively studied. Prerequisite: Admission to Graduate Nutrition Program or HFN 500  
3 credits, Letter graded (A, A-, B+, etc.)

**HFN 514 Micronutrients and Functional Nutrition**

This online course is designed to promote an in depth understanding of the role of micronutrients in human health and nutrition. The digestion, absorption and metabolism of vitamins and minerals will be extensively studied. Prerequisite: Admission to Graduate Nutrition Program or HFN 500  
3 credits, Letter graded (A, A-, B+, etc.)

**HFN 515 Advanced Nutrition in Clinical Practice I**

This online course will offer the student an opportunity to explore the role of diet and nutrition in the prevention, development and treatment of chronic disease ranging from nutritional deficiencies to autoimmune disease. Medical nutritional therapy for weight management, cardiovascular disease, bone health, oral and dental health, exercise, and potential drug and nutrient interactions are also included in the course topics. Prerequisite: HFN 500, or equivalent upon approval  
3 credits, Letter graded (A, A-, B+, etc.)

**HFN 516 Advanced Nutrition in Clinical Practice II**

This online course will further explore medical nutrition therapy for gastrointestinal disorders, liver and pancreatic disease, metabolic disorders, psychiatric and behavioral disorders, pulmonary disease, renal dysfunction, cancer, metabolic stress, surgery and infection. The principles and practices of enteral and parenteral nutrition will be covered. Prerequisite: HFN 515

3 credits, Letter graded (A, A-, B+, etc.)

**HFN 520 Advanced Communications and Counseling**

This online course examines the role of professionals in promoting general health and wellness for individuals and groups in a community setting. Application of key theoretical models of behavior change and evidence-based intervention strategies are explored. Strategies and skills in counseling the individual client and group are examined and applied. Additional topics include techniques for communicating nutrition information to the public, the media and ensuring cultural competence. In addition to the required text, a purchase of a self-assessment tool for \$25 is necessary for the student to meet the course requirements. Pre requisite: Admission to Graduate Nutrition Program

3 credits, Letter graded (A, A-, B+, etc.)

**HFN 525 Food Policy and Health Outcomes in the United States**

This online course is an overview of how food access and health outcomes are influenced by federal and local municipal public policy. The class will include a brief overview of the American political system followed by a deeper analysis of some specific public policies that can lead to food access inequities and adverse health outcomes including, but not limited to: taxation, land use and zoning, agriculture policy, environmental policy, education policy, economic inequality, media influences and cultural biases. At the conclusion of the semester, students will be asked to conduct a case study analysis of a recent federal or local food policy decision and asked to evaluate the ways in which the policy succeeded or failed in achieving its mission. How should success and failure be measured? How could the policy be improved? What unintended consequences were discovered? Is the policy scalable to other municipalities?

3 credits, Letter graded (A, A-, B+, etc.)

**HFN 530 Nutrition Management and Leadership**

This online course is designed to develop effective management skills in clinical nutrition services. The emphasis will be on the management of clinical services in highly regulated health care settings. Case studies and problem-based learning scenarios will complement online instruction and readings. Personnel issues, cost containment, benchmarking and management principles pertinent to clinical functions will be discussed and applied to real life situations. Accreditation and regulation processes will be covered in depth and the focus will be on the Joint Commission Accreditation process and the Center for Medicare and Medicaid Services. Admission to Master of Science in Nutrition Program(HFNMZ)

3 credits, Letter graded (A, A-, B+, etc.)

**HFN 570 Statistics**

This online course facilitates the development of the knowledge base to support statistical reasoning and the skills necessary to conduct statistical analyses appropriate in a health care or public health environment. This includes data collection methods, data cleaning, hypothesis testing, confidence limits, and statistical analysis procedures, such as analysis of variance, simple linear regression, and multiple regression. Additional topics include techniques for summarizing results of various statistical procedures, as well as designing appropriate tables and graphs. Prerequisite: Admission to Graduate Nutrition Program

3 credits, Letter graded (A, A-, B+, etc.)

**HFN 575 Research Methods in Nutrition**

This online course will facilitate the students ability to work independently to develop a research project. This process will include the following: formulation of a research question or hypothesis, study design and design of data collection methods. Issues regarding the protection of human subjects and protected health information will be discussed. This course will prepare the student to successfully complete a culminating project at a later date required for completion of the Master's degree in Nutrition. Prerequisite: Admission to Masters in Nutrition Program (HFNMZ); Pre or Corequisite: HFN 570

3 credits, Letter graded (A, A-, B+, etc.)

**HFN 578 Applications of Nutrition Research Literature**

This online course will facilitate development of the critical thinking skills necessary to become efficient consumers of nutrition-related research presented in the scientific literature and popular media. Students will learn to interpret current nutrition research by performing effective literature searches for nutrition research articles, recognizing the strengths and limitations of the research methods, and evaluating the quality of nutrition information in both the scientific literature and popular media. This course will begin with an overview of the challenges facing health professionals when delivering nutrition education to the layperson. Challenges to be discussed include media misrepresentation, health illiteracy and a Prerequisites: Admission to Masters in Nutrition Program (HFNMZ) and HFN 575

3 credits, Letter graded (A, A-, B+, etc.)

**HFN 580 Practical Applications**

Students enrolled in this online course will have the opportunity to choose between several types of culminating projects, including a research paper addressing a clinical question, a continuous quality improvement project addressing a clinical question or practice or an experiential practicum option. Students will work with a mentor who will supervise and guide the student as they select their project and topic and progress through the semester. Mentors will recommend a grade to the program coordinator after careful review of the finished project. Pre or Corequisite: HFN 578; Minimum completion of 27 HFN credits; Department consent required

3 credits, Letter graded (A, A-, B+, etc.)

**HFN 581 Continuing Practical Applications**

This course provides an opportunity for students to successfully complete the requirements of HFN 580 when additional time is required. Prerequisite: HFN 580; Department consent required

1-3 credits, Letter graded (A, A-, B+, etc.)

## HHA

### HHA 500 Healthcare Delivery System

Focuses on historic and current issues that impact the United States healthcare delivery system with a primary focus on how healthcare is delivered, organized, governed, and financed.

There will be an overview of special populations and major diseases including epidemics, chronic illness, and acute illness, and the interrelated concepts of access, quality, and cost. Emphasizes the influence of an evolving healthcare delivery system on the practice of health informatics including meaningful use, Health Information Technology for Economic and Clinical Health (HITECH).

3 credits, Letter graded (A, A-, B+, etc.)

### HHA 501 Biomedical and Health Informatics Essentials

Provides broad but significant immersion into the field of biomedical and health informatics. Emphasizes the clinical flow of data (acquisition, use, and storage of information in healthcare), biomedical research, informatics and public health, decision and cognitive science. Explores electronic health records, personal health records, personalized medicine, imaging, telemedicine, concepts of meaningful use, Health Information Technology for Economic and Clinical Health (HITECH), and American Recovery and Reinvestment Act (ARRA). Includes hands-on experience in the use of an electronic health record system.

3 credits, Letter graded (A, A-, B+, etc.)

### HHA 502 Health Information Systems and HIT Essentials

Provides broad but significant immersion into the fields of health information systems and health information technology (HIT). Emphasizes systems analysis, clinical decision-support, integrated networking and distributed computing technologies, telemedicine applications, mobile applications, cloud computing, architecture and infrastructures, and database and systems administration.

3 credits, Letter graded (A, A-, B+, etc.)

### HHA 503 Regulations, Confidentiality, Privacy and Security

Provides foundational knowledge in the laws, regulations, policies and procedures related to the confidentiality, privacy, and security on all levels of health-related information and infrastructures. Emphasizes interoperability, HIPAA/HITECH Privacy Rule and Security Standards, Code Set Rules, meaningful use, and IT security forensics.

3 credits, Letter graded (A, A-, B+, etc.)

### HHA 504 Database Design and Development for Health Informatics Professionals

Covers relational database theory and development methodology. Emphasizes the progression through a health information systems development life cycle through the design, development, deployment, administration, testing, evaluation, and maintenance of a database. Introduces students to relational query languages (i.e. SQL).

3 credits, Letter graded (A, A-, B+, etc.)

### HHA 505 Leadership and Management Essentials

Provides broad but significant immersion in organizational change, leadership, organizational behavior, project management and change management. Emphasizes healthcare project life-cycle, theoretical and applied strategies of managing change, communication and group dynamics, systems thinking, and strategic planning.

3 credits, Letter graded (A, A-, B+, etc.)

### HHA 506 Research Design and Methodology for the Health Informatics Professionals

Provides in-depth overview of quantitative, qualitative, and mixed-methods research designs and methodologies. The student will analyze and evaluate the philosophical foundations, characteristics, strengths, and limitations of quantitative, qualitative, and mixed methods research designs and methodologies most appropriate to the practice of health informatics. Emphasizes critical review and techniques of applied research and evaluation.

3 credits, Letter graded (A, A-, B+, etc.)

### HHA 507 Statistics for Health Informatics Professionals

Explores quantitative data analysis techniques utilized in patient safety research. Includes descriptive, inferential, and correlational statistics. Students will use available computer programs to conduct a variety of descriptive, inferential, and correlational statistical tests.

3 credits, Letter graded (A, A-, B+, etc.)

### HHA 520 Program Management and Administration for Privacy and Security

Provides significant immersion into the knowledge and skills related to administration and management of healthcare organizations privacy and security programs. Emphasizes development of policies, protocols, and procedures for risk assessment and mitigation, integrity, and confidentiality of the patient, provider, employee, and business information. Prerequisites: HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 507

3 credits, Letter graded (A, A-, B+, etc.)

### HHA 521 Physical and Technical Safeguards of Health Information

Provides significant immersion into the knowledge and skills related to the physical and technical privacy and security

safeguards utilized in all sectors of healthcare. Emphasizes risk assessment and mitigation, disaster recover, business continuity, and standards regarding the maintenance, safeguarding, authorization access, release, and disposal of personal and confidential information. Prerequisites: HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 508

3 credits, Letter graded (A, A-, B+, etc.)

**HHA 522 Forensic Analysis and Health Information Cybercrime**

Provides significant immersion into the knowledge and skills related to forensic science and its application to the healthcare sectors digital environments. Emphasizes health information cybercrime; methods to uncover, collect, protect, and document evidence; and tools, techniques, and procedures to perform computer and cybercrime investigations. Prerequisites: HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 509

3 credits, Letter graded (A, A-, B+, etc.)

**HHA 523 Legal and Regulatory Issues, External Environmental Assessment, Compliance**

Provides significant immersion into the knowledge and skills related to the legal and regulatory issues specific to security and privacy personnel, external environmental assessments, and compliance. Emphasizes development of policies and procedures to receive, verify, authorize, process, and document various information requests; incident response team; compliance issues; federal breach notifications; employee training; and patient services. Prerequisites: HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 510

3 credits, Letter graded (A, A-, B+, etc.)

**HHA 530 Clinical Decision Making and Process Improvement**

Provides in-depth immersion into the knowledge and skills required to implement effective clinical decision making systems and participate in the development of clinical process improvements that support effective, efficient, safe, timely, equitable, and patient-centered care. Summer and Fall courses. Prerequisites: Summer and Fall courses including HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 507.

4 credits, Letter graded (A, A-, B+, etc.)

**HHA 531 Health Information Systems**

Provides in-depth immersion into the knowledge and skills required to participate in the development or selection of an information system for clinicians; prepare clinicians prior to implementation and support them during implementation and ongoing operation of clinical information system; and evaluate the effectiveness of a system in meeting clinical needs. Summer and Fall courses. Prerequisites: Summer and Fall courses including HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 507.

4 credits, Letter graded (A, A-, B+, etc.)

**HHA 532 Leading and Managing Clinical Information Systems Change**

Provides in-depth immersion into the knowledge and skills required to lead, manage change, and promote adoption associated with implementing clinical information systems. Summer and Fall courses. Prerequisites: Summer and Fall courses including HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 507.

4 credits, Letter graded (A, A-, B+, etc.)

**HHA 540 Health Data Management**

Provides significant immersion into the knowledge and skills of the health management domains of data structure, data analysis, and outcomes. Prerequisites: Summer and Fall courses including HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 507.

4 credits, Letter graded (A, A-, B+, etc.)

**HHA 541 Information Technology and Systems**

Provides significant immersion into the knowledge and skills of the health management domains Healthcare Information Systems and Information Management Planning. Summer and Fall courses. Prerequisites: Summer and Fall courses including HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 507.

4 credits, Letter graded (A, A-, B+, etc.)

**HHA 542 Advanced Organizational Leadership and Management**

Provides significant immersion into the knowledge and skills related to the health management domains of Leadership, Resource Management, and Education and Training. Summer and Fall courses. Prerequisites: Summer and Fall courses including HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 507.

4 credits, Letter graded (A, A-, B+, etc.)

**HHA 550 Applied Healthcare Analytics**

Focuses on the design and implementation of analytics to aide in the evaluation of health in populations. Explores the role of the health care analyst and analytics in the improvement of healthcare delivery and outcomes. Consists of on-line lectures, videos, and hand on assignments with data set sand analytic models. Prerequisites: Summer and Fall Courses. Prerequisites: HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 507. Department permission required.

4 credits, Letter graded (A, A-, B+, etc.)

**HHA 551 Big Data Technologies in Healthcare**

Focuses on new and emerging Big Data technologies in healthcare, and the technologies that are utilized to process and manipulate data. Technologies such as Facebook, Yahoo, Google, LinkedIn, Twitter, and the Electronic Health Record will be studied. Discusses how healthcare data is organized, processed and analyzed using MATLAB. Consists of four weeks of reading, on-line discussions and assignments, hand-on use of analytical tools for analysis and data extraction,

and ten weeks of on-site lectures and hand-on lab sessions. Prerequisites: Summer and Fall Courses. Prerequisites: HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 507. Department permission required. 4 credits, Letter graded (A, A-, B+, etc.)

**HHA 552 Healthcare Data Visualization**

Focuses on techniques and tools for designing and implementing effective visual representations of healthcare data. Students will learn how to analyze, parse, and represent quantitative and text data visually, and how to present data that is clutter free, engaging and easy to comprehend. Hands-on course utilizes Tableau as a presentation platform for the designing and building of data visualizations. Students will learn to express findings, answer questions, and to drive data supported decisions in healthcare. Consists of three weeks of campus lecture, twelve weeks of hand-on use of data visualization tools, assignments, lectures, and on-line discussions. Prerequisites: HHA 500, HHA 501, HHA 502, HHA 503, HHA 504, HHA 505, HHA 506, and HHA 507. Department permission required. 4 credits, Letter graded (A, A-, B+, etc.)

**HHA 584 Specialization Practicum I**

First course in a three part experiential learning sequence designed to provide significant hands-on immersion into the practice of Health Informatics. The 120 hour practicum requires students to apply knowledge and skills acquired during the core and specialization course work. Prerequisite: Department Consent Required. 4 credits, Letter graded (A, A-, B+, etc.)

**HHA 586 Specialization Practicum II**

Second course in a three part experiential learning sequence designed to provide significant hands-on immersion into the practice of Health Informatics. This 180 hour practicum is a progressive experimental learning experience. Students are expected to demonstrate increasing proficiency of integration and application of didactic and experiential learning with the goal of demonstrating mastery in Health Informatics. Prerequisite: HHA 584. 6 credits, Letter graded (A, A-, B+, etc.)

**HHA 588 Specialization Practicum III**

Final course in a three part experiential learning sequence designed to provide significant hands-on immersion into the practice of Health Informatics. This 180 hour practicum is a progressive experimental learning experience. Students are expected to demonstrate increasing proficiency of integration and application of didactic and experiential learning with the goal of demonstrating mastery in Health Informatics. Prerequisite: HHA 586. 6 credits, Letter graded (A, A-, B+, etc.)

**HHA 599 Practicum Continuation**

This course is for Applied Health Informatics students continuing with Practicum. 0 credit, S/F graded

## HHH

**HHH 500 The Health System**

Explores the United States Healthcare System and is designed to facilitate an understanding of the history, basic structures, and operations of this expansive, diverse, and complex system. Introduces healthcare systems models, current and future trends in healthcare delivery, and systems outcome issues encountered by healthcare administrators across health services markets. All aspects of this course, with the exception of one required synchronous class meeting, will be presented and discussed via a distance learning format (using Blackboard). 4 credits, Letter graded (A, A-, B+, etc.)

**HHH 501 Health Analytic Methods**

Explores the importance of data analytics and facilitates understanding of analytic foundations. Explores the use of descriptive and inferential statistical analysis, common spreadsheet techniques for organizing and interpreting data, summarizing data using quantitative and qualitative measures, interpret variability in data, perform and interpret hypothesis testing, calculate probability, and how to apply statistical methods to real world examples. Computer exercises utilizing Microsoft Excel will be used in analyzing data and graphics. All aspects of this course, with the exception of one required synchronous class meeting, will be presented and discussed via a distance learning format (using Blackboard). 4 credits, Letter graded (A, A-, B+, etc.)

**HHH 506 Health Quality and Performance Improvement**

Explores healthcare quality management methodologies and examines the impact on healthcare productivity, quality and patient safety. Students will understand and utilize the concepts of performance improvement and continuous process improvement to improve product and service quality and competitiveness. Presents the history of quality improvement in healthcare and how quality concepts may be applied to improve clinical outcomes, patient safety, patient satisfaction, financial outcomes and employee and physician satisfaction. Emphasizes the critical importance of data analytics to monitor performance improvement activities. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: Second Year Fall Courses. 2 credits, Letter graded (A, A-, B+, etc.)

**HHH 508 Human Resources Management in the Health Sector**

Explores the key and active role played by human resources in health services organizations. Introduces students to the role of the human resources function and to the challenges that health care managers and leaders will face. Emphasizes strategic human resources, talent management, performance management, the role of the regulatory environment in human resources and making the connection between financial and non-financial rewards and workforce management. All aspects

of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: Year One Courses 3 credits, Letter graded (A, A-, B+, etc.)

**HHH 510 Health Finance and Accounting**

Provides broad but significant immersion into the requisite core knowledge and skills of financial management and accounting in the healthcare sector. Emphasis will include but not be limited to managerial and financial accounting, fiscal analysis, fiscal planning, and fiscal reporting. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: First Year Fall Courses

4 credits, Letter graded (A, A-, B+, etc.)

**HHH 512 Health Finance II**

Provides an advanced, case-based immersion into the core knowledge and skills of healthcare financial management. Emphasis will include but not be limited to the analysis of financial statement reports, balance sheets, statements of operation, statements of cash flow, bond ratings, strategic financial planning and the impact of the Affordable Care Act on healthcare finance. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: First Year Courses

6 credits, Letter graded (A, A-, B+, etc.)

**HHH 520 Health Governance and Organizational Analysis**

Provides students immersion into the study of organizational behavior, integrated with the study of organizational theory, to develop evidence-based approaches to analyze, manage, and lead change within healthcare organizations. Emphasizes groups and teams, diversity and cultural competence, individual attitudes and perceptions, communication, organizational change, cognitive processes, leadership, power and influence, stress and well-being, conflict management, decision making and negotiation skills, motivation, and strategies to improve employee and organizational success. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: First Year Fall Courses

4 credits, Letter graded (A, A-, B+, etc.)

**HHH 530 Health Operations Management**

Explores the terminology and tools for identifying and applying appropriate operations management (OM), decision analysis (DA) and operations research (OR) techniques to problems in healthcare. Exposes students to OM, DA and OR techniques in order to have practical experience solving problems in planning, scheduling, resource allocation, procedural decisions, and measurement of health care processes. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: First Year Courses

2 credits, Letter graded (A, A-, B+, etc.)

**HHH 536 Health Law and Compliance**

Explores various legal issues in healthcare and examines the ways in which such topics are analyzed, discussed, and resolved through the lens of policy, ethics, governance and law. Emphasizes the legal aspects of healthcare cost allocation, patient and human rights cases, and research. Explores how legislation, public policy and society shape health law. Examines issues regarding the intersection of the legal system, compliance, ethics and governance in the health sector. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: First Year Fall Courses

4 credits, Letter graded (A, A-, B+, etc.)

**HHH 540 Health Management**

Explores the use of healthcare management techniques required for effective planning and decision-making by today's healthcare managers. Concepts and theories from the general management literature will be analyzed and used to respond to emerging issues in the health care industry related specifically to the delivery of high quality, effective, patient-centered care. Uses field-based examples to illustrate the tools available to improve the quality of organizational decisions and processes to achieve fiscal sustainability. All aspects of this course, with the exception of one required synchronous class meeting, will be presented and discussed via a distance learning format (using Blackboard).

4 credits, Letter graded (A, A-, B+, etc.)

**HHH 541 Health Strategic Planning and Management**

Explores the fundamentals of strategic planning and leadership in the health sector. Emphasizes mission, vision, values, creating business plans and conducting strengths, weaknesses, opportunities and threats (SWOT) analyses. Explores the impact of leadership style on the strategic planning process. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: Second Year Fall Courses

2 credits, Letter graded (A, A-, B+, etc.)

**HHH 542 Health Leadership and Change: Comprehensive Capstone Project**

Provides an in depth examination of leadership theory and the essential qualities required to successfully lead in the fluid and changing healthcare environment. Explores the key characteristics of successful health leaders, including the values that guide personal and professional behavior through the lens of a team based, interactive capstone research project. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: Second Year Fall Courses

2 credits, Letter graded (A, A-, B+, etc.)

**HHH 564 Health Technology and Information Management**

Explores the impact of business strategy, healthcare financing, stakeholders, measurement and user experience design on the successful adoption of healthcare information technologies (HIT). Examines the role of HIT in achieving institutional objectives, including improving quality of care, removing waste and enhancing healthcare system experience. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: First Year Courses  
3 credits, Letter graded (A, A-, B+, etc.)

**HHH 575 Long-Term Care in the Health Sector**

Explores management techniques and standard practices in long-term care in the health sector. Emphasizes skilled nursing, home care, assisted living, adult day care, home health care and senior retirement communities. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: First Year Courses  
2 credits, Letter graded (A, A-, B+, etc.)

**HHH 585 MHA Residency I: Communication Skills and Interpersonal Effectiveness**

This first of four in-person, faculty-led residential courses features an orientation to the MHA Program, including program faculty and members of the student cohort. Introduces the health industry, population health concepts, basic health management concepts, communication skills, importance of interpersonal relationships, professionalism and professional development. All aspects of this course will be delivered face-to-face, in person on campus.  
1 credit, Letter graded (A, A-, B+, etc.)

**HHH 586 MHA Residency II: Professionalism and Ethics**

The second of four on-site, faculty-led residential courses features professionalism and ethics in the field of health management. Facilitates the application and integration of health management competencies gained in year one of coursework to realistic case studies using interdisciplinary team based methods. Students will continue to enhance communication skills, skills that encourage functional interdisciplinary teamwork and will develop presentation skills, problem solving skills, networking strategies, professional etiquette and have the opportunity to engage in professional development activities. Prerequisite: First Year Fall Courses  
1 credit, Letter graded (A, A-, B+, etc.)

**HHH 587 MHA Residency III: Leadership and Change**

The third of four on-site, faculty-led residential courses features leadership and change in the field of health management. Facilitates the application and integration of health management competencies, gained in year one of coursework and practicum, to realistic case studies using interdisciplinary team based methods. Students will continue to enhance communication skills, skills that encourage functional interdisciplinary teamwork and will

continue to develop presentation skills, problem solving skills, networking strategies, professional etiquette and professional development activities. Prerequisite: First Year Courses  
1 credit, Letter graded (A, A-, B+, etc.)

**HHH 588 MHA Residency IV: Comprehensive Capstone Project Team Presentations and Portfolio Development**

The last of four on-site, faculty-led residential courses features comprehensive capstone project team presentations and portfolio development in the field of health management; and the opportunity to engage in an interactive presentation of their original research findings and recommendations to a panel of practicing health executives. Students will have the opportunity to receive feedback from and defend their positions to actively practicing health executives. Students will have an opportunity to integrate years one and two health management competencies in this realistic case study while engaging in interdisciplinary team based learning. Students will continue to enhance communication skills, skills that encourage functional interdisciplinary teamwork and will continue to develop presentation skills, problem solving skills, networking strategies, professional etiquette and professional development activities. Prerequisite: Second Year Fall Courses  
1 credit, Letter graded (A, A-, B+, etc.)

**HHH 589 Health Management Practicum and Seminar I**

The first of two 90-hour field placements and accompanying faculty-led seminars that provide students with the opportunity to gain practical health management experience in the health services field. Placements strive to integrate administrative and management of health services by enhancing administrative skills under the direction and supervision of a faculty member and a knowledgeable mentor in an environment that promotes learning. Individual practicum placements will be completed on-site, in addition to an accompanying online seminar that will allow reflection and professional development based upon the individual experiences of students. Prerequisite: First Year Courses  
3 credits, Letter graded (A, A-, B+, etc.)

**HHH 590 Health Management Practicum and Seminar II**

The second of two 90 hour field placements and accompanying faculty-led seminars that will provide students with opportunities to gain practical health management experience in the health services field. Placements strive to integrate administrative and management of health services by enhancing administrative skills under the direction and supervision of a faculty member and a knowledgeable mentor in an environment that promotes learning. Individual practicum placements will be completed on-site, in addition to an accompanying online seminar that will allow reflection and professional development based upon the individual experiences of students. Prerequisite: First Year Courses  
3 credits, Letter graded (A, A-, B+, etc.)

**HHH 599 Physician Practice Management**

Explores the essential components of physician practice management including the structure and organization of solo practice and group practices. Includes operating and administrative issues, information management, health informatics, patient care systems, corporate compliance, physician credentialing, finance and management reporting, risk management, operations, practice valuation, marketing and planning, leadership, compensation, governance, billing, coding, medical malpractice, collections, reimbursement mechanisms, human resource management, physician compensation and quality of care. Explores the factors influencing physician practices, physician-hospital relationships, leadership and governance. All aspects of this course, with the exception of one optional synchronous class meeting, will be presented and discussed via a distance learning format (Blackboard). Prerequisite: First Year Courses 2 credits, Letter graded (A, A-, B+, etc.)

## HHM

### HHM 500 Fundamentals of Molecular Biology Techniques

Covers main techniques used in molecular biology, including direct and amplified nucleic acid-based methods. Emphasizes basic principles behind each test, interpretation of results, advantages and limitations of each method, and type of specimen required for each test. Addresses the importance of quality control, biosafety and proper decontamination procedures to ensure accurate data for proper patient diagnosis.

3 credits, Letter graded (A, A-, B+, etc.)

### HHM 510 Advanced Molecular Biology Laboratory

This 15-week laboratory course consists of a 6-hour weekly lab, during which the students perform hands-on activities covering the main molecular biology techniques used for the diagnosis of infectious and genetic diseases, determination of cancer markers, and forensic testing. Techniques include nucleic acid isolation, purification and quantification, DNA separation, amplification and sequencing. Prerequisite: HHM 500

3 credits, Letter graded (A, A-, B+, etc.)

### HHM 511 Application of Molecular Biology in Diagnostics

Introduces the applications of molecular biology techniques in diagnostics of various diseases. The students will learn the molecular mechanisms underlying infection by microorganisms, genetically inherited diseases as well as cancer, and how molecular techniques can help with the diagnosis and prognosis of these diseases. Addresses the advantages and limitations of different techniques available, as well as the importance of quality control. Prerequisite: HHM 500

3 credits, Letter graded (A, A-, B+, etc.)

### HHM 516 Application of Molecular Biology in Research

Focuses on various applications of molecular biology techniques in both basic and translational medical research. High emphasis will be placed on the understanding of the molecular pathways involved in various diseases, including cancer, genetically inherited diseases and infection by microorganisms. The students will learn how the power of molecular genetic analysis is used to identify, isolate and characterize genes that cause and contribute to the etiology of human diseases. Explains how various molecular biology techniques can be applied to diagnose diseases and to develop potential therapeutics. Discusses the advantages and limitations of different techniques, as well as the importance of quality control. Prerequisite: HHM 500, 510, 511 3 credits, Letter graded (A, A-, B+, etc.)

### HHM 520 Flow Cytometry Laboratory

This laboratory course consists of 30 hours of hands-on activities, and covers the main techniques used in the flow cytometry laboratory. This laboratory will be given once weekly, on weekends or weeknights. Students will perform numerous immunophenotyping techniques, including stem cell quantitation, hematologic and non-hematologic neoplasms, minimal residual disease, fetal hemoglobin and cell functional assays. Students will learn how to do quality assurance and instrumentation maintenance, and will gain hands-on experience with the application software used by flow cytometers. Prerequisite: HHM 500, 510, 511 Co-requisite: HHM 521

1 credit, Letter graded (A, A-, B+, etc.)

### HHM 521 Flow Cytometry Methods and Applications

Introduces students to the applications of flow cytometry techniques and their applications in the diagnosis and prognosis of human diseases including leukemia and lymphoma, primary immunodeficiency diseases, Human Immunodeficiency Virus (HIV) infection detection of paroxysmal nocturnal hemoglobinuria, cytometry clinical transplantation, leukocyte functional assays, cell apoptosis, CD34 positive stem cell enumeration, immunologic dysfunction, and DNA and cell proliferation measurements in cancer cells. Prerequisite: HHM 500, 510, 511 Co-Requisite: HHM 520

2 credits, Letter graded (A, A-, B+, etc.)

### HHM 531 Cytogenetics Methodology and Applications

Focuses on the impact of chromosome abnormalities on the diagnosis, prognosis and treatment of cytogenetic syndromes. Covers basic cytogenetic concepts and laboratory techniques required for the detection of various diseases, including sex chromosome abnormalities, the fragile X syndrome, and structural and numerical chromosome abnormalities, with special emphasis on the mechanisms underlying these syndromes. Prerequisite: HHM 500, 510, 511, 516, 520, 521, 540, 545

2 credits, Letter graded (A, A-, B+, etc.)

### HHM 540 Laboratory Operations in Molecular Biology

Covers the main principles of laboratory standards used in the molecular diagnostics, including pre- and post-analytical operations, test result documentation, quality assurance and quality control. Considers the importance of safety, regulation and standards. Prerequisite: HHM 500, 510, 511, 516, 520, 521

2 credits, Letter graded (A, A-, B+, etc.)

**HHM 545 Ethics in the Laboratory**

Reviews professional guidelines for ethical conduct and approaches to ethical dilemmas for laboratory scientists. Explores ethical issues, including responsible research conduct, good laboratory practice, and research with human subjects. Discusses ethical principles in genetics and genetic engineering; advance directives, confidentiality, informed consent, patient rights, and Health Insurance Portability and Accountability Act of 1996 (HIPAA). All aspects of this class will be presented and discussed via a distance learning format using Blackboard. Prerequisite: HHM 500, 510, 511, 516, 520, 521

2 credits, Letter graded (A, A-, B+, etc.)

**HHM 551 Research Methods and Scientific Writing**

Introduces students to the basic concepts of biomedical research. Emphasizes critical evaluation of published scientific literature, and how to plan, design and conduct a research study. Presents the proper use of the different statistical methods required to analyze research data. Teaches students how to communicate effectively as scientists by writing high quality scientific papers, giving oral presentations, and putting together a research proposal. The students will apply these concepts to their own writing. Prerequisite: HHM 500, 510, 511, 516, 520, 521, 540, 545

3 credits, Letter graded (A, A-, B+, etc.)

**HHM 570 Journal Club on Medical Molecular Biology**

Students participate in critical analysis of scientific journal articles from a diverse set of topics related to the field of molecular biology including molecular diagnostics, molecular microbiology, cancer research, genetically inherited diseases and genomics, among others. In each session, a student presents the essential information of the paper including background, significance, hypothesis, experimental methods, results and conclusions by means of a narrated Powerpoint presentation. Following the presentation, the rest of the class discuss and analyze the content of the paper in an online discussion forum. Prerequisite: HHM 500, 510, 511, 516, 520, 521, 540, 545

1 credit, Letter graded (A, A-, B+, etc.)

**HHM 581 Clinical Practicum in Molecular Diagnostics**

This is a two week fulltime practicum in a Clinical Molecular Diagnostics lab designed to give students supervised practical application of what was learned in classes. The students will be provided with on-the-job training while experiencing the work environment in a clinical diagnostic laboratory. Prerequisite: HHM fall year two courses.

2 credits, Letter graded (A, A-, B+, etc.)

**HHM 583 Clinical Practicum in Flow Cytometry**

This is a two week fulltime practicum in a Clinical Flow Cytometry lab designed to give students supervised practical application of what was learned in classes. The students will be provided with on-the-job training while experiencing the work environment in a clinical diagnostic laboratory.

This will be repeatable course, for additional course credits.

Prerequisite: HHM fall year two courses.

2 credits, Letter graded (A, A-, B+, etc.)

**HHM 585 Clinical Practicum in Cytogenetics**

This is a two week fulltime practicum in a cytogenetics diagnostics lab designed to give students supervised practical application of what was learned in classes. The students will be provided with on-the-job training while experiencing the work environment in a clinical diagnostic laboratory.

Prerequisite: HHM fall year two courses.

2 credits, Letter graded (A, A-, B+, etc.)

**HHM 596 Capstone Project in Medical Molecular Biology**

Culminating experience designed to for students to choose a topic of interest within the area of molecular diagnostics, flow cytometry, or cytogenetics and further investigate it by means of a systemic literature review. Topics can be problems identified during clinical practice or learned in classes.

Students will need to develop a comprehensive proposal that will be reviewed by faculty. Prerequisite: HHM fall year two courses.

2 credits, Letter graded (A, A-, B+, etc.)

## HHO

**HHO 322 Instrumentation in Polysomnography**

Provides a fundamental understanding and practical application of various instruments used in the sleep laboratory setting. Discusses use, function, indications, contraindications, cleaning, and proper trouble shooting techniques of the various instruments with hands on practice during class.

Covers the theory and practical application of instrumentation and sensors utilized in the sleep laboratory. Prerequisite: Admission to Upper Division Polysomnographic Program  
2 credits

**HHO 324 Therapeutic Modalities in Sleep Medicine**

Provides the student with a thorough understanding of various therapeutic modalities used in the treatment of sleep disorders. Includes indications, contraindications and protocols for the titration of various forms of noninvasive ventilation including Continuous Positive Airway Pressure (CPAP); Bi-level Positive Airway Pressure (Bi-level); Auto-Servo Ventilation (SV); and oxygen therapy. Discusses Cognitive Behavioral Therapy (CBT); phototherapy; chronotherapy; positional therapy; and pharmacological treatment. Prerequisite: Admission to Upper Division Polysomnographic Program; HHO 322

3 credits

**HHO 326 Introduction to Dental Sleep Medicine**

Covers basic principles of dental sleep medicine and oral appliance therapy as a therapeutic option for the management of sleep disorder breathing. The student will gain knowledge of the pathophysiology of sleep disordered breathing, anatomy and physiology of the head and neck, and dental anatomy and occlusion. Discusses theory, indications, contraindications, the risks, benefits, and potential side effects of oral appliance therapy. Students will learn about dental impressions and the construction of oral appliances, appliance selection, appliance insertion, and patient management. Presents protocol and use of oral appliance titration in the sleep lab setting, combination therapy of oral appliances with Positive Airway Pressure (PAP), and the implementation of alternative dental therapies. Prerequisite: Admission to Upper Division Polysomnographic Program HAT 320, HAT 306, HAT 470, HHO 322

4 credits

**HHO 342 Sleep Disorder Pathophysiology**

Provides an understanding of the International Classification of Sleep Disorders (ICSD). Reviews currently accepted sleep disorders including the names; alternate names; diagnostic criteria; features; clinical and pathophysiological subtypes; predisposing and precipitating factors; onset; course; complications; objective findings; and current therapies. Prerequisite: Admission to Upper Division Polysomnographic Program; HHO 322

3 credits

**HHO 420 Polysomnographic Technology Management**

Provides advanced understanding of the American Academy of Sleep Medicine (AASM) guidelines for sleep facility accreditation and management. Includes standards and policies related to personnel; patient care; equipment; record storage; staging and scoring of sleep studies; and report generation. Discusses emergency policies and procedures, quality assurance programs, and facility layouts. Upon successful completion of this course student would understand the daily operations and functions of the sleep center or laboratory at a managerial level. Prerequisite: Admission to Upper Division Polysomnographic Program; HAT 470

3 credits

**HHO 430 Pediatric Polysomnography**

Provides a thorough understanding of pediatric polysomnography. Includes normal sleep across the various age groups; proper clinical evaluation of the pediatric patient; testing procedures; differential diagnosis of pediatric sleep disorders; and appropriate therapeutic interventions. Prerequisite: Admission to Upper Division Polysomnographic Program; HHO 342

3 credits

**HHO 440 Introduction to Electroencephalography**

Provide the student with a basic understanding of Electroencephalography (EEG). Topics include terminology; technical specifications; instrumentation; recording specifications; and currently accepted standards and guidelines for various diagnostic EEG procedures. Students will gain knowledge and experience in evaluating normal and abnormal EEGs. Prerequisite: Admission to Upper Division Polysomnographic Program; HAT 470, HHO 322

3 credits

**HHO 460 Polysomnographic Technology Board Review**

Designed to improve students' critical thinking skills and prepare them for the Board of Registered Polysomnographic Technologists (BRPT) exam. Students will learn about the professions credentialing levels and requirements as well as the New York State Office of Professions licensing system. Includes mock exams including sample exams offered by the BRPT. Prerequisite: Admission to Upper Division Polysomnographic Program; HHO 430

1 credit

**HHO 470 Basic Polysomnographic Technology Clinical**

Provides full time training in the basics of polysomnographic technology. It familiarizes students with instrumentation; setup and calibration; recording and monitoring techniques; documentation; professional issues; and patient-technologist interactions related to polysomnographic technology. Presents opportunities to observe, perform (under supervision), and evaluate sleep studies. Prerequisite: Admission to Upper Division Polysomnographic Program; HAT 470

4 credits

**HHO 471 Intermediate Polysomnographic Technology Clinical**

Provides full time training in Intermediate polysomnographic technology including implementation and titration of oxygen therapy and positive airway pressure (PAP). Covers different modes of PAP therapy including Continuous Positive Airway Pressure (CPAP); Bi-level Positive Airway Pressure (bi-level); and Bi-level Auto-AV ventilation. These therapeutic modalities will enhance the students understanding of the various forms of sleep disordered breathing (SDB) and the appropriate treatment and recommended protocols. Provides patient contact including patient education and proper mask fitting techniques. Presents opportunities to observe, perform (under supervision) and evaluate therapeutic sleep studies. Prerequisite: Admission to Upper Division Polysomnographic Program; HHO 324, HHO 470

4 credits

**HHO 472 Advanced Polysomnographic Technology Clinical**

This full time clinical provides training following the AASM Manual for the Scoring of Sleep and Associated Events. The clinical will provide experience in report generation of diagnostic polysomnograms, PAP titrations, and oxygen titrations. Students will observe, assist, perform (under supervision) and evaluate diagnostic and therapeutic sleep studies. This clinical provides contact time for students with

physicians, laboratory manager(s), and patients. Prerequisite: Admission to Upper Division Polysomnographic Program; HHO 470, HHO 471  
4 credits

**HHO 476 Pediatric Polysomnographic Clinical**

Provides full time clinical training in pediatric polysomnography. Familiarizes students with instrumentation setup and calibration; recording and monitoring techniques; documentation; professional issues; and patient-technologist interactions related to pediatric polysomnography. It provides the student opportunities to interact and develop their communication skills for educating the patient, the patient's family and/or legal guardian. Presents opportunities to observe, perform (under supervision) and evaluate pediatric sleep studies. Prerequisite: Admission to Upper Division Polysomnographic Program; HHO 430  
3 credits

**HHO 479 Clinical Teaching in Polysomnographic Technology**

Full time clinical provides the student teacher an opportunity to develop and use educational skills and techniques in the clinical setting. Builds upon educational techniques covered HAT 410. Prerequisite: Admission to Upper Division Polysomnographic Program; HAT 410, HHO 470, HHO 471, HHO 472  
4 credits

**HHO 480 Basic Electroencephalography Clinical**

Provides full time clinical training in the basics of electroneurodiagnostic technology. Familiarizes students with instrumentation setup and calibration; recording and monitoring techniques; documentation; professional issues; and patient-technologist interactions related to electroneurodiagnostic technology. Students will observe, assist, perform (under supervision) electroencephalograms. Prerequisite: Admission to Upper Division Polysomnographic Program; HHO 440  
3 credits

**HHO 488 Polysomnographic Technology Management Clinical**

Provides full time clinical training in daily operations of a sleep disorders facility including the patient flow process from acceptance guidelines to follow-up care. Exposes student to various quality assurance programs, facility policies and procedures, archiving data, interscorer reliability, and patient education in a sleep disorder facility. Prerequisite: Admission to Upper Division Polysomnographic Program; HHO 420  
4 credits

## HM

**HM 500 First Year Medicine (Fall)**

First year medical students (Fall) August - December.  
0 credit

**HM 501 First Year Medicine (Spring)**

First year medical students (Spring) January - June.  
0 credit

**HM 600 Second Year Medicine (Fall)**

Second year medical students (Fall) August - December.  
0 credit

**HM 601 Second Year Medicine (Spring) January - June.**

0 credit

**HM 700 Third Year Medicine (Fall)**

Third Year Medicine (Fall) June - December.  
0 credit

**HM 701 Third Year Medicine (Spring)**

First term as a Third year medical students (Spring) January - June  
0 credit

**HM 800 Fourth Year Medicine (Fall)**

Fourth Year Medicine (Fall) June - December.  
0 credit

**HM 801 Fourth Year Medicine (Spring)**

First term Fourth year medical students (Spring) January - May  
0 credit

**HM 888 Continuation of Fourth Year Medicine**

0 credit

**HM 901 Elective Research**

Review sessions for transfer and continuing students entering the third year clerkships in the School of Medicine.  
0 credit

**HM 910 Continuation of Studies**

General Medicine review sessions for transfer and continuing students returning to School of Medicine studies.  
0-3 credits

**HM 999 VISIT STUD ELECTIVE**

Students visiting from other medical schools to complete an elective at Univeristy Hospital  
0-12 credits, S/U grading

## HMC

**HMC 331 Legal and Ethical Issues in Health Care**

Introduction to ethics, its application to the health care profession, and to some of the major ethical and legal

doctrines that affect health care professionals. The doctrines are discussed by addressing specific problem situations. Some of the topics are the right to refuse medical, mental, and social care; the right to life and its limits (e.g., suicide, euthanasia, abortion); the right to receive care; and access to and evaluation of health care delivery. Since the goal of the course is to sensitize professionals to legal and ethical issues like those they will be called upon to resolve, students are expected to take part in class discussions and do readings.  
3 credits

**HMC 361 Literature and Medicine**

Explores major themes of medical care and illness as presented in works of poetry, prose, and drama. Includes personal and ethical dilemmas confronted by doctors; special characteristics and discourse of the medical setting; the experience of being ill; philosophical, social, and spiritual dimensions of the clinical encounter; and the search for meanings in medical events.  
3 credits

**HMC 487 Independent Study**

3 credits

## HMF

**HMF 88 Continuing Dietetic Internship Program**

This course is for continuing dietetic interns.  
0 credit, S/F graded

**HMF 89 Dietetic Internship Program**

The Dietetic Internship program emphasizes nutrition therapy and community nutrition. Dietetic interns routinely interact with physicians, medical residents, nurses and nurse practitioners at interdisciplinary case conferences, grand rounds, walking rounds and informal educational activities. This internship is accredited by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics. The program is limited to those students accepted into the program through the DICAS process.  
0 credit, S/F graded

## HMH

**HMH 401 INTRO MEDICAL PHYS**

Introduction to Medical Physics  
3 credits

## HMO

**HMO 401 RESEARCH IN PERINATA**

**HMO 402 RSH PRJ IN OB/GYN**

**HMO 490 IND STUDY CYTOGENET**

**HMO 492 IND STUDY REP BIO**

## HMP

**HMP 425 INDEP RES NEUROPSYCH**

**HMP 430 INDEPENDENT STUDY**

**HMP 575 Appl Clin Neuropsych**

**HMP 598 INDEP RES NEUROPSYCH**

**HMP 599 INDEPENDENT STUDY**

## HNC

**HNC 304 Social Justice in Health Care**

This course will explore the role of social determinants in health outcomes. Current theories on health disparities will be examined. Strategies to decrease these disparities will be discussed and methods to promote social justice within the current health care environment will be presented.  
2 credits

**HNC 305 Healing and the Arts**

This course examines the interface between the arts and nursing to provide insight into the human condition and the healing process. Theoretical and evidence-based foundations that inform the field of the arts in healthcare will be discussed. Students will have the opportunity to view, interpret, reflect on and create works of art, including paintings, sculpture, literature, film, music and movement. These topics will be explored to develop and enhance the skills of observation, analysis, empathy, self-reflection, and interpersonal (nurse-patient) and interprofessional (nurse-colleague) relationships, which are essential in supporting the healing process and providing holistic patient-centered care to diverse populations.  
2 credits

**HNC 310 Pathophysiology**

This is a foundation course introducing the student to the basic mechanisms of disease and pathophysiology.  
3 credits

**HNC 333 Fundamentals of Pharmacology**

This course explores the basic scientific principles that underlie the mechanisms of action of the major drug classifications and their effect on pathophysiologic processes. A prototype approach is used to assist students in organizing and learning the major drug classifications. A major emphasis is placed on development of clinical decision-making and critical thinking skills.

4 credits

**HNC 340 Novice to Expert**

This course is designed as an introduction and application of Patricia Benner's model of professional development of nurses. Students will participate in individually designed clinical immersions to enhance their professional practice and progression on the Novice to Expert continuum. The relationship of theory to practice in the acquisition of skill will be explored. Coursework will facilitate a deeper understanding and appreciation of the expanded roles and responsibilities of the baccalaureate prepared registered nurse.

6 credits

**HNC 350 Professional Role Development in Nursing**

This is a foundation course that explores the role and responsibilities of the nurse in meeting the demands of current and evolving health care systems. The history and theoretical basis of the profession are introduced. Standards of practice, ethical issues, and personal values are examined. Political, social, and economic issues, as they relate to nursing and health care, are also considered. Cultural awareness and sensitivity are emphasized. Consideration of the schools mission and philosophy is followed by student development of a personal philosophy of nursing practice.

2 credits

**HNC 367 Introduction to Healthcare Policy**

This course provides a basic understanding of the healthcare policy in the United States. Emphasis is placed on the application of healthcare policy as it relates to the nurses role as patient advocate, and professional change agent. The impact of specific policies and regulating agencies upon nursing practice is also examined.

2 credits

**HNC 370 Health Assessment**

This course focuses on the health assessment of individuals within a multicultural society. Biopsychosocial and spiritual dimensions of health are assessed. Using scientific methods as a framework, concepts of communications, critical analysis and clinical decision-making are emphasized in assessing psychological and physiological health status throughout the lifecycle. The basic skills of interviewing, history taking, data collection and physical examination are employed to derive nursing diagnoses, determine priorities and therapeutic nursing interventions.

3 credits

**HNC 382 Continuing Course Work**

Continuing Course Work  
1-5 credits, S/U grading

**HNC 440 Research in Nursing**

This course is an introduction to the language and process of scientific inquiry in nursing research. It emphasizes the development and use of an evidence-based practice in nursing. Theoretical frameworks, research terminology and designs are introduced. Critical appraisal skills are developed

through the evaluation and critique of current research. The importance of incorporating research findings into professional practice is promoted.

2 credits

**HNC 452 Preparation for Professional Licensure**

This elective course explores the application of nursing knowledge and skills of critical thinking, management, and delegation to demonstrate competency as an entry-level nurse. Prioritization and clinical judgment concepts are emphasized.

1-5 credits

**HNC 462 Clinical Immersion in Emergency Nursing**

This elective clinical course explores the role of the registered nurse and the interprofessional health care team in the Emergency Department environment.

2 credits

**HNC 469 Population Health Nursing**

This required clinical course is designed to prepare the student to work with families, groups, communities and populations across both the lifespan and the continuum of health care environments. Case studies and community based learning activities are provided to enhance critical reasoning and encourage independent decision making. Clinical experiences are designed to give the student an opportunity to utilize evidence based nursing interventions to provide health promotion and disease prevention. Advanced communication skills are utilized in caring for diverse population in collaboration with interprofessional team members. Pre-requisite: Successful completion of HNC 499.

6 credits

**HNC 470 Nursing Management Practicum**

This course explores leadership and management theoretical frameworks and principles related to nursing practice. The nurses role(s) and responsibilities as a manager across diverse health care settings are considered. Students will analyze and evaluate the implementation of a quality improvement project developed to address an identified nursing management problem.

6 credits

**HNC 471 Nursing Management Practicum for BS/MS Students**

This course explores leadership and management theoretical frameworks and principles related to nursing practice. The nurses role(s) and responsibilities as a manager across diverse health care settings are considered. Students will analyze and evaluate the implementation of a quality improvement project developed to address an identified nursing management problem.

3 credits

**HNC 479 Transitions into Professional Practice**

This course presents the concepts and skills needed to transition to professional nursing practice. Organizational structure, time management and conflict resolution strategies are presented. Team-building and interdisciplinary communication principles are emphasized. The nurses role as a health care advocate and resource manager are investigated. Delegation and prioritization principles are reinforced, and legal/ethical issues related to nursing practice are explored. Career planning and professional growth are encouraged through the development of a professional resume.

3 credits

**HNC 480 Clinical Immersion in Operative Nursing**

This elective clinical observation course explores the role of the registered nurse and the interprofessional health care team in the operating room environment

1 credit, S/U grading

**HNC 481 Clinical Immersion: Undergraduate**

The focus of this course is to expand, deepen, or enrich clinical practice skills relevant to area of clinical practice. Learning opportunities, in clinical and simulated settings, will promote integration of clinical competencies, leadership, and practice inquiry. Emphasis will be placed on self-directed and perceptive learning experiences, in-depth clinical skill building and decision-making, continuity of care, and inter-professional collaboration.

1-6 credits

**HNC 482 Directed Studies**

A directed study is a student-initiated elective course in which an area of interest in nursing is explored with the guidance of a faculty mentor. The directed study courses do not replace required or core courses for the major.

1-4 credits

**HNC 483 Clinical Immersion in Perioperative Nursing II**

This elective clinical course provides the opportunity to apply the knowledge, skills and attitude required of a professional nurse in the perioperative environment. Communication and collaboration of the interprofessional health care team is emphasized. Students will work with diverse populations of patients and their families in the perioperative environment under the direct supervision of an RN preceptor.

3 credits

**HNC 489 Global Immersion: Undergraduate**

The focus of this course is to expand, deepen, or enrich nursing practice relevant to global aggregates, families and communities. Learning opportunities will promote integration of competencies, leadership, and practice inquiry within the context of a global experience. Cross-cultural learning experiences will provide opportunities for student reflection on the interconnections, interdependence and inequalities they encounter during these experiences. Emphasis will be placed on interprofessional collaboration within an international environment.

0-6 credits

**HNC 491 Patient and Family Centered Care: Partners on Health Care**

This course is designed to provide a theoretical and conceptual framework for

2 credits

**HNC 492 Complementary and Alternative Therapies**

This course is an introduction to complementary and alternative health practices. A core value of nursing practice is holistic care of the patient. The student will examine uses of complementary and alternative therapies in health promotion and disease prevention as well as in acute and chronic health management through evidence based practice and research. Implications of complementary and alternative therapies on culture, health disparities, society, economics, safety, legal, ethical and health policy issues will be explored and discussed.

2 credits

**HNC 493 End of Life Care of the Adult Patient**

This course focuses on nursing care of the adult patient and family as they approach end of life. It will emphasize a framework that allows the patient to die peacefully, with dignity and in the context of their own lives while honoring the patient's end-of-life decisions. The content will address several themes including advocacy, ethical, legal, cultural, and financial considerations, and interprofessional collaboration.

2 credits

**HNC 495 Palliative, Hospice and End of Life Care**

This course is focused on improving end-of-life care for clients and their families to enable the client to die peacefully, with dignity and in the context of their own lives, while honoring their end-of-life choices. The content will emphasize the goals of palliative care with attention on clinical skills and interprofessional collaboration, providing the licensed student confidence in caring for the client/family who is nearing death. Topics will include clinical aspects of symptom management, communication skills, grief, spirituality, and self-care. Additional themes include advocacy, ethical challenges, regulatory policy, cultural and fiscal considerations.

3 credits

**HNC 499 Clinical Epidemiology-Population Based**

An introduction to epidemiologic principles will be applied to major public health problems in the community. This course will introduce nursing students to the concepts and methods used to evaluate health problems in population groups. The student will be introduced to the basic concepts of epidemiology and briefly focus on statistical concepts that are used to summarize health data in the study of health and disease problems in the community.

3 credits

# HND

## **HND 598 School of Nursing Enrollment of Course Work**

For students who need to enroll in course work before they attend the orientation  
0-12 credits, S/U grading

## **HND 612 Theories of Applied Science**

This course will provide the graduate DNP student with a systematic overview of concepts and theory as a foundation for guiding the transfer of research knowledge into practice and optimizing health system performance. Analytical and evaluative skills are developed through examination and critique of nursing concepts, models, frameworks and science-based theories.

3 credits, Letter graded (A, A-, B+, etc.)

## **HND 615 Genomics**

This course will provide the student with the knowledge to recognize the role of genetic factors in the prevention, causation and treatment of human disease. Focus will be placed on translation of genetic discoveries into interventions that improve health outcomes

3 credits, Letter graded (A, A-, B+, etc.)

## **HND 625 Health Care Policy and Social Justice**

This course will provide the student with the knowledge to examine the interface among federal, state and local governments, from a historical to a contemporary perspective. The focus will be on correlating health care to health policy, fiscal implications and access and delivery of health care. An emphasis will be placed on contemporary issues, problems and controversies that effect social, economic, political and environmental perspectives.

3 credits, Letter graded (A, A-, B+, etc.)

## **HND 635 Biostatistics**

This course will provide the student with knowledge of statistical approaches utilized in epidemiological studies. Analysis of risk factors and disease data will be emphasized. Applying epidemiologic methods to critically evaluate the evidence used in clinical decision making will be an important aspect of this course.

3 credits, Letter graded (A, A-, B+, etc.)

## **HND 640 Principles of Epidemiology and Global Health**

This course will provide the student with a systematic and selective overview of conceptual approaches and research findings related to the impact of social contexts on the health of populations.

3 credits, Letter graded (A, A-, B+, etc.)

## **HND 645 Large Data Analyses**

This course provides an overview of the major public access large scale healthcare data sets available on federal, state,

and local levels. This course facilitates students development in the application of analytical methods used to answer research questions. A major focus of the course will be the query and access of large data sets including: 1) variable identifications and definitions, 2) record layouts, 3) data set sizes and analysis restrictions, 4) coding methods, 5) data manipulation using R , Statistical Package for the Social Science (SPSS), Statistical Analysis System (SA ); 6) and developing a working knowledge of statistical programs.

Prerequisites: Biostatistics (HND 635); Epidemiology (HND 640)

3 credits, Letter graded (A, A-, B+, etc.)

## **HND 647 Doctoral Research Seminar**

This course will provide the student with the academic skills necessary to build the scientific foundation for the advanced practice of nursing. Theory and evidence-driven projects will be developed in collaboration with interdisciplinary mentors. Peer review skills will be refined.

4 credits, Letter graded (A, A-, B+, etc.)

## **HND 650 Systems Theory**

This course will provide the student with the knowledge and skills necessary to

3 credits, Letter graded (A, A-, B+, etc.)

## **HND 655 DNP Synthesis I**

This course will provide the student with the opportunity to work closely with a doctoral faculty advisor to refine, implement and evaluate a scholarly project.

5 credits, Letter graded (A, A-, B+, etc.)

## **HND 665 DNP Synthesis II**

This course will provide the student with experience in developing and evaluating health and educational interventions. Students will gain experience in creating and evaluating assessment tools, data bases, and data analysis using data from their DNP projects and an educational evaluation exercise. Preliminary work also will entail preparing for dissemination of their DNP project. Prerequisite: HND 655

6 credits, Letter graded (A, A-, B+, etc.)

## **HND 675 DNP Synthesis III**

This course will emphasize the differentiation of complex and comprehensive level of advanced practice leading to optimal health outcomes for a selected population. Clinical experiences will facilitate the development of a culminating project that demonstrates applications for better patient care.

Prerequisite: HND 665

6 credits, Letter graded (A, A-, B+, etc.)

## **HND 682 Doctor of Nursing Practice (DNP) Continuing Coursework**

Doctor of Nursing Practice (DNP) Continuing Coursework  
1-5 credits, S/U grading

# HNG

## **HNG 501 Primary Care**

The student explores and analyzes common health problems as experienced by women from young adulthood through old age. Optimum client outcomes are emphasized in the development of client specific management plans. The clinical components of primary care are practiced in women's health care settings. An emphasis is placed on application of evidence-based screening guidelines. Prerequisite(s): HNG 540, HNG 588. CoRequisite: HNG 515  
3 credits, Letter graded (A, A-, B+, etc.)

## **HNG 506 Evidence-based Health and Wellness of the Contemporary College Student**

This interdisciplinary course focuses on understanding the health and wellness continuum of the contemporary college student, identifying the at risk student, and examining models for intervention and student support. Concepts including developmental theory, health beliefs and culture will be explored in relation to topics such as health maintenance, mental health substance abuse, violence, and the needs of the student with cognitive and physical disabilities.  
2 credits, Letter graded (A, A-, B+, etc.)

## **HNG 507 Parenting: Anticipatory Guidance**

This course critically examines issues, knowledge and skills which facilitate optimal parent/child health outcomes. Concepts from humanities, health related and nursing sciences provide a knowledge based for parenting and parent education. Anticipatory guidance, as a therapeutic nursing intervention, will be the focus of the course.  
2 credits, Letter graded (A, A-, B+, etc.)

## **HNG 513 Advanced Health Assessment of the Neonate and Infant**

This course will be centered on assessment of physical, behavioral and cognitive development of the neonate and infant within the context of their family and environment. Emphasis will be placed on the development of diagnostic reasoning and clinical decision making skills as essential components of the advanced practice role.  
3 credits, Letter graded (A, A-, B+, etc.)

## **HNG 514 Advanced Theory and Clinical Practice in Perinatal Women's Health I**

This is the first of four sequential courses focusing on advanced nursing practice specializing in perinatal/women's health throughout the life span focusing on gynecological health. Analytical thinking and clinical decision making within collaborative practice will be implemented so that therapeutic nursing interventions result in desired outcomes in the ambulatory care of women. Nursing theory and research for health promotion and management of women within the context of a multicultural society will be addressed. Realistic problems within a collaborative practice will be explored and developed to facilitate acquisition of skills in reasoning,

problem solving, decision making and critical reflections relevant to the specialization of Perinatal Women's Health.  
4 credits, Letter graded (A, A-, B+, etc.)

## **HNG 515 Advanced Health Assessment**

Provides diagnostic reasoning and a regional approach to physical exam in the health assessment process. Functional health patterns and biomedical models constitute the theoretical framework.  
3 credits, Letter graded (A, A-, B+, etc.)

## **HNG 517 Advanced Theory and Clinical Practice in Psychiatric/Mental Health I**

Provides a theoretical and conceptual foundation for the advanced practice of Psychiatric/Mental Health Nursing. The concept of mental health is based upon a comprehensive understanding of human interaction with the environment through a synthesis of arts, sciences, humanities and life experience. Emphasis will be place on the importance theory plays in defining knowledge necessary to assess human behavior, diagnose illness and to implement and evaluate treatment related to psychopathology. Prerequisite: HNG 515, HNG 557;  
4 credits, Letter graded (A, A-, B+, etc.)

## **HNG 518 Advanced Theory and Clinical Practice in Child Health I**

The focus of this course is the development of critical thinking and clinical decision making as essential components of the advanced practice role. The major emphasis will be on analyzing and exploring common primary health problems of infants, children, and adolescents and developing optimum client outcomes that promote cost-effective, quality health care within the context of a multicultural society. Health assessments will integrate the concepts, theories, and principles underlying advanced assessment, diagnosis, and management of common health problems of infants, children, and adolescents within the context of their families and communities. Knowledge of related health sciences, nursing theories, and research are drawn upon to further develop the framework for the advanced practice role.  
4 credits, Letter graded (A, A-, B+, etc.)

## **HNG 519 Advanced Theory and Clinical Practice in Adult Gerontological Health Nursing I**

Clinical problem solving and decision making skills essential to assessing and diagnosing health status, health risks, illness and functional/dysfunctional health patterns of adults and their families. Resources, strengths and limitations are used as a basis to collaborate with adult patient families and/or other health care providers to plan therapeutic interventions to promote, maintain or restore health. Prerequisite: HNG 515. CoRequisite: HNG 540, HNG 588  
4 credits, Letter graded (A, A-, B+, etc.)

## **HNG 520 Selected Topics in Childhood Morbidity**

The course is designed to provide the graduate student preparing for an advanced practice role with a broad knowledge base of the physiological and pathophysiological changes that occur during the maturational process from conception through childhood. Emphasis will be placed on the maintenance of wellness and prevention of illness through nursing interventions, perinatal education, and anticipatory guidance.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 522 Advanced Topics in Fetal and Neonatal Pathophysiology**

This course is designed to provide the graduate student preparing for an advanced practice role in neonatal health with a broad knowledge base of the physiological and pathophysiological changes that occur during the developmental process from conception through infancy. Emphasis will be placed on the development wellness and prevention of illness through nursing interventions, perinatal education, and anticipatory guidance.

2 credits, Letter graded (A, A-, B+, etc.)

**HNG 524 Advanced Theory and Clinical Practice in Perinatal Women's Health II**

This is the second of four clinical courses that will prepare the student to provide primary care to women during the childbearing years. The conceptual frameworks of wellness, health promotion and disease prevention, and the effective use of communication strategies in documentation, patient education and advocacy will be emphasized. This course develops the paradigm of family-centered, community-based health care, which respects multicultural traditions and lifestyle variations. Students are prepared for the advanced practice role of the Perinatal Women's Health Nurse Practitioner in the provision of care to women from preconception through the prenatal, intrapartum, postpartum phase of childbearing. The normal neonate and breastfeeding content is also included in this course.

4 credits, Letter graded (A, A-, B+, etc.)

**HNG 525 Advanced Health Assessment Child Health**

This course is designed to enable the student to refine and further develop clinical decision making skills while conducting health assessment of infants, children, and adolescents. Emphasis will be placed on assessment of the child's physical, emotional and cognitive development within the context of the family and environment.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 527 Advanced Theory and Clinical Practice in Psychiatric/Mental Health Nursing II**

This is the second of four sequential clinical core courses for advanced practice in psychiatric mental health nursing. This course is designed to provide the knowledge and skills inherent in the diagnosis of mental disorders as related to etiology, psychopathology, practice and research. A variety of treatment models that provide a foundation for psychotherapeutic interventions will be explored, analyzed

and applied to meet the needs of a complex and culturally diverse society. Prerequisite: HNG 515, HNG 517  
4 credits, Letter graded (A, A-, B+, etc.)

**HNG 528 Advanced Theory and Clinical Practice in Child Health Nursing II**

This is the second of four sequential courses designed to expand and integrate concepts, theories and principles underlying advanced assessment, diagnosis and management of common health problems of children within the context of their families and communities. This course prepares students for the advanced practice role of the pediatric nurse practitioner/clinical nurse specialist in an environment conducive to analytic skills, clinical decision making and reflections on practice in a multi-cultural society. Clinical and evidence based research is drawn upon to further develop the framework for the advanced practice role. Prerequisites: HNG 518, HNG 525; corequisites: HNG 504, HNG 520, HNG 540  
4 credits, Letter graded (A, A-, B+, etc.)

**HNG 529 Advanced Theory and Clinical Practice in Adult Gerontological Health Nursing II**

This is the second of four sequential courses designed to develop advanced clinical decision making skills in diagnosing, treating and managing a patient/family with health problems and dysfunctional patterns. Therapeutic interventions are planned to promote health, treat illness, manage chronic disease and limit disabilities by enhancing problem solving and self care abilities of adults and their families. The implementation and evaluation components of managed care are emphasized. Prerequisites: HNG 519.  
5 credits, Letter graded (A, A-, B+, etc.)

**HNG 534 Advanced Theory and Clinical Practice in Perinatal Women's Health Nursing III**

This is the third of four sequential clinical courses designed to integrate nursing theory and research into the health promotion and management of the high risk perinatal family within the context of a multicultural society. Emphasis is placed on the prevention and early detection of reproductive risk, therapeutic nursing intervention and communication necessary to improve the quality of perinatal outcomes. The nursing process is utilized to manage high risk reproductive and perinatal complications.  
5 credits, Letter graded (A, A-, B+, etc.)

**HNG 537 Advanced Theory and Clinical Practice in Psychiatric/Mental Health Nursing III**

Provides the knowledge and skills in the nursing diagnosis and therapeutic nursing interventions of mental disorders in special populations in a multicultural society. The variety of therapeutic roles for the Nurse Practitioner in Psychiatric/Mental Health nursing will be analyzed to provide a framework for advanced practice. Prerequisite: HNG 515, HNG 527  
5 credits, Letter graded (A, A-, B+, etc.)

**HNG 538 Advanced Theory and Clinical Practice in Child Health Nursing III**

This is the third of four sequential courses and is designed to provide knowledge and analytical skills to meet the health care needs of children and families with chronic and or medically fragile conditions in a complex and culturally diverse society. There will be precepted clinicals that expose students to clinical decision making in collaborative practice environments. Health care management will be linked with evidence based clinical research findings that promote optimal health care for children and families within complex interrelated health care systems.

5 credits, Letter graded (A, A-, B+, etc.)

**HNG 539 Advanced Theory and Clinical Practice in Adult Gerontological Health Nursing III**

This is the third of four sequential courses designed to develop advanced clinical decision making skills in diagnosing, treating and managing a patient/family with health problems and dysfunctional patterns. Emphasizes coordination, consultation, and interaction components of case management to promote, maintain and/or restore health in groups of adult patients in primary care settings. Clinical research is drawn upon to further develop the framework for the advanced practice role. Pre-requisites: HNG 529, HNG 540 and HBP 511

5 credits, Letter graded (A, A-, B+, etc.)

**HNG 540 Clinical Pharmacology (All Tracks)**

Clinical applications of major classifications of drugs. Emphasizes pharmacology and therapeutics. Addresses clinical correlations with applications to special populations using case studies. Prescription writing, patient compliance to drug therapy and application of this knowledge for special patient population.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 541 Statistical Methods and Scholarly Inquiry**

Nursing research will be examined as the scientific foundation for nursing. An emphasis will be placed on research competencies for advanced practice nurses, including understanding nursing research methods and strategies in order to evaluate research results for applicability to practice. An understanding of statistical techniques will be integrated into the course. Published nursing research studies will be evaluated for scientific merit and clinical feasibility, with a focus on evidence based practice.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 542 Neonatal Clinical Pharmacology**

The course is centered on pharmacotherapeutic management of selected neonatal conditions with major emphasis on the development of diagnostic reasoning and clinical decision making skills as essential components of the advanced practice role. Learners will explore and analyze pharmacologic issues relevant to the neonate and infant in the intensive care and primary care settings as well as potential consequences of maternal drug therapy on the fetus. Currency in knowledge of the principles of clinical and basic pharmacology is an essential prerequisite of this course.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 543 Applications of Clinical Nursing Research**

This is the second of two courses designed to examine research in relation to practice and primary care delivery in nursing and health care. The relationships among theory, nursing phenomena, nursing practice, and nursing research will be examined. Models and methods of research translation in nursing, including research dissemination and implementation, program planning and evaluation, cost effectiveness and analysis will be studied. An emphasis will be placed on understanding nursing research methods and strategies in order to evaluate research results for applicability to practice and to design projects for evaluating outcomes of practice. Published nursing research studies will be evaluated for scientific merit and clinical feasibility, with a focus on evidence-based practice. The course will culminate with students developing and writing an integrative review.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 547 Advanced Theory and Clinical Practice in Psychiatric/Mental Health Nursing IV**

This is the culminating course of the four sequential advanced clinical courses. It is designed to provide students with the opportunity to implement and evaluate the role of the nurse practitioner within the nursing discipline in a specialty area of their choice. Emphasis will be placed on integration of the advanced nursing practice role, nursing research, and the leadership component in the clinical specialization. Concepts of clinical practice as they relate to the specialty area in a culturally diverse society will be explored and analyzed so that therapeutic nursing interventions are linked with patient outcomes. Students will be expected to implement their role as advanced nurse practitioner, terminate and evaluate the experience. Prerequisites: HNG 515, HNG 537

5 credits, Letter graded (A, A-, B+, etc.)

**HNG 548 Advanced Theory and Clinical Practice in Child Health Nursing IV**

This is the last of a series of four courses designed to provide students an opportunity to evaluate critically the role of the Pediatric Nurse Practitioner and Clinical Nurse Specialist in the care of children and their families. Care will be taken to integrate advanced nursing practice, leadership, management, research and expert clinical practice in diagnosing, treating and managing children with particular healthcare needs.

Concepts of clinical practice will be related to outcome based research. Prerequisite: HNG 538

4 credits, Letter graded (A, A-, B+, etc.)

**HNG 549 Advanced Theory and Clinical Practice in Adult Gerontological Health Nursing IV**

A capstone experience for students to be mentored by faculty in experiencing full enactment of the roles and functions of the NP. Students identify the patient populations with whom they plan to practice, negotiate for placement in a self selected practice setting, implement the roles and functions of NP, and evaluate the terminal experience in advanced practice in adult health care. Prerequisites: HNG 539

5 credits, Letter graded (A, A-, B+, etc.)

**HNG 551 Psychopharmacology**

This course will center on pharmacotherapeutic management of selected psychiatric conditions. Students will explore and analyze pharmacologic issues relevant to the psychiatric client in ambulatory, acute care and chronic care settings. Prerequisites: HNG 540, HNG 557 or a pathophysiology course.

2 credits, Letter graded (A, A-, B+, etc.)

**HNG 554 Advanced Theory and Clinical Practice in Perinatal Women's Health Nursing IV**

This is the culminating nursing practicum course designed to provide students with the opportunity to implement and critically evaluate the role of the nurse practitioner in women's health. Emphasis will be placed on the integration of advanced nursing practice, research, and leadership/management concepts in the clinical specialization. Issues in clinical practice related to the specialty area will be explored as well as the effect of therapeutic nursing interventions on patient/family outcomes.

4 credits, Letter graded (A, A-, B+, etc.)

**HNG 555 Professional Issues in Midwifery Practice**

The course will focus on professional organizations for nurse-midwifery practice and provides an opportunity for professional socialization and responsibility. This course provides a culminating review of all clinical aspects of nurse midwifery practice and standards. An emphasis on the mastery of core competencies and standards of practice of the ACNM will be integrated throughout the course.

1 credit, Letter graded (A, A-, B+, etc.)

**HNG 557 Clinical Perspectives of Pathophysiology/Neurophysiology**

This course is based on the core concepts in Neurophysiology which are integral to the clinical practice of advanced psychiatric mental health nurses. A major focus involves understanding the neurophysiological theories of major psychiatric/mental health disorders, neurological assessment. Prerequisites: HNG 515, HNG 517, HNG 527, or permission of instructor

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 560 Sexual Health across the Lifespan**

This course will provide the skills to assess, coordinate, consult, promote, maintain and/or restore sexual health in diverse patient populations. Emphasis is placed on risk reduction and the promotion of sexual well-being.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 561 Clinical Immersion: Graduate**

The focus of this course is to expand, deepen, or enrich advanced practice skills relevant to area of clinical specialization. Learning opportunities, in clinical and simulated settings, will promote integration of advanced practice competencies, leadership, and practice inquiry. Emphasis will be placed on self-directed and precepted learning

experiences, in-depth clinical skill building and decision-making, continuity of care, and interprofessional collaboration. 1-5 credits, Letter graded (A, A-, B+, etc.)

**HNG 564 Adv Thry Cln Pract in Neonatal Health Nursing II:Primary Care High Risk Infant**

This course focuses on the advanced assessment skills required to provide primary care to high risk infants and their families within the context of a pluralistic society. The biological and psychosocial aspects are studied as a basis for nursing practice. Emphasis is placed on the role of the neonatal nurse practitioner in improving the provision of primary care and follow-up services to high risk infants with the purpose of decreasing mortality and morbidity rates and improving the quality of life for these infants after discharged from the intensive care nursery.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 565 Adv Thry Cln Pract in Neonatal Health Nursing II:Primary Care High Risk Infant**

This course focuses on the advanced health assessment skills required to provide primary care to high risk infants and their families within the context of a pluralistic society. The biological and psychosocial aspects are studied as a basis for nursing practice. Emphasis is placed on the role of the neonatal nurse practitioner in improvising the provision of primary care and follow-up services to high risk infants with the purpose of decreasing mortality and morbidity rates and improving the quality of life for these infants after discharged from the intensive care nursery.

6 credits, Letter graded (A, A-, B+, etc.)

**HNG 568 The Addicted Client: Strategies for Nursing Assessment and Intervention**

This course is designed to provide a theoretical and conceptual foundation needed to address clients with a broad range of substance abuse and addiction patterns on the health-illness continuum. It utilizes concepts from a number of nursing specialties in data collection, diagnosis, planning, intervention and evaluation through the case study method. The critical evaluation of socio-cultural beliefs, values and attitudes toward the addicted client will also be explored.

2 credits, Letter graded (A, A-, B+, etc.)

**HNG 569 Advanced Theory and Clinical Practice in Neonatal Health Nursing I: The Childbearing Family**

This is one of four sequential courses designed to focus on advanced assessment of the childbearing family. All components of this comprehensive assessment are integral to the development of differential diagnoses and management plans for high risk neonates and their families and will form the foundation for clinical decision-making required in the advanced practice role of the neonatal nurse practitioner. Parenting and the needs of the family in the context of a pluralistic society are emphasized.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 570 Independent Studies**

The focus of this course is self-directed study in the analysis, examination and critique of a specialty area of interest in advanced practice.

1-6 credits, Letter graded (A, A-, B+, etc.)

**HNG 572 Advanced Theory and Clinical Practice in Family Health Nursing I**

This is the first of four sequential clinical courses that focus on advanced nursing practice specializing in primary family health care. The major emphasis is on the development of clinical reasoning and critical thinking as essential components of the advanced practice role in family health nursing. An epidemiologic and body systems approach to common problems in primary health care will be applied along the health continuum. Optimal client outcomes within the context of a multicultural society will be explored. Prerequisites: HNG 515, HNG 588, HNG 540.

4 credits, Letter graded (A, A-, B+, etc.)

**HNG 573 Advanced Theory and Clinical Practice in Family Health II**

This is the second of four sequential clinical courses. The major emphasis is on clinical decision making and critical thinking as essential components of the advanced practice role. This course focuses on advanced nursing practice specializing in the primary health care for the pediatric patient. The major emphasis will be on analyzing and exploring common problems in primary health care for pediatric patient and throughout a health continuum and developing optimum client outcomes within the context of multicultural society.

5 credits, Letter graded (A, A-, B+, etc.)

**HNG 574 Advanced Theory and Clinical Practice in Family Health Nursing III**

This is the third course of four sequential advanced clinical courses. Coordination, consultation and interaction components of case management are emphasized to promote, maintain, and, or restore health in families in primary care settings. Prereq: HNG 573

5 credits, Letter graded (A, A-, B+, etc.)

**HNG 575 Advanced Theory and Clinical Practice in Family Health Nursing IV**

This is the fourth of four sequential clinical courses that focus on advanced nursing practice in family health, womens health and gender related care. The major emphasis is on clinical decision making and critical thinking as essential components of the advanced practice role. An epidemiologic and body systems approach to common problems in primary, health care of women from adolescence through the advanced years will be applied. Optimal individual and family outcomes within the context of a diverse society will be explored.

5 credits, Letter graded (A, A-, B+, etc.)

**HNG 577 Families: Theories and Interventions for Advanced Nursing Practice**

This course is designed to provide a theoretical and conceptual framework for the NP in developing therapeutic interventions for individuals and their families. Adult and adolescent developmental theories, the major family theories and crisis intervention theory are examined. Selected family typologies are used to illustrate theoretical concepts. Emphasis is placed on assessment, interventions and development of referral resources.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 578 Advanced Theory and Clinical Practice in Neonatal Health Nursing III: The High Risk Neonate I**

This is one of four sequential advanced theory and clinical practice courses in the neonatal nurse practitioner program. Emphasis is placed on the development of diagnostic reasoning and clinical decision making skills as essential components of the advanced practice role in providing care to high risk infants and their families in the acute care setting. Nursing theory and research for health promotion and management of the neonate and family within the context of a pluralistic society will be explored.

7 credits, Letter graded (A, A-, B+, etc.)

**HNG 579 Advanced Theory and Clinical Practice in Neonatal Health Nursing IV: the High Risk Neonate II**

This is the last of four sequential advanced theory and clinical practice courses in the neonatal nurse practitioner program. Emphasis is placed on the development of diagnostic reasoning and clinical decision making skills as essential components of the advanced practice role in providing care to high risk infants and their families in the acute care setting. The role of the neonatal nurse practitioner in improving the provision of care to high risk infants with the purpose of decreasing mortality and morbidity rates and improving their quality of life is explored. Parenting and the needs of the family in the context of a pluralistic society are stressed.

7 credits, Letter graded (A, A-, B+, etc.)

**HNG 581 Midwifery I**

This is the first of four sequential courses, each containing the didactic content associated with the clinical practice of midwifery. Providing reproductive anatomy and physiology as a foundation, the course focuses on development of clinical decision making for the diagnosis and management of gynecologic care of women across the life-span. The course utilizes the conceptual frameworks of wellness, health promotion and disease prevention. The course is designed to foster the effective use of communication strategies in documentation, client education and advocacy for women. Effective coordination of care, integration of evidence-based practice, and application of bioethical principles of care are emphasized. This course develops the paradigm of family-centered, community-based health care, which respects multicultural traditions. Prerequisite: HNG 588. CoRequisite: HNG 540

4 credits, Letter graded (A, A-, B+, etc.)

**HNG 582 Continuing Course Work**

Continuing Course Work  
1-5 credits, S/U grading

**HNG 585 Midwifery II**

This course, based on principles of maternal and fetal physiological development, will introduce the student to the midwifery management process in the primary care of women during the antepartum period. The conceptual frameworks of wellness, health promotion and disease prevention, and the effective use of communication strategies in documentation, client education and advocacy will be emphasized. This course develops the paradigm of family-centered, community-based health care, which respects multicultural traditions and lifestyles. Prerequisites: HNG-581, Corequisites: HNG 515, HNG 501.

4 credits, Letter graded (A, A-, B+, etc.)

**HNG 586 Midwifery III**

This course emphasizes the normalcy of labor and birth as a physiologic and developmental process and prepares students to assume responsibility for management of care of the woman and fetus during the intrapartum period. The use of conceptual frameworks of wellness, health promotion and disease prevention will be emphasized. Communication and collaborative strategies will be emphasized to build upon the strengths of families and communities and minimize technological intervention. Prerequisite: HNG 585

5 credits, Letter graded (A, A-, B+, etc.)

**HNG 587 Midwifery IV**

This is the fourth in a sequence of courses designed to prepare the midwife for clinical practice. The organizing framework of this course is continuity of care, emphasizing family centered, community-based health care and the normalcy of birth and recovery. Prerequisites: HNG 586, Co-requisite: HNG 555

5 credits, Letter graded (A, A-, B+, etc.)

**HNG 588 Clinical Pathobiology**

This is a graduate level pathobiology course designed to build on undergraduate physiology. The student will explore physiology in greater depth and learn how physiologic changes translate into pathologic changes in selected disease states. Focuses on the clinical aspects of the body system, including relevant underlying biochemistry structure, or pathophysiology at the organ, tissue, cell or molecular level.

3 credits, Letter graded (A, A-, B+, etc.)

**HNG 599 Therapeutic Touch**

Therapeutic touch assessment skills will be taught so that the practitioner may use therapeutic touch clinically to assist in reduction of pain and anxiety, promote relaxation and facilitate the body's natural restorative process.

1 credit, Letter graded (A, A-, B+, etc.)

**HNH****HNH 501 Health Illness in a Cross Cultural Perspective**

This course examines the role of history and culture in healing and medicine. The consideration and utilization of cultural practices and beliefs when designing health education programs will be stressed.

3 credits, Letter graded (A, A-, B+, etc.)

**HNH 503 Organizational Leadership and Role Transformation**

This course focuses on the knowledge and skills needed to understand the economies of care, business principles, and how to work within and affect change in systems. It will also prepare students to conceptualize a new advanced practice role in the discipline of nursing. Leadership, including theory, leadership styles, contemporary approaches and strategies, will be explored.

3 credits, Letter graded (A, A-, B+, etc.)

**HNH 504 Quality Improvement, Safety and Healthcare Technologies**

As a foundational course for graduate level nurses, this course prepares students to apply quality improvement methods and analyze information to affect safety and quality of care and to improve patient outcomes. The use of current and emerging technologies to support safety, quality and value based care and quality across diverse settings will be emphasized.

3 credits, Letter graded (A, A-, B+, etc.)

**HNH 505 Health Care Policy and Advocacy**

This course examines how policies shape the structure and financing of health care, influence social determinants of health, and affect health outcomes. Participation in the development and implementation of institutional, local, state, and federal policy will be an expectation of this course. The role of nurse as advocate for vulnerable populations, the profession, and health-promoting policies will be explored.

2 credits, Letter graded (A, A-, B+, etc.)

**HNH 510 Facilitating Adult Learning**

This course focuses on the role and perspective changes in adulthood. Concepts of self and maturity, learning theories, cognition, creativity, interests, attitudes and motivation will be explored. Issues, strategies and methods for facilitating adult learning will be emphasized. Theory is considered in relation to nursing education. Prerequisites: HNH 502 or HNG 502

3 credits, Letter graded (A, A-, B+, etc.)

**HNH 511 Curriculum Design, Implementation and Evaluation in Nursing Education**

This course focuses on issues in design of curriculum content, organization, and planning toward a practical approach to curriculum development. Application of theory to the development and implementation of curriculum from the

point of view of the practice discipline of nursing will be emphasized. Problems, issues and procedures involved in designing and implementing evaluation studies will be discussed. Theory and methods of measurement and evaluation and their application to practice will be emphasized. Prerequisites: HNH 502 or HNG 502  
3 credits, Letter graded (A, A-, B+, etc.)

**HNH 512 Advanced Teaching Strategies**

This course emphasizes the role of the teaching-learning process in clinical and academic nursing education through development of innovative instructional designs and processes. Issues such as feminism, creativity in clinical teaching, and the impact of economic and social trends on reality-based nursing will be discussed. A variety of teaching methods will be explored including simulation, virtual learning, social media and relevant and innovative instructional technologies.  
3 credits, Letter graded (A, A-, B+, etc.)

**HNH 513 Advanced Theory and Practice in Nursing Education I**

This course focuses on graduate level clinical practice content and experiences related to the role of the nurse educator. A focus on this population-focused practicum will include student placement with an expert nurse clinician to develop proficiency in a focused area of clinical practice. Students will choose a population foci and complete 75 direct care hours during this precepted clinical experience. Increased knowledge in a specialized area of practice will provide a clinical foundation for academic and/or clinical nursing education.  
3 credits, Letter graded (A, A-, B+, etc.)

**HNH 514 Advanced Theory and Practice in Nursing Education II**

This is the second of three sequential courses focused on providing guided learning experiences in nursing education. Students will select aspects of nursing education related to the development, delivery, and evaluation of curricula. Role transition and experiential learning related to academic or clinical nursing education will be a central focus of this course. Observation and experience related to academic or clinical nursing education will be emphasized. The student will be expected to complete 90 hours with a nurse educator. Prerequisite: HNH 513  
4 credits, Letter graded (A, A-, B+, etc.)

**HNH 515 Advanced Theory and Practice in Nursing Education III**

This is the third of three sequential courses focused on providing guided learning experiences in nursing education. Students will select aspects of nursing education related to the role of nurse educator as leader. Scholarship activities begun in HNG 543 and HNH 514 will continue. Professional role responsibilities, including administrative functions, committee work and interdisciplinary efforts will be emphasized. The student will be expected to complete 90 hours with a nurse educator. Prerequisites: HNH 513, HNH 514  
4 credits, Letter graded (A, A-, B+, etc.)

**HNH 516 Evaluation and Testing in Nursing Education**

This course provides an overview of classroom and clinical testing. Evaluation of learning and the application of technology will be explored. Various techniques, including test construction, item analysis and clinical performance appraisal will be a central focus of this course. The knowledge and skills gained will be applied in academic and clinical settings. Co-requisite: HNH-515  
2 credits, Letter graded (A, A-, B+, etc.)

**HNH 530 Communication and Relationship Management**

This course focuses on issues in communication, relationship building, behaviors that influence others, diversity and shared decision making. Theories of interpersonal communication and professional relationship development will be emphasized. Problems, issues and procedures in relationship building will be discussed. Inter-professional collaboration will be stressed. A variety of leadership theories will be used to articulate the importance of effective oral and written communications in relation to leadership in relationship management.  
3 credits, Letter graded (A, A-, B+, etc.)

**HNH 531 Business Skills for Nurse Leaders**

This course focuses on issues in resource management, strategic management and marketing in the health care environment. Focus will be on developing a strategic plan for the health care environment in which the student works. Marketing strategies will be explored. Discussions on labor relations in relation to professional issues in collective bargaining will be emphasized. Problems, issues and procedures involved in resource management will be discussed.  
3 credits, Letter graded (A, A-, B+, etc.)

**HNH 532 Finance and Economics in Nursing Leadership**

This course provides an introduction to financial management for planning, operation, and evaluation of the economic performance of an organization. The course will focus on budgeting, healthcare reimbursement, cost/benefit analysis and the integration of leadership and management functions into fiscal planning. The student will investigate concepts and principles necessary for the management of fiscal resources.  
3 credits, Letter graded (A, A-, B+, etc.)

**HNH 533 Legal/Ethical/Regulatory Issues in Nursing Leadership**

This course is designed to provide the knowledge and skills necessary to integrate legal, ethical and regulatory requirements into a variety of health care settings. Principles and processes of patient and employee safety will also be emphasized. Students will investigate concepts and principles necessary for ethical decision making.  
3 credits, Letter graded (A, A-, B+, etc.)

**HNH 534 Advanced Leadership Seminar**

This course is the capstone course and will focus on the role of the nurse leader. Emphasis will be on role formation, dimensions of leadership roles, identification of individual and group leadership attributes, knowledge and skills required to fulfill the role and approaches to leadership. Students will develop and conduct self-assessments and create a professional development plan.

3 credits, Letter graded (A, A-, B+, etc.)

**HNH 540 Advanced Theory and Practice in Nursing Leadership I**

This is the first of two sequential courses designed to provide learning experiences with a nurse leader. Students will integrate advanced knowledge and skills related to organizational theory and financial/human resource management. The student will use data-driven decision making and creative leadership skills to build a positive practice environment as well as develop analytical skills to assess and forecast trends in nursing leadership. Inter-professional collaboration will be emphasized. Field experiences of 90 hours are required and may include preceptorship by a nurse leader and financial officer in a health care system.

4 credits, Letter graded (A, A-, B+, etc.)

**HNH 541 Advanced Theory and Practice in Nursing Leadership II**

This is the second of two sequential courses designed to provide learning experiences with a nurse leader. This course builds on knowledge of organizational leadership and quality improvement. The student will integrate advanced knowledge and skills into practical applications in the role of nurse leader. Students will further explore the leadership role through current relevant research to enhance their ability to strategize entrepreneurial relationships, develop creative solutions to financial constraints and evaluate infrastructure and technology. Project management will be emphasized. Students will be required to seek experiences with health care leaders involved in project management. Field experiences of 120 hours are required.

3 credits, Letter graded (A, A-, B+, etc.)

**HNH 580 Health Coping Skills Training for Health Care**

Treatment approaches for many chronic illnesses consist of pharmacological and non-pharmacological interventions. Often patients need to take an active role in their care in order to best manage symptoms associated with chronic illness. Coping Skills Training (CST) is a psychotherapeutic approach that aims to solve problems concerning dysfunctional emotions, behaviors and cognitions through a goal-oriented, systematic procedure. The theoretical foundations that underpin CST will be explored through guided readings. A combination of cognitive and behavioral therapeutic interventions will be introduced and practiced with the goal of applying the skills to practice in order to help people change negative thought patterns, beliefs, and behaviors so they can manage symptoms and enjoy more productive, less stressful lives. Students will learn to deliver CST using a standardized manual of coping skills. Rationale for each skill, demonstration, role playing and skills feedback will be

the teaching/learning strategies for this course. Instructor feedback and supervision of home practice audio recordings of simulated skill sessions will enhance student proficiency in skill acquisition.

3 credits, Letter graded (A, A-, B+, etc.)

**HNH 590 Nursing and Numbers: Budgeting and Benchmarking for Nurses**

This course is designed to provide nurse leaders with an overview of the budget development process. Various types of budgets will be discussed with a focus on variance assessments, analysis, and benchmarking.

2 credits, Letter graded (A, A-, B+, etc.)

## HNI

**HNI 290 Introduction to Nursing**

This course is designed as an introduction to nursing for students who plan

2 credits

**HNI 301 Mathematics for Health Care**

This required course builds upon previous knowledge of mathematical concepts. Students are guided to refine and apply these concepts to the preparation of drugs and solutions. Emphasis is placed on the need for accuracy in computations. A self-directed programmed approach will be utilized.

1 credit

**HNI 304 Social Justice in Health Care**

This course will explore the role of social determinants in health outcomes. Current theories on health disparities will be examined. Strategies to decrease these disparities will be discussed and methods to promote social justice within the current health care environment will be presented.

2 credits

**HNI 305 Healing and the Arts**

This course examines the interface between the arts and nursing to provide insight into the human condition and the healing process. Theoretical and evidence-based foundations that inform the field of the arts in healthcare will be discussed. Students will have the opportunity to view, interpret, reflect on and create works of art, including paintings, sculpture, literature, film, music and movement. These topics will be explored to develop and enhance the skills of observation, analysis, empathy, self-reflection, and interpersonal (nurse-patient) and interprofessional (nurse-colleague) relationships, which are essential in supporting the healing process and providing holistic patient-centered care to diverse populations.

2 credits

**HNI 307 Disability from the Inside Out**

This course is designed to provide students an opportunity to develop an awareness of issues of disabled adults, including self care, self advocacy, disability rights, and independent living philosophies. Experience-based learning activities

facilitate acquisition of student skills in critical thinking, interprofessional collaboration and communication relevant to developing therapeutic interventions. This interprofessional course will include a service learning experiential immersion, utilizing the EmpowerSCI spinal cord injury program, a unique residential rehabilitation program for individuals with spinal cord injuries, in collaboration with the School of Health Technology and Management.  
2 credits

**HNI 310 Pathophysiology**

This is a foundation course introducing the student to the basic mechanisms of disease and pathophysiology.  
3 credits

**HNI 314 Transitional Leadership: Military Veteran to Nurse**

This course is designed to support a seamless transition for the student veteran, from military to civilian/ university life as a nursing undergraduate student. This course will emphasize the maturity of the student veteran; exploring the strengths of the student veteran: leadership skills, discipline and teamwork experiences, familiarity with diversity, and mission focused orientation. Individual learning needs will be evaluated with focus on learning styles, attention/ concentration, information processing, and executive function. Orientation to School of Nursing and campus resources and academic accommodations will be reviewed. Skills for student success will be addressed including concentration/ memory tips, advanced communication techniques, test taking strategies, and coping mechanisms. Basic nursing theory and patient and population health care will be discussed. The student veteran will be introduced to the nursing profession and will examine and explore similarities and differences between the systems.  
2 credits

**HNI 333 Fundamentals of Pharmacology**

This course explores the basic scientific principles that underlie the mechanisms of action of the major drug classifications and their effect on pathophysiologic processes. A prototype approach is used to assist students in organizing and learning the major drug classifications. A major emphasis is placed on development of clinical decision-making and critical thinking skills.  
4 credits

**HNI 350 Professional Role Development in Nursing**

This is a foundation course that explores the role and responsibilities of the nurse in meeting the demands of current and evolving health care systems. The history and theoretical basis of the profession are introduced. Standards of practice, ethical issues, and personal values are examined. Political, social, and economic issues, as they relate to nursing and health care, are also considered. Cultural awareness and sensitivity are emphasized. Consideration of the school's mission and philosophy is followed by student development of a personal philosophy of nursing practice.  
2 credits

**HNI 367 Introduction to Healthcare Policy**

This course provides a basic understanding of the healthcare policy in the United  
2 credits

**HNI 370 Health Assessment**

This course focuses on the health assessment of individuals within a multicultural society. Biopsychosocial and spiritual dimensions of health are assessed. Using scientific methods as a framework, concepts of communications, critical analysis and clinical decision-making are emphasized in assessing psychological and physiological health status throughout the lifecycle. The basic skills of interviewing, history taking, data collection and physical examination are employed to derive nursing diagnoses, determine priorities and therapeutic nursing interventions.  
3 credits

**HNI 373 Psychosocial Mental Health Nursing**

This required nursing course focuses on psychosocial nursing as a continuum of care across the lifespan and across the continuum of health care environments. Theoretical knowledge and clinical practice are developed from the philosophy of nursing care that respects clients as individuals within the context of family and a culturally diverse society. Case studies and experiential based learning activities are provided to enhance critical thinking and encourage independent decision-making. Clinical experiences are designed to give the student an opportunity to utilize previously acquired nursing knowledge, to develop an understanding of health promotion and disease prevention; advanced communication skills in caring for diverse population, and with interprofessional team members.  
6 credits

**HNI 376 Nursing Student Internship**

This course is designed to provide the nursing student with the opportunity to further develop clinical expertise utilizing Stony Brook University Medical Center (SBUMC) as a clinical campus. Critical thinking/clinical decision-making skills, cultural sensitivity, communication, time management, ethical issues, and therapeutic interventions will be emphasized.  
3 credits

**HNI 377 Principles and Applications of Nursing Interventions I**

This required nursing clinical course is an introduction to the role of the baccalaureate nurse as a manager of health care. Intra- and interprofessional communication and clinical/critical decision making are explored as key aspects of nursing process. Concepts and principles of practice are drawn from nursing theories, combined with evidence based research findings and current knowledge in the psychological, social, behavioral and physical sciences and the humanities, to build a conceptual base for professional practice. Professional nursing practice goals of health promotion, prevention of disease states and restoration of health within the current state of increased prevalence of chronic illnesses/comorbidities are presented. The focus is on the introduction of knowledge and skills used for patient

interactions to provide high quality health care to a diverse patient population throughout the lifespan.  
6 credits

**HNI 378 Principles and Applications of Nursing Interventions II**

This required nursing clinical course facilitates continued development of the baccalaureate nurse as manager of health care. Intra- and interprofessional communication and clinical/critical decision making are explored as key aspects of nursing process. Concepts and principles of practice are drawn from nursing theories, combined with evidence based research findings and current knowledge in the psychological, social, behavioral and physical sciences and the humanities, to build a conceptual base for professional practice. Professional nursing practice goals of health promotion, prevention of disease states and restoration of health within the current state of increased prevalence of chronic illnesses/comorbidities are presented. A focus is on continued development of knowledge, skills and attitudes necessary for patient interactions to provide high quality health care to a diverse patient population throughout the lifespan.  
6 credits

**HNI 382 Continuing Course Work**

Continuing Course Work  
1-5 credits, S/U grading

**HNI 389 Cultural Immersion: Undergraduate**

This seminar course will provide the student with an interprofessional perspective of global health. A specific world area will be studied in detail with emphasis on contemporary problems that affect health considering the ecology, history, language, cultural systems and social arrangements. Cross-cultural learning opportunities, both domestic and abroad, will engage students in reflection on the interconnections, interdependence and inequalities they encounter during this experience. School of Nursing permission is required.  
3 credits, Letter graded (A, A-, B+, etc.)

**HNI 440 Research in Nursing**

This course is an introduction to the language and process of scientific inquiry in nursing research. It emphasizes the development and use of an evidence-based practice in nursing. Theoretical frameworks, research terminology and designs are introduced. Critical appraisal skills are developed through the evaluation and critique of current research. The importance of incorporating research findings into professional practice is promoted.  
2 credits

**HNI 452 Preparation for Professional Licensure**

This elective course explores the application of nursing knowledge and skills of critical thinking, management, and delegation to demonstrate competency as an entry-level nurse. Prioritization and clinical judgment concepts are emphasized.  
1-5 credits

**HNI 455 Adult and Gerontological Health Nursing I**

This required nursing clinical course is an introduction to assessment and management of human complex health problems of adult and geriatric individuals within a multicultural society. Application of theoretical and conceptual frameworks, intra-and interprofessional communication, clinical/ critical decision making, and evidence-based therapeutic interventions to provide safe, high quality care.  
6 credits

**HNI 456 Adult and Gerontological Health Nursing II**

This required nursing clinical course allows development of assessment and management skills for human complex health problems of adult and geriatric individuals within a multicultural society. Utilization of theoretical and conceptual frameworks, intra-and interprofessional communication, clinical/ critical decision making, and evidence-based therapeutic interventions to provide safe, high quality care.  
6 credits

**HNI 463 Maternal and Newborn Health**

This is a required clinical course which focuses on parent child health nursing as a continuum of care during pregnancy, delivery, postpartum, and the neonatal periods. The student is introduced to theoretical and clinical practice based on a philosophy of nursing care that respects patients as individuals within the context of family and a culturally diverse society. Experience-based learning activities facilitate in critical thinking, clinical decision making, interprofessional communication, and collaboration relevant to developing therapeutic nursing interventions.  
5 credits

**HNI 464 Child and Adolescent Health**

This is a required clinical course which focuses on parent child health nursing as a continuum of care during the child-bearing years from newborn through adolescence. The student is introduced to theoretical and clinical practice based on a philosophy of nursing care that respects patients as individuals within the context of family and a culturally diverse society. Experience-based learning activities facilitate acquisition of student skills in critical thinking, clinical decision making, and interprofessional communication and collaboration relevant to developing therapeutic nursing interventions.  
5 credits

**HNI 469 Population Health Nursing**

This required clinical course is designed to prepare the student to work with families, groups, communities and populations across both the lifespan and the continuum of health care environments. Case studies and community based learning activities are provided to enhance critical reasoning and encourage independent decision making. Clinical experiences are designed to give the student an opportunity to utilize evidence based nursing interventions to provide health promotion and disease prevention. Advanced communication skills are utilized in caring for diverse

population in collaboration with interprofessional team members.  
6 credits

**HNI 474 Capstone Nursing Practicum**

This is a required senior level course which emphasizes integration and application of theory and research findings in an intensive clinical practicum. The student has the opportunity to actualize the professional nurse generalist role, utilizing professional registered nurse preceptors and faculty mentors.  
5 credits

**HNI 479 Transitions into Professional Practice**

This course presents the concepts and skills needed to transition to professional nursing practice. Organizational structure, time management and conflict resolution strategies are presented. Team-building and interdisciplinary communication principles are emphasized. The nurses role as a health care advocate and resource manager are investigated. Delegation and prioritization principles are reinforced, and legal/ethical issues related to nursing practice are explored. Career planning and professional growth are encouraged through the development of a professional resume.  
3 credits

**HNI 480 Clinical Immersion in Operative Nursing**

This elective clinical observation course explores the role of the registered nurse and the interprofessional health care team in the operating room environment  
1 credit, S/U grading

**HNI 481 Clinical Immersion: Undergraduate**

The focus of this course is to expand, deepen, or enrich clinical practice skills relevant to area of clinical practice. Learning opportunities, in clinical and simulated settings, will promote integration of clinical competencies, leadership, and practice inquiry. Emphasis will be placed on self-directed and perceptive learning experiences, in-depth clinical skill building and decision-making, continuity of care, and inter-professional collaboration.  
1-6 credits, S/U grading

**HNI 482 Directed Studies**

A directed study is a student-initiated elective course in which an area of interest in nursing is explored with the guidance of a faculty mentor. The Directed Study courses do not replace required or core courses for the major.  
1-4 credits

**HNI 489 Global Immersion: Undergraduate**

The focus of this course is to expand, deepen, or enrich nursing practice relevant to global aggregates, families and communities. Learning opportunities will promote integration of competencies, leadership, and practice inquiry within the context of a global experience. Cross-cultural learning experiences will provide opportunities for student reflection on

the interconnections, interdependence and inequalities they encounter during these experiences. Emphasis will be placed on interprofessional collaboration within an international environment. School of Nursing permission is required.  
0-6 credits

**HNI 491 Patient and Family Centered Care: Partners on Health Care**

This course is designed to provide a theoretical and conceptual framework for  
2 credits

**HNI 492 Complementary and Alternative Therapies**

This course is an introduction to complementary and alternative health practices. A core value of Nursing practice is holistic care of the patient. The student will examine uses of complementary and alternative therapies in health promotion and disease prevention as well as in acute and chronic health management through evidence based practice and research. Implications of complementary and alternative therapies on culture, health disparities, society, economics, safety, legal, ethical and health policy issues will be explored and discussed.  
2 credits

**HNI 493 End of Life Care of the Adult Patient**

This course focuses on nursing care of the adult who is dying from disease and their family. It will emphasize a framework that allows the client to die peacefully, with dignity and in the context of their own lives while honoring the clients end-of-life choices. The content will address several themes including advocacy, ethical, legal, cultural and financial considerations, and inter-professional collaboration.  
2 credits

## HPD

**HPD 519 Sytematic Review of the Literature**

This introductory course will provide students with an understanding of the process used to perform systematic review, as well as provide a "hands on" experience. Each student will perform a systematic review of the literature for their own pre-defined research question of interest. As part of the systematic literature review process, students will learn how to focus their research question; to search the literature to identify relevant studies; to appraise the quality and select studies; and to summarize studies as well as to synthesize their results in context of their original research question raised. To receive a grade for this course, moreover, a scholarly product (e.g., manuscript or letter to the editor) must be submitted to a peer -reviewed journal.  
Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HPD 521 Introduction to Clinical Research**

This seminar series course provides a broad-based introduction to the fields of population health and clinical science research. This course will prepare participants to

become critical consumers of the peer-reviewed literature. Class lectures will cover a wide range of topics, which include: framing a research question, formulating a research hypothesis, evaluating the peer-reviewed literature, exploring study design options, conducting human subjects' research ethically/responsibly, selecting clinical outcomes, and evaluating analytical alternatives. Offered in Summer, 1 credit, Letter graded (A, A-, B+, etc.)

**HPD 592 Applied Data Management Using SAS**

This course provides students with an introduction to the principles of public health and clinical research-related informatics and data management using the SAS systems. Lectures and labs will be aimed at developing hands-on skills about how to create, maintain, and manage databases using the SAS Systems for Windows, a major software package used frequently in public health and clinical outcomes research.

1 credit, Letter graded (A, A-, B+, etc.)

**HPD 601 Human Subjects: Ethics and Responsible Conduct of Research**

This introductory course incorporates three components focused upon identifying: 1) the ethical principles associated with human subjects research; 2) the primary tenets of responsible conduct of research; 3) academic career planning. This course provides a philosophical basis for current research ethics practices, identifies outstanding ethical issues and controversies in clinical and translational science and research, and provides students with knowledge and access to resources such that they may to address the ethical challenges that may arise most effectively. The course provides a more in-depth exploration of the ethics and responsible conduct of clinical and translational science research that can supplement current mandated training in the area. Offered fall, one credit, ABCF grading

1 credit, Letter graded (A, A-, B+, etc.)

**HPD 605 Introductory Seminar on Doctoral Studies in Population Health and Clinical Outcomes**

This is an introductory doctoral level 3-credit seminar for all incoming PhD students in Population Health and Clinical Outcomes. This course will help students understand what earning a PhD entails, opportunities that exist after earning a PhD, typical PhD-level work activities, and beginning the process of academic writing. Students should already be thinking about what their dissertation will be about, and we will build off of that throughout the course.

3 credits, S/U grading

**HPD 619 Independent Study**

Intensive reading under supervision of one or more instructors, of material not covered in the formal curriculum, or execution of a research project under the supervision of one or more faculty members. Generally a written deliverable (e.g. manuscript) will be required. Instructor consent required. 0-6 credits, Letter graded (A, A-, B+, etc.)

**HPD 650 Seminar Series: Clinical Applications of Molecular Medicine**

This course will provide an overview of the field of molecular medicine, with a focus on cutting edge technologies related to the current and future clinical applications to improve early detection, to enhance diagnostic testing, to monitor treatments, and to counsel patients on their prognosis. As applied to clinical patient care questions, the specific molecular medicine topics discussed will include: DNA, RNA, proteomics, and chromosome assays. Pending the specific lecturers and topics coordinated, students will be introduced to a broad range of biomarkers for disease such as cancer, pulmonary/heart diseases, autism, and immune-related disease challenges. An emphasis will be placed in this course on learning how molecular markers can be applied in a clinical setting to augment the patient and provider decision-making process. (NOTE: Students should have an introductory knowledge of cellular and molecular development biology, as well as a general laboratory background). Offered in Spring, 1 credit, Letter graded (A, A-, B+, etc.)

**HPD 664 Clinical Trials**

This course introduces the design, conduct, and analysis of clinical trials. Topics include types of clinical trials, study design, treatment allocation, randomization and stratification, quality control, sample size requirements, patient consent, and interpretation of results.

3 credits, Letter graded (A, A-, B+, etc.)

**HPD 665 Clinical Outcomes Research**

This course will provide an overview of the field of clinical outcomes assessment. The specific topics covered include: risk factors identification, clinical outcomes selection, risk adjustment methods, patient safety monitoring, and provider-based quality improvement performance reporting. Students will be introduced to a broad range of clinical outcomes including (but not limited to) short-term mortality, treatment-related morbidity, health-related quality of life, condition-specific metrics, patient satisfaction, health plan member satisfaction, utility theory, and cost-effectiveness analysis. An emphasis will be placed in this course is placed on learning how clinical outcomes research can provide a data-driven approach to influence patient, provider, program, and policy decisions.

3 credits, Letter graded (A, A-, B+, etc.)

**HPD 674 Causal Inference**

This course introduces the design, conduct, and analysis of clinical trials. Topics include types of clinical trials, study design, treatment allocation, randomization and stratification, quality control, sample size requirements, patient consent, and interpretation of results.

3 credits, Letter graded (A, A-, B+, etc.)

**HPD 681 Advanced Social Determinants of Health**

This course will build on the prior HPH 523 and further examine the current evidence supporting an association between social determinants (e.g., socioeconomic status,

physical living conditions, individual characteristics, social support, etc) and health. Students will review and critically examine the current literature on the social determinants of population health with the goal of identifying gaps in this literature which may be filled by future research. Concepts relating to the social determinants of health - e.g., identification of current priority areas, theoretical frameworks and perspectives, intervention, research methodology, etc, will be addressed as each comes up in the context of the reviewed journal article. Using publicly available data sets, students will choose a research topic related to an identified gap in the current research on the social determinants of health, propose a project to examine this topic or need which can be accomplished using publicly available data sets, conduct the analysis and write up their project in a format suitable for submission for publication. Offered Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HPD 682 Statistical Methods in Clinical Outcomes Research**

The purpose of the course is to familiarize students with some major topics in clinical outcomes research, the statistical models commonly employed, and statistical problems that need to be overcome. Specific topics of interest may include: risk factor analysis; static models; risk factor/disease progression analysis; dynamic models; survival analysis (including multivariable survival analysis); volume-outcomes research; and forecasting models. Statistical techniques and challenges will be discussed within the context of each research topic as they arise. By the end of this course, students should be broadly familiar with these issues, and should be able to evaluate published clinical outcomes research in terms of the appropriateness of models chosen and how well the statistical problems have been addressed, and the reliability of the results. Prerequisites: HPH 507 Biostatistics II or equivalent course. Offered Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**HPD 686 Mentored Research Project in Population Health and Clinical Outcomes Research**

Supervised research experience.  
0-9 credits

**HPD 687 Advanced Research Seminar**

The main purpose of this course is to familiarize students with empirical research methods via presentation and critiques of published research and work in progress. By presenting and discussing actual research that employs various statistical and other research methods, students will deepen their understanding of research intent and design, methodology and technique, format and presentation, and data management and analysis. This will reinforce their understanding of these methods learned in previous coursework.  
3 credits, Letter graded (A, A-, B+, etc.)

**HPD 692 Practicum in Teaching I**

In this course, students will have the opportunity to examine, and plan for, the teaching component of the professor role. We will use a combination of strategies including

lectures, discussions, small group activities, and interviews of exceptional teachers and departmental chairs to explore philosophical and practical issues related to course preparation, delivery, and evaluation. At the completion of the course, students will have a teaching portfolio that will have two basic components: a detailed set of plans for a specific course and a statement of their teaching philosophy. This will be an intensive hands on course that will require supportive and cooperative behaviors by all.  
3 credits, Letter graded (A, A-, B+, etc.)

**HPD 693 Practicum in Teaching II**

The course is a supervised teaching experience with the Master of Public Health program.  
Fall, Spring, and Summer, 3 credits, S/U grading

**HPD 694 Grant Writing**

This course will assist students in synthesizing basic public health knowledge through completion of a grant writing experience. Students will be introduced to the process of writing grant proposals, developing budgets, professional networking, publishing in the scientific literature, and planning for their future careers as public health professionals and academics. Students will also present their own individual research projects, write their own grant proposal, and do a career mapping exercise.  
3 credits, Letter graded (A, A-, B+, etc.)

**HPD 699 Dissertation Research On Campus**

This course is normally taken by advanced PhD students when they conduct research towards their theses. Only PhD students who have been advanced to candidacy (G5 status) can take this course. Students who have the G3 and G4 status and participate in a research project with their advisor can register for HPD 619 Independent Study.  
Summer, 0-9 credits, S/U grading

## HPH

**HPH 500 Contemporary Issues in Public Health**

This course provides an introduction to the field of public health that aims to develop an appreciation of the unique and important mission of public health; an understanding of the history, values, ethics, mission, and goals of public health; and knowledge about how public health functions today including the organization, financing, policies, and practices of public health. Students will be expected to think critically about whether public health has achieved its mission in today's world and how the profession might develop in the future. Prerequisite: Admission to Graduate Public Health Program or Department Consent.  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 501 Introduction to the Research Process**

This course provides an overview of the research process including formulation of a research problem, conceptualization of the research design, construction of the instrument for

data collection, selection of a sample, collection of data, and writing a research report. Topics include how to identify a research question and, correspondingly, how to formulate a clear, concise hypothesis or set of hypotheses; reasons and procedures for reviewing the literature; overview of observational and interventional research designs; review of measurement theory, types of scales, and commonly used measures in public health-related research; data collection methods including survey and qualitative methods; and the ethical conduct of research. Through the introduction of these topics, the course provides a general background for individuals who are interested in learning the fundamentals of how to prepare a research proposal. Prerequisite: Admission to Graduate Public Health Program or Department Consent. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 506 Biostatistics I**

This is part 1 of a 2-term course and is intended to provide students and researchers in public health with an introduction to the principles of statistical methods and their application in biomedical and public health research. Students are expected to enroll in parts 1 and 2 sequentially within the same academic year. This course includes introductions to the use of computers for statistical analysis, summarizing and exploring data, probability theory, discrete and continuous probability distributions, populations and samples, sampling distributions and statistical inference, hypothesis testing, sample size and power, two-sample comparisons, analysis of variance, association and correlation, simple linear regression and simple logistic regression. Prerequisites: Admission to Graduate Public Health Program or Department Consent; Level 3 or higher on Math Placement Exam or equivalent. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 507 Biostatistics II**

This is part 2 of a 2-term course and is intended to provide students and researchers in public health with an introduction to the principles of statistical methods and their application in biomedical and public health research. Students are expected to enroll in parts 1 and 2 sequentially within the same academic year. This course includes introductions to the use of computers for statistical analysis, summarizing and exploring data, probability theory, discrete and continuous probability distributions, populations and samples, sampling distributions and statistical inference, hypothesis testing, sample size and power, two-sample comparisons, analysis of variance, association and correlation, simple linear regression and simple logistic regression. Prerequisites: Admission to Graduate Public Health Program or Department Consent; HPH 506. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 508 Health Systems Performance**

This course introduces students to the system that we have developed to deliver health care in the United States, with international comparisons. The topics include the organization and financing of health care systems, access to health care including health insurance, regulation and policy issues, and the health care workforce. Prerequisite: Admission to Graduate Public Health Program or Department Consent. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 514 Epidemiology for Public Health**

This course presents basic epidemiologic concepts used to study health and disease in populations. It provides an overview of the major causes of morbidity and mortality, including methods of measurement (e.g., incidence, prevalence). Observational and experimental epidemiologic studies will be described and their advantages and disadvantages compared. The course aims for students to begin developing the skills needed to evaluate data, interpret reports, design, and conduct studies. Students will be introduced to the various areas of epidemiologic studies, including cancer, molecular/genetic, environmental, occupational, social and behavioral, and infectious disease surveillance. The course comprises both lectures and small group seminars for in-depth discussions of previously assigned topics. Prerequisites: Admission to Graduate Public Health Program or Department Consent; HPH 501 and HPH 506. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 516 Environmental and Occupational Health**

This course is designed to provide the fundamentals of environmental and occupational health and to educate students on issues related to major environmental and occupational concerns. It will provide a forum for the discussion of local and national environmental and occupational public health issues. The content of the course will focus on major pollutants, their detection, impact on health, and principles of remediation. Using various teaching techniques, students will be exposed to current environmental and occupational topics and approaches to prevention and treatment. The course will emphasize the most recent research in the field. Prerequisite: Admission to Graduate Public Health Program or Department Consent. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 519 Independent Study**

Intensive reading, under supervision of one or more instructors, of material not covered in the formal curriculum, or execution of a research project under the supervision of one or more faculty members. Permission of MPH Academic Coordinator is required. Prerequisite: Admission to Graduate Public Health Program or Department Consent. 0-6 credits, Letter graded (A, A-, B+, etc.)

**HPH 523 Social and Behavioral Determinants of Health**

This course introduces students to population health as one of the organizing concepts in public health and the orientation that differentiates public health from medicine. Consistent with public health tradition, health is discussed from an ecological perspective, and the course presents current knowledge about the multiple determinants of population health including socioeconomic status, the physical environment, medical care, individual behavior, and genetics and the interaction of these factors. Also covered is the measurement of population health, sources of data and methods for assessing population health improvements. Prerequisite: Admission to Graduate Public Health Program or Department Consent. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 525 Evaluating Public Health Initiatives**

This course introduces students to health policy analysis and public health program evaluation, two distinct fields that share similar tools, albeit with different goals in mind and approaches to meet these goals. Specifically, this course (1) draws on economics, epidemiology, political science, and biostatistics to prepare students to conduct holistic analyses of health policy issues; (2) prepares students to plan a program evaluation; and (3) prepares students to evaluate public policy options. Prerequisite: Admission to Graduate Public Health Program or Department Consent  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 527 Health Economics and Policy**

This course will provide students with a comprehensive view of the reasons behind the rapid rise in medical expenditures in the United States over nearly four decades, and the measures that have been proposed to address this problem. This course will cover the following topics: the demand and supply of medical care; the dynamics of competition in the health care industry; the role of government in medical care; general understanding of health care institutions, including Medicare, Medicaid, managed care, hospital and physician behavior, and pharmaceutical markets; and health care reform. Prerequisite: Admission to Graduate Public Health Program or Department Consent  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 529 Fundamentals of Healthcare Management**

This course is designed to provide the student a broad overview of the various issues, required skills and challenges of management in the healthcare setting. It is designed for the Health Policy and Management concentration but is open to all MPH students. Each session will consist of both a presentation by the instructor and by a student. The student presentations will be in the nature of problem solving exercises largely using illustrative cases in the assigned text. The number of presentations each student will be asked to do will vary with the class size so that there is a student presentation each week. The readings in the assigned text are required and will be used, in part, to construct the examinations. Prerequisite: Admission to Graduate Public Health Program or Department Consent; HPH 508  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 534 Spatial Analysis: Health Applications**

This course is an intermediate level graduate course in the application of spatial methods for analyzing environmental exposure and disease data. Students with backgrounds in epidemiology, public health, environmental health, biostatistics, community health, biology, sociology, psychology, marine and atmospheric sciences, geosciences, demography, and geography are particularly encouraged to participate. Although the course will focus on examples related to human health, graduate students in other disciplines will find the course useful for specific and appropriately defined research purposes. Techniques for spatially analyzing point patterns and aggregated data in polygons will be introduced, including autocorrelation, clustering analysis,

geostatistical smoothing, and approaches for spatial regression. Consideration of space-time variability will also be covered. This course includes theoretical elements so that the student will learn to appreciate strengths and weaknesses of different spatial approaches. Prior course in GIS or equivalent, as determined by consent from the instructor required. Students need a foundational knowledge of Geographic Information Systems (GIS) software. This requirement can be met by completing GSS 313: GIS Design and Application I (if available), by completing other Introduction to GIS courses at Stony Brook or elsewhere, or by self-teaching using the following book: Getting to Know ArcGIS Desktop by Tim Ormsby, Eileen Napoleon, and Robert Burke. Prerequisite: Admission to Graduate Public Health Program or Department Consent  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 542 Introduction to Global Health**

This course will provide an introduction to the field of global health and challenge students to think about how a global perspective could enhance their future practice. The course is designed for MD and MPH students, and is open to students from related graduate programs with instructor permission. This course will explore core concepts in global health, including its definition and origin; how to measure the global burden of disease; recent progress and current challenges; social inequalities in health; health systems; and global stakeholders. It will also apply such concepts to major global health topics, with lectures focused on such areas as HIV/AIDS, child health and immunization, chronic disease epidemiology and sexual violence.  
2 credits, S/F graded

**HPH 549 Public Health Law**

This course is a survey of legal and policy issues that have special relevance for public health professionals. Topics may vary, but typically will include many of the following: structure of the U.S. legal system; power of state governments in matters affecting health care; governmental power and the right to privacy; constitutional issues in social welfare benefits; governmental regulation of health care providers and payers; the scope and discretion of administrative agencies in health care; the antitrust laws; the fraud and abuse laws; and negligence in the delivery and financing of health care. Prerequisite: Admission to Graduate Public Health Program.  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 550 Theories of Health Behavior and Communication**

In this survey theory course, students learn about the major health behavior and health communication theories that are used in population health research and practice. Rather than simply cataloguing each theory in turn, this course takes a constant, comparative, approach to the learning of theories, in which theories are dissected to their core elements and compared to each other in order to understand the points of convergence and divergence among them. The goal in taking this comparative approach is application: by knowing the core elements of various theories, students will more easily be able to choose appropriate theories to explain population health problems of interest and consider the design

of interventions that are appropriate to achieve improvements in the educational, behavioral and environmental factors that may contribute to the problem. In addition to covering traditional individual-level behavior change and health communication theories, this course will focus on social change and systems theories, challenging students to think about the role of social context and systems on health behavior and health communication to achieve population health improvements. Finally, after learning about commonly-used theories in the field of public health, students will learn about and critique theories that are less-commonly used (such as new and emerging theories in the literature) and have important implications for future research, practice, and further theory development and testing among populations. Prerequisite: Admission to Graduate Public Health Program or Department Consent  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 551 Practice of Health Communications**

This course provides an overview of health communication. The course will introduce theories concerning health communication, and build on such to provide practical approaches to interpersonal and organizational health communication, risk communication, and media campaigns. Students will learn to collect, organize, and convey information effectively to different audiences important to public health initiatives. Throughout, the course will emphasize how health literacy and cultural beliefs influence effective communication, and students will be challenged to develop communication tools (e.g., social marketing campaigns, presentations, op-eds) optimized for a specific population. Prerequisite: Admission to Graduate Public Health Program or Department Consent  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 552 Planning and Implementing Community Health Initiatives**

In this course, students learn how to develop theoretically-informed and evidence-based community health initiatives. Over the course of the semester, students work on developing their own culturally-competent community health initiatives, each of which is targeted at a particular population with a specific health need. Each student learns how to assess community needs and assets using a variety of methods, elaborate an initiative's theory of change through use of logic model, design theoretically-informed intervention activities appropriate to the needs/assets identified, create a budget and organizational structure, and engage key stakeholders at every facet of development and implementation of the community health initiative. Students work together in the same small group over the course of the semester to get/give feedback and hone their individual projects. Through this intense group work, students both (1) learn how to apply course concepts to several particular community health problems and (2) gain skills for working in teams on community health initiative planning and implementation. Prerequisite: Admission to Graduate Public Health Program or Department Consent; HPH 550.  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 553 Advanced Evaluation of Community Health Initiatives**

This course prepares students to plan, implement, and utilize an evaluation of a community health initiative. Basic principles and practices of evaluation are addressed, including identifying the goals of a community health initiative; designing an evaluation plan that can determine if the initiative's goals are achieved; implementing an evaluation plan; interacting with stakeholders; and using evaluation results to improve performance. Prerequisite: Admission to Graduate Public Health Program or Department Consent  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 554 Principles of Health Education & Promotion**

This course aims to provide students with the historical, theoretical, and philosophical foundations of health education and promotion. Students will be given the tools to work with community and patient populations. Students will be equipped with the knowledge, skills, and attitudes to raise people's health awareness, as well as the tools needed to teach people how to reduce their risk of disease and promote health. All students will be required to design a health education and promotion program using the knowledge and skills learned in the course. Prerequisite: Admission to Graduate Public Health Program or Department Consent  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 555 Demography and Global Health**

This course introduces students to the basic theory and methods employed in the study of demography. The students will understand life table methodology, population projection, sources of demographic data, patterns in global fertility and mortality, the demographic transition, current patterns in fertility, marriage and work, abortion and contraception, and fertility/mortality interrelationships. Prerequisite: Admission to Graduate Public Health Program or Department Consent  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 559 Advanced Research Methods**

This course will provide students with an in-depth review of principles of public health research methods. Emphasis will be placed on conceptualization of research questions, evaluation of research design, sample size, and issues related to potential threats to validity within a public/applied setting. Additionally, students will become familiar with how to evaluate methods used in published literature and to design their own research projects. Course topics will include how to obtain secondary data, sample size calculation, risk adjustment, bias, confounding, and interaction. The instructor will work with students as they develop their own analytic project proposals. Students will be expected to implement their proposed research in HPH 560 Advanced Biostatistics in the following semester. Prerequisite: Admission to Graduate Public Health Program or Department Consent  
3 credits, Letter graded (A, A-, B+, etc.)

**HPH 560 Applied Biostatistics**

Students learn to formulate a scientific question in terms of a statistical model, leading to objective and quantitative

answers. Topics may include analysis of variance, regression, including details of data-analytic techniques and implications for study design, measures of association, 2x2 tables, stratification, matched pairs, logistic regression, model building, analysis of rates, and survival data analysis using proportional hazards models. The course stresses applications in epidemiology, and other areas of public health research. Prerequisite: Admission to Graduate Public Health Program or Department Consent; HPH 507 and HPH 559. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 562 Data Management and Informatics**

This course provides students with an introduction to the principles of public health informatics and data management using the SAS systems. Lectures and labs will be aimed at developing hands-on skills about how to create, maintain, and manage databases using the SAS Systems for Windows, a major software package used frequently in public health and clinical research. In addition, the student will learn how to retrieve and summarize information about population health from major public health information systems in the U.S. Prerequisite: Admission to Graduate Public Health Program or Department Consent; HPH 501 and HPH 506. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 564 Qualitative Methods**

In this course, students learn about the logic, theory, and methods of qualitative research within population health and related fields (e.g., social welfare, nursing, medicine, sociology, and psychology). The course begins with an introduction to the epistemological and ontological underpinnings of qualitative inquiry, with special attention to how these factors affect the types of research questions often asked (and answered) by qualitative researchers. Students then learn the nuts-and-bolts of qualitative research design and data collection through review of existing qualitative studies and hands-on application. Homework and in-class exercises over the course of the semester give students practice in (a) designing a feasible qualitative research study, and (b) collecting three kinds of qualitative data: participant observation, in-depth interviews, and focus groups. The course concludes with an overview of steps for data analysis, including coding, memo-writing, and triangulation. Emphasized throughout the course are methodological issues germane to qualitative (and quantitative) research: reflexivity of the researcher, appropriate treatment of human subjects, and obtaining quality data. Prerequisite: Admission to Graduate Public Health Program or Department Consent. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 575 Public Health Internship**

This course is an applied internship in a public, not-for-profit, or private sector organization that provides a public health service. Students will gain practical public health skills through a semester long internship. The student will work in the organization and prepares a weekly journal of activities, as well as a paper at the conclusion of the course, applying program knowledge to the internship activities. Graduate Graded and may be repeated for credit. MPH Academic Coordinator consent required. Prerequisite: Admission to Graduate Public Health Program and Department Consent

0-12 credits, Letter graded (A, A-, B+, etc.)

**HPH 580 Practicum**

The Practicum is a planned experience in a supervised and evaluated public health-related practice setting. A journal of fieldwork and a project, with a written report, are required. Students will be expected to demonstrate their "capacity to organize, analyze, interpret and communicate knowledge in an applied manner." Health departments, as well as a variety of other local organizations, offer a wide array of potential sites for the Practicum experience. Permission of MPH Academic Coordinator is required. Prerequisite: Admission to Graduate Public Health Program and Department Consent. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 581 Capstone**

This course will assist students in synthesizing the basic public health knowledge through completion of a Capstone Project. Most core and concentration course work must be complete before the student can participate in the Capstone Seminar. Permission of MPH Academic Coordinator is required. Prerequisite: Admission to Graduate Public Health Program and Department Consent. 3 credits, Letter graded (A, A-, B+, etc.)

**HPH 585 Introduction to Biostatistics & Epidemiology**

This course is an introduction to the principles of statistical methods and epidemiology and their application in the health sciences. The student will develop a basic understanding of statistics, epidemiology, and interpretation of research studies in order to communicate risk and scientific evidence to colleagues and the public, directly or through the press. Prerequisite: Admission to Graduate Public Health Program or Department Consent. 4 credits, Letter graded (A, A-, B+, etc.)

**HPH 599 Maintenance of Matriculation**

This course is for students who are maintaining matriculation while engaging in consultation with faculty regarding completion of courses and/or master's project. Students will be graded S/F. Prerequisite: Admission to Graduate Public Health Program and Department Consent. 0-3 credits, S/F graded

## HSC

**HSC 500 Health, Sciences and Society**

Interdisciplinary course for HSC students (Nursing, Social Welfare, Dental Medicine, Health Technology and Management, Medicine and Public Health). Topics include communication, health economics, scope of practice, ethics, law, policy, public health and medical informatics. 3 credits, Letter graded (A, A-, B+, etc.)

## HTM

### HTM 39 Radiologic Technology Program

This course is offered as a continuation of the Health Science major concentration in Radiologic Technology. The course contains both a clinical and didactic component, and satisfies the clinical requirements necessary to be eligible for the national registry and certification exams as well as NYSDOH licensing.

0 credit, S/F graded

### HTM 49 Radiation Therapy Program

This course is offered as a continuation of the Health Science major concentration in Radiation Therapy. The course contains both a clinical and didactic component, and satisfies the clinical requirements necessary to be eligible for the national registry and certification exams.

0 credit, S/F graded

### HTM 59 Nuclear Medicine Technology Program

This course is offered as a continuation of the Health Science major concentration in Nuclear Medicine Technology. The course contains both a clinical and didactic component, and satisfies the clinical requirements necessary to be eligible for the national registry and certification exams.

0 credit, S/F graded

### HTM 69 Medical Dosimetry Program

This course is offered as a continuation of the Health Science major concentration in Medical Dosimetry. The course contains both a clinical and didactic component.

0 credit, S/F graded

### HTM 79 EMT-Paramedic Program

The EMT-Paramedic training program is designed to train effective and compassionate paramedics in accordance with standards established by the United States Department of Transportation. Upon successful completion of the program, students will be eligible to take examinations for national and New York State certification

0 credit, S/F graded

### HTM 99 Anesthesia Technology Program

This course is offered as a continuation of the Health Science major concentration in Anesthesia Technology. The course contains both a clinical and didactic component, and satisfies the clinical requirements necessary to be eligible for the national registry and certification exams.

0 credit, S/F graded

## HWC

### HWC 210 Introduction to Social Work

Introduces the student to the field of social work. Provides an overview of the variety of settings in which social workers

practice. Describes the knowledge, values, and skills which social workers use in order to help individuals, families, groups, and communities.

1 credit

### HWC 300 Introduction to Fields of Practice

This course exposes students to various social service delivery systems. Field visits, reports, guest speakers, lectures, and small group discussion are included. Agencies such as youth development associations, public schools, criminal justice systems, mental health and health systems will be observed. The social worker's role in such agencies, and identification and utilization of community resources are emphasized.

4 credits

### HWC 301 Field Education I

Places students in settings conducive to generalist practice. Prepares students to fulfill social work roles and functions within the social welfare system. Supervision provided by an M.S.W. Students graded S/F. Must be taken concurrently with HWC 306. Prerequisites: HWC 300 and 305

6 credits, S/F graded

### HWC 302 Field Education II

A continuation of HWC 301. Students will be graded S/F. Must be taken concurrently with HWC 307. Prerequisites: HWC 300, 301, 305 and 306

6 credits, S/F graded

### HWC 304 Contemporary Social Justice Issues

This course explores the meaning of social justice and its presentation in our society. Examines the impact of social injustice and discusses the individuals, organizations, and communities who fight to combat the presence of injustice. Provides an understanding of social problems and the plight of populations who do not benefit from a socially just society. Analyzes effective methods utilized to eradicate the sources of oppression and organizational responses that address injustice and bring balance to the equitable experiences of individuals, groups, and communities.

3 credits

### HWC 305 Practice Processes in Social Work I

This course is the first of a three-semester sequence (HWC 305, 306, 307) designed to develop students values, knowledge and skill base in order to enable them to work as generalist practitioners in various social work areas of practice. This course focuses on beginning development of social work knowledge, values, and skills in engagement, assessment, and intervention across the spectrum of social work practice. Emphasis is on practice skills in problem/ need identification and prioritization, data collection, strength based assessment, goal setting, selection and implementation of appropriate interventions, evaluation and endings. It is organized around the values of respect for the dignity of others, appreciation of cultural differences and diverse lifestyles, belief in the right of self-determination, confidentiality

and the right for the client(s) to participate in goal setting and the implementation of action. The course aim is to provide students with an understanding of 1) the ecological perspective in examining the situation; 2) the problem solving process utilized in social work intervention; 3) the strengths perspective in assessment, intervention and evaluation; 4) the ability to evaluate the effectiveness of interventions taking into account human diversity and services to historically oppressed and devalued people; and 5) how the policies of the agency facilitate or hinder the provision of needed services. It will also focus on a beginning development of professional self-assessment and identity. Must be taken concurrently with HWC 300.

3 credits

**HWC 306 Practice Processes in Social Work II**

The School of Social Welfare recognizes that the problems facing individuals with whom social workers are concerned evolve from the existence, nature and impact of oppression. This belief acknowledges that many human problems reflect the workings of social systems, which oppress members of specific groups in society. In this course, we will build on the knowledge, values and skills of the processes discussed in HWC 305. Students will further their knowledge of structural oppression and develop greater understanding of their roles as change agents and methods used across the micro-mezzo-macro levels of practice. Students will further develop their application of: 1) needs and strengths assessment; 2) problem identification and definition; 3) direction planning; 4) collaborative goal determination; 5) information gathering/investigation; 6) implementation; and 7) assessment and evaluation. Must be taken concurrently with HWC 301 and HWC 315. Prerequisites: HWC 300 and 305.

3 credits

**HWC 307 Practice Processes in Social Work III**

This course builds on the generalist foundation of social work practice courses, HWC 305 and HWC 306 and continues the development of the student's professional identity for work in the various social welfare fields of practice. It will emphasize the generalist social work approach in working across the micro-mezzo-macro levels of practice, as well as explore the nature and application of a variety of interventive modalities. It will provide knowledge and skills in areas of generalist social work practice, within the framework of social work values, a strengths perspective and the School's mission of empowerment, valuing diversity, overcoming oppression and striving for social justice. Must be taken concurrently with HWC 302 and HWC 316. Prerequisites: HWC 301 and HWC 306.

3 credits

**HWC 308 Human Behavior and the Social Environment I**

Introduces a framework for understanding how individuals and families grow, develop and change within their social environment. Interpersonal, intrapersonal and sociostructural theories and their impact on special populations, especially

groups that have been historically oppressed, devalued and alienated in society are critiqued.

3 credits

**HWC 309 Human Behavior and the Social Environment II**

A continuation of HWC 308. This course emphasizes an understanding of the life course, the role of time, social events, trauma and the developmental process. Social institutions and their impact on people generally oppressed in society and the role of empowerment are examined.

Prerequisite: HWC 308

3 credits

**HWC 310 The Political Economy of Social Welfare**

This course introduces a political economic framework for viewing social welfare in the United States. Basic political economic determinants of social problems, policies and programs are examined. This course focuses on the role of the state, conflict, power, class structure and ideology as they relate to such problems as poverty, inequality, racism and sexism.

3 credits

**HWC 311 Social Welfare Policy, Services and Analysis**

This course presents the history and basic concepts underlying the development of social welfare in the United States. Identification and interrelationships of social values and structures, political factors and economic conditions in understanding the evolution of social welfare and the profession of social work are emphasized. Presents an analytical framework which enables students to examine social welfare policy according to a disciplined, systematic process built upon the values of social justice and equality, empowerment and self-determination.

3 credits

**HWC 312 Social Welfare Policy and Institutional Oppression**

Builds upon the foundation provided in HWC 311 and expands the student's understanding of the complex interrelationships characterizing American society which result in social injustice, inequality and oppression. Views the policies and programs of the public welfare, health, mental health, housing and criminal justice systems through the lens of five basic sources of oppression in American society racism, sexism, classism, ageism and heterosexism. Prerequisite: HWC 311

3 credits

**HWC 313 Research in Social Work I**

This course provides instruction in introductory concepts and methods of social research. Focuses on examining the various methods researchers use to collect data relevant to social work practice, such as survey, experimental design, field research and unobtrusive design.

3 credits

**HWC 314 Research in Social Work II**

Explicates data analytic procedures used in analyzing data relevant to social work practice. Examines basic descriptive statistics (e.g., frequencies and percentages, mean, median, mode, variance, standard deviation) and bivariate (e.g., Pearson's r, chi-square, t-test) as the major focus of the course.

3 credits

**HWC 315 Integrating Seminar I**

Provides an opportunity for the integration, within the framework of the mission of the school, of the knowledge, skills and professional values acquired and developed through course work and field education experience. Taken concurrently with 301 and 306.

3 credits

**HWC 316 Integrating Seminar II**

Builds on HWC 315. Taken concurrently with 302 and 307.

3 credits

**HWC 317 Issues in Death and Dying; Loss and Separation**

This course provides an overview of the knowledge, values, policy and skills underlying effective entry-level practice with dying and grieving clients. The interrelationship of psychological, interpersonal, family, institutional, community and cultural dynamics of dying and grieving are covered. Permission required for students not enrolled in the School of Social Welfare.

3 credits

**HWC 321 Ethnic Sensitive Social Work Practice**

Provides a theoretical framework and focuses on the development of skills necessary to provide effective culturally sensitive social work services to diverse individuals, families, groups and communities. The special problems faced by groups traditionally devalued and oppressed are examined. Skills in working for institutional change and social justice are emphasized.

3 credits

**HWC 323 Growing Old in America: The Social Conditions Policy and Practice Implications**

Explores the social, political and economic conditions related to aging in this society. Identifies social policies and program formats that enhance wellness and support dependencies from a positive perspective.

3 credits

**HWC 324 Children and Adolescents Who Grieve**

Focuses on issues related to bereavement in children and young people. Children and adolescents who struggle with the crisis of loss is a special population that is often overlooked. Students explore the emotional response of young people who grieve. Mental health professionals that provide treatment to this population must acquire specialized knowledge and skills to assist in healing wounded children. Upon completion,

students will have an increased understanding of the developmental implications of loss in childhood, assessment of bereavement, and treatment interventions specific to bereaved children and adolescents.

3 credits

**HWC 325 Anger Management**

This course presents an overview of concepts of anger management within a holistic context. Students learn how to recognize external manifestations of anger in themselves, clients, organizations and communities. Anger management strategies that can be taught to clients as part of an intervention plan will be introduced. Environmental and societal factors as "igniting events" of anger in individuals, families, groups and communities are examined.

3 credits

**HWC 326 Crisis Intervention: Opportunities for Change**

This course provides theoretical and substantive content that will enable students to gain knowledge, understanding, and skill in relation to crisis intervention in social work practice.

This course defines crisis, provides examples of the types of crises workers will face in various fields of practice, explores the role of the social worker, and the range of interventions needed in response to crisis situations. Permission required for students not enrolled in the School of Social Welfare.

3 credits

**HWC 329 Complementary and Alternative Medicine**

Human service workers are often required to discuss issues of health and healing. Many individuals, by virtue of their culture, experiences and/or choice, often adhere to a combination of nontraditional and traditional beliefs regarding health care. This course familiarizes students with those methods and beliefs most often found in specific cultures. Students will develop an appreciation of each practice in order to interact with clients from a strengths perspective and will gain an international perspective on health care modalities.

3 credits

**HWC 330 Case Management in Human Services**

Case management has grown dramatically in the human service field over the last twenty years in response to the growing service needs of individuals and families facing complex life situations and issues. It examines both the macro level and micro level issues facing case managers and agencies as they provide quality services to often oppressed populations.

3 credits

**HWC 339 Ancestral Health Practices**

There is an increasing integration of complementary medicine and allopathic medicine. As health professionals, it is important to understand the beliefs and practices of our clients in order to maximize their options and choices. Professionals must be knowledgeable about the healing traditions anchored in different cultures and ethnicity.

3 credits

**HWC 340 Social Issues in Popular Culture**

Movies have been a useful medium that can illustrate current social issues and family dynamics, as well as policy and research dilemmas. Each week, a film with a central practice/research/policy issue provides the basis for a lecture and class discussion. Topics focus on a variety of social issues such as family dynamics, bereavement, adoption, domestic violence, abuse, residential placement, policy and research.  
3 credits

**HWC 343 Working with Children of Alcoholics and Substance Abusers**

Deals with children of alcoholic parents, how parents illnesses affect the social, emotional and educational development of their children, and the survival roles children assume in order to live in troubled, alcoholic families. It emphasizes identification and intervention strategies with children who suffer from parental alcoholism when they are seen in settings other than home or social service agencies, such as school and youth programs.  
3 credits

**HWC 344 Overview of Substance Abuse**

This course is an examination of the history and development of alcohol and substance abuse problems in the United States. It focuses on the etiology, psychopharmacology and legal ramifications of the use of licit and illicit substances in our culture. The course provides information on a variety of services available to drug abusers, addicted individuals and their families in the fields of prevention, education and treatment. Permission required for students not enrolled in the School of Social Welfare.  
3 credits

**HWC 349 Overview of Social Work with Special Populations**

This course examines the issues that social workers must consider when working with traditionally disenfranchised populations. Emphasis will include micro and macro issues when intervening with gay and lesbian individuals, members of diverse racial and ethnic groups, and women, as well as others. The historic as well as contemporary experiences of these individuals interactions with the health and human service delivery system will be explored.  
3 credits

**HWC 351 Law and Social Change**

This course introduces students to the interrelationship of the legal process in the United States and the profession of social work. Focuses on the legal process in general, social welfare law, in particular, and the implications for effective social work practice. Permission required for students not enrolled in the School of Social Welfare.  
3 credits

**HWC 361 Implications of Racism for Social Welfare**

This course examines personal and institutional racism in the United States and the effect racism has on the delivery of services to individuals who do not fit the traditional "American model". It examines the historical relationship between racism and social welfare policies, programs and practice, as well as contemporary strategies for change.  
3 credits

**HWC 362 Implications of Child Abuse and Maltreatment**

Introduces child maltreatment via its history and how its recognition progressed to spur many to become advocates for the prevention of child abuse. Topics include identification, reporting and interviewing. Social and economic pressures on the family are examined.  
3 credits

**HWC 363 Homelessness, Politics and Public Health**

This course analyzes homelessness as an issue of social policy, including its history, recent causes and current demographics. Emphasizes the political and economic context that has made homelessness a major social problem.  
3 credits

**HWC 364 The Impact of Sexual Assault**

Introduction to the incidence and prevalence of childhood sexual abuse. Covered are definition issues, family dynamics, symptoms, assessment techniques, treatment modalities and strategies utilized with the survivor. Issues related to offenders and offender treatment are addressed, as well as ethical and legal dilemmas. Cultural dynamics in sexual abuse related to childhood sexual trauma will be emphasized. Students should develop an understanding and ability to critically analyze current research.  
3 credits

**HWC 369 Youth and Violence**

This course examines the etiology of youth at risk for violence, using ecological and interpersonal perspectives. Family, school and community risk factors are outlined as well as assessment, intervention and treatment issues. Successful prevention programs are highlighted. Permission required for students not enrolled in the School of Social Welfare.  
3 credits

**HWC 375 Child Welfare: An Overview**

This course covers the impact of historical and contemporary developments within the field of child welfare. It examines the evaluation of child welfare services and the role of child care workers. Examines out-of-home care, foster care, group home care and institutional care within the context of traditional public/voluntary structure of services and the social/political context. Services in relation to the changing roles of the family and emergence of child care are covered.  
3 credits

**HWC 379 Special Topics in Social Welfare**

These courses examine significant timely issues confronting the profession. Topics include violence as a public health

problem, issues of aging, racism, gender, AIDS, the media, and others. Topics vary each term as faculty develops specific modules that address one or more of these issues. Permission required for students not enrolled in the School of Social Welfare.

3 credits

**HWC 380 Overview of Family Violence**

This course is an overview of the phenomenon of family violence in the United States including child abuse, intimate partner violence (IPV) and elder abuse. Incidence and prevalence regarding each form of family violence will be reviewed as well as etiology, current evidence-based treatment modalities and competing political ideologies. Particular focus will be on the current research for each type of family violence and policy directives that emanate. This course also explores theories of etiology, including patriarchy, intergenerational family dynamics and substance abuse. It examines programmatic approaches and programs for batterers and prevention strategies. Co-scheduled with HWC 580.

3 credits

**HWC 390 HIV / AIDS**

This course focuses on the central aspects of the HIV/AIDS Pandemic, including the state of medical knowledge, HIV/AIDS and the law, prejudice and discrimination, AIDS activism and organizing, grief/death/dying, psychosocial issues, redefining the medical model, homophobia, racism, sexism and ableism in research, treatment and policy, IV drug use, drug treatment and other related issues. Upon completion of this course, students will have met the educational requirements established by the HIV Primary Care Medicaid Provider Agreement. This requirement is needed to conduct HIV pre- and post-test counseling in hospitals and clinic settings. Co-scheduled with HWC 590.

3 credits

**HWC 395 Independent Study**

Independent study with an individual faculty member.

1-3 credits

**HWC 399 Maintenance of Matriculation**

For students who are maintaining matriculation while engaging in consultation with faculty regarding completion of courses. Students will be graded S/F.

1 credit, S/F graded

**HWC 500 Field Education I**

Placement in practice settings under supervision of a licensed M.S.W. Students will be graded S/F. Must be taken concurrently with HWC 513.

4-6 credits, S/F graded

**HWC 501 Field Education II**

A continuation of HWC 500. Students will be graded S/F. Must be taken concurrently with HWC 514. Prerequisites: HWC 500 and 513.

4-6 credits, S/F graded

**HWC 502 Field Education III**

Placement in advanced social work practice settings. Supervision provided by a licensed M.S.W. Students will be graded S/F. Must be taken concurrently with HWC 515 and 516. Prerequisites: HWC 500, 501, 513 and 514

4-6 credits, S/F graded

**HWC 503 Field Education IV**

A continuation of HWC 502. Students will be graded S/F. Must be taken concurrently with HWC 517 and 518. Prerequisites: HWC 502, 515 and 516

4-6 credits, S/F graded

**HWC 504 Human Behavior and the Social Environment: Critical Applications of Social Work Theory**

This course applies a multi-theoretical and critical approach to social inquiry in the examination of complex theories, metaperspectives, and knowledge about individuals, families, groups, organizations, institutions and urban, suburban, and rural communities. The course encourages students to maintain a view of people and their environments as heterogeneous and sociohistorically embedded, as well as adaptable and resilient. Throughout the course, special consideration is given to social and cultural diversity. Students will develop a multi-dimensional (e.g., social, psychological and cultural) understanding of human behavior as applied to contemporary issues in social work practice. Class meets two hours in-class and one hour of instructor directed assignments.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 505 Integrating Seminar**

This course extends the work covered in HBSE, by applying human behavior theory to social work practice situations. Students will integrate knowledge and skills acquired in social work practice, social justice, policy, field education and research courses to social and clinical issues across diverse topics. Class activities include experiential assignments and project based learning. This course prepares students to practice in interdisciplinary environments. Class meets two hours in-class and one hour of instructor directed assignments. Prerequisite: HWC 504

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 506 Social Work in Health**

This course recognizes the centrality of health as an issue in all people's lives. The issue of health and well-being are issues of concern regardless of practice setting or intervention modality utilized. It is with this in mind, that the School embraces the concept of health as an organizing principle and theme. Serves as an introduction to the concept of health and its connection to social work. The healthcare delivery system, managed care, healthcare financing, epidemiology, ethics, and complimentary medicine are addressed. The impact of race and culture on the health status of people in this society are covered. Current major public health problems are also addressed. Class meets two hours in-class and one hour of instructor directed assignments.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 507 Master's Project**

Students complete a master's project under the sponsorship of a faculty member. Advanced Practice Elective. 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 508 Continuation of Master's Project**

A continuation of HWC 507 for students who did not finish their Master's Project during the term in which they had registered for it. Students will be graded S/F. Advanced Practice Elective. Prerequisite: HWC 507  
0 credit, S/F graded

**HWC 509 Foundations of Social Justice: Challenging Oppression**

This course explores the meaning of social justice within the context of political economy, human nature, and health policy. Examination will include the relation of historical implications within contemporary discourse. This course will analyze the foundations of power, privilege, and prejudice in the United States through the lens of social work ethos that values human rights, equality, respect, and health for all. Emphasis will be placed on the identification of social injustice, challenging institutional oppression, and the creation of effective methods to empower marginalized and oppressed populations. Class meets two hours in-class and one hour of instructor directed assignments.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 510 Social Policy and Social Determinants**

This course builds upon the Foundations of Social Justice: Challenging Oppression course through the discussion and exploration of social policies, social determinants of health, and contemporary & historical social movements that have arisen to challenge oppression. This course utilizes frameworks for social policy analysis while addressing continuing dilemmas in policy development. Experiential learning and beyond-the-classroom experiences introduce students to the processes and dynamics of social movements, social change, and their effects on social policy. Class meets two hours in-class and one hour of instructor directed assignments. Prerequisite: HWC 509  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 511 Research I**

Research I, is the first part of a two-semester course sequence designed to prepare social work students to engage in research informed social work practice and practice informed social work research and evaluation. The first semester (HWC511) provides an overview of the research process from both quantitative and qualitative perspectives and examines how a critical approach to research may form the basis of evidence-based social work practice and client empowerment. The course goes on to examine those elements of the research process that are common to all methodologies: the ethical conduct of research; literature searches and reviews; development of research questions and hypotheses; measurement; and sampling procedures. Quantitative data analysis is introduced in the form of

univariate/descriptive statistics. Class meets two hours in-class and one hour of instructor directed assignments.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 512 Research II**

Research II is the second part of a two-semester course sequence designed to prepare social work students to engage in research informed social work practice and practice informed social work research and evaluation. The second semester (HWC512) follows-up on the first by examining specific data collection methods (experiments; surveys; interviews; focus groups; ethnographies; etc.), with attention given to understanding how these methods are used appropriately in social work research and evaluation processes. Quantitative data analysis procedures at the bivariate and multivariate levels (t-tests; ANOVA; correlation; regression; chi-square test, etc.), hypothesis testing, inferential statistics, and computer assisted data analysis using SPSS will be presented in the context of appropriate data collection methods. Emphasis placed on research proposal development and critical evaluation of research reports. Class meets two hours in-class and one hour of instructor directed assignments. Prerequisite: HWC 511  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 513 Social Work Practice I**

Provides a foundation for generalist practice, including the knowledge base, values and skill development necessary for ethical and effective practice with individuals, families, groups and communities. Students are introduced to the helping process across client systems and across the life span through a strengths perspective and empowerment approach to practice. Evidence-based short-term therapies are used to guide direct practice to address resilience and human development. Class meets two hours in-class and one hour of instructor directed assignments. Must be taken concurrently with HWC 500.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 514 Social Work Practice II**

A continuation of HWC 513. Revisits the helping process in greater depth with specific reference to special consideration for work with families, groups, communities and organizations. The broad range of social work roles across client systems is considered. Deepens knowledge of generalist practice, ethical practice and skill development. Must be taken concurrently with HWC 501 and 504. Class meets two hours in-class and one hour of instructor directed assignments. Prerequisites: HWC 500 and 513  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 515 Advanced Social Work Micro Practice I**

Focuses on the helping process with integration of increased understanding of the significance of transactions between people and their environments. Emphasizes development of advanced theory and practice skills. A focus is placed on developing assessment and diagnosis skills alongside understanding client's defenses, coping mechanisms, and the genetic, familial, cultural, and social factors that influence psychiatric diagnoses. The ethical considerations, evaluation

of intervention effectiveness, service delivery in an agency context, professional role and conduct are woven throughout the course. Class meets two hours in-class and one hour of instructor directed assignments. Must be taken concurrently with HWC 502 and 516. Prerequisites: HWC 500, 501, 513 and 514

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 516 Advanced Social Work Macro Practice I**

Emphasizes the understanding of theories and the development of advanced skills key to practice with groups, communities and organizations. Focus is placed on leadership development in the health and social welfare fields. Ethical considerations are introduced. Class meets two hours in-class and one hour of instructor directed assignments. Must be taken concurrently with HWC 502 and 515. Prerequisites: HWC 500, 501, 513 and 514

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 517 Advanced Social Work Micro Practice II**

Emphasizes professional responsibilities for ongoing self-assessment and developing a critically reflective stance to practice. Concentrates on skill development and working with populations at risk; a concurrent major focus is placed on the different theoretical perspectives, evidence-based social work practice models and interventions. A critical analysis of case material and social systems designed to meet client system needs is stressed toward the development of micro or clinical interventions and ethical issues that may arise within a variety of settings and client systems, most particularly the individual, family, group, organization, and community. Class meets two hours in-class and one hour of instructor directed assignments. Must be taken concurrently with HWC 503 and 518. Prerequisites: HWC 502, 515 and 516

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 518 Advanced Social Work Macro Practice II**

Emphasizes advanced theory and practice skills in community organization and program development. Focus is placed on strategic planning, management, evaluation, policy analysis and development, program development, and organizational analysis and change as applied in the health and social welfare fields. Class meets two hours in-class and one hour of instructor directed assignments. Must be taken concurrently with HWC 503 and 517. Prerequisites: HWC 502, 515 and 516

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 519 Psychopathology and Psychopharmacology**

This course focuses on the concepts of mental health, mental disorders and the influence of culture on both. The mental health concerns of diverse social, racial and ethnic groups, particularly those historically devalued and oppressed are covered. In addition, the use and misuse of the classification system of the Diagnostic Statistical Manual (DSMIV) are examined. This examination includes the distinction between major mental disorders and other forms of dysfunctional behavior and the recognition of symptoms. Assessment

of psychosocial functioning within a multi-cultural and gender role frame is emphasized. Social work values, roles, responsibilities and ethical considerations are detailed throughout the course. The role of the social worker as an integral member of the interdisciplinary mental health team is discussed. Class meets two hours in-class and one hour of instructor directed assignments. Prerequisites: HWC 500, 501, 504, 513 and 514

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 520 Advanced Social Work Practice with the Aged**

This course examines concepts and strategies for working with the elderly at the primary, secondary and tertiary levels of intervention. It presents and critically analyzes a variety of approaches in working with the elderly and their families. Interventions with the well elderly living in the community, the elderly who suffer some disabilities but who are still living in the community and the elderly who are institutionalized are examined. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 521 Ethnic Sensitive Social Work Practice**

Provides a theoretical framework and focuses on the development of the skills necessary to provide effective culturally sensitive social work services to diverse individuals, families, groups and communities. The special problems faced by groups traditionally devalued and oppressed are examined. Emphasizes skills in working for institutional change and social justice. Class meets two hours in-class and one additional hour of instructor directed assignments. Enrichment Elective.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 522 Human Sexuality**

This course identifies personal attitudes and judgments about sexually related behaviors. Critically examines factual information derived from research in human sexuality and covers a wide range of sexual behavior from a knowledge base. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 523 Growing Old in America: The Social Conditions-Policy and Practice Implications**

Explores the social, political and economic conditions related to aging including long-term care in this society. Identifies social policies and program formats that enhance wellness and support dependencies from a positive perspective. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 524 Children and Adolescents Who Grieve**

Focuses on issues related to bereavement in children and young people. Children and adolescents who struggle with the

crisis of loss is a special population that is often overlooked. Students explore the emotional response of young people who grieve. Mental health professionals that provide treatment to this population must acquire specialized knowledge and skills to assist in healing wounded children. Upon completion, students will have gained an increased understanding of the developmental implications of loss in childhood, assessment of bereavement, and treatment interventions specific to bereaved children and adolescents. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 525 Anger Management**

This course presents an overview of concepts of anger management within a holistic context. Students learn how to recognize external manifestations of anger in themselves, clients, organizations and communities. Anger management strategies that can be taught to clients as part of an intervention plan will be introduced. Environmental and societal factors as "igniting events" of anger in individuals, families, groups and communities are examined. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 526 Crisis Intervention: Opportunities for Change**

This course provides theoretical and substantive content that will enable students to gain knowledge, understanding, and skill in relation to crisis intervention in social work practice. This course defines crisis, provides examples of the types of crises workers will face in various fields of practice, explores the role of the social worker, and the range of interventions needed in response to crisis situations. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 527 Social Work in the Political Process-Campaign School**

Limited to 15 second-year students. Instructor consent is required. The purpose of the course is to advance students' understanding of the political process and to expand students repertoire of skills for participation in the political process. A prime focus is deepening students' commitment to engaging in the political process as a significant form of social work practice for social change. This is a hybrid course combining online content, in-class participation as well as required attendance at a 2-day Campaign School workshop at the University of Connecticut School of Social Work in West Hartford. Advanced Practice Elective  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 529 Complementary and Alternative Medicine**

Human service workers are often required to discuss issues of health and healing. Many individuals, by virtue of their culture, experiences and/or choice, often adhere to a combination of nontraditional and traditional beliefs regarding healthcare. This course familiarizes students with those methods and beliefs

most often found in specific cultures. Students will develop an appreciation of each practice in order to interact with clients from a strengths perspective and will gain an international perspective on healthcare modalities. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 530 Case Management in Human Services**

Case management has grown dramatically in the human service field over the last twenty years in response to the growing service needs of individuals and families facing complex life situations and issues. Examines both the macro level and micro level issues facing case managers and agencies as they provide quality services to often oppressed populations. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 533 Family Intervention in Health and Mental Health**

This course focuses on family and marital problems. Environmental, social, economic, psychological and institutional pressures that affect family functioning are examined. Emphasis is placed on intervention skills. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 538 Death and Dying; Loss and Separation**

This course explores student values, attitudes, fears and conceptions relating to death and dying. Issues of loss and separation in relation to various age groups, cultural orientations and societal expectations are examined. The focus is on the acquisition of bereavement counseling skills. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 539 Ancestral Health Practices**

There is an increasing integration of complementary medicine and allopathic medicine. As health professionals, it is important to understand the beliefs and practices of our clients in order to maximize their options and choices. Professionals must be knowledgeable about the healing traditions anchored in different cultures and ethnicity. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 540 Social Issues in Popular Culture**

Movies have been a useful medium that can illustrate current social issues and family dynamics as well as policy and research dilemmas. Each week a film with a central practice/research/policy issue provides the basis for a lecture and class discussion. Topics focus on a variety of social issues such as family dynamics, bereavement, adoption, domestic violence, abuse, residential placement, policy and research.

Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 541 Youth and Violence**

Examines the etiology of youth at risk for violence, using ecological and interpersonal perspectives. Family, school and community risk factors are outlined as well as assessment, intervention and treatment issues. Successful prevention programs are highlighted. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 542 Social Work with Children: The Social Worker's Role**

This course is designed to provide an understanding of the special issues and concerns surrounding work with children. Professional dilemmas and guidelines to aid practice are identified. Special issues involved in work with young children are highlighted. Although the focus is on direct work with children, a family-centered approach is presented. Practitioner roles, the impact of service settings, policy and legislation affecting this area of practice are reviewed as is the knowledge base that serves to guide practice, including formulations of practice theory and empirical research findings. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 544 Overview of Substance Abuse**

This course is an examination of the history and development of alcohol and substance abuse problems in the United States. It focuses on the etiology, psychopharmacology and ethical and legal ramifications of the use of licit and illicit substances in our culture. The course provides information on a variety of services available to drug abusers, addicted individuals and their families in the fields of prevention, education and treatment. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 545 Individual, Group and Family Treatment of Alcoholics and Substance Abusers**

This course covers alcoholism and substance abuse as family illnesses and their stages of development, as well as the impact these illnesses have on the families of active and recovering alcoholics and substance abusers. Ethical dilemmas and treatment modalities including self-help Self-help groups and on traditional and relatively recent modalities used in the treatment of addicted individuals and their families are focused on. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 546 Working with Adult Children of Alcoholics and Substance Abusers**

This course focuses on adult children of alcoholic parents and how parents' illness affects their children's social, emotional, and educational development from infancy to adulthood and into old age. Survival roles of children in alcoholic families and how these affect adult functioning are discussed. Examines ethical issues and the continuing effect family alcoholism has on adult children and the intervention strategies used in treatment. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 547 Managing Conflict**

A major concern for health and human service managers is conflict in organization, community and group settings. The various types of conflicts and the concepts of negotiation and mediation as interventive strategies are considered. Didactic and experiential learning experiences are utilized. Focus is on analyzing conflict situations and selecting interventive strategies to reduce, contain or heighten the conflict situation. Oppressive conditions, structures and processes are considered major determinants of human suffering and individual and social problems; students examine how these oppressive conditions are present in conflict situations and consider ways of dealing with them. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 548 Adolescent Development and Health Promotion**

The effect on adolescent development of physiological changes, relationships with peers and family, and societal expectations are examined. Emphasis is on the development of assessment and engagement skills for working with adolescents and their families to help counteract adolescent self-destructive behavior and promote well-being. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 549 Overview of Social Work with Special Populations**

This course examines the issues that social workers must consider when working with traditionally disenfranchised populations. Emphasis will include micro and macro issues when intervening with gay and lesbian individuals, members of diverse racial and ethnic groups, and women, as well as others. The historic as well as contemporary experiences of these individuals' interactions with the health and human service delivery system will be explored. . Class meets two hours in-class and one hour of instructor directed assignments. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 550 Culture-Centered Approach to Social Work Practice**

This course provides students with an opportunity for self growth while preparing to work with individuals and their families from a culture-centered value base. Culture-centered foundation practice provides students with a frame of

reference for better understanding and appreciation of the difference of their own culture from the cultures of others. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective. 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 551 Law and Social Change**

This course introduces students to the interrelationship of the legal process in the United States and the profession of social work. Focuses on the legal process in general, social welfare law, in particular, and the implications for effective social work practice. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective. 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 552 Lesbians and Gay Men: Issues in Health Care**

This course is an examination of the critical impact that healthcare policies and services have on lesbians and gay men in American society. Issues related to access to care, discrimination, services, health insurance, healthcare resources within geographical areas and the health status of lesbians and gay men are examined. It focuses on the issues that lesbians and gay men encounter in their interactions with the healthcare system. Enrichment Elective. 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 553 Chemical Dependency in Special Populations**

This course covers alcoholism and substance abuse with populations that have been traditionally devalued and oppressed. It focuses on development of skills and sensitivity to ethical issues and the needs of ethnic groups, women, the elderly, the mentally ill and LGBTQ people who are chemically dependent. Policy and practice issues related to these populations are considered. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective. 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 555 Supervision in Health and Human Service Organizations**

This course prepares social workers for the variety of tasks related to supervisory practice in health care agencies. Supervision is introduced as a teaching process, as an administrative function and as a program development tool. Emphasis is on helping workers function effectively with culturally diverse clients, populations at risk and the chronically ill. Content includes: historical perspective of supervisory practice; supervisor and agency structure; the organizational context of practice; learning theories; concepts of power, authority and accountability; ethical and clinical issues; supervisory techniques, skill and self awareness; staff and program development and evaluation. Advanced Practice Elective. 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 556 Proposal Writing in the Health and Human Service Fields**

This course provides a comprehensive study of the principles and methods used to prepare program, training, research, demonstration and other types of proposals. Extensive workshop practice in developing appropriate writing skills and in locating and accessing funding sources is included. Advanced Practice Elective. 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 558 Human Services Administration**

An introduction to the practice of administration of public and non-profit agencies, theories of management including alternative decision-making models, understanding of organizational structure and process, external and internal functions including interagency collaboration and personnel and financial management, affirmative action and ethical issues. The course combines theory with case examples, practical exercises and other experiential learning modes. Advanced Practice Elective. 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 559 Mental Health Evidence-Based Practice for Social Workers**

This course develops the knowledge and skills necessary for working with individuals with a diagnosis of serious mental illness using recovery-oriented evidence-based practices. This course is designed for M.S.W. students and M.S.W. mental health practitioners. The course familiarizes students with evidence-based practices, within a recovery-oriented paradigm, as a general approach to practice as well as specific evidence-based interventions to use for individuals with a diagnosis of serious mental illness. Students should have a basic knowledge of serious mental illness as pre- or co-requisite, however a review will be provided. Research literature is examined to determine the various levels of support for specific interventions and essential principles for translating research into practice. Appropriate treatment outcomes that reflect effective quality mental health practice are identified. Focus is on providing assessment and treatment to a diverse group of individuals with a diagnosis of serious mental illness. Advanced Practice Elective. 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 561 Implications of Racism for Social Welfare**

This course examines personal and institutional racism in the United States and the effect racism has on the delivery of services to individuals who do not fit the traditional "American model". It examines the historical relationship between racism and social welfare policies, programs and practice, and contemporary strategies for change. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective. 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 563 Homelessness, Politics and Public Health**

This course analyzes homelessness as an issue of social policy, including its history, recent causes and current demographics. It emphasizes the political and economic context that has made homelessness a major social problem.

Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 566 Student-Community Development Student Portfolio Project**

Provides an opportunity for students to create a portfolio composed of various components that integrates the student's educational experiences and achievements in the Student-Community Development Specialization. Components may include literature reviews, abstracting research articles, analysis of field placements, and integration of social work and student affairs literature. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 568 The Workings of the Brain: Practice Issues for Social Workers**

Addresses the organization, development and functions of the brain and how this influences how we think, feel and behave. Causes of organic changes in the brain such as substance abuse, disease and injury are addressed. Advances in neuroscience that have aided in diagnosis and social work practice are covered. Innovative treatment modalities such as EMDR, biofeedback and vagal nerve implants are presented. Strongly emphasizes the combination of science and practice issues. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 575 Child Welfare: An Overview**

This course covers the impact of historical and contemporary developments within the field of child welfare. It examines the evaluation of child welfare services and the role of child care workers. It also examines out-of-home care, foster care, group home care and institutional care within the context of traditional public/voluntary structure of services and the social/political context. Services in relation to the changing roles of the family and emergence of child care are covered. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 577 Program Evaluation**

This course provides an in-depth analysis of the technical requirements of program evaluation and the organizational and political constraints that influence the evaluation process. Techniques in the design and implementation of evaluation research in the health and human services fields are covered. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
Prerequisites: HWC 511 and 512  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 578 Advanced Social Work with Groups**

This course explores the principles and practice of group work in assisting clients to maximize psychosocial functioning. Class members will participate in an experience that

encourages them to realize the power of group work process and usefulness of this modality. Group work techniques, context, dynamics, skills and the role of the group facilitator are discussed. In presenting group work with special populations students learn about the impact of issues including development, discrimination, illness, addiction and separation on the commonality of the human experience as it presents in group practice. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 579 Special Topics in Social Work**

These courses examine significant timely issues confronting the profession. Topics include violence as a public health problem, issues of aging, racism, gender, AIDS, the media, and others. Topics vary each term as faculty develop specific modules that address one or more of these issues. Class meets two hours in-class and one hour of instructor directed assignments. Depending on topic the course may be an enrichment elective or advanced practice elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 580 Overview of Family Violence**

This course is an overview of the phenomenon of family violence in the United States including child abuse, intimate partner violence (IPV) and elder abuse. Incidence and prevalence regarding each form of family violence will be reviewed as well as etiology, current evidence-based treatment modalities and competing political ideologies. Particular focus will be on the current research for each type of family violence and policy directives that emanate. This course also explores theories of etiology, including patriarchy, intergenerational family dynamics and substance abuse. It examines programmatic approaches and programs for batterers and prevention strategies. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 581 Public Health and Community Health Intervention**

This course examines many of the critical public health issues of today. Students gain an understanding of the concepts underlying social epidemiology and develop an appreciation of the ways in which the health status of different populations in this country is differentially impacted. Community health planning strategies (e.g. health promotion and health education) are examined. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 582 Organizational Dynamics and Legal and Ethical Issues in Health Care**

This course examines some of the traditional, as well as newer, models through which healthcare services are delivered. Particular emphasis is given to the issue of access to health services as well as the location of the professional social worker within these systems. Students gain the ability

to conceptualize many of the critical ethical and legal issues impacting the field today. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 584 Community Analysis and Health Promotion**

Explores diverse concepts of community, analyzes a range of community structures, processes and power relationships. Investigates contemporary models, strategies and tactics of community organizing and health promotion in the United States and in selected other countries and emphasizes efforts made by poor people, ethnic minorities of color and women to organize and mobilize community groups and movements. Highlights group and community analysis and organization skills. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 588 Qualitative Health Research Methods**

The class works as a team on a joint project. Topics include problem formulation, instrument construction, sampling strategy, interviewing, data transcription and data analysis. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective. Prerequisites: HWC 511 and 512

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 589 Biostatistics**

This course is an introduction to the analysis and interpretation of quantitative data using bio-statistical methods. It examines three interrelated issues: the nature of quantitative data and their relationship to social, psychological and biological concepts, the different ways data can be presented to help others understand research questions and the answers to those questions, and the basic and intermediate bio-statistical techniques available for analyzing data. Focuses on how data relate to research questions that are of interest to workers in the healthcare field. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective. Prerequisites: HWC 512 or equivalent

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 590 HIV/AIDS**

This course focuses on the central aspects of the HIV/AIDS Pandemic, including the state of medical knowledge, HIV/AIDS and the law, prejudice and discrimination, AIDS activism and organizing, grief/death/dying, psychosocial issues, redefining the medical model, homophobia, racism, sexism and ableism in research, treatment and policy, IV drug use, drug treatment and other related issues. Upon completion of this course, students will have met the educational requirements established by the HIV Primary Care Medicaid Provider Agreement. This requirement is needed to conduct HIV pre- and post-test counseling in hospitals and clinic settings. Class meets two hours in-class and one hour of instructor directed assignments. Class meets two hours

in-class and one hour of instructor directed assignments.

Enrichment Elective.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 593 Student - Community Development Seminar I**

This course introduces the Student-Community Development Model as an integrated application of social work, community organization and social work practice modalities. It introduces historical developments in higher education, student development theory and how political, socio-economic, cultural and health issues impact higher education. How these systems influence and shape student and community wellness on the college campus is emphasized. Contemporary higher education organizational structures, planning modalities and intervention strategies are examined to support social work practice in this setting. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 594 Student - Community Development Seminar II**

This course explores contemporary higher education organizational structures and appropriate intervention strategies for advancing positive systems change with the contact of higher education. A variety of current social issues on college campuses are examined to inform and support social workers as change agents within the arena of campus life. Leadership development and social work practice roles in this setting are emphasized. Class meets two hours in-class and one hour of instructor directed assignments. Advanced Practice Elective, 3 credits, spring semester

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 595 Independent Study**

Independent study with an individual faculty member.

Designation as enrichment or advanced practice elective is determined with faculty sponsor.

1-3 credits, Letter graded (A, A-, B+, etc.)

**HWC 598 Issues in Higher Education**

This course examines current issues which arise in institutions of higher education utilizing alternative conflict management and mediation models to provide the framework to examine a variety of social issues on college campuses. It explores such issues as diversity, violence, substance abuse and mental health. Class meets two hours in-class and one hour of instructor directed assignments. Class meets two hours in-class and one hour of instructor directed assignments. Enrichment Elective.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 599 Maintenance of Matriculation**

For students who are maintaining matriculation while engaging in consultation with faculty regarding completion of courses and/or the Master's Project. Students will be graded S/F.

1 credit, S/F graded

**HWC 600 Statistics I**

Provides instruction in the computation, interpretation, and application of data analytic procedures used in social research. Discusses procedures such as descriptive statistics, chi-square, and t-tests, while examining their relevancy for analyzing issues in social work practice. Fall Term.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 601 Statistics II**

Introduces students to multivariate techniques used in the analysis of various kinds of data. Analysis of Variance, Multiple Regression Analysis, Logistic Regression Analysis, and Log-Linear Regression Analysis, as well as more advanced techniques, such as path analysis and survival analysis, are discussed.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 602 Research Methods I**

Presents an overview of the variety of research methodologies utilized in social science and social work, with the goal of providing students with the knowledge and competencies needed to develop and conduct their own research. The course will lead to a sophisticated understanding of the research process including the formulation of research questions, hypothesis development and testing, and choice of research method, involving both quantitative and qualitative methods. Material on quantitative designs will include experimental and quasi-experimental designs, data collection methodologies, scaling, instrument development, and sampling procedures. Material on qualitative designs will address focus groups interviews, key informant interviews, participant observation, unobtrusive observation, text and content analysis, and the use of archival and historical data. Special attention is given to ethical and political issues in the conduct of research.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 603 Research Methods II**

A continuation of HWC 602 Research Methods I.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 604 Naturalistic and Qualitative Research**

Considered is the application of alternative research methods for different questions. The distinction between quantitative and qualitative approaches and methods in the analysis of qualitative data is explored.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 606 Research Practicum I**

Students undertake significant and methodologically rigorous research involving design, implementation, analysis, and dissemination of a research project. The substantive areas will include health, mental health, or substance abuse. School of Social Welfare faculty, affiliated faculty members from the Health Sciences Center and University social science departments, and principal investigators in community research projects will serve as preceptors. Students will spend ten hours each week for two semesters in a practicum setting. Students have a supervised hands-on, practical experience with an ongoing research project. Typical activities include

data analysis, interpretation of results, research report writing, subject recruitment and screening, instrument development, or data collection. The primary objective is to strengthen students' ability to synthesize various phases and components of social research. A focus is on articulating linkages among the research questions, the data gathered to address these questions, the techniques selected for manipulating and analyzing the data, and the interpretation of findings. Students are encouraged to pursue publication stemming from the practicum. While the research practicum may not necessarily expose students to the specific population or problem of greatest interest to them, the skills or competencies mastered can prepare students methodologically to carry out their dissertation research plans.  
3 credits, S/U grading

**HWC 607 Research Practicum II**

A continuation of HWC 606 Research Practicum I.  
3 credits, S/U grading

**HWC 608 Social Welfare Policy Analysis I**

An analytical approach to public policy formulation in the areas of health, mental health, and substance abuse involving the impact of environmental forces on policy content. Considered are the effects of various institutional arrangements and political processes as well as inquiry into the consequences of various contemporary public policies. Tools and frameworks of policy analysis are examined. Policy alternatives and policy development and implementation are also considered.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 609 Social Welfare Policy Analysis II**

A continuation of HWC 608 Social Welfare Policy Analysis I. Prerequisite: HWC 608. Spring  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 610 Organizational Theory and Social Welfare Administration**

The focus is on theories and methods available to planners and administrators who function in complex organizational settings. Decision making, political and economic factors, information systems, value conflicts, and adaptations of rational models to emerging realities will be studied. Health and mental health programs will be utilized as exemplars.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 611 Knowledge Building in Social Work: The Philosophy of Applied Social Research**

An examination of the major currents of thought that shape the meta-theoretical, theoretical, and methodological issues related to knowledge building in social work. The impact of pragmatic philosophy on the current "science versus non-science" debate within social work is reviewed. Special attention is given to epistemological approaches and their relation to qualitative and quantitative research strategies.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 612 Social Science Theory for Social Welfare**

In this course, we explore the nature of social theory and the normative project of social welfare by examining theories of social justice, human rights and oppression. We consider the nature and structure of power, the role of ideology and their impact in a society defined by inequality. Social Construction and critical theory are particularly relevant as their assumptions align well with those of social welfare. Lastly, we explore the tensions and possibilities of democratic theories and ideals, given the current context, as a means to further social welfares normative project. Throughout the course, students are challenged to explore existing theory and, importantly, to learn and engage in the process of theorizing, themselves.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 613 Seminar in Social Work Education**

Focus is on the place of social work education in the university with attention to issues of current concern such as the integration of professional education with the scholarly research focus of other academic disciplines. Consideration will be given to educational program structure, content, curriculum development, evaluation, and teaching methodologies. Students will be required to teach a course in the B.S.W. or M.S.W. curriculum under mentorship of a senior faculty member.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 614 Teaching Practicum**

The teaching practicum is a supervised experience in teaching at the master's or undergraduate level in the School of Social Welfare, or in some aspect of academic administration, such as curriculum development, project planning, and/or proposal development. The educational practicum is typically available to doctoral students in the third year. An individualized plan will be developed for implementing the teaching practicum. Practica may include teaching a section of a required graduate/undergraduate course, working as a teaching assistant with a faculty member, and/or co-teaching and working with the curriculum committees and area sequences in curriculum development.

3 credits, S/U grading

**HWC 615 Dissertation Seminar I**

Students are expected to survey the current state of the art in their area of interest and to develop a written prospectus on a question suitable for dissertation research. In the second semester, students will refine dissertation proposals through presentation and critique in the seminar. Specific techniques and alternatives in studying a variety of dissertation questions are compared.

3 credits, Letter graded (A, A-, B+, etc.)

**HWC 616 Dissertation Seminar II**

A continuation of HWC 615 Dissertation Seminar I.  
3 credits, Letter graded (A, A-, B+, etc.)

**HWC 679 Special Topics in Policy Research**

Discusses timely policy reseach issues such as violence as a public health problem, aging, racism, gender, AIDS, poverty and international social work. Topics vary each term as faculty

develop specific modules that address one or more of these topics.

Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 695 Independent Study**

Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**HWC 699 Dissertation Research on Campus**

Dissertation research under direction of advisor.  
Fall, 1-9 credits, S/U grading

**HWC 700 Dissertation Research Off Campus - Domestic**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place off-campus, but in the United States and/or U.S. provinces. Please note, Brookhaven National Labs and the Cold Spring Harbor Lab are considered on-campus. All international students must enroll in one of the graduate student insurance plans and should be advised by an International Advisor.

Fall, Spring, 1-9 credits, S/U grading

**HWC 701 Dissertation Research Off Campus - International**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place outside of the United States and/or U.S. provinces. Domestic students have the option of the health plan and may also enroll in MEDEX. International students who are in their home country are not covered by mandatory health plan and must contact the Insurance Office for the insurance charge to be removed. International students who are not in their home country are charged for the mandatory health insurance. If they are to be covered by another insurance plan they must file a waiver be second week of classes. The charge will only be removed if other plan is deemed comparable.

Fall, Spring, 1-9 credits, S/U grading

**HWC 800 Full Time SUMMER RESEARCH**

F T SUMMER RESEARCH

0 credit, S/U grading

## HWL

**HWL 500 Study at Touro Law**

For students in the M.S.W./J.D. program and who are maintaining matriculation while enrolled at Touro Law Center.  
0 credit, S/U grading

## MCR

**MCR 501 Experimental Clinical Research**

This course will (1) introduce trainees to formulation of a research question and hypothesis testing and; (2) introduce trainees to various research methodologies and how they are used to answer clinical research questions. This is not

a clinical trials design course but rather is focused on how a clinical paradigm is used to formulate a research question and develop a hypothesis.

Summer, 1 credit, Letter graded (A, A-, B+, etc.)

**MCR 506 Biostatistics 1 for Clinical Scientists**

This is Part One of a two-part biostatistics training sequence. This course serves as an introduction to the principles and methodologies of biostatistics for clinical researchers. The material covered includes probability and distribution, descriptive statistics, point and interval estimation, hypothesis testing, correlation, linear regression, ANOVA, ANCOVA, logistical regression, survival analysis, and non-parametric tests.

Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**MCR 507 Biostatistics II**

The second course in biostatistics in the clinical scientists training sequence is intended to further acquaint the trainees with the commonly used procedures covered in the first course and to learn to apply these procedures to real and simulated datasets using statistical software. As part of the course requirement, the trainees will need to complete a course project analyzing an appropriate research data set.

Spring, 3 credits, Letter graded (A, A-, B+, etc.)

**MCR 514 Epidemiology for Clinical Scientists**

The aims of this course are to introduce trainees to basic epidemiologic concepts, methods and topics, and to provide them with skills to critically evaluate published literature, interpret data, and develop an evidence based approach to medical practice. Upon completion, trainees will be able to apply basic epidemiologic principles and methods to problems encountered in clinical medicine. Co-requisite: MCR 506

Offered

Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**MCR 525 Contemporary Topics in Clinical and Translational Research**

This monthly lunchtime seminar is designed to expose clinical and basic science students to contemporary topics in clinical and translational research. Topics include: "-Omics", Biobanking and Biorepositories, Biomedical Informatics, Imaging and Big Data. Lunch will be provided.

1 credit, S/U grading

**MCR 549 Legal and Regulatory Issues in Clinical Research**

Major contemporary legal and regulatory issues associated with scientific research will be discussed. Additionally, this course will introduce students to the history behind the regulations that safeguard human subjects, will educate students in detail about their responsibilities as clinical investigators.

Summer, 1 credit, Letter graded (A, A-, B+, etc.)

**MCR 562 Data Management and Informatics for Clinical Scientists**

This course provides students with computer and data management skills required to complete a research project. Questionnaire development, data processing and analysis, and issues surrounding data security are covered. Students will learn to use Excel, Access and Velos eResearch for data input and management, SPSS for data processing and analysis, and powerpoint and Word for presentations and report generation. Hands-on exercises are used to develop skills.

Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**MCR 566 Clinical Research Methods**

This course aims to introduce trainees to the different aspects of clinical trial design, conduct, management and analysis; and to provide trainees with a basic understanding of the key elements of clinical trial design and practice.. 2 credits, Fall term, Professor Leslie Hyman, PhD

2 credits, Letter graded (A, A-, B+, etc.)

**MCR 567 Research in Population Health and Clinical Outcomes Research**

This course provides an overview of research methods as applied to questions raised in the fields of population health and clinical science. It covers the topics of risk adjustment, cost assessment, access to, utilization and quality of care, outcomes and health status measurement, and health system performance.

Fall, 3 credits, Letter graded (A, A-, B+, etc.)

**MCR 580 GCRC/SAC Scientific Review Process**

Students will understand and participate in the process of scientific review of human subject research protocols submitted to the GCRC.

Fall, 1 credit, Letter graded (A, A-, B+, etc.)

**MCR 601 Ethics and Professionalism in Clinical Research**

Using an interactive case-based format, the topics covered include the justification of human research and reasonable balance of risk versus benefits; the use of animals in biomedical research; issues of informed consent and IRB paperwork processing; the ethical challenges of clinical research; ethical concerns associated with genetic testing and screening; research involving minors and adults of questionable capacity to consent; conflict of interest and funding of research for individuals and institutions; investigator responsibilities with regard to fulfilling government regulations; scientific fraud and whistle blowing; the scientific community and mentoring; authorship and attribution; special populations and inclusion of minorities and; emergency research-related special requirements.

2 credits, Letter graded (A, A-, B+, etc.)

**MCR 630 Technology Transfer**

Students will be exposed to concepts including disclosing inventions, protecting intellectual property, working with industry/working with university faculty, licensing, collaborative agreements, intellectual property protection and management and commercialization.

Spring, 0-6 credits, Letter graded (A, A-, B+, etc.)

**MCR 650 Molecular and Laboratory Methods in Clinical Research**

The aims of this course are to introduce trainees to laboratory methods relevant to clinical research with an emphasis on molecular medicine.

Fall, 2-3 credits, Letter graded (A, A-, B+, etc.)

**MCR 684 Writing a Research Proposal**

This course will help students develop the skills necessary to design a research proposal including framing the specific aims, evaluation of the literature, description of preliminary data and research methods, proposed biostatistical analysis and power calculations, defining eligibility criteria, and development of a safety plan, issues of recruitment including under-represented ethnic and racial groups.

Summer, 1 credit, Letter graded (A, A-, B+, etc.)

**MCR 692 Research in Progress**

This course meets weekly and is attended by all trainees and mentors. Trainees present updates of their research endeavors and receive input from experienced mentors. Trainees are exposed to discussion among mentors on research design and interpretation.

Fall and Spring, 1 credit, S/U grading

**MCR 693 Clinical Research Opportunities at Stony Brook University and Affiliated Institutions**

The aims of this series are to familiarize trainees with the range and breadth of multidisciplinary clinical research carried out at Stony Brook and its affiliated institutions, and to provide examples of successful team approaches to study design, data analysis and ethical issues in clinical research. At each semester, a research team will be highlighted that will describe how the team came to be formed followed by a presentation about the research hypothesis, study design, data collection and analysis, and future work to follow. Fall, Spring, and Summer, 1 credit, Letter graded (A, A-, B+, etc.)

**MCR 694 Seminars in Clinical Research**

Offered

Fall and Spring, 1 credit, Letter graded (A, A-, B+, etc.)

**MCR 695 Defining and Developing a Career Path in Clinical and Transnational Research**

Students will read and discuss chapters from the Howard Hughes Medical Institute "Making the Right Moves" online textbook and develop a career plan. Topics include how to set up your lab, networking, conflicting resolution and managing your staff.

1 credit, S/U grading

**MCR 696 Presenting Research Results to Peer Audiences**

Students will have reading assignments on designing and giving a great talk as well as how to write a paper suitable for publication in a peer reviewed journal. Students will have an opportunity to practice giving a talk about their research projects. Masters students will present a summary of their thesis project to date. Each student in the Masters in Clinical Research Program will present a final project as part of the Annual Research Symposium help the last day of class. 1 credit, S/U grading

**MCR 698 Practicum in Teaching**

The course provides hands-on experience in classroom teaching and mentoring students in the conduct of clinical research. Other activities may include preparation and supervision of class projects, exams, homework assignments, creation of voice over PowerPoint lectures, and participation in interactive Blackboard student discussions. A final report that summarizes the activities completed and provides a self-reflection on the experiences gained during the practicum is required at the conclusion of the course. Participation by advanced graduate student under the supervision of program faculty. Prerequisite: Permission of the supervising faculty. 3 credits, S/U grading May be repeated 2 times FOR credit. 3 credits, S/U grading

**MCR 699 Masters Thesis**

Original investigation in clinical research undertaken with the supervision of the student's Thesis Committee. 1-6 Credits, ABCF Grading  
1-6 credits, Letter graded (A, A-, B+, etc.)

## MST

**MST 501 Selected Topics in Translation/ Research and Clinical Pathological Correlations**

The learning goals of this course are for the students to gain an appreciation of examples of research by physician scientists and its clinical application. A clinical case will be presented by faculty or senior students and this case will be discussed in the light of a recent biomedical research publication. The publications are presented, analyzed and discussed by the students as a group. Topics are selected from the recent biomedical literature and can involve any clinical discipline, basic life science research topics as well as bioengineering topics. 0-1 credits, S/U grading

**MST 502 Clinical Scientist Seminar Series**

The learning goals of this course are for the students to gain an appreciation of examples of research by physician scientists and its clinical application. A clinical case will be presented by faculty or senior students and this case will be discussed in the light of a recent biomedical research publication. The publications are presented, analyzed and discussed by the students as a group. Topics are selected from the recent biomedical literature and can involve any clinical discipline, basic life science research topics as well as bioengineering topics.

0-1 credits, S/U grading