

Fall 2020

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](#) or [COST & AID](#) in the above navigation, or select [POLICIES & PROCEDURES](#) for detailed information concerning degree requirements, policies and academic standards and more. [SCHOOLS & PROGRAMS](#) provides details on the 5 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](#)

Financial Information

Tuition and Fees

For information on Tuition and Fees, visit [Bursar/Student Accounts](#).

New York State Residency

For information on New York State Residency, visit [Bursar/Student Accounts](#).

Payment Procedures

For information on Payment Procedures, visit [Bursar/Student Accounts](#).

Time Option Payment Plan (TOPP)

For information on the Time Option Payment Plan, visit [Bursar/Student Accounts](#).

Payment and Anticipated Aid

For information on Payment and Anticipated Aid, visit [Financial Aid](#).

HEALTH INSURANCE

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

Health Insurance For International Students

For information on International Health Insurance, visit [Student Health Services](#).

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 [Student Affairs](#).

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 [Student Affairs](#).

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 [Campus Dining](#).

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 click [here](#).

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 [Transportation and Parking](#).

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 [Transportation and 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](#).

HOUSING DEPOSIT

For information on housing deposit refunds, visit [Bursar/Student Accounts](#).

MEAL PLAN

For information on cancelling a meal plan, call (631) 632-6517 or visit [Meal Plan](#).

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 [Bursar/Student Accounts](#).

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 [Bursar/Student Accounts](#).

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

For information on changes in enrollment and financial aid implications, visit [Bursar and Student Accounts](#).

FINANCIAL AID

For information on financial aid, visit [Financial Aid](#).

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.

REPAYMENT, DEFERMENT, FORBEARANCE AND LOAN FORGIVENESS

For information on repayment, deferment, forbearance and loan forgiveness visit studentaid.ed.gov.

FEDERAL WORK STUDY PROGRAM (FWS) AND FWS COMMUNITY SERVICE

For information on the Federal Work Study Program please visit [Financial Aid](#).

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.

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 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>.

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 [Schools & Programs](#) 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. Students are able to add & drop classes according to the dates on the [academic calendar](#). Students who are not enrolled in a course prior to day one of classes will incur a late registration fee. For more information on tuition liability please visit the [Bursar's website](#).

In exceptional circumstances, students may request a late petition to enroll in coursework after the dates specified on the [academic calendar](#). If the petition is 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.

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. For more information regarding the University awards that are presented each year please refer to the [Undergraduate Bulletin](#).

Honor Societies

Selection of students for honors 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.

Delta Lambda, a chapter of Delta Omega Honor Society, recognizes excellence in practice, research, education, and academic achievement in the field of public health. Inductees may represent up to 20% of the graduating student body and must be in the upper 25% academically. Alumni, faculty, and honorary members may also be considered for induction each year.

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.

Omicron Kappa Upsilon-Chapter Award recognizes an OKU component chapter that has created exemplary programs that promote excellence at the local level. The Award Selection Committee will consider all activities by a component chapter that recognizes and encourages the art, science and literature of dentistry. Selection will be based upon the innovative and creative programs the chapter has developed to encourage excellence in educating and motivating students, faculty and the dental community.

Phi Alpha Honor Society is a national honor society for social work students dedicated to excellence in scholarship, humanitarian goals, and high professional standards. The National Council of Phi Alpha Honor Society granted membership privileges to the SBU School of Social Welfare effective August, 2015.

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.

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.

Upsilon Phi Delta Honor Society recognizes, rewards, and encourages academic excellence in the study of healthcare management and policy. Inductees may represent up to 20% of the graduating student body and must be in the upper 25% academically with a minimum GPA of 3.5. Alumni and honorary members may also be considered for induction each year.

For additional honor societies, please refer to the [academic honors](#).

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. For more information on the general degree requirements, please visit the [Undergraduate Bulletin](#).

Note: Additional major specific grade point average requirements for specific schools are described under the [Schools and Programs](#) section of the [Health Sciences Bulletin](#).

General Education Requirements

Health Sciences candidates for the Bachelor of Science degree must also satisfy their designated general education requirements as outlined by the University. For more information on the general education requirements, please refer [here](#).

Transferred Undergraduate Credits from Other Colleges & Universities

Undergraduate students are strongly encouraged to discuss any questions about transfer credits with a program advisor. For more information regarding transferring credits from other institutions, Health Sciences students should also consult the [University policies](#) and the [course equivalencies](#) list.

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 in the [Undergraduate Bulletin](#).

Note: For double majors for students in the School of Health Technology and Management, 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.

Second Bachelor's Degree Program

The Health Sciences Schools follow the University requirements pertaining to second Bachelor's degrees. For more information, please visit this [link](#).

Summer Study Abroad

Health Sciences students interested in taking summer courses at another institution should discuss their plans in advance with their Health Sciences academic advisors and the [Study Abroad Office](#).

Requirements for Graduate Degrees

All candidates for East Campus degrees should consult the appropriate [Schools and Programs](#) section of this Bulletin.

Graduate Student Residence and Matriculation Requirements

Health Sciences students follow the matriculation policies of the University. For more information, please consult the [registration section](#) of the Graduate Bulletin.

For more information about the awarding of degrees, Health Sciences students should consult the [Graduate Bulletin](#).

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.

SUNY Exchange Program

Graduate students interested in participating in the [SUNY Exchange Program](#) should consult the Graduate Bulletin and speak with their program advisor.

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. For more information on the policies

regarding the [transfer of credits](#) for graduate students, please refer to the respective Health Sciences School.

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 appropriate school/program. The appropriate school/program will submit to the University Registrar for processing.

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 and the Grading System

The Health Sciences Schools follow University requirements pertaining to [Grading and the Grading System](#) for all Undergraduate students.

For Graduate Students, the Health Sciences Schools follow the [Grading Policies](#) for all Graduate students, with the exception of the [Retake/Repeat Policy](#) which is outlined below.

Note: The School of Medicine uses the Honors/Pass/Fail grading system as described in the School of Medicine section of this Bulletin.

Grading System:

A letter grading system is used by the Schools of Health Technology and Management, Nursing (refer to the School of Nursing for specific grading policy), Social Welfare, Basic Sciences and Public Health programs. The School of Dental Medicine uses the letter grading system, without plus or minus grades, 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 Public Health programs 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 Sciences and Public Health 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, Dental Medicine, and the 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 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 respective schools' Deans Office 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 and Public Health Program.

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 A-C/U or S/U. 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 not be used by undergraduates in the School of Health Technology and Management, School of Social Welfare and School of Nursing.

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 Public Health Program in specially designated courses where finer grading distinctions are impractical, and an S/U grading policy is announced in the course description provided by the school. No other grades may be assigned in such courses. 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 add/drop deadline noted on the [academic calendar](#) for Undergraduate and Graduate students. The W is not calculated into the grade point average.

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

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

For more information on the degree progress report for Undergraduate students, please follow this [link](#).

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 Integrity

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 time frame specified by the [academic calendar](#), undergraduate students may add or drop courses through the [SOLAR](#) system. After the add/drop period, changes in registration must be requested through the appropriate Health Sciences school and course drops will result in a "W" (withdrawal) being recorded on the transcript. 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 [Registrar](#) from an **authorized official** of a Health Sciences school/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, for approval with documentation and processed by the University Registrar.

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 appropriate school/program authorized official for approval with documentation and processed by the University Registrar.

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 [Office of the Registrar](#) 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 [Office of the Registrar](#). 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

Please refer to the guidelines and procedures on the [Office of the Registrar's](#) website regarding student educational records.

HIPAA

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. Please consult their [website](#) for additional information.

Research Involving Safety Considerations

Questions regarding research safety considerations should be directed to the appropriate school or program and may also be directed to the [Office of Research Compliance](#).

Equivalent Opportunity/Religious Absences

Some students may be unable to attend classes on certain days because of religious beliefs. The Health Sciences Schools follow University policies regarding equivalent opportunity/religious absences. For more information, Undergraduate students should consult this [link](#) and Graduate students should refer to this [link](#).

Resources

HEALTH SCIENCES OFFICE OF STUDENT SERVICES

The [Health Sciences Office of Student Services](#) (HS OSS) provides student administrative services for the Health Sciences Schools and some services for the Hospital. Areas of office responsibility for students include admissions, financial aid, and general student services including student government and activities. HS OSS provides support for the HS Schools and the Hospital including data reporting, event/room reservations, and maintaining the HS course catalog. HS OSS also collaborates with the Health Sciences Schools in promoting a student life environment conducive to learning and student development.

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 or by email at hsstudentservices@stonybrook.edu. 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.

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(s). 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

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, or relevant Central Application Service fee (CAS). Application to some programs are through a national application system and the relevant application fee must be paid to that organization. Additionally, an applicant using a CAS may also require a supplemental application 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

Students who are required to participate in a clinical experiences are advised that some of the facilities they choose to select for their clinical placements may require additional background checks as a prerequisite to placement. Such background checks may include, but are not limited to, Social Security trace, fingerprinting for criminal history, drug testing, sex offender registries, child abuse and maltreatment screening, and federal and state health care program exclusion screening. Students seeking placement in a facility requiring background checks are personally responsible for obtaining the background check (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 the acceptance of students into its clinical training programs.

Student Criminal Background Checks

Some Health Sciences programs require a criminal history record check, and students will not be allowed to attend classes unless the check is successfully completed.

Students who choose to be placed at a facility that requires a criminal history record check may object to completing the process. Such students may select, but shall 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 criminal history record checks or paying for the criminal background checks, evaluating the results of the criminal background check, or for providing the information to the clinical placement sites.

Student Drug Testing

Students who choose to be placed at a facility that requires drug testing may choose not to consent to the screening. Such students may select, but are not 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, paying for, evaluating the results of, or providing the information to the clinical placement sites for drug testing.

Student Exclusion Screening

Stony Brook Medicine facilities, and other organizations affiliated with Stony Brook University Health Sciences Schools as clinical training sites may face civil monetary penalties and exclusion from federal or state health care programs, including Medicaid and Medicare if students assigned to those sites are ineligible to participate in such programs. Therefore, all Health Sciences students shall be screened to identify persons who have been determined to be ineligible.

Students shall immediately disclose any debarment, exclusion, suspension, or other event which make them ineligible to participate in federal or state health care programs. Students shall immediately report such events to their Program Directors and the Office of Health Sciences Schools Compliance.

The U.S. Department of Health and Human Services Office of Inspector General (OIG) is required to exclude individuals for the following conduct:

- Medicare or Medicaid fraud,
- Other healthcare fraud, theft or financial misconduct,
- Patient abuse or neglect,
- Felony convictions related to health care fraud, or
- Felony convictions related to unlawful manufacturing, distribution, prescription, or dispensing of controlled substances.

The OIG is permitted to exclude individuals for the following conduct:

- Misdemeanor convictions related to health care fraud not involving federal or state funded programs,
- Misdemeanor convictions related to unlawful manufacturing, distribution, prescription or dispensing of controlled substances,
- Conviction relating to obstruction of an investigation or audit,
- Suspension, revocation or surrender of a license to provide health care for reasons bearing on professional competence or performance or financial integrity,
- Provision of unnecessary or substandard services,
- Engaging in unlawful kickback arrangements, or
- Defaulting on a health education loan or scholarship obligations.

Pre-Application

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, 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. Physical Therapy (DPT) applicants must apply at www.ptcas.org. Occupational Therapy (OT) applicants must apply online at www.otcas.org. Graduate Program in Public Health applicants must apply at 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.liaisoncas.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 final supporting application documents must be submitted to the Health Sciences Office of Student Services if admitted. 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: hsstudentservices@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

- Respiratory Care, BS

- Applied Health Informatics, MS
- Athletic Training, MS
- Medical Molecular Biology, MS
- Occupational Therapy, MS
- Physical Therapy, DPT
- Physician Assistant, 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, online with onsite requirements), MS
- Doctor of Nursing Practice
- Advanced Certificate Program in Nursing online with onsite requirements
- PhD in Nursing

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
- Dual Degree in Social Work and Public Health, MSW/MPH

GRADUATE PROGRAM IN PUBLIC HEALTH

(631) 444-9396

- Health Administration, MHA
- Population Health and Clinical Outcomes Research, PhD
- Epidemiology and Clinical Research, MS
- Community Health, MPH
- Health Analytics, MPH
- Health Policy and Management, MPH
- Dual Degree in Nutrition and Public Health, MS/MPH
- Dual Degree in Social Work and Public Health, MSW/MPH
- Dual Degree in Business Administration and Public Health, MBA/MPH
- Dual Degree in Public Policy and Public Health, MAPP/MPH
- Dual Degree in Medicine and Public Health, MD/MPH
- Concurrent program in Dentistry and Public Health, DDS/MPH

The Master of Public Health (MPH) program also offers accelerated undergraduate to graduate programs (BS Applied Mathematics and Statistics/MPH, BA Earth and Space Science/MPH, BS Pharmacology/MPH, BA Women's Studies/MPH).

Please see the Graduate Program in Public Health section of this Bulletin for more details.

GRADUATE PROGRAM IN NUTRITION

(631) 638-2132

- Nutrition, MS
- Dual Degree in Nutrition and Public Health, MS/MPH

**GRADUATE ADVANCED
CERTIFICATE PROGRAMS**

SCHOOL OF HEALTH TECHNOLOGY AND MANAGEMENT

(631) 444-2252

HEALTH COMMUNICATIONS

(631) 444-2074

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

HEALTH EDUCATION AND PROMOTION

(631) 444-2074

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 ADVANCED CERTIFICATE PROGRAMS

The School of Nursing offers Advanced Certificate Programs. Applicants for these programs should visit the website at www.nursing.stonybrookmedicine.edu or call (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 for information regarding the application process or call (631) 632-8871.

RENAISSANCE SCHOOL OF MEDICINE

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

Renaissance 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) 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 with a minimum score of 22 in each subsection and a minimum score of 7 for the IELTS Speak test with no subsection below a 6. 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. 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.

For further information international students should email the Health Sciences Office of Student Services at hsstudentservices@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 (SFDM) 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 maintenance of the minimum GPA. 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, Radiation Therapy, Radiologic 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 and the credentialing service required by the program or school, as appropriate, documentation of the results of a physical examination, required laboratory tests and a record of immunizations. The completed form must be on file before a student is allowed to start their coursework.

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. The Registrar will de-register students who are not in compliance.

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.

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

For **Undergraduate Students** please visit: http://www.stonybrook.edu/sb/bulletin/current/policiesandregulations/admissions/transfer_credit.php

Students who would like additional information should consult the Office of Academic and Transfer Advising Services or the appropriate Health Sciences Program.

Graduate Students 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.

Health Sciences Schools

School of Medicine

DEAN: Kenneth Kaushansky
 OFFICE: HSC Level 4, Room 147A
 PHONE: (631) 444-2113
 WEB: renaissance.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, 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 (OCME), we provide, co-provide or jointly provide Continuing Medical Education (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 electronic programs; self-study materials and hands-on training, e.g., procedural skills training, simulations, standardized patients.

Financial Aid

Inquiries concerning sources of financial aid and student financial planning should be directed to the [RSOM Office of Student Affairs](#). 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.

Endowed Chairs

The Ambassador Charles A. Gargano Endowed Chair in Cardiology

In 2013, the Ambassador Charles A. Gargano Chair of Cardiology was established. The Ambassador has been involved with various areas on the Stony Brook campus for many years and his financial commitment to the Department of Cardiology exemplifies his high regard for excellence in health care. The funds will be used to attract an accomplished, research-oriented scientist and clinician who is dedicated to finding new methods of diagnosis and treatment. The holder will serve as an institutional leader in advanced cardiovascular imaging. Generous funding will enable staff to conduct research using imaging tools and working with the clinical population. Hal Skopicki, MD, PhD currently occupies this chair.

The Dialysis Clinic, Inc. (DCI) – Martin Liebowitz Endowed Professorship in Nephrology

In 2014, Dialysis Clinic Inc. established an Endowed Professorship in Nephrology within the Renaissance School of Medicine at Stony Brook. The professorship is also named in honor of Dr. Martin Liebowitz, who exemplified the highest level of dedication to medical education, patient care, and kidney disease research over the course of more than 30 years at Stony Brook. The current occupant of the chair is nephrologist Sandeep Mallipattu, MD, FASN, who is a tenured associate professor in medicine and Chief of the Division of Nephrology and Hypertension.

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 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.

The Simons Endowed Chair in Medicine

In 2011, Jim and Marilyn Simons established an Endowed Chair in Medicine within the Renaissance School of Medicine at Stony Brook. The Chair is held by a senior faculty member in the Department of Medicine who is highly-regarded as a leader, scholar and educator in the field of medicine. The current occupant of the chair is gastroenterologist Vincent Yang, MD, PhD, who serves as Professor of Medicine, Physiology and Biophysics in addition to his role as Chair of the Department 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.

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.

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.

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://renaissance.stonybrookmedicine.edu/admissions/>

All questions concerning admission should be addressed to: 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

*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 - 4 Year MD Program

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.

Phase III

Phase III, the Advanced Clinical Phase, spans 18 months and offers students maximum flexibility. Students complete a 4-week Selective, a 4-week sub-internship (in anesthesiology, medicine, pediatrics, surgery, emergency medicine, ob/gyn, orthopaedics, or urology), an individualized 2-week Advanced Clinical Experience, and a 4-week Transition to Residency course. Students also complete a minimum of 26 weeks of electives.

School of Medicine Academic Policy and Procedures: <https://renaissance.stonybrookmedicine.edu/ugme/policies>

MD CURRICULUM - 3 Year MD Program

The Stony Brook School of Medicine's 3-Year MD program (3YMD) is a program that offers a limited number of students who have already been accepted into Stony Brook School of Medicine's 4-year MD program the opportunity to complete their MD in three years. Students who are accepted into the 3YMD track are also offered conditional acceptance into a Stony Brook School of Medicine residency program of their choice. 3YMD students are required to complete academic courses before Phase I of the LEARN curriculum begins in August. 3YMD students are also required to complete ten weeks of academic credits within the graduate medical education (GME/residency) program of their choice during the summer between their first and second years. The completion of summer academic credits allows 3YMD students to fulfill the requirements for an MD degree, as designated by the LCME, in three years. 3YMD students will complete Phase I and Phase II of the LEARN curriculum in its entirety, and Phase III will be modified.

The academic requirements for the 4-year and 3-year MD programs are similar; however, students in the 3YMD track are expected to achieve additional explicit academic and progressional standards. Students in the 3YMD track who encounter academic difficulties will not be able to complete all of the requirements for the MD degree in three years. Such students will exit the 3YMD track and enter the 4-year MD program. Upon exiting the 3YMD track, these students will lose the GME spot they held and must enter the main Match for securing a residency.

Students accepted to the 3YMD track are not permitted to take a year off for research, and they will not be able to participate in joint degree programs (MD/MPH, MD/MBA, MD/MA). Students in the 3YMD track have the option to switch to the 4-year MD program.

School of Medicine Academic Policy and Procedures: <https://renaissance.stonybrookmedicine.edu/ugme/policies>

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 Medicine is partnering with hospitals from Manhattan to Montauk to create a clinically integrated network to serve the residents of Long Island.

In August 2016, Stony Brook Medicine and the Mount Sinai Health System entered into an affiliation agreement that includes collaboration on research, academic programs and clinical care initiatives. The two institutions launched the partnership to heighten academic and research synergies and to promote discovery, provide expanded clinical trials for both institutions and achieve breakthroughs in understanding and treating disease.

In separate agreements, Southampton Hospital and Eastern Long Island Hospital (ELIH) are joining the Stony Brook Medicine healthcare system to transform healthcare on the East End of Long Island.

MOUNT SINAI PARTNERSHIP

The Mount Sinai affiliation will revolutionize medical research by combining expertise from two premier medical schools. Mount Sinai and Stony Brook will collaborate to develop a wide range of research programs in fields including biomedical engineering and computer science; drug discovery and medicinal chemistry sciences; neuroscience, neurology and psychiatry; basic biology and novel therapeutics; and, public health and health systems.

The affiliation will capitalize on Stony Brook's expertise in mathematics, high-performance computing, imaging, and the physical and chemical sciences, as well as Mount Sinai's strengths in biomedical and clinical research, and health policy and outcomes.

Through the relationship, the schools will develop joint graduate and medical educational programs in all areas, leveraging the strength of existing master's and doctoral programs at each institution. Students will have the opportunity to take classes on both campuses, allowing them to learn new techniques and expand their learning capacity. Mount Sinai and Stony Brook will also build summer programs for undergraduate, graduate and postgraduate students.

Mount Sinai and Stony Brook will invest a combined \$500,000 to launch competitive and unique pilot programs, with the intent to receive collaborative external funding. Projects will be determined and overseen by a committee composed of three representatives from each institution.

EAST END HOSPITALS

In January 2015, the State University of New York (SUNY) Board of Trustees approved Southampton Hospital to join the Stony Brook Medicine healthcare system. Now called Stony Brook Southampton Hospital, the 125-bed facility joined Stony Brook Medicine on Aug. 1, 2017. The two institutions will work closely together to improve healthcare quality and access, coordination of care and efficiency for patients across the East End of Long Island.

And in May 2016, the SUNY Board of Trustees approved Eastern Long Island Hospital (ELIH), a 90-bed hospital on the North Fork of Long Island, to join the Stony Brook Medicine healthcare system as well.

Stony Brook has enjoyed longstanding relationships with both hospitals in providing healthcare services for the East End of Long Island for many years. Now we are building on our collaboration to provide care in ways that are even more complementary, efficient and effective.

Patients will benefit from these partnerships because they help the hospitals match the level of care provided to the level of care needed. They also help address the challenges of healthcare reform by cultivating a broader, stronger network of hospitals and healthcare providers to improve efficiency, control costs and better coordinate care across Suffolk County.

Pending approval by regulatory and various New York State agencies, our planned collaborations will bring together the intimacy and accessibility of high-quality community hospitals with the specialized clinical resources and educational programs of an academic medical center, in a complementary fashion.

Our vision is to create the pre-eminent healthcare delivery system for Long Island, working together with Mount Sinai, Southampton Hospital, Eastern Long Island Hospital and other regional hospitals, post-acute care providers, care management organizations, community-based organizations, behavioral health providers and community physician practices.

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 I courses: Honors, Pass, Fail. Core clinical clerkships, sub-internships and elective rotations in Phases II and III 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 5th 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 a P. Transition courses, short-course electives 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 MSPPE 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

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

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

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

[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)

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

The Nutrition Division within the Department of Family, Population and Preventive Medicine at Stony Brook Medicine offers a fully online Master of Science in Nutrition degree program (36 credits), as well as an Advanced Certificate in Nutrition (15 credits). The graduate nutrition program 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, will provide instruction on evidence-based, timely nutrition therapies and facilitate the development of strong knowledge base and counseling skill

set. New concentrations offer students the option of selecting a program emphasis, allowing for a more individualized curriculum to match with a student's interests and career development goals.

In addition to the general course sequence option, concentrations are available in:

- Advanced Nutrition Therapy & Critical Care
- Integrative Nutrition Therapy
- Sustainable Food Systems & Health

Core courses include Macronutrients and Metabolic Regulation, Advanced Nutrition in Clinical Practice I, Advanced Communication and Counseling, Research Methods in Nutrition, Statistics, and Applications of Nutrition Research Literature.

The Program is designed to meet the needs of students with varying backgrounds, including practicing physicians, dietitians/nutritionists 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.

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 advanced certificate program.

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

DIETETIC INTERNSHIP PROGRAM

The Stony Brook University Dietetic Internship Program offers two tracks, On-site and Distance, and is sponsored by the School of Medicine. The program has an emphasis in clinical nutrition therapy.

The on-site track begins each September and includes 61 hours of orientation and seminars, 38 weeks of rotations, and 1 week of RD exam review. The distance track includes 37.5 hours of orientation, 1040.5 hours of block rotations (nutrition therapy, food service, community nutrition, elective, renal) and 24 hours of Evaluation & Review Week. The Internship is 1215 hours in length. Orientation begins in

July for the Distance track and early September for the On-site track. 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 May for the Distance track and early June for the On-site track. 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: The program will prepare graduates 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: Graduates will 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.)

Objectives 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. The Dietetic Internship Program received full re-accreditation in 2018.

The program is accredited for up to 16 full-time students for the On-site track and up to 30 full-time students in the Distance track. The program is accredited for 2 part-time students in the On-site track and up to 5 part-time students in the Distance track. 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. Only one Application fee will be assessed by Stony Brook University if the applicant is applying to both the On-site and Distance tracks.

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.

Those applying to the Distance track are required to submit a completed Rotation Schedule, a SBU DI Preceptor Qualification Form and CV for each preceptor as a supplemental to the DICAS application. Details and further instruction can be found on the [website](#).

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. This one-time 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 ON-SITE TRACK

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

Distance TRACK

ROTATIONS

- Nutrition Therapy: 600 hours - 2 sites required
- Food Service Management: 150 hours
- Community Nutrition: 262.5 hours
- Elective: 75 hours
- Research (longitudinal and virtual): 28 hours - dates are posted on website
- Renal (virtual): 30 hours

REQUIRED ACTIVITIES/COURSEWORK

- Orientation
- Evaluation & Review Week

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](#) offers graduate studies leading to the PhD degree through the Ph.D. program in Anatomical Sciences and, for some faculty members, also through participation in the 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 a two-week miniclerkship experience. Those students interested in more advanced training are encouraged to apply for a phase 3 elective anesthesiology rotation, during which they will be exposed to all aspects of clinical anesthesia management of surgical, obstetrical and chronic pain patients.

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

They administer anesthesia with supervision, participate in pre- and post-operative care, intensive care, cardiac, pediatric, neurosurgical and obstetric anesthesia, and therapy of acute and chronic pain.

The Department of Anesthesiology also provides comprehensive instruction to dental, emergency

medicine, orthopedic surgery, pedi dental, plastic surgery, otolaryngology and periodontal residents.

Department of Biochemistry and Cell Biology

The [Biochemistry and Cell Biology 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 (both Ph.D. and MS) are centered on an interdisciplinary program in molecular biology, cell biology, biochemistry and structural biology. For more information on BCB graduate programs, see <https://www.stonybrook.edu/commcms/biochem/education/graduate/index.php>.

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 bioimaging, biomechanics, biomaterials, biotechnology, tissue engineering, and bioinstrumentation. Our Program in Biomedical Engineering (PIBE) trains individuals with baccalaureate degrees in engineering (BE), 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. Our graduate 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 to the development of advanced technology in biomedical products and processes in industry or government. The program'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, in three career oriented specializations.

To provide the permanent foundation on which to build a career in biomedical engineering, an integrated core 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.

Our Graduate Program relies on the core courses to provide biomedical engineering students with an overview of the biophysical principles involved in cell, tissue and organ biology. The progression of the PIBE core courses requires

two resident terms to complete. In addition to these the core 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. Finally, each course has a component of independent study to nurture the student's abilities to pursue a topic specialized interest.

Graduate Biomedical Engineering Program Curriculum Requirements

Master's Degree Curriculum: The Masters of Science Degree in BME is achieved by completing the core courses and a specialization through technical elective requirements. A minimum of 33 graduate credits is required to earn the Master of Science in BME (project option) or 39 credits for the Master of Science in BME (thesis option). The program of study can be customized in consultation with your faculty advisor/mentor to accommodate almost any BME area of interest. Please refer to the [graduate bulletin](#) for the most current BME graduate degree requirements.

Doctoral Degree Curriculum: There are no course requirements per se, for the completion of the doctoral degree, once the MS degree (or an equivalent degree) is awarded, though certain courses may be required to fill any gaps in the student's knowledge. Following completion of a qualifying exam, an independent basic research program will be undertaken. One year of teaching practicum must be satisfactorily performed. A proposal defense must be undertaken at least two full academic semesters prior to the final defense, where the overall goals and research direction are approved by a faculty committee. 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. Please refer to the [graduate bulletin](#) for the most current BME graduate degree requirements.

Undergraduate Biomedical Engineering Program Curriculum Requirements

The Department of Biomedical Engineering offers the major in biomedical engineering, leading to Bachelor of Engineering 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. Please refer to the [undergraduate bulletin](#) for the most current BME undergraduate degree requirements.

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 the early phase of medical school, dermatology is introduced within three general courses: "Pathogens and Host Defense," "Mechanisms of Disease," and "Integrated Pathophysiology." These dermatology sessions/lectures occur in Phase 1 of the new LEARN curriculum during the first year and a half of medical school. Clinical rotations begin halfway through the second year of medical school.

A one-month clinical elective is offered during either the third or fourth year, which provides exposure to the diagnosis and management of cutaneous disorders in both the ambulatory and inpatient settings at Stony Brook Road, and Stony Brook University Hospital, and the Northport Veterans Affairs Medical Center, respectively.

Dermatology research is provided through the [Scholarly Concentration Program](#). A shorter (1-2 month) research elective may be available through individual dermatology faculty members.

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 is actively involved in medical students education. For third year students, 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 exercises. Throughout the fourth year, the department offers a "sub-internship" in

Emergency Medicine. During this rotation the students take on the roles/responsibilities of a PGY-1 in Emergency Medicine and are exposed to all facets of Emergency Medicine. In addition to their clinical work the students participate in weekly simulation and procedural training sessions. 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, 2015 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. In addition to 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 combined faculty of these institutions are charged with the responsibility for the following:

Undergraduate Medical Education

- Teaching Introduction to Clinical Medicine for first and second year medical students
- Oversight and teaching of the Integrated Pathophysiology course for first and second year medical students
- Directing the Primary Care Clerkship
- Directing the Internal Medicine Clerkship and Sub-Internship in Medicine
- Developing curriculum and supervising electives for senior medical students in the medical subspecialties
- Developing and directing the Translational Pillar Courses to third year students which highlight cutting edge scientific advances in medicine

Graduate Medical Education

- Clinical training for 99 internal medicine residents and 74 subspecialty fellows
- Developing and delivering curricula encompassing Patient Safety, High Value Care, Quality Improvement, Research Design, Women's Health, Feedback and Microskills of Teaching

Continuing Medical Education

- Faculty development, mentorship, and career advancement

The Department of Medicine education program is designed to provide medical students, residents, and fellows with a strong foundation in general internal medicine and its subspecialties, including quality patient care and research. During preclinical training of medical students Internal Medicine faculty provide an educational foundation in pathophysiology and clinical reasoning in the Integrated Pathophysiology courses. During the Medicine and Primary Care Clerkships in inpatient and outpatient direct patient care settings, our medical students continue to develop their diagnostic and patient care skills under the direct guidance of faculty physicians. Additionally, a series of educational activities including lectures, interactive small group discussions, and simulation exercises teach and reinforce the Internal Medicine curriculum. Under the tutelage of full-time faculty and community preceptors, students learn the art, skill, and mode of reasoning in diagnostic decision making diagnoses and clinical management. 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 emphasized throughout the inpatient and ambulatory experiences. A fourth-year intensive inpatient sub-internship is offered for those students pursuing Internal Medicine as a career and as a foundation for many students pursuing other disciplines. 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 Medical Education Program is committed to providing outstanding clinical and educational experiences where residents and fellows attain the knowledge to deliver the highest quality medical care, skills for life-long learning, and the sensibility to be compassionate and observant physicians. In a supportive environment, the Stony Brook Medicine-trained physician will provide care that is compassionate, patient-centered, and is of high quality and value; practice self-reflection and life-long learning with an attitude of inquiry and discovery; aspire to be a leader and role model in the medical community; practice self-care in order to maintain and foster wellbeing; and embrace diversity and honor the diverse needs of patients, families, staff, colleagues, and learners.

The core residency training program consists of 99 residents in two tracks including categorical Internal Medicine and Primary Care Medicine. A separate Medicine-Pediatrics training program is also offered. In addition, the core

program supports fellowships in 13 fellowship training programs including Cardiology (including Electrophysiology, Interventional), Endocrinology, Gastroenterology, Geriatrics, Hematology/Oncology, Infectious Diseases, Nephrology, Palliative Medicine, Pulmonology/Critical Care Medicine, Rheumatology, and Sleep Medicine.

In keeping with the goals of our education program, continuing education is provided at our hospitals through regularly scheduled rounds and professional development conferences. These activities, aimed at members of the medical staff and all healthcare professionals, emphasize the importance of an interdisciplinary approach to issues in healthcare, whether at the bedside, in the clinic, in the classroom, or in the laboratory.

Department of Microbiology and Immunology

The [Department of Microbiology and Immunology](#) provides a focus for research activities ranging from the analysis of pathogenic mechanisms of microorganisms and the host immune response to infection to the study of the molecular mechanisms underlying human cancers. Key discoveries in the fields of microbiology, immunology, cancer biology, and molecular genetics have been made in this department and world-renown scientists have flourished in this environment.

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 bacterial and fungal pathogenesis, cell growth control and the molecular mechanisms of cancer, and the immune response to infection. The pre-doctoral training program offers its students the opportunity to study topics in virology, bacteriology, fungal biology, 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 Microbiology and Immunology, and selected members from the Departments of Biochemistry and Cell Biology, Chemistry, Medicine, Pathology, and Pharmacological Sciences, and Cold Spring Harbor Laboratory. The department also offers research opportunities to undergraduate students.

The department has an active seminar program of outside speakers who present topics relevant to medical microbiology, immunology and molecular 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.

Our training opportunities lead the way in interdisciplinary research with clinical and basic research cooperation in the fields of infectious disease and cancer research.

Department of Neurological Surgery

The [Neurosurgery Residency Program](#) is a seven-year program under the direction of the [Department of Neurosurgery](#). The program provides a broad neurosurgical

education in general neurosurgery and subspecialty neurosurgery, as well as an opportunity for residents to participate in both clinical and basic science research.

Our program's strong emphasis on clinical neurosurgical education and on research education takes place in collaboration with faculty neuroscientists in the Department of Neurosurgery at Renaissance School of Medicine at Stony Brook University, which is one of the leading research institutions in the world.

Our goal is to provide our residents with an education that fosters the intellectual and technical skills and professional attitudes necessary to succeed in clinical care, research, education, and provide a deep understanding of clinical practice and scientific inquiry. By educating our residents to be skilled and ethical attending neurosurgeons, they will be well equipped to contribute to the highest quality patient care and to the acquisition and dissemination of the scientific understanding and the treatment of neurosurgical disorders.

The Department of Neurological Surgery is a principal component of the neurosciences program at Stony Brook Medicine. 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 faculty holds leadership roles in many of the Centers of the Neurosciences Institute, including the Cerebrovascular and Stroke Center, the Movement Disorders Center, the Epilepsy Center and the Spine Center to name a few. 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.

Also of note as well is the Neurocritical Care Unit under the direction of two neurointensivists.

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. Neurology and Emergency Medicine residents rotate throughout the year on the Neurocritical Care Unit. 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, craniocervical trauma, cranial pressure dynamics, central nervous system tumors, non-surgical management of spine pain, acute stroke, movement disorders and cerebrovascular disease. Some of the faculty are engaged in research exploring fluid dynamics in hydrocephalus and intracranial flow disorders; severe traumatic brain injury and brain injury and brain stimulation in coma; clinical trials for the treatment of glioblastomas; and innovative techniques to treat spinal diseases. The Cerebrovascular Center includes an active Clinical Trials Unit conducting numerous national and international trials of novel endovascular devices. Sponsorship may be provided to qualified graduate and medical students.

Department of Neurology

The [Department of Neurology](#), part of the [Neurosciences Institute](#) consists of faculty in Adult and Pediatric Neurology, as well as various divisions/sections including [Cerebrovascular/Stroke](#), Multiple Sclerosis (MS)/Neuroimmunology, Epilepsy/EEG, Neuromuscular Diseases/EMG, Neuro-Oncology, Movement Disorders and Sleep Disorders. It includes the Comprehensive Stroke Center, [Comprehensive Epilepsy Center](#), the [Adult MS Comprehensive Care Center](#), [Parkinson's and Movement Disorders Center](#), [Pediatric MS Care Center](#), and the [Stony Brook ALS Center of Excellence](#) among others.

The department's mission is to provide excellence in patient care, research, education and community service. The department provides pre-clinical and clinical training to medical students, as well as residents and fellows." Research in Neurology is carried out in our department by a number of faculty members. The department strives to increase community awareness about neurologic disorders.

In addition to teaching medical students, the Department sponsors two ACGME-accredited residency programs, in both Adult Neurology and Child Neurology. We also have ACGME-accredited Fellowships in Clinical Neurophysiology, Epilepsy, and Cerebrovascular Neurology. Additional Fellowship training opportunities are available in Neuroimmunology/Multiple Sclerosis. 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 in neurology consists of intensive inpatient (consultative services and wards) and outpatient experiences in neurology. Students have the opportunity for additional exposure to Child Neurology, Epilepsy, Stroke, or Neuro-Critical Care. The intent is to provide the student with the background to perform a neurological history and examination, and to evaluate patients with neurological disease using the concept of neurologic localization. The emphasis in this experience is on improving clinical diagnostic skills and the ability to formulate a plan of care. Advanced electives are also offered for students who have already completed the neurology clerkship.

The faculty maintains a strong commitment to clinical neurology through operation of the neurology service at Stony Brook University Hospital. 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, neuroimaging, vascular neurology/stroke, epilepsy, movement disorders, neuro-oncology and developmental neurobiology projects.

Department of Neurobiology and Behavior

The [Department of Neurobiology and Behavior](#) offers fundamental courses in neurobiology for students of all university levels, including undergraduates in biology and graduate students in the Program in

Neuroscience, a university-wide program concluding in either an MS or PhD degree. Both tracks of study are designed to provide broad training opportunities for students interested in research careers in the neurosciences. Students may also enter the program as an MD/PhD student through the [Medical Scientist Training Program](#).

Department of Obstetrics, Gynecology and Reproductive Medicine

The [Department of Obstetrics, Gynecology and Reproductive Medicine](#) is organized into the following divisions: Gynecology and General Obstetrics, Gynecologic Oncology, Maternal-Fetal Medicine, Urogynecology, Reproductive Endocrinology and Infertility, and Midwifery.

The department is responsible for instruction of medical students in each phase of their development. During the Phase 1 curriculum, Introduction to Clinical Medicine course allows students to be 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 learn 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.

Phase 1 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.

During Phase 2, Clinical Clerkship in Obstetrics and Gynecology is a 6-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. 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.

In Phase 3, for students already career-oriented in obstetrics and gynecology, and for those who desire greater depths than permitted by the core curriculum, electives are offered in Maternal-Fetal Medicine (high-risk pregnancy), Reproductive Endocrinology and Infertility, Gynecologic Oncology, Urogynecology and Gynecology and General obstetrics. This is accomplished through 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 Department's mission is a commitment to a multidisciplinary team approach to women's healthcare, clinical education and research. Our mission is to add value to our hospital, its medical school and our community for the benefit of our patients. We strive to deliver compassionate patient care, educational excellence and to create and expand knowledge of women's health through basic and clinical research..

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 fellowship training program in Maternal-Fetal Medicine. This program is designed to include 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 and mentored and will go on to teach and mentor others 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.

The department offers a two-year Minimally Invasive Gynecologic Surgery Fellowship training program that is structured to provide the fellow all aspects of minimally invasive gynecologic surgery, research endeavors and educational opportunities. Surgical training is a key component of our MIGS fellowship. Our MIGS division provides a robust surgical program with focus on advanced laparoscopy including hysterectomy, myomectomy and endometriosis surgeries, utilizing a balance of conventional laparoscopy as well as daVinci robotic surgery. Four main surgical approaches: laparoscopy, robotic surgery, hysteroscopy, and vaginal surgery are all encompassed. Emphasis is placed on pelvic anatomy to allow the fellow

to become confident in navigating all pelvic spaces when encountering complex surgical cases. There are twice yearly opportunities to participate as a teaching proctor in pelvic anatomy cadaver lab as well as an animate lab laparoscopy workshop allowing the fellow to gain skills and to teach house staff as well. A simulation lab with laparoscopic pelvic trainer and robotic simulation is available to the fellow at any time.

Fellows interact and operate with skilled mentors not just in minimally invasive surgery, but also gynecologic oncology and female pelvic floor surgery. A unique and valued component of the fellowship is the emphasis on gynecologic ultrasound for various gynecology conditions. Ultrasound training includes traditional abdominal and vaginal modalities, as well as 3D reconstructions, saline sonohysterogram and sono hysterosalpingogram. The fellow is expected to become AIUM certified upon completion of the fellowship. The fellow will also become familiar in interpreting in pelvic MRI. Our fellows also function as junior faculty, taking on the role of gynecology attending for the house staff approximately 1 week every other month, supervising consults and any emergent cases from the Emergency Room that require surgery as well as taking a 12-hour OB-GYN call twice a month.

The Department of Obstetrics, Gynecology and Reproductive Medicine recognizes the importance of research by our faculty members, residents and students. One of our core values, as part of the academic mission of the department, is to establish an atmosphere of respect and excitement for research. Our commitment to multidisciplinary team-based women's healthcare is a key component of our efforts to create and expand knowledge and improve the quality of our patients' lives through excellent basic, translational, and clinical research. The Department's mission to foster clinical investigation and translational research amongst the faculty is supported by an established and rapidly growing Division of Research.

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 Orthopaedics

The [Orthopaedic 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 Orthopaedic Oncology at Memorial Sloan Kettering Cancer Center in New York City, and there is an Orthopaedic Oncology rotation at Stony Brook.

Rotations are provided in the clinical subspecialties of Hand and Foot Surgery, Microsurgery, Oncology, Pediatric Orthopaedics, Spinal Surgery, Sports Medicine, Joint Replacement and Reconstruction, and Upper Extremity Surgery, and Orthopaedic Oncology. 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 orthopaedic problems.

Multiple weekly specialty conferences include Pediatric, Spine, Sports, Hand, Foot and Ankle, Trauma, and Recon/Ortho Oncology. X-ray rounds are held daily. Grand Rounds are held two to three times a month with in-depth, topic-based lectures provided by visiting professors, attendings, or senior/ chief residents in one of our media integrated lecture halls. Tumor Board is held monthly, presenting and discussing recent surgical cases of bone and soft tissue cancers, and QA Conference is held quarterly, where resident case presentations of morbidities and mortalities are discussed by faculty and residents. Resident Conference is held every Wednesday, and consists of various conferences planned cadaver or skills labs, and specialty seminars.

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 Orthopaedic Surgeons (ABOS). Stony Brook Medicine has new operating rooms, which are pre-wired for recording and conferencing capabilities.

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 [Orthopaedic department](#) also houses a musculoskeletal lab and a microsurgical skills lab with fully functional microscopes, both standard and trainer/dual scopes, instruments and suture materials. Our wet-dry surgical skills lab is a fully functional surgical demo and modeling area used for research, anatomic dissections, and surgical/arthroscopic practice. As stated above, all lab activity can be recorded and viewed live via direct communication with the conference room.

Educational activity, including the Orthopaedic 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 Ph.D. faculty of the Orthopaedic Department. Our research scientists help to facilitate the development of collaborative and independent research initiatives. Pathology is taught by the clinical faculty, and anatomy is taught on a regular basis, both in the operating room and the lab. Cross-sectional anatomy is taught in combination with radiodiagnostic techniques such as CT and MRI, both for the extremities and spine. 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. 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.

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 resident 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](#) is comprised of 180 pediatric physicians, and other health care professionals practicing in over 30 pediatric specialties. Our faculty provide care for more than 400,000 children throughout Long Island in our new state-of-the-art Children's Hospital and affiliated offices in Suffolk County.

We have robust, competitive ACGME accredited residency training programs in Pediatrics, Medicine-Pediatrics, and Child Neurology, as well as fellowship training programs in Pediatric Endocrinology, Pediatric Gastroenterology, Pediatric Infectious Disease, and Neonatal Perinatal Medicine. Residents and fellows are trained to apply evidence-based medicine to the clinical care of children. Our faculty, residents, and fellows all play an important role in the education of medical students from the Renaissance School of Medicine at Stony Brook University, visiting medical students, undergraduate students, master's and doctoral level students, and trainees in the other four Schools of the Health Sciences. The department's education efforts for medical students are extensive. The Clerkship in Pediatrics is a required course that is conducted year-round in six week blocks for all third-year medical students in the School of Medicine. 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 at Stony Brook Children's.

Our faculty lead cutting-edge research in a variety of fields through bench and clinical research projects, advocacy programs, and educational research, while also providing mentorship for junior trainees.

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 psychiatric approach to patient care and the roles of the various rehabilitation team members. The elective is available at St. Charles Hospital or the Veterans Affairs Medical Center in Northport. Information regarding the elective is available on CBase. For more information, students may contact Mr. Dennis Lawney, Program Coordinator, at (631)474-6349, or dennisj.lawney@chsli.org.

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

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

YEAR I

Fall		Spring	
HBY 530	Cellular Physiology & Biophysics	HBY 570	Student Journal Club
HBY 501	Human Physiology	HBY 500	Lab Rotation
HBY 570	Student Journal Club	HBY 690	Seminar in Physiology & Biophysics
HBY 500	Lab rotation (HBY 500)	HBY 561	Statistical Analysis
HBY 690	Seminar in Physiology & Biophysics (HBY 690)	HBY 562	Model Based Analysis
		GRD 500	Ethics In Research

YEAR II

Fall		Spring	
MCB 520	Graduate Biochemistry	HBY 591	Lab Research
MCB 517	Biomembranes	HBY 570	Student Journal Club
HBY 591	Lab Research	HBY 690	Seminar

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 HEALTH

The [Department of Psychiatry and Behavioral Health](#) is a leader among clinical departments in research and provides a complete range of instruction from beginning medical education through post-residency fellowships, offering top notch mentored clinical experiences focused on treatment and recovery. Our portfolio ranges from basic neuroscience, epidemiology and behavioral science to clinical and translational research, translating cutting-edge biomedical science into diagnostic, therapeutic and prognostic advances.

In addition to teaching psychiatry, members of the department are also involved in teaching psychology, neurobiology, pharmacology and biomedical engineering. 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.

We invite you to learn more about our department by browsing through our website to learn more about our [Clinical Services](#), [Medical Student Education](#), [Residency Program](#) and [Institute for Mental Health Research \(IMHR\) division](#).

Department of Radiation Oncology

The [Department of Radiation Oncology](#) teaches the clinical disciplines of radiation physics, radiation and tumor biology, and therapeutic delivery of various radiations modalities, as applied to the treatment of malignancies and selected benign disorders. The department supports clinical trials and basic research in conjunction with other medical specialties and the Brookhaven national laboratory.

The mission of the Department of Radiation Oncology is to develop a well-rounded academic program in Cancer care, involving the clinical oncological science and research of the tumor and molecular biology and medical physics. There are several education programs that we offer.

Residency training Program

The department hosts an ACGME- accredited four-year residency training program in radiation oncology. The residents rotate in the oncology subspecialty services, receiving intensive hands-on training in the oncological and radiotherapeutic management of malignant and benign neoplasms both in the adult and pediatric patient populations. As part of their curriculum, they gain expertise in brachytherapy, stereotactic radiosurgery, image-guided radiation therapy, and other modern treatment modalities. They also carry out clinical and/or basic research projects under supervision of faculty members who are active in the respective research areas. These may include basic laboratory bench-work, retrospective and prospective clinical investigations, participation in investigator-initiated trials, public health and bioinformatics projects. Results of the research are presented at national meetings and

published in peer-reviewed journals. The program's curriculum also includes rigorous didactics in radiobiology, radiation physics, and clinical oncology, incorporating interactive teaching sessions, Grand Rounds talks, journal clubs, M&M conferences, and multidisciplinary team discussions. In the final years of residency training, there are opportunities for research and clinical electives, both domestically and abroad.

Our main department's laboratory research projects include an investigation into molecular mechanisms underlying the effects of combining radiosurgery or stereotactic body radiotherapy with checkpoint inhibitor immunotherapy; the cell biology of radiation-induced normal tissue toxicity in the CNS; biomedical informatics studies focusing on the application of artificial intelligence to radiotherapy, as well as numerous research projects in medical physics.

For medical students who wish to explore radiation oncology as a specialty option we offer both clinical rotations in the department and opportunities to participate in the department's research projects.

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, instructions 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.

Medical Dosimetry Program

The Medical Dosimetry Program is a JRCERT accredited two year program offered through the Health Science Major. The second year of the program, non-credit post-baccalaureate clinical training is offered in collaboration with the department of Radiation Oncology. The combination of the two-years of education provides students eligibility for the Medical Dosimetry Certification Board exam. Students work alongside 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 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, the students also undergo a series of tasks that render them competent in clinically proven dosimetry techniques. The department plans to expand the program to host international students in an effort towards global oncology medicine.

Department of Radiology

The [Department of Radiology](#) provide services to 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 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. Substantial research is given to pursue academic endeavors. 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 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 fellowships in musculoskeletal 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 Phase II clerkship (repeated eight times per year to encompass the entire Phase II 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 general, vascular, colon and rectal surgery, otolaryngology and plastic surgery 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 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.

Otolaryngology-Head and Neck Surgery

The department offers a five-year residency program in otolaryngology-head and neck surgery. This residency is devoted to the task of educating and training physicians to function independently as specialists in the field. The program is based in Division of Otolaryngology-Head and Neck Surgery, and has met the rigorous standards set by the ACGME. It consists of a specialized year of rotations (i.e., six months of otolaryngology, one month of plastic surgery, one month of oral and maxillofacial surgery, one month of neurosurgery, one month of anesthesia, one month of surgical critical care, and one month of trauma surgery), followed by four years of otolaryngology-head and neck surgery. All rotations occur at Stony Brook University Hospital and the ambulatory and clinical facilities of the Division of

Otolaryngology-Head and Neck Surgery. Upon completion of the residency, trainees are ready to enter into clinical practice, into fellowship training, or into basic medical or clinical research.

Plastic Surgery

The Division of Plastic and Reconstructive Surgery provides training of plastic surgery residents at Stony Brook Medicine, as an affiliated institution of the integrated six-year residency program of the Long Island Plastic Surgical Group (LIPSG) base at NuHealth (Nassau University Medical Center; NUMC) in East Meadow, NY. The program, fully accredited by the ACGME, trains residents in all aspects of surgery with specialization in plastic and reconstructive surgery, under the guidance and mentorship of faculty from all three organizations: NUMC, LIPSG, and Stony Brook Medicine. Residents have the unique opportunity to train in the large private practice setting of LIPSG, as well as at numerous other locations including NYU Winthrop Hospital and Mercy Medical Center in addition to Stony Brook University Hospital, Stony Brook Cleft Palate-Craniofacial Center, and Stony Brook Plastic & Cosmetic Surgery Center. The NuHealth LIPSG-Stony Brook plastic surgery residency program teaches the next generation of plastic surgeons everything from the basics of aesthetic enhancement procedures to reconstruction of skin in patients with severe burns.

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, prostate diseases, 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 outpatient 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 Urology faculty 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; and
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 Nursing

DEAN: Annette B. Wysocki, PhD, RN, FAAN

OFFICE: Health Sciences Center, Level 2

PHONE: (631) 444-3200

WEB: nursing.stonybrookmedicine.edu

Overview

The School of Nursing (SON) offers degree programs leading to the Bachelor of Science (BS), Master of Science (MS), Doctor of Nursing Practice (DNP), and the PhD in Nursing. 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 Nurse Practitioner, Family Nurse Practitioner, Pediatric Primary Care Nurse Practitioner, Psychiatric Mental Health Nurse Practitioner, Women's Health Nurse Practitioner, Neonatal Nurse Practitioner, 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 PhD in Nursing is designed for Master's prepared nurses who aspire to research and academic roles within healthcare and educational settings. This full time, cohort-based program is offered on-site.

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. Nurse Midwifery is accredited by the Accreditation Commission for Midwifery Education (ACME), 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 FOR THE APRN and NURSE EDUCATOR ROLES

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.

MASTER OF SCIENCE PROGRAM OUTCOMES FOR THE NURSE LEADER ROLE

Upon completion of the program, the student will be able to:

1. Incorporate the concepts of leadership, change, collaboration, and innovation into the role of nurse leader.
2. Implement leadership skills to manage change, improve outcomes, and create a preferred future for nursing practice.
3. Translate relevant research to promote evidence-based practice models, improve outcomes, and mitigate risk. patient care delivery systems and patient care.
4. Integrate knowledge from nursing and related sciences to develop foundational thinking skills that facilitate leadership at the highest level.
5. Utilize current and emerging technologies in the strategic management of health care delivery systems.
6. Analyze models of advocacy and activism that promote relationship building and organizational excellence.
7. Integrate the values of respect, social and ethical responsibility, and professionalism into the practice environment.
8. Demonstrate knowledge of patient care delivery models, clinical practice and health care policy that reflects current healthcare trends and societal needs.
9. Demonstrate behaviors of professional engagement in lifelong learning activities with the learning environment.

Doctor of Nursing Practice (DNP) 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.

DOCTOR of Philosophy (phd) in Nursing PROGRAM OUTCOMES

Upon completion of the program, the student will be able to:

1. Master in-depth knowledge in a substantive area of study.
2. Ethically conduct original research to advance nursing knowledge and practice.
3. Demonstrate distinguished expertise in scholarly writing and intellectual critique.
4. Provide leadership in academic nursing through research, education and professional practice.
5. Influence policy by integrating nursing knowledge within social, cultural, political and economic contexts.
6. Contribute to a global community of scholars through continued professional development and scholarly dissemination.

- Foreign transcripts evaluated by a NACES accredited service such the World Education Services (WES)
- TOEFL, if applicable

Professional 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.

Pre-Admission

Information about the School of Nursing's academic programs and admission requirements are located on the website: www.nursing.stonybrookmedicine.edu

Additionally, information sessions are held by 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 uploaded by the stated application deadline:

- Application including written 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 Professional 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

1. **Observation:** The applicant/nursing student must be able to participate actively in all classroom, clinical and laboratory exercises. The applicant/nursing student must be able to assess and comprehend the condition of all patients assigned to her or him. Such observation and information acquisition usually requires the functional use of visual, auditory, olfactory and somatic senses.
2. **Communication:** 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.
3. **Sensory/Motor:** The applicant/nursing student must be competent in the ability to effectively and efficiently use the senses of sight, hearing, touch, and smell to make correct judgments, assessments and to engage in the practice of safe patient care and 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 safe patient care and emergency treatment to all patients at all acuities and settings.
4. **Intellectual-Conceptual, Integrative and Quantitative Abilities:** The applicant/nursing student must be able to measure, calculate, analyze, synthesize, and evaluate to competently and efficiently engage in safe patient care and the 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

In select situations, students may begin studies as non-matriculated students only by permission. A maximum of six (6) non-clinical credits may be earned prior to matriculation.

In order to become a non-matriculated student, a "Non-Matriculated Application" must be completed and submitted to the School of Nursing Office of Student Affairs for approval. This application is available in the School of Nursing Office of Student Affairs. Non-matriculated study does not guarantee admission to the School of Nursing.

Student Advisement

Each student is assigned a faculty advisor for the duration of their enrollment in the School. Students are responsible to communicate with their advisor at least once each semester.

Grading Policy

Undergraduate students must maintain a minimum GPA of 2.50, and graduate students must maintain a minimum GPA of 3.00 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. Undergraduate students must pass the theoretical portion of any course with a C+ (74%) or higher. Graduate students in the Master of Science and Advanced Certificate programs must pass the theoretical portion of any course with a grade of C (70%) or higher. Doctoral students must pass all program required courses with a grade of B or higher and maintain a cumulative GPA of 3.00 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.

Grading System

Letter Grade	Point Value	Numerical Grade
A	= 4.00	94.00-100
A-	= 3.67	90.00-93.99
B+	= 3.33	86.00-89.99
B	= 3.00	82.00-85.99
B-	= 2.67	78.00-81.99

C+	= 2.33	74.00-77.99
C	= 2.00	70.00-73.99
C-	= 1.67	66.00-69.99
D+	= 1.33	62.00-65.99
D	= 1.00	58.00-61.99
F	= 0.00	57.99 or less
S	= Satisfactory Work	
U	= Unsatisfactory Work	
I	= Incomplete	
NR	= No Record	
R	= Reserved (Pending completion of the second semester section of an extended course)	

Final course grades and individual assignments within courses (exams, projects, etc.) will not be rounded (example: a 77.9 is **not** a 78)

The letter grades D and D+ may not be assigned to graduate or doctoral students in a graduate level course in the School of Nursing.

See the Health Sciences Center Bulletin for grading system for courses taken in other departments.

Academic Renewal Policy

School of Nursing 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, will have their record treated as two separate records. Under the School of Nursing Academic Renewal policy, the cumulative GPA will be reset at the start of a student's new program and the cumulative grade point average will be calculated based on course grades earned as of the date of academic renewal. Please note, the original grades will remain on the transcript.

After academic renewal, undergraduate students must earn 55 credits in residence to be considered for degrees with distinction.

Course Withdrawal

If a student wishes to drop a course, they may do so through Solar up until the end of the Add/Drop period (refer to the HSC calendar for dates). Students must inform their faculty of record of the withdrawal and meet with their Program Director for a revised program pathway.

After the Add/Drop period, a petition must be submitted to the student's Program Director who will review the petition in consultation with the Departmental Chair. If approved, the petition will be filed with the Office of Student Affairs for processing. A course withdrawal will result in a Withdrawal

(W) being recorded on the student's transcript. Students who withdraw from a course are liable for payment of tuition and fees in accordance with the University's schedule of tuition liability.

Non-attendance in a course, difficulty of course material, volume of work, or academic performance in the course as factors by themselves are not considered sufficient reasons to request a withdrawal. The factors, individually and/or collectively, must be linked to specific situation(s) beyond the control of the student.

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 or clinical dishonesty.
- Unprofessional behavior.

Faculty recommendations, in writing, are developed to assist students to meet individual learning needs and course objectives. Failure to comply with faculty recommendations will result in further actions (jeopardy, suspension, deceleration, termination).

Academic Jeopardy

Jeopardy status is defined as a cumulative GPA of less than 2.50 for undergraduate students, 3.00 for graduate students, failure of the clinical component 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 GPA is less than 2.50 for undergraduate work. Cumulative GPA of 3.00 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

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 <https://www.stonybrook.edu/commcms/studentaffairs/ucs/>.

Students are also expected to follow the policies of the SON contained in the School of Nursing Student handbook at 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, surrender, suspension or revocation of license, 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 Associate Dean for Academic Affairs and Strategic Partnerships.

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 within ten (10) business days of receipt of the first class/certified letter. 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) business days of receipt of the first class/certified letter from the Dean. All decisions by the Executive Vice President for Health Sciences are final.

Tuition and Fees

In addition to University tuition and fees, the following program and course fees* are applied as follows:

A Distance Learning fee each semester:

First Semester: \$236.00

Subsequent Semesters: \$141.00

A Clinical Skills Center Course fee for each Advanced Health Assessment and Clinical Skills Course:

\$175.00 per course

For a full listing of course fees, please visit <https://www.stonybrook.edu/bursar/course-fees.php>

*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 and maintain current documentation of the following: a completed health form including a record of immunizations and titers; health insurance coverage; Basic Life Support for Health Care Providers with/ AED training from the American Heart Association or American Red Cross; malpractice insurance \$1 million/\$3 million (minimum coverage). Students in the Registered Nurse Baccalaureate, Master's, and Doctoral programs must submit a copy of and maintain a current RN license. New York State residents must submit a copy of the current NYS Infection Control Certificate.

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

The Office of Clinical Placements facilitates the processing of clinical placement requests and contracts for all clinical affiliations within the baccalaureate, master's, advanced certificate, and DNP programs. The office works collaboratively with faculty to secure clinical placement sites for students. Once a suitable site is identified, students submit a clinical placement request form for processing. The office maintains electronic data systems and records related to students, clinical placement sites, clinical affiliation agreements, clinical contracts and preceptors. Central to the clinical placement process for all programs is the establishment of a clinical affiliation agreement and clinical contract which is executed between SUNY and the clinical site. Upon final execution of a clinical affiliation agreement, SUNY procures and provides the site with a certificate of insurance or related protection evidencing the required insurance coverage. The provisions of a clinical affiliation agreement and clinical contract include the responsibilities and mutual terms that are agreed upon during the life of the agreement.

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 2010, 2013, 2016 or Office 365 recommended. *
- Internet browsers:
 - Chrome v.40 or higher
 - 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 and review by the School of Nursing Awards Committee.

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. 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/HSA Organizations

The Health Sciences Association (HSA) represents all HSC undergraduate students enrolled in the Schools of Health Technology and Management, Nursing, and Social Welfare. HSA 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 nursing curriculum leads to the Bachelor of Science degree with a major in Nursing. Students begin the nursing major after completing two years of pre-requisite, general education coursework, either at Stony Brook University or another accredited institution. The nursing major applies principles from the sciences, art and humanities to patient-centered nursing practice. Graduates of the program are eligible to sit for the NCLEX-RN exam.

Admission Requirements:

- Minimum cumulative GPA of 2.80 is required
- A grade of C or higher in all required pre-admission coursework

Pre-Admission Coursework for applicants **WITH** a Baccalaureate Degree on Admission

Required Pre-Admission Coursework	Credits
English Composition	3
Lifespan Development	3
Microbiology/Lab	4
Anatomy & Physiology I/Lab	4

Anatomy & Physiology II/ Lab	4
Chemistry	3
Statistics	3

Pre-Admission Coursework for
Applicants **WITHOUT** a Baccalaureate Degree on Admission

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

* Stony Brook University students who satisfy the requirement for LANG (communicate in a language other than English) 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 with the School of Nursing curriculum satisfy Stony Brook curriculum requirements and provide our students with a diverse educational foundation that will facilitate lifelong active and adaptive learning and inspire engaged global citizenship.

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 2.50 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

*Admission requirements for graduates of SUNY Associate of Science (AS) degree programs in nursing may differ as per the SUNY transfer path. Applicants are urged to attend Information Sessions for further advisement regarding admission requirements.

** Stony Brook University students who satisfy the LANG (communicate in a language other than English) requirement for foreign language 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-Population Based	3
Clinical Nursing	
Clinical Practice Portfolio - Submitted while in program	28
HNC 340 Novice to Expert: A Capstone Experience for RN to BS students	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. A non-refundable fee of \$300 is required for the portfolio evaluation.

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 GPA of 3.00 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*	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

*Admission requirements for graduates of SUNY Associate of Science (AS) degree programs in nursing may differ as per the SUNY transfer path. Applicants are urged to attend Information Sessions for further advisement regarding admission requirements.

**Stony Brook University students who satisfy the LANG (communicate in a language other than English) requirement for foreign language 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-Population Based 3

Clinical Nursing

Clinical Practice Portfolio - submitted while in program 28

HNC 340 Novice to Expert: A Capstone Experience for RN to BS students 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. A non-refundable fee of \$300 is required for the portfolio evaluation.

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 3.00
- Current professional Registered Nurse license
- Three letters of recommendation
- Three credit undergraduate course in Health Assessment (by advisement for Nursing Leadership Program)
- Three credit undergraduate course in Statistics (by advisement for Nursing Leadership Program)
- Meet all Professional Standards for Admission and Retention (www.nursing.stonybrookmedicine.edu/sites/default/files/Professional%20Standards%20100119.pdf)

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. There is a \$300 non-refundable fee for evaluation of the Clinical Practice Portfolio. 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
- Certification in Basic Life Support for Healthcare Providers (BLS) with AED (must be acquired through American Heart Association or American Red Cross)
- Certification in Neonatal Resuscitation Program (NRP) for Nurse Midwifery and Neonatal Students
- Evidence of student malpractice insurance
 - RN/student malpractice insurance for Midwifery, Nursing Leadership and Nursing Education Students
 - RN/student nurse practitioner insurance for nurse practitioner students

Transcripts from foreign institutions must be evaluated by a NACES accredited evaluation service, such as the World Education Services (WES) <http://www.wes.org>

Master of Science Program Curriculums

Adult-Gerontology Primary Care Nurse Practitioner (HNAZM)

Offered through Distance Education with On-Site Requirements

The Adult-Gerontology Primary Care 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-Gerontology Nursing Across the Continuum I	4
HNG 529	Advanced Theory and Clinical Practice in Adult-Gerontology Nursing Across the Continuum II	5
HNG 539	Advanced Theory and Clinical Practice in Primary Care Adult-Gerontology Nursing I	5
HNG 540	Clinical Pharmacology	3
HNG 541	Statistical Methods and Scholarly Inquiry	3

Course #	Title	Credits
HNG 543	Applications in Clinical Nursing Research	3
HNG 549	Advanced Theory and Clinical Practice in Primary Care Adult-Gerontology Nursing II	5
HNG 588	Clinical Pathobiology	3
	Electives	3
Total Credits		45

Pediatric Primary Care Nurse Practitioner (HNGZM)

Offered through Distance Education with On-Site Requirements

The Pediatric Primary Care 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	Pediatric Pathophysiology	3
HNG 525	Advanced Health Assessment Child Health	3
HNG 540	Clinical Pharmacology	3
HNG 541	Statistical Methods and Scholarly Inquiry	3

Course #	Title	Credits
HNG 543	Applications in Clinical Nursing Research	3
HNG 518	Advanced Theory and Clinical Practice in Pediatric Nursing Across the Continuum I	4
HNG 528	Advanced Theory and Clinical Practice in Pediatric Nursing Across the Continuum II	4
HNG 538	Advanced Theory and Clinical Practice in Primary Care Pediatric Nursing I	5
HNG 548	Advanced Theory and Clinical Practice in Primary Care Pediatric Nursing II	4
HNG 588	Clinical Pathobiology	3
	Electives	2
Total Credits		45

Neonatal Nurse Practitioner (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

Course #	Title	Credits
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
HNG 543	Applications in Clinical Nursing Research	3
HNG 569	Advanced Theory and Clinical Practice in Neonatal Health Nursing I: The Childbearing Family	3
HNG 564	Advanced Theory and Clinical Practice in Neonatal Health Nursing II: Primary Care Concepts for High Risk Infants	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
Total Credits		45

Women's Health Nurse Practitioner (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 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

Course #	Title	Credits
HNG 554	Advanced Theory and Clinical Practice in Perinatal/Women's Health Nursing IV	4
HNG 588	Clinical Pathobiology	3
	Electives	2
Total Credits		45

Psychiatric Mental Health Nurse Practitioner (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	5

Course #	Title	Credits
	Psychiatric/Mental Health Nursing III	
HNG 540	Clinical Pharmacology	3
HNG 541	Statistical Methods and Scholarly Inquiry	3
HNG 543	Applications in Clinical Nursing Research	3
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
Total Credits		45

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

Course #	Title	Credits			
HNG 541	Statistical Methods and Scholarly Inquiry	3	HNG 515	Advanced Health Assessment	3
HNG 543	Applications in Clinical Nursing Research	3	HNG 588	Clinical Pathobiology	3
HNG 555	Professional Issues in Midwifery	1	HNG 572	Advanced Theory & Clinical Practice in Family Health Nursing I	4
HNG 581	Midwifery I	4	HNG 573	Advanced Theory & Clinical Practice in Family Health Nursing II	5
HNG 585	Midwifery II	4	HNG 574	Advanced Theory & Clinical Practice in Family Health Nursing III	5
HNG 586	Midwifery III	5	HNG 575	Advanced Theory & Clinical Practice in Family Health Nursing IV	5
HNG 587	Midwifery IV	5			
HNG 588	Clinical Pathobiology	3			
Total Credits		45	Total Credits		45

Family Health Nurse Practitioner (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

Nursing Leadership (HNHBM)

Offered through Distance Education with On-Site Requirements

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	HNG 541	Statistical Methods & Scholarly Inquiry	3
HNH 531	Business Skills for Nurse Leaders	3	HNG 543	Applications in Clinical Nursing Research	3
HNH 532	Finance and Economics in Nursing Leadership	3	HNG 540	Clinical Pharmacology	3
	HNH 533		HNG 515	Advanced Health Assessment	3
	HNH 533	3	HNG 588	Clinical Pathobiology	3
	HNH 540	4	HNH 510	Facilitating Adult Learning	3
	HNH 534	3	HNH 511	Curriculum Design, Implementation and Evaluation in Nursing Education	3
	HNH 541	3	HNH 512	Advanced Theory and Practice in Nursing Education	3
	Total Credits	36	HNH 513	Advanced Theory and Practice in Nursing Education I	3

Nursing Education (HNUZM)

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.

HNH 514	Advanced Theory and Practice in Nursing Education II	4
HNH 515	Advanced Theory and Practice in Nursing Education III	4
	Electives	2
	Total Credits	45

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

Advanced Certificate Programs

Admission Requirements

- Completed application
- Master's or doctoral 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 3.00
- Current registered professional nurse licensure
- Three online letters of recommendation
- Three-credit undergraduate course in Health Assessment (by advisement for Nursing Leadership Program)

- Three-credit undergraduate course in Statistics (by advisement for Nursing Leadership Program)
- Professional Standards for Admission and Retention

Transcripts from foreign institutions must be evaluated for transfer equivalency credits by a NACES 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.

Advanced Certificate Program Curriculums*

Adult-Gerontology Primary Care Nurse Practitioner (HNAZC)

Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
Core Courses		
HNG 519	Advanced Theory and Clinical Practice in Adult-Gerontology Nursing Across the Continuum I	4
HNG 529	Advanced Theory and Clinical Practice in Adult-Gerontology Nursing Across the Continuum II	5
HNG 539	Advanced Theory and Clinical Practice in Primary Care Adult-Gerontology Nursing I	5
HNG 549	Advanced Theory and Clinical Practice in Primary Care Adult-Gerontology Nursing II	5

Course #	Title	Credits
19 (minimum)		
By Individual Advisement (Gap Analysis)		
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

Pediatric Primary Care Nurse Practitioner (HNKZC)

Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
Core Courses		
HNG 520	Pediatric Pathophysiology	3
HNG 518	Advanced Theory and Clinical Practice in Pediatric Nursing Across the Continuum I	4
HNG 528	Advanced Theory and Clinical Practice in Pediatric Nursing Across the Continuum II	4
HNG 538	Advanced Theory and Clinical Practice in Primary Care Pediatric Nursing I	5

Course #	Title	Credits	Course #	Title	Credits
HNG 548	Advanced Theory and Clinical Practice in Primary Care Pediatric Nursing II	4		Women's Health Nursing II	
		20 (minimum)	HNG 534	Advanced Theory and Clinical Practice in Perinatal/ Women's Health Nursing III	5
	By Individual Advisement (Gap Analysis)		HNG 554	Advanced Theory and Clinical Practice in Perinatal/ Women's Health Nursing IV	4
HNH 503	Organizational Leadership and Role Transformation	3			20 (minimum)
HNH 504	Quality Improvement, Safety and Health Care Technologies	3		By Individual Advisement (Gap Analysis)	
HNH 505	Health Care Policy and Advocacy	2	HNH 503	Organizational Leadership and Role Transformation	3
HNG 525	Advanced Health Assessment Child Health	3	HNH 504	Quality Improvement, Safety and Health Care Technologies	3
HNG 540	Clinical Pharmacology	3	HNH 505	Health Care Policy and Advocacy	2
HNG 588	Clinical Pathobiology	3	HNG 515	Advanced Health Assessment	3
			HNG 540	Clinical Pharmacology	3
			HNG 588	Clinical Pathobiology	3

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
	Core Courses	
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/	4

Neonatal Nurse Practitioner (HNNZC)

Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
	Core Courses	
HNG 522	Advanced Topics in Fetal and Neonatal Pathophysiology	2
HNG 542	Neonatal Clinical Pharmacology	3
HNG 578	Advanced Theory and Clinical	7

Course #	Title	Credits
HNG 579	Practice in Neonatal Health Nursing III: The High Risk Neonate I Advanced Theory and Clinical Practice in Neonatal Health Nursing IV: The High Risk Neonate II	7 19 (minimum)
By Individual Advisement (Gap Analysis)		
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 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
Core Courses		
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 547	Advanced Theory and Clinical Practice in Psychiatric/Mental Health Nursing IV	5
HNG 551	Psychopharmacology Departmental Elective	2 2
22 (minimum)		
By Individual Advisement (Gap Analysis)		
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

Nurse Midwifery (HNEZC)

Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
Core Courses		
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
HNG 501	Primary Care	3
		22 (minimum)
By Individual Advisement (Gap Analysis)		
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

Family Nurse Practitioner Program

Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
Core Courses		
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: Theories and Interventions for Advanced Nursing Practice	3
		22 (minimum)
By Individual Advisement (Gap Analysis)		
HNH 509	Organizational Leadership and Role Transformation	3
HNH 504	Quality Improvement, Safety, and Health Care Technologies	3
HNH 505	Health Policy and Advocacy	2
HNG 515	Advanced Health Assessment	3
HNG 540	Clinical Pharmacology	3
HNG 588	Clinical Pathophysiology	3

HNG 588	Clinical Pathobiology	3
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Nursing Education

Offered through Distance Education with On-Site Requirements

Course #	Title	Credits
Core Courses		
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
Total		20 (minimum)
By Individual Advisement (Gap Analysis)		
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

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
Total Credits		22

*Please visit our website at 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 (with Advanced Standing)

Course #	Course Title	Credits
Scientific Underpinnings		
HND 612	Theories of Applied Science	3

HND 650	Systems Theory	3
DNP Project Core		
HND 647	DNP Seminar (Clinical Inquiry, Review of Literature)	4
HND 655	Doctoral Synthesis I (Planning, Methods, Implementation)	5
HND 665	Doctoral Synthesis II (Management & Analysis of Data)	6
HND 675	Doctoral Synthesis III (Scholarly Dissemination)	6
Analytics & Informatics Core		
HND 635	Biostatistics	3
HND 645	Large Datasets	3
Advanced Clinical Practice Core		
HND 615	Genomics	3
Population Health Core		
HND 625	Health Policy and Social Justice	3
HND 640	Principles of Epidemiology/Global Health	3
Total Credits		42

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 2.80 and grades of C or higher in the following courses:

Required Courses	Credits
English Composition	3
Microbiology/Lab	4
Anatomy & Physiology I/Lab	4
Anatomy & Physiology II/ Lab	4
Chemistry	3
Statistics	3
Lifespan Development	3

Graduation Requirements	Credits
Professional Socialization	
HNI 350 Professional Role Development in Nursing	2
HNI 440 Research in Nursing	2
HNI 479 Transitions into Professional Practice	3
Health Related Sciences	
HNI 301 Mathematics for Health Care	1
HNI 310 Pathology	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	5
HNI 469 Population Health Nursing	6
HNI 474 Capstone Nursing Practicum	5
Total Credits	69

Doctor of philosophy (Phd) in nursing

The Doctor of Philosophy (PhD) represents the highest level of formal education for a career in nursing research and the scholarship of discovery. It prepares scholars for expression and communication of the knowledge base in the profession of nursing. PhD graduates develop the scientific foundation, steward the profession, define its uniqueness, maintain its professional integrity and educate the next generation of nurses. The PhD in Nursing program at Stony Brook University (SBU) School of Nursing (SON) will have a strong scientific emphasis within the discipline of nursing and an understanding of the science of related disciplines and translation science. The program is designed in a broad, cross-functional perspective to prepare nurse scientists to collaborate across disciplines to solve complex problems and address multiple issues facing individuals, families, communities and populations. Translational and innovative research, promoting interdisciplinary collaboration at the highest level, will be foundational to the program. To foster success and promote transformational, far-reaching opportunities, students will engage in a diversified curriculum.

The 54-credit curriculum is designed for Master's-prepared nurses who aspire to research and academic roles within health care and educational settings. It will build on the foundation of research and scholarship gained at the master's level. The full-time,

cohort-based program, to be offered on-site (one day/week) with web-enhanced technologies, contains three phases: Coursework, Proposal Development and Dissertation. Coursework and proposal development will take two and one-half years to complete with an additional one year for dissertation completion. The PhD candidate will select an area of research congruent with interdisciplinary faculty expertise. The SBU intensive research environment provides opportunities for mentorship by faculty within and outside the SON. Our Office of Nursing Research assists faculty and doctoral students in meeting research goals by providing administrative support, grant preparation support and management, statistical consultation, and dissemination of research findings through poster/podium presentation and manuscript preparation.

Admission Requirements and Application Procedures

Application procedures and requirements as set forth in this Bulletin must be followed.

Applications will be reviewed by PhD in Nursing program faculty and the Committee on Admissions and Academic Standards. All admissions for the PhD in Nursing will begin annually in June. The number of openings for the PhD in Nursing program is small and acceptance is competitive. Additionally, congruency of the applicant's research interest with faculty expertise may impact admission decisions.

Requirements for admission include:

1. Applicants to the Ph.D. in Nursing Program must hold a Master's degree in nursing from a nationally accredited program or its international equivalent. Students with a master's degree in a related discipline (i.e., MPH or MPA) and a Bachelor's in Nursing may also be considered.
2. A current unencumbered license to practice as a registered professional nurse
3. One official copy of any transcript from any undergraduate college or university attended, **from which a degree was conferred**. Applicants must submit one official copy of any transcript relating to any graduate level work undertaken, **regardless of whether or not a degree was earned.** *Note: Educational*

systems that cannot be compared to the United States must be evaluated by a US credentials evaluation service before admission can be finalized.

4. Minimum overall GPA of 3.00 on a 4.00 scale
5. Graduate Record Examination (GRE) General Test. Official score reports must be sent directly from ETS (photocopies are not acceptable).
6. Three letters of recommendation attesting to your academic ability and
7. Evidence of successful completion (grade C or better) of a graduate-level statistics course within the last five years
8. Curriculum Vitae including education and employment history; honors and awards; and publications and grantsmanship. Must demonstrate a progressive record of professional development in nursing
9. A personal interview with PhD program faculty
10. An exemplar of scholarly writing (e.g., publications)
11. A statement of professional goals and research interests including reference to Stony Brook University School of Nursing PhD faculty whose current research is aligned with your areas of interest and expertise.
12. Documented proficiency in English for international student (see the English Proficiency Requirements for Non-Native Speakers of English in the Graduate Bulletin (<http://sb.cc.stonybrook.edu/gradbulletin/current/degrees/phd/index.php>))
13. International Applicants: Each person planning to study in the United States is required to have the appropriate immigration status. The immigration documents for F-1 and J-1 student status are issued by **Visa and Immigration Services** at Stony Brook University based on receipt of required supporting documentation, including evidence of admission, English language proficiency, a proof of financial support for the program of study. (see the International Students section in the Graduate Bulletin (<http://sb.cc.stonybrook.edu/gradbulletin/current/degrees/phd/index.php>))

These admission requirements constitute the minimum expectations for applicants.

Applicants should be aware that students selected for admission generally exceed these requirements.

Requirements for the PhD in Nursing Program

Curriculum Requirements

The full-time, cohort-based program, to be offered on-site (one day/week) with web-enhanced technologies, contains three phases: Coursework, Proposal Development and Dissertation. Coursework and proposal development will take two and one-half years to complete with an additional one year for dissertation completion. All students will follow an approved program of courses, called the Academic Program Plan, determined to meet his or her needs and to satisfy program requirements. The Academic Program Plan, developed by the student in consultation with the faculty advisor, should provide sufficient depth and breadth for the

chosen are of research, including specific content areas, methodological and analytic approaches. Any changes to the plan must be approved by the faculty advisor and submitted to the Director of the PhD in Nursing Program for final review. The following includes minimum curriculum requirements:

Informatics for
Clinical Scientists

COURSE	CREDIT	PRE-REQUISITE
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Statistics/Research Design

NUR 635 Biostatistics	3	
NUR 636 Advanced Statistical Methods	3	NUR 635
NUR 647 Doctoral Research Seminar	4	
NUR 660 Quantitative Methods in Nursing Research	3	
NUR 661 Qualitative Methods in Nursing Research	3	

Philosophy/Theory/Foundations

NUR 630 Philosophical Foundations of Nursing Science	3	
NUR 631 Concepts, Theories and Knowledge Development in Nursing Science	3	
NUR 680 Integrating Big Data to Evaluate Population Health (in lieu of cognate 1)	3	
JRN 501 Distilling Your Message: Communicating Science	1	
NUR 662 Data Management and	3	HND 635 HND 636

Research Practicum

Cognates (3)	9	
NUR 690 Dissertation Seminar I	6	Successful completion of Qualifying Examination
NUR 691 Dissertation Seminar II	6	Successful defense of Dissertation Proposal

Doctoral Role Formation

NUR 697 Research Practicum	3	
NUR 698 Teaching Practicum	3	
TOTAL CREDITS	54	

By Advisement

Qualifying Examination	N/C	To be taken prior to dissertation phase
NUR 699 PhD Dissertation Research – On campus; or,	(1)	Following completion of Dissertation Seminar II, students will register for one (1) credit per semester until dissertation is completed and defended
NUR 700 PhD Dissertation Research – Off campus (Domestic); or,		
NUR 701 PhD Dissertation Research – Off campus (International)		
<i>(until Dissertation Defense)</i>		

Cognates

Students will select a minimum of three cognate courses (9 credits) to support the dissertation. They individually and collectively enhance the depth of understanding of the student's chosen area of research. Cognate courses are taken after the first year of coursework when a student's chosen research area has become more clearly defined. Cognates are typically in specific content areas (i.e., self-management, biomarkers, biomedical informatics) or in specific methodological or analytical approaches (i.e., research design methodologies or data analytical methods). These courses must be at the graduate level and taught by doctorally-prepared faculty either from with the School of Nursing or the University community at large. Students should consult with their faculty advisor regarding possible content and methodological areas that will support the chosen area of research.

Teaching Practicum Requirement

All doctoral students in the PhD in Nursing Program at Stony Brook University must complete at least one semester of practicum in teaching under supervision. Students in the PhD in Nursing Program will register for HND 698 Seminar Series: Academic Role and Teaching Practicum to enhance their expertise in the role of an academician. The practicum will be individualized according to the student's prior experiences in the academic role. The practicum will provide students with expertise in course development, teaching pedagogies and strategies for curriculum delivery, test construction and evaluation methodologies for didactic and clinical learning, approaches to teaching diverse learners and difficult student situations, and professional role development among others. The practicum may include making seminar or class presentations, assisting in laboratories, or leading discussion sessions. Grading experience by itself will not be considered sufficient for satisfaction of this requirement. Faculty are responsible for providing informal feedback and formal

evaluation. Following (or in some cases, concurrent with) proper training through a teaching practicum and after having fulfilled other requirements for teaching (e.g., demonstration of spoken English proficiency for non-native speakers of English), a graduate student may serve as a teaching assistant (TA) in courses at Stony Brook University, where the instructor of record is a faculty member. An advanced graduate student may act as the instructor of record for an undergraduate course offered at Stony Brook University only if he or she is appointed to an adjunct faculty position as a lecturer. No student shall be appointed to such a position until he or she has been advanced to candidacy (G5 only). It is not required that such students be enrolled in full time status, although this is recommended. Appointment procedures follow the same process as regular faculty appointments. Graduate students at G4 level or below cannot be designated as the Instructor of Record for any course offered at Stony Brook University. They may be appointed as Teaching Assistants. In addition, there must be a designated faculty supervisor who serves as the Instructor of Record for the course. Each student, with the help of their faculty advisor, will identify the semester during which they will complete the teaching practicum, develop individualized student learning outcomes based on prior experiences in the academic role and identify a faculty preceptor. The faculty advisor, faculty preceptor and student will develop the structure of the practicum and plan activities to accomplish the student learning outcomes.

Research Practicum Requirement

All doctoral students in the PhD in Nursing Program at Stony Brook University must complete at least one semester of practicum in research under supervision. Students in the PhD in Nursing Program will register for HND 697 Seminar Series: Investigator Role and Research Practicum to enhance their expertise in the role of an investigator. The practicum will be individualized

according to the student's prior experiences in the investigator role. The practicum will provide students with expertise in selected aspects of the research process, including development of the conceptual/theoretical foundation of the study, study implementation (e.g. start-up activities, consent, intervention, fidelity management), data collection, data management, data analysis, participate in preparation of grant proposal and dissemination of findings. Each student, with the help of their faculty advisor, will identify the semester during which they will complete the research practicum, develop individualized student learning outcomes based on prior experiences in the investigator role and identify a faculty preceptor. The faculty advisor, faculty preceptor and student will develop the structure of the practicum and plan activities to accomplish the student learning outcomes.

Qualifying Examination

The purpose of the Qualifying Examination is to ascertain the breadth and depth of the student's preparation and to appraise readiness to undertake significant original investigation. Successful completion of the examination signifies the student's advancement to candidacy and potential to complete continuing coursework and the dissertation. It also represents the faculty's commitment to provide scholarly resources to assist the student in meeting these benchmarks. The advancement to candidacy is achieved by satisfactory completion of the Qualifying Examination, which is taken prior to the dissertation phase (HND 690 Dissertation Seminar I). At the discretion of the program, the Qualifying Examination may be oral, written, or both.

The Examination Committee is appointed by the Program Director. The Committee must include at least two faculty members from the program and may include one or more members from outside the University or program. Results of the examination will be communicated to the student as soon

as possible and to the Graduate School within one week of the completion of the examination. A repetition of the preliminary examination, upon failure, may be scheduled at the discretion of the Program Director. The dean of the Graduate School must approve a request for repeat examination.

Dissertation Proposal

The dissertation proposal is prepared under the guidance of a faculty advisor. The proposal will be defended orally at a seminar, announced two (2) weeks in advance, and is open to PhD in Nursing faculty and students and to the larger academic community. The dissertation proposal defense committee must include at least two faculty members from the program and may include one or more members from outside the University or program. The dissertation proposal defense will be scheduled after successful completion of HND 691 Dissertation Seminar II. Upon successful defense of the proposal, the student may register for HND 699/700/701 PhD Dissertation Research

Dissertation

The three requirements for the Ph.D. are assessed in the final defense of a dissertation.

1. The dissertation should demonstrate significant original work.
2. The final dissertation should be presented with clarity of thought and excellence of exposition that make it suitable for publication as a book or a series of papers in learned journals.
3. The dissertation should demonstrate a breadth and depth of the candidate's knowledge beyond the confines of his or her own research and is also critically assessed in the defense and at various examinations during the student's studies.

Successful oral defense of the dissertation to the candidate's dissertation committee and the University community at large is required.

The dissertation committee will include the candidate's dissertation advisor, at least two faculty members from the program and may include one or more members from outside the University or program.

Program Time Limit

The time limit for a doctoral degree, including coursework, examinations, practicums, and

dissertation is seven (7) years from date of matriculation in the PhD in Nursing Program.

In exceptional cases where the program cannot be completed within these periods, students may petition for an extension of the time limit. The Request for Waiver of Graduate Time Limit form can be found by selecting the forms link from the Graduate School Web site. These petitions require the approval of the student's faculty advisor and Director of the PhD in Nursing Program. Requests for a time limit extension must be filed before the limit is exceeded and must contain a significant justification. The final decision rests with the Dean of the Graduate School, who may impose additional requirements.

Program in Public Health

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About the Program

Welcome to the Program in Public Health at Stony Brook Medicine!

Dynamic Academic Programs

The Program in Public Health (PPH) trains people to integrate the knowledge, skills, and values of public health and health management into their careers and provide leadership in their field. The PPH offers a variety of degree programs including:

- [Master of Public Health \(MPH\) \(accredited by the Council on Education for Public Health\)](#)
- [Master of Health Administration \(MHA\)](#)
- [MS in Epidemiology and Clinical Research](#)
- [PhD in Population Health and Clinical Outcomes Research](#)
- [Advanced Graduate Certificate in Health Communications](#)
- [Advanced Graduate Certificate in Health Education and Promotion](#)
- Combined and concurrent degree Programs:
 - [Master of Business Administration/MPH](#)
 - [Master of Social Work/MPH](#)
 - [Master of Science in Nutrition/MPH](#)
 - [Master of Arts in Public Policy/MPH](#)
 - [Medical Doctorate/MPH](#)
 - [Doctorate of Dental Surgery/MPH](#)

Strong Foundations in Public Health

Public health is distinct from medicine in both its emphasis on prevention and its focus on populations. One of the hallmarks of our program is that we create a learning environment that emphasizes a collaborative, multidisciplinary approach to

the root causes of public health problems, while instilling the skills necessary to develop innovative and practical solutions for positive impact. Changing political, economic, and social conditions in the United States and the world make the application of new knowledge and technologies all the more important. In addition to the traditional knowledge, including epidemiology and biostatistics, our graduates leave with:

- an ecological understanding of the determinants of health – from genetics and behavioral all the way up to environmental and policy factors;
- a systems approach to solving health problems;
- an emphasis on proactively stabilizing and improving health among all populations;
- a thorough understanding and appreciation of the cultural heterogeneity of populations;
- an insistence on accountability, evidence-based practice, and continuous performance improvement;
- an understanding of the medical, dental, and public health systems that address health - including organization, financing, regulation, quality, & effectiveness;
- skills to develop comprehensive health information systems;
- tools to assess, develop, implement, and evaluate policy options;
- the conceptual and analytical tools to prioritize problems and make sound decisions.

Exceptional Faculty and Scholarship

One of the many strengths of our program is our exceptional faculty who are public health scholars in clinical, social and behavioral sciences, and the humanities. The PPH faculty are committed to excellence as teachers and mentors, and many are also leading exciting programs of research, which they translate into the student experience in the classroom, laboratory, clinic or in service to other spheres of public health practice. Current areas of research include racial disparities in healthcare access; sleep health; cognitive functioning and aging; environmental epidemiology; resilience and adaptation in the context of disability and illness.

A Growing Impact on Long Island and Beyond

Our program attracts a competitive pool of outstanding students with diverse backgrounds, unified by a shared passion to improve quality of life locally and globally. Many of our students either work as practitioners in related fields or are in training concurrently, integrating an ecological understanding of health into careers in medicine, dentistry, business, nursing, social work and beyond. The PPH staff work closely to connect students to a growing network of alumni who are public health practitioners. Our alumni network serves as a valuable resource for student field placements and employment. Our students have earned competitive practicum placements and have gone on to obtain full-time employment offers at State and County Departments of Health, non-profit organizations such as IPRO and VIBS (Victims Information Bureau of Suffolk), and university medical centers such as NYU, Stony Brook, and Mt. Sinai.

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 production of creative and critical thinkers who will be able to maintain public health's value to society in the future. This value is operationalized through provision of the Core and Concentration curricula leading to the MPH degree, which is supplemented by a variety of combined and concurrent degree options, the PhD in Population Health & Clinical Outcomes Research, the Master of Health Administration, the MS in Epidemiology & Clinical Research, and the Advanced Graduate Certificate programs. They have as their cornerstones the development of analytical and critical thinking skills and an ecological approach to health improvement and disease prevention that will produce public health problem solvers and health management professionals with a population health perspective.

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).

Please visit the program [website](#) for more information regarding our faculty and research.

Service

The Program in Public Health values three types of service: Community; Professional; and University.

1. Community: The Program values direct service to communities. This value is operationalized as advocating for improving population health and eliminating health disparities; and providing needs assessments and guidance for solutions to community health problems, and assisting the public health workforce.
2. 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.
3. 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 (PPH)* actively sought accreditation from the Council on Education for Public Health (CEPH) since its inception, and successfully obtained accreditation in 2008 for the Master of Public Health (MPH) degree.

Between 2012 and 2013, the PPH conducted a thorough self-study process whereby we engaged students, staff, faculty, and community stakeholders in an assessment of our program. In July 2014, we were notified of our successful completion of the re-accreditation process, culminating in a 7-year term of CEPH accreditation, extending to July 1, 2021.

If you wish to obtain a copy of our final self-study document or CEPH's report on our final self-study document please contact Dr. Catherine Messina, PhD, Associate Director of Academic Affairs, by email at catherine.messina@stonybrook.edu or by telephone at (631) 444-8266.

In addition, as a fully accredited program, 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. More information about NBPHE and the certification exam can be found at our [CPH Exam page](#).

The PPH has achieved Candidacy Status for accreditation by the Commission on Accreditation of Healthcare Management Education (CAHME) for the Master of Health Administration Program and for the Master of Public Health - Health Policy & Management concentration. Learn more about this process [here](#).

The PPH is regionally accredited by the Middle States Commission on Higher Education ([CHE MSA](#)) as a component of SUNY Stony Brook University.

Program Policies

For more information about the *Program in Public Health* policies visit the [program bulletin](#).

Degrees and Programs

Master of Public Health

complete Admissions and curriculum information can be found on our website and in our bulletin: [https://](https://publichealth.stonybrookmedicine.edu/academics/bulletin)

publichealth.stonybrookmedicine.edu/academics/bulletin

Program Director: Lisa Benz Scott, PhD

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.

The curriculum for the MPH degree is competency-based in order to comply with current national efforts to improve the quality and accountability of public health training programs. 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 Health Analytics, Health Policy & Management, and Community Health concentrations have concentration-specific competencies.

Combined and Concurrent Degree Programs

Accelerated 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 course work (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. *Master of Social Work (MSW)*
5. *Doctor of Medicine (MD)*
6. *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: <https://www.stonybrook.edu/bursar/tuition/>.

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.

MSW/MPH

In collaboration with the School of Social Welfare, we offer a combined MSW/MPH degree which prepares students to understand and address social issues affecting the health of individuals, families, communities, and populations. The MSW/MPH program includes about 27 credits of overlap, which reduces the total number of credits in the combined program to 91. Students receive both degrees upon completion of the entire program.

Special Note: Students in the combined MSW/MPH program pay the graduate MSW tuition rate. For more information visit: <https://www.stonybrook.edu/bursar/tuition/>.

Admission Requirements Combined Programs

Applicants 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. Applicants who wish to be considered for admission into the combined MSW/MPH program must comply with all admission requirements for both programs.

- 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 admission 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 Alda Center for Communicating Science. 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/>

Master of Health administration COMPLETE ADMISSIONS AND CURRICULUM INFORMATION CAN BE FOUND ON OUR WEBSITE AND IN OUR BULLETIN: [HTTPS://](https://publichealth.stonybrookmedicine.edu/academics/bulletin)

[PUBLICHEALTH.STONYBROOKMEDICINE.EDU/ACADEMICS/BULLETIN](https://publichealth.stonybrookmedicine.edu/academics/bulletin)

Program Director: Julie Agris, PhD, Jd, LLM, FACHE

The MHA Program is a 2-year, hybrid degree that develops **highly qualified health management professionals with an understanding of population health competencies**. Students have the opportunity to achieve their degree through a combination of high quality, interactive, distance learning and in-person courses. The curriculum couples a strong foundation in general management principles with specialized instruction in healthcare administration and population health. Courses are led by full-time faculty members with terminal degrees and subject matter experts who are active practitioners in their fields.

MS Epidemiology and clinical research

For all information regarding admissions and curriculum, please see the [Graduate Bulletin](#) or visit the program website, <https://publichealth.stonybrookmedicine.edu/msecr>.

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

DEAN: Stacy Jaffee Gropack
OFFICE: Health Sciences Tower, Level 2, Room 400
PHONE: (631) 444-2252
WEB: www.hsc.stonybrook.edu/shhtm

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 science, medical molecular biology, occupational therapy, physical therapy, physician assistant, and respiratory care. These programs are full-time entry-level except for the health science program and the post professional program for Physician Assistants and the graduate program in 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, 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: Ivan 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, medical molecular biology, occupational therapy, physical therapy, physician assistant, 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 Post Professional Physician Assistant programs must be completed within five years.

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 applicable coursework to be considered for conditional admission. The student will be required to achieve a minimum 3.0 GPA by the end of the first enrolled term.

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	3

Course #	Title	Credits
	Informatics Professionals	
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

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

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

Practicum I is taken during the spring semester, Practicum II and Practicum III are offered during summer sessions.

Course #	Title	Credits
HHA 584	Specialization Practicum I	4
HHA 586	Specialization Practicum II	6
HHA 588	Specialization Practicum III	6

Program in Athletic Training Leading to a Master of Science Degree

Program Chair: Kathryn Koshansky

The Stony Brook University (SBU) Athletic Training Program (ATP), offered by the School of Health Technology and Management (SHTM), is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). This is a full-time, two-year, entry-level professional graduate program leading to a Master of Science degree.

Athletic Trainers (ATs) are healthcare professionals who render service and treatment, under the direction of, or in collaboration with a physician. As part of the healthcare team, services provided by ATs include injury and illness prevention, wellness promotion and education, emergent care, examination and clinical diagnosis, therapeutic intervention, and rehabilitation of injuries and medical conditions. Once a graduate is certified to practice, the athletic trainer must follow individual state regulatory requirements for practice. Athletic trainers' work settings include secondary schools, colleges and universities, professional sports, higher education and emerging settings such as the performing arts, physician practice, public safety, military, occupational health, and healthcare administration.

The athletic training 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 begins in the classroom and laboratory, and is extended into the field through various clinical experiences. 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 and psychomotor skills. This includes clinical decision-making and professional interactions required to become a competent athletic trainer.

The curriculum prepares students for the Board of Certification (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 master's degree, the school's Certificate of Professional Achievement in Athletic Training is awarded upon satisfactory completion of all required coursework.

The Stony Brook University Athletic Training program is currently accredited by the Commission on Accreditation of Athletic Training Education (CAATE), 6850 Austin Center Blvd., Suite 100, Austin, TX 78731-3101.

Admission Requirements

The program Web site <https://healthtechnology.stonybrookmedicine.edu/programs/at/graduate> is the source of information for admissions and comprehensive program information. For questions that are not addressed on the Website, please contact the program directly.

The requirements for admission to the athletic training graduate program include:

- Completion of a baccalaureate degree
- Minimum 3.0 cumulative GPA

Specific Required Courses (minimum grade of "C"):

- 4 credits of Biology with lab
- 8 credits of Anatomy and Physiology I and II with labs
- 4 credits of Chemistry with lab
- 4 credits of Physics with lab
- 3 credits of Statistics

NOTE: Required science coursework must be completed within the last ten years.

Recommended Courses:

- Kinesiology or Biomechanics
- Exercise Physiology
- Nutrition

Other Admissions Requirements:

- Current certification in basic life support cardiopulmonary resuscitation (CPR)
- 50 hours of volunteer clinical experience observing an athletic trainer
- Three academic or professional reference letters

- TOEFL scores (international students)

NOTES:

- All prerequisites must be completed by the end of the spring term of the year that applicants are applying.
- GRE is not required

For application, please visit <https://atcas.liaisoncas.com>. A required supplemental application may also be required and would be found under the program materials section on the ATCAS website.

Program Requirements

The two-year graduate curriculum consists of 77 graduate credits, including lecture, laboratory, and clinical education. The curriculum will include foundational content, patient care, research, and critical inquiry.

YEAR ONE will include coursework based on physical agents, professional practice, clinical diagnosis and treatment, critical care, evidence-based practice, research design, and two clinical education experiences.

YEAR TWO will include coursework in research methods, healthcare management, advance therapeutic intervention, nutrition, general medical conditions, research, and four clinical education rotations. Students will be conducting research, utilizing IRB protocol, culminating in a capstone activity resulting in an APA style journal report and poster. In addition, students will be participating in interprofessional education and interacting with other healthcare practitioners through the general medical conditions course and clinical education.

Each clinical rotation will involve a minimum number of hours dependent on course credit and location within the program course sequence.

Special Academic Requirements

In addition to the academic policies of the school, students must achieve a minimum grade of "C+" in each course in the athletic training program. Additionally, students must maintain a 3.0 cumulative grade point average to remain in good academic standing and participate in clinical affiliations.

Course Progression

Professional courses (HAL) must be taken in a sequential manner. Students who receive a grade of "C-" or below must first retake the course before progressing to the next course in the sequence. ATP professional courses may only be repeated once. A student who receives a course grade of "C", may progress on to the next sequence, but must remediate the insufficient grade. Failure to obtain the grade of "C+" or higher in two attempts may result in the student being dismissed from the program. Minimum grade of "C+" is required in each course.

Professional Courses (Year One)

Course #	Title	Credits
HAL 515	Foundations of Athletic Training	4

Course #	Title	Credits
HAL 520	Principles of Physical Agents	3
HAL 525	Evidence-Based Practice	1
HAL 530	Critical Care	3
HAL 535	Clinical Diagnosis and Treatment I	5
HAL 540	Clinical Diagnosis and Treatment II	5
HAL 545	Clinical Diagnosis and Treatment III	3
HAL 565	Research Design	2
HAL 581	Athletic Training Clinical I	7
HAL 582	Athletic Training Clinical II	7

Professional Courses (Year two)

Course #	Title	Credits
HAL 550	Advanced Therapeutic Intervention	5
HAL 555	Healthcare Management	3
HAL 560	Nutrition and Supplement Use for Sports Performance	3
HAL 570	Research Methods	2
HAL 571	Research Seminar I	1
HAL 572	Research Seminar II	1
HAL 575	General Medical Conditions	4
HAL 583	Athletic Training Clinical III	3-5
HAL 584	Athletic Training Clinical IV	7
HAL 585	Athletic Training Clinical V	7
HAL 586	General Medical Clinical	1

Elective Course

Course #	Title	Credits
HAL 510	Strength and Conditioning for the Healthcare Practitioner	3

Program in Clinical Laboratory Sciences Leading to the Bachelor of Science Degree

Interim Program Chair: Jeannie Guglielmo

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 two specializations (Forensic Medical Diagnostics, 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 the private sector. 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. Students graduating from the program are eligible to take the American Society for Clinical Pathology (ASCP) national certification exam.

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. 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- .

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
HBP 310	Pathology	3
HAD 324 (for HHCZB students only)	Pathology	3
HBY 350 (class of 2018)	Physiology	4
HAD 350 (for HHCZB students only)	Systems Physiology	4
HAS 355 (replaces HBY 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

Course #	Title	Credits
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	2

Course #	Title	Credits
	Laboratory Sciences	
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
HAD 440	Forensic Sciences Clinical	3-5

Clinical Cytogenetics

Course #	Title	Credits
HAD 406	Introduction to Clinical Cytogenetics	1
HAD 506	Clinical Cytogenetics Internship	3-5

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

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.

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 informatics, health care management, and public health. Clinical concentrations of study include anesthesia technology, medical dosimetry, 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** (HAN 220/HAN 222, BIO 203/ANP 300 or other 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

See the [Health Science program](#) for an extensive list of related electives.

Note: The G/P/NC grading option is not available for HAN courses. Once a student has been advanced to the senior year curriculum (HANBS status) the G/P/NC grading option is no longer available for any course taken (even west campus courses) in the senior year.

Note: * 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. Students with a declared second major or minor(s) must complete all required coursework for the major/minor(s) prior to advancing to 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. Courses graded with a G/P/NC or S/U grade basis may not be used to satisfy the Health Science Major requirements.

Note: **Students have 3 attempts to pass this course with the letter grade of C or better, withdrawing from the course is considered an attempt. If a student cannot pass the course after 3 attempts, a student will be required to change their major.

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 chair, there are exceptional circumstances. Please note, without prior notice, concentrations can be closed; students must then select another concentration of study. In addition, the curriculum within a concentration of study is subject to change. Please check with department.

Anesthesia Technology

The Anesthesia Technology program is two years in length. The first year of the anesthesia technology program is a credit-bearing Health Science major senior year curriculum. This year is designed to provide the didactic foundation required for the ASATT national certification. The second year of the program is the clinical non-credit, non-degree certificate program and is designed to foster clinical competency at the anesthesia technologist level. Successful completion of both years is an eligibility requirement to qualify for the ASATT national certification examination. Length of study is 5 years: Health Science major fours (BS degree) and 8 months (clinical non-clinical, non-degree certification program) = 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. Prepares students for entry-level positions in both the public and private sector, including hospitals, government agencies (i.e. Food and Drug Administration, Environmental Protection Agency, etc.), private companies and laboratories.

Course #	Title	Credits
HAN 470	Occupational Health and Safety Engineering	3
HAN 474	Industrial Hygiene	4
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 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. Students are required to complete a minimum of 14 credits from the courses offered below.

Course #	Title	Credits
HAN 462	Developing Health Information Systems	4
HAN 464	Health Information Systems Management	4
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. Students

are required to complete a minimum of 14 credits from the courses offered below.

Course #	Title	Credits
HAN 432	Introduction to Health Care Management	4
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

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 the didactic courses in this clinical concentration, students continue on the clinical non-credit, non-degree certificate program. Successful completion of both the concentration and the clinical non-credit, non-degree certificate program are required in order to be eligible to take the national registry examination. Job opportunities may be found in cancer treatment centers and hospitals. Length of study is 5 years: Health Science major four years (BS degree) and 12 months (clinical non-credit, non-degree certificate program) = 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

Course #	Title	Credits
HAN 401	Radiobiology and Health Physics	3
HAN 482	Introduction to Pathology	3
HAN 487	Introduction to Treatment Planning	3
HAN 490	Fundamentals of Medical Dosimetry and Contouring	3

Course #	Title	Credits
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>

Public Health

This concentration provides a basic foundation in public health, including epidemiology and biostatistics. It also introduces the foundation of planning, implementing, and evaluating community-based health education models. Internship opportunities may be found in the health departments, public health agencies, HMO's, hospitals, and other health-related agencies. This concentration serves the needs of those students interested in pursuing clinical and non-clinical graduate studies.

Note: HAN 440 may be taken in lieu of HAN 454.

Course #	Title	Credits
HAN 450	Introduction to Public Health	3
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

The Radiation Therapy clinical concentration was developed to educate and prepare students to meet the daily challenges of a Radiation Therapist in the dynamic field of Radiation Oncology and meet the growing demand for radiation therapists nationwide. Radiation Therapists are key members of the radiation oncology team. They provide direct patient care to patients undergoing radiation treatment for cancerous and some non-cancerous conditions. The Radiation Therapy program at Stony Brook University is through partnership with Mount Sinai Health System. After completion of the didactic courses in this clinical concentration, students continue on to the RTT clinical non-credit, non-degree certificate program. The 12-months of clinical rotations in the RTT clinical non-credit, non-degree certificate program are conducted at the Mount Sinai Health System. Successful completion of both the concentration and the clinical non-credit, non-degree certificate program are required in order to be eligible to take the national registry examination. Length of study is 5 years: Health Science major four years (BS degree) and 12 months (clinical non-credit, non-degree certificate program) = 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 non-credit 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 was 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 clinical non-credit-non-degree certificate program. Successful completion of both the concentration and the clinical non-credit, non-degree certificate program are required in order to be eligible to take the national registry examination. Job opportunities may be found in hospitals, physicians' offices, urgent care clinics, diagnostic laboratories and industry. Length of study is 5 years: Health Science major four years (BS degree) and 12 months (clinical non-credit, non-degree certificate program) = 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 non-credit 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

Course #	Title	Credits
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 complete the majority 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
HMM 520	Flow Cytometry Laboratory**	1
HMM 521	Flow Cytometry Methods and Applications*	2
HMM 531	Cytogenetics Methods and Applications*	2
HMM 540	Laboratory Operations in Molecular Biology*	2

Professional Courses (Year Two)

Course #	Title	Credits
HMM 516	Application of Molecular Biology in Research*	3
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

The advanced certificate Program in medical molecular biology

Program Director: Gloria Viboud

The Advanced Certificate Program in Medical Molecular Biology is designed to provide clinical laboratory scientists with a strong foundation in the different molecular aspects of medical biology and the skills necessary to perform and analyze molecular-based techniques used in diagnostics, the research lab, and the medical biotechnology industry. Learning outcomes are 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 all the course requirements in a distance-learning format. The program is offered as a one-year prescribed part-time program during the summer, fall and spring terms. After completion of the program, students will be well prepared to take the Technologist in Molecular Biology by the American Society for Clinical Pathology [MB(ASCP)] certification examination.

Admission Requirements

- 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, 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 12 credits including the following required on-line courses.

Professional Courses

Course #	Title	Credits
HMM 500	Fundamentals of Molecular Biology Techniques	3
HMM 511	Application of Molecular Biology in Diagnostics	3
HMM 521	Flow Cytometry Methods and Applications	2
HMM 531	Cytogenetics Methodology and Applications	2

Course #	Title	Credits
HMM 540	Laboratory Operations in Molecular Biology	2

Program in Occupational Therapy Leading to the Master of Science in Occupational Therapy Degree

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. Three credits each of the following courses are required: Introduction to Psychology, Abnormal Psychology, Introduction to Sociology or Anthropology, Statistics, and English Composition. Candidates must complete required course work by the end of the spring term of the year for which application is made. A minimum overall GPA of 3.0 and a minimum GPA of 2.8 in both science and natural science coursework are required. 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 and natural science coursework. 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
HAO 507	Conditions in Occupational Therapy	2
HAO 508	Theories of Adult Rehabilitation	2

Course #	Title	Credits
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 Design for Occupational Therapy	3
HAO 551	Research Design for Occupational Therapy	3

Course #	Title	Credits
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	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

Interim Program Chair: Kyle Hewson

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 95 didactic credits and 35 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) is required. A minimum of a 3.0 cumulative grade point average and a minimum of a 3.0 cumulative science grade point average are 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 continuing students (who entered 2017 or 2018) must reference prior Health Sciences Bulletins for required courses.

Physical therapy students entering the summer of 2019 and 2020 must complete the following required courses:

Professional Courses (Year One) 46.5 Credits

Note: Some course titles, credits, and/or descriptions will be revised. See program website.

Course #	Title	Credits
HBA 540	Human Anatomy for Physical Therapists	5
HAY 500	Neuroscience for Physical Therapy	4
HAY 512	Prosthetics and Orthotics in Physical Therapy	3
HAY 515	Foundations of Kinesiology	1
HAY 517	Exercise Physiology	1
HAY 518	Foundations of Exercise and Movement in PT	3.5
HAY 519	Kinesiology	4.5
HAY 526	Clinical Medicine and Pharmacology I	3.5
HAY 527	Foundations of Patient Care	4
HAY 528	Clinical Medicine and Pharmacology II	4

Course #	Title	Credits
HAY 534	Motor Learning and Motor Control	3
HAY 543	Integumentary and Vascular Physical Therapy	2
HAY 544	Biophysical Agents in Physical Therapy	3
HAY 552	Research Methods for Physical Therapists	3
HAY 560	Professional Practice I: Foundations	2

Professional Courses (Year Two) 41 Credits

Note: Some course titles, credits, and/or descriptions will be revised. See program website.

Course #	Title	Credits
HAY 501	Growth and Development Across the Lifespan	3
HAY 502	Psychosocial Aspects of Disability	2
HAY 504	Neurological Physical Therapy I	2
HAY 505	Neurological Physical Therapy II	2
HAY 506	Neurological Physical Therapy III	4
HAY 507	Orthopedic Physical Therapy I	2
HAY 508	Orthopedic Physical Therapy III	4
HAY 509	Pediatric Physical Therapy	5
HAY 513	Orthopedic Physical Therapy II	2

Course #	Title	Credits
HAY 557	Introduction to Evidence Based Practice	1.5
HAY 561	Professional Practice II: Clinical Education	1.5
HAY 589	Case Studies I	1
HAY 590	Case Studies II	1
HAY 595	Clinical Education I	8
HAY 620	Cardiopulmonary Physical Therapy I	2

Professional Courses (Year Three) 42.5 Credits

Note: Some course titles, credits, and/or descriptions will be revised. See program website.

Course #	Title	Credits
HBA 542	Advanced Human Anatomy	0
HAY 621	Cardiopulmonary Rehabilitation II	2
HAY 524	Health, Wellness, and Prevention in Physical Therapy	2
HAY 525	Advanced Therapeutic Exercise	3
HAY 545	Ethics and Health Care for Physical Therapists	2
HAY 558	Evidence Based Practice Seminar	2
HAY 562	Professional Practice III: Selected Topics	1.5
HAY 602	Issues in Health Care Administration	3
HAY 692	Clinical Education II	9
HAY 693	Clinical Education III	8
HAY 694	Clinical Education IV	10

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 education.

Physician Assistant Program Leading to the Master of Science Degree

Interim Program Chair: Donna Ferrara

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 collaborate with physicians to practice medicine in patient-centered teams in all specialties and 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 preparing students 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 also 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 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. 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)	1
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

Course #	Title	Credits
HAP 524	Clinical Medicine IV	9
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
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

Course #	Title	Credits
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 didactic 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

Each of the following didactic courses must be passed with a minimum grade of B-:

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 512	Principles of Clinical Pharmacology	6
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
HAP 534	Introduction to Clinical Psychiatry	3

Course #	Title	Credits
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

These didactic courses are graded Satisfactory/Fail

Course #	Title	Credits
HAP 516	Problem Based Learning (PBL)	1
HAP 518	Medical Director Presentation Rounds	.5
HAP 549	Clinical Skills for the PA Student	1

In addition to the academic policies of the school, each of the following clinical courses must be passed with a minimum grade of C before a student is permitted to graduate.

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

Course #	Title	Credits
HAP 581	Clinical Elective	4

A minimum cumulative GPA of 3.0 is required to remain in good academic standing. Students must maintain a minimum 3.0 cumulative grade point average for all clinical clerkships, and successfully complete all summative evaluation requirements.

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 264 Precision Blvd, Telford, TN 37690, (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. 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/) 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 (preferred) or Biology or; 8 credits of chemistry with labs, 4 credits of physics with a lab, and 3 credits of statistics. Science courses 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.

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	4
HAS 363	Computer Literacy for Health Professionals	1
HAS 490	Research Tutorial	2
HBA 461	Regional Human Anatomy	5
HBP 310	Pathology	3

Professional Courses (Junior Year)

Course #	Title	Credits
HAT 304	Cardiopulmonary Physiology	4
HAT 306	Patient Evaluation	2
HAT 315	Pharmacology	4
HAT 320	Cardiovascular Diagnosis and Treatment I	3
HAT 330	Pulmonary Pathology	3

Course #	Title	Credits
HAT 331	Respiratory Care Techniques I	3
HAT 332	Respiratory Care Techniques II	3
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

Course #	Title	Credits
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.

Polysomnography Specialty Option Courses

Course #	Title	Credits
HAT 471	Polysomnographic Technology II	2
HAT 476	Polysomnographic Technology II Clinical*	2

* Clinical practice consists of full-time clinical instruction and practice at the clinical affiliates and other affiliated patient-care facilities.

Speech Language Pathology LEADING TO THE MASTER OF SCIENCE DEGREE

Department Chair: Renee Fabus

The Speech-Language Pathology (SLP) program leading to a M.S. degree is housed in the School of Health Technology and Management (SHTM), at Stony Brook University's Southampton location. It is a comprehensive and rigorous program which prepares students for positions in a variety of settings including hospitals, rehabilitation facilities, long-term care facilities, extended care facilities, schools, agencies, and private practices. Stony Brook University (SBU) is affiliated with Stony Brook University Hospital, Long Island State Veterans Home, and Southampton Hospital. Students will engage in clinical practice each semester throughout their two-year program. The graduate students in this program will engage in clinical simulations and interprofessional practice experiences with students from other health-related programs. The degree program is offered in a traditional weekday format and there is a cohort model which fosters camaraderie among students. Students are required to complete pre-requisite coursework prior to their admission into the program. During a student's didactic coursework, the student will have opportunities to observe and interact with patients diagnosed with a number of different diseases/disorders including Amyotrophic Lateral Sclerosis, Multiple Sclerosis, Parkinson's Disease, Aphasia, Cleft Palate, Autism, and Alzheimer's Disease. Upon completion of the program, students will be eligible for the American Speech-Language-Hearing Association (ASHA) certification and New York State (NYS) licensure. Optional tracks will prepare students for initial teaching certification and bilingual extension certification (in Spanish) in the schools.

Program Requirements

The Speech-Language Pathology graduate program has three tracks. The first track is 63 credits and upon graduation students are eligible for NYS licensure and Certification from

the American Speech-Language-Hearing Association. The second track is 73 credits and upon graduation students are eligible for certification as Teacher of Students with Speech and Language Disabilities (TSSLD), NYS licensure and Certification from the American Speech-Language-Hearing Association. The third track is 85 credits and upon graduation students are eligible for bilingual certification in Spanish, NYS licensure and Certification from the American Speech-Language-Hearing Association.

Admissions Requirements

The SLP accepts applicants for admission into the program for entry into the summer/fall semesters. The program admission requirements are as follows:

- A baccalaureate degree from an accredited college or university
- A minimum of an overall 3.0 undergraduate grade point average
- Graduate Record Examination (GRE) is required for admission
- Three letters of recommendation
- Essay
- Interview
- A minimum of 12 credits in the following prerequisite courses or their equivalent as approved by the chair of the department: Phonetics, Anatomy and Physiology of the Speech and Hearing Mechanism, Typical Speech and Language Development, and Speech Science with a minimum grade the grade of B-.
- Complete one course with a minimum grade of B- in each of the following areas: Biology, Chemistry or Physics, Social Sciences, and Statistics. These areas are indicated in the Knowledge and Skills Assessment (KASA form Area IV-A) (<https://www.asha.org/Certification/2020-SLP-Certification-Standards/>, <https://www.asha.org/Certification/Course-Content-Areas-for-SLP-Standards/>)

Course Requirements

Plan of Study for Track I - Eligibility for NYS Licensure and ASHA CCCs

Term I Fall I

Total = 15.5 credits

Course #	Title	Credits
HHS 510	Aphasia and Related Disorders	3
HHS 511	Cognitive Communication Disorders	1
HHS 512	Neuroscience in Communication Sciences and Disorders	3
HHS 520	Preschool Child Language Disorders	3

Course #	Title	Credits
HHS 521	Speech Sound Disorders	3
HHS 540	Foundations of Clinical Practice	2
HHS 581	Clinical I	.5

Term 2: Spring I

Total= 13 credits

Course #	Title	Credits
HHS 513	Adult Dysphagia	3
HHS 514	Neuromotor Speech Disorders	3
HHS 522	Early Intervention in Speech-Language Pathology	3
HHS 536	Seminar in Medical Speech-Language Pathology	1
HHS 551	Research Methods and Resources in Communication Sciences and Disorders	2
HHS 582	Clinical II	1

Term 3: Summer 1

Total= 11.5 credits

Course #	Title	Credits
HHS 537	Seminar in Professional, Ethical and Multicultural Issues	2
HHS 542	Clinical Concepts in Audiology	2
HHS 544	Diagnostics in Speech-Language Pathology	2
HHS 546	Speech and Language Pathology in the Schools	3
HHS 583	Clinical III	1.5
HHS 586	Audiology Clinical	.5

Course #	Title	Credits
HHS 587	Diagnostics Clinical	.5

Term 4: Fall 2**Total= 13 credits**

Course #	Title	Credits
HHS 523	Language and Literacy Disorders in School Age Children and Adolescents	3
HHS 524	Autism and Social Communication Disorders	2
HHS 530	Voice and Resonance Disorders and Instrumentation	3
HHS 531	Fluency Disorders	2
HHS 584	Clinical IV	3

Term 5: Spring 2**Total= 10 credits**

Course #	Title	Credits
HHS 532	Aural Rehabilitation	2
HHS 533	Augmentative and Alternative Communication	2
HHS 539	Seminar in Counseling	1
HHS 585	Clinical V	3
HHS 594	Capstone Project in Speech-Language Pathology & Preparation for The Praxis Examination	2

Total credits in program = 63 credits**Plan of Study for Track II - Eligibility for NYS Licensure, ASHA CCCs and Teaching Certification TSSLD****Term 1: Summer 1****Total= 9 credits**

Course #	Title	Credits
CEE 505	Education Theory and Practice	3
CEF 547	Principles and Practices of Special Education	3
LIN 544	Language Acquisition and Literacy Development	3

Term 2: Fall 1**Total= 15.5 credits**

Course #	Title	Credits
HHS 510	Aphasia and Related Disorders	3
HHS 511	Cognitive Communication Disorders	1
HHS 512	Neuroscience in Communication Sciences and Disorders	3
HHS 520	Preschool Child Language Disorders	3
HHS 521	Speech Sound Disorders	3
HHS 540	Foundations of Clinical Practice	2
HHS 581	Clinical I	.5

Term 3: Spring I**Total= 13 credits**

Course #	Title	Credits
HHS 513	Adult Dysphagia	3
HHS 514	Neuromotor Speech Disorders	3
HHS 522	Early Intervention in Speech-	3

Course #	Title	Credits
	Language Pathology	
HHS 536	Seminar in Medical Speech-Language Pathology	1
HHS 551	Research Methods and Resources in Communication Sciences and Disorders	2
HHS 582	Clinical II	1

Term 4: Summer 2**Total = 11.5**

Course #	Title	Credits
HHS 537	Seminar in Professional, Ethical and Multicultural Issues	2
HHS 542	Clinical Concepts in Audiology	2
HHS 544	Diagnostics in Speech-Language Pathology	2
HHS 546	Speech and Language Pathology in the Schools	3
HHS 583	Clinical III	1.5
HHS 586	Audiology Clinical	.5
HHS 587	Diagnostics Clinical	.5

Term 5: Fall 2**Total= 13/14 credits**

Course #	Title	Credits
HHS 523	Language and Literacy Disorders in School Age Children and Adolescents	3
HHS 524	Autism and Social Communication Disorders	2

Course #	Title	Credits
HHS 530	Voice and Resonance Disorders and Instrumentation	3
HHS 531	Fluency Disorders	2
HHS 584 or HHS 572	Clinical IV or Speech and Language Pathology in the School Clinical	3/4

Term 6: Spring 2**Total = 10/11 credits**

Course #	Title	Credits
HHS 532	Aural Rehabilitation	2
HHS 533	Augmentative and Alternative Communication	2
HHS 539	Seminar in Counseling	1
HHS 584 or HHS 572	Clinical IV or Speech and Language Pathology in the School Clinical	3/4
HHS 594	Capstone Project in Speech-Language Pathology & Preparation for The Praxis Examination	2

Total credits in program = 73 credits**Plan of Study for Track III - Eligibility for NYS Licensure, ASHA CCCs, Teaching Certification TSSLD and Bilingual Extension****Term 1: Summer 1****Total = 9 credits**

Course #	Title	Credits
CEE 505	Education Theory and Practice	3
CEF 547	Principles and Practices of Special Education	3
LIN 544	Language Acquisition	3

Course #	Title	Credits
	and Literacy Development	

Term 2: Fall 1**Total = 15.5 credits**

Course #	Title	Credits
HHS 510	Aphasia and Related Disorders	3
HHS 511	Cognitive Communication Disorders	1
HHS 512	Neuroscience in Communication Sciences and Disorders	3
HHS 520	Preschool Child Language Disorders	3
HHS 521	Speech Sound Disorders	3
HHS 540	Foundations of Clinical Practice	2
HHS 581	Clinical I	.5

Term 3: Spring I**Total = 13 credits**

Course #	Title	Credits
HHS 513	Adult Dysphagia	3
HHS 514	Neuromotor Speech Disorders	3
HHS 522	Early Intervention in Speech-Language Pathology	3
HHS 536	Seminar in Medical Speech-Language Pathology	1
HHS 551	Research Methods and Resources in Communication Sciences and Disorders	2
HHS 582	Clinical II	1

Term 4: Summer 2**Total= 11.5 credits**

Course #	Title	Credits
HHS 537	Seminar in Professional, Ethical and Multicultural Issues	2
HHS 542	Clinical Concepts in Audiology	2
HHS 544	Diagnostics in Speech-Language Pathology	2
HHS 546	Speech and Language Pathology in the Schools	3
HHS 583	Clinical III	1.5
HHS 586	Audiology Clinical	.5
HHS 587	Diagnostics Clinical	.5

Term 5: Fall 2**Total = 16 credits**

Course #	Title	Credits
HHS 523	Language and Literacy Disorders in School Age Children and Adolescents	3
HHS 524	Autism and Social Communication Disorders	2
HHS 530	Voice and Resonance Disorders and Instrumentation	3
HHS 531	Fluency Disorders	2
HHS 584	Clinical IV	3
SPN 506	Bilingualism	3

Term 6: Spring 2**Total = 13 credits**

Course #	Title	Credits
HHS 532	Aural Rehabilitation	2

Course #	Title	Credits
HHS 533	Augmentative and Alternative Communication	2
HHS 539	Seminar in Counseling	1
HHS 594	Capstone Project in Speech-Language Pathology & Preparation for The Praxis Examination	2
CEF 536	Methods of Teaching Second Language and Content to Bilingual Students	3
SPN 505	Hispanic Dialectology and Sociolinguistics	3

Term 7: Fall 3**Total = 7 credits**

Course #	Title	Credits
HHS/CEF 526	Foundations of Teaching English Language Arts to Bilingual Language Learners	3
HHS 574	Speech and Language Pathology Bilingual Clinical	4

Total credits in program = 85 credits

School of Social Welfare

DEAN: Jacqueline B. Mondros, D.S.W.

OFFICE: HSC Level 2, Room 093

PHONE: (631) 444-2139

WEB: socialwelfare.stonybrookmedicine.edu

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.

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.

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 five schools within the Health Sciences campus of the University, along with the Schools of Medicine, Dental Medicine, Nursing, Health Technology and Management.

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.

MSW and BSW Program Overview

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 and a well-rounded education in social welfare is best obtained by the integration of theory and practice. Therefore, throughout a student's tenure in the program, they must be enrolled concurrently in required social work practice courses with thirty-three weeks of field education. The requirements for graduation include a minimum of 16 credits in field education that are accrued each year at the rate of 4 credits per term, 14 hours per week. 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. Field education experiences are available in a broad range of human service programs that meet the needs of individuals, families, groups, and communities and are located throughout Nassau and Suffolk counties, and the greater metropolitan New York area. Placements that offer all evening and/or Saturday hours are few and therefore students should be prepared to offer day hours for placement purposes.

In order to measure student competency in field education, the school requires written evaluations at the end of each semester, completed by their field instructor. The School has developed a set of behaviors that comprise each competency, and students are evaluated on each behavior of each competency. Students are rated on each practice behavior, and these scores are added together for a score on each competency, using a Likert scale. Each of the evaluations (Generalist and Advanced Generalist) use the same rating scale ranging from: 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.

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.

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.

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 by 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 found in our handbooks. [BSW/https://socialwelfare.stonybrookmedicine.edu/academics/msw/handbook](https://socialwelfare.stonybrookmedicine.edu/academics/msw/handbook)

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.

C. 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/uaa/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

- 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
- 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.

D. 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.

E. 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/>

F. 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>

Please see program handbooks for more information on **Academic Integrity and Professional Performance**. [MSW Handbook](#) / [BSW Handbook](#)

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 professional program comprises of a sequence of courses and field education. Required credits in field education are accrued in the senior year at the rate of 6 credits per term, 14 hours 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 is given for life experience or previous work experience. This professional program is accredited by the Council of Social Work Education (CSWE) and graduates are eligible to apply for advanced standing MSW graduate programs.

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 with a letter grade of C or better 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 WRT 102: Intermediate Writing Workshop, or by having taken comparable course work at another institution.
- 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 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.
- 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 mathematics (above college algebra) or statistics. This requirement may be met by a course that fulfills the QPS designation for the Stony Brook Curriculum.
- A minimum of one three-credit course in the humanities. This requirement may be met by a course that fulfills the HUM designation for the Stony Brook Curriculum.
- A minimum of one three-credit course in the fine arts. This requirement may be met by a courses that fulfills the fine arts. This requirement may be met by a course that fulfills the ARTS designation for the Stony Brook Curriculum.
- A minimum of one three-credit course in the human language other than English. The School of Social Welfare follows the Stony Brook Curriculum requirements with the exception of the Communicate in a Human Language other Than English (LANG), learning objectives. This requirement may be met by the first course in a language sequence that partially fulfills the LANG designation (LANG-PART).

* Consult the School of Social Welfare for approved courses.

Graduation Requirements

Candidates for the Bachelor of Science degree in social work must:

1. Meet the general requirements of the University that are described in [DEGREE REQUIREMENTS](#) in this Bulletin.
2. Meet the graduation requirements of the School of Social Welfare, including successful completion of all course, field education, and professional development requirements of the School of Social Welfare described in this section and in the School of Social Welfare Student Handbook:
 - a. Complete 43 credits in required courses in the School of Social Welfare Program.
 - b. Complete 12 credits in required field education coordinated through the School of Social Welfare Office of Field Education.
 - c. Complete 2 credits in required professional preparation courses in the School of Social Welfare Program.
 - d. Complete 12 credits of elective courses in the field of Social Welfare.
 - e. Complete a total of 126 credits of undergraduate work.
 - f. Maintain a 3.0 cumulative grade point average in the Social Welfare 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 SEMESTER

Course #	Title	Credits
HWC 304	Contemporary Social Justice	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 SEMESTER

Course #	Title	Credits
HWC 300	Introduction to Fields of Practice	4
HWC 305	Practice Processes in Social Work I	3
HWC 309	Human Behavior and the Social Environment II	3
HWC 312	Social Welfare Policy and Institutional Oppression	3
HWC 314	Research in Social Work II	3

SENIOR YEAR, FALL SEMESTER

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

SENIOR YEAR, SPRING SEMESTER

Course #	Title	Credits
HWC 302	Field Education II	6
HWC 307	Practice Processes in Social Work III	3
HWC 316	Integrating Seminar II	3

SENIOR YEAR, SPRING SEMESTER

Course #	Title	Credits
	Two Electives*	6

REQUIRED PROFESSIONAL DEVELOPMENT

Course #	Title	Credits
HWC 396	Community Learning and Professional Preparation I: Junior Year	1
HWC 397	Community Learning and Professional Preparation II: Senior Year	1

Electives* Elective topics vary from term to term. **Students must take 12 credits of social work electives prior to graduation (can be taken in any combination of summer, fall, winter, spring semesters of Senior (U4) year).*

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 the Director of the Undergraduate Program in writing. See BSW Pre-Approval and Petition of Transfer Credits: <https://socialwelfare.stonybrookmedicine.edu/curernt-students/forms>. Students may apply **six credits** (two electives) from outside the program **OR** from transfer into the program.

Independent Study Policies and Procedures

Students may elect to take an Independent Study as an elective. **The independent study may not replace required course work.** 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. An independent study proposal and bibliography should be signed and agreed upon by the student, 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 (HWC 395) credit for a maximum of 3 credits. Students may apply one 3-credit independent study during their tenure in the program towards fulfillment of required elective credit.

THE MSW DEGREE**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 as outlined here 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. The curriculum provides for a generalist foundation year of courses and field education for all students. In the 2nd year, students concentrate on Advanced Social Work Practice in one of three areas of [Specializations](#).

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 one course at the Stony Brook campus. HWC 596 and HWC 597 complete this residency requirement.

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	Field Education I	4-6
HWC 504	Human Behavior and the Social Environment I	3

FALL TERM		
Course #	Title	Credits
HWC 509	Foundations of Social Justice: Challenging Oppression	3
HWC 511	Research I	3
HWC 513	Social Work Practice I	3
HWC 596	Community Learning and Professional Preparation I (Year-Long)	1

SPRING TERM		
Course #	Title	Credits
HWC 501	Field Education II	4-6
HWC 505	Integrating Seminar	3
HWC 510	Social Policy & Social Determinants	3
HWC 512	Research II	3
HWC 514	Social Work Practice II	3
HWC 596	Community Learning and Professional Preparation II (Year-Long)	-

Advanced Curriculum/Second Year Specialization

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. The School of Social Welfare requires students to select a specialization in their second year. The School has three areas of specializations, [click here](#) to learn more about each of the specializations.

SECOND YEAR, FULL-TIME AND ADVANCED STANDING MSW REQUIREMENTS

FALL TERM		
Course #	Title	Credits
HWC 502	Field Education III	6

FALL TERM		
Course #	Title	Credits
	Required Specialization Practice Course	3
	Required Specialization Course	3
HWC 519	Research I	3
	Elective	3
HWC 599	Community Learning and Professional Preparation I (Year-Long)	1

SPRING TERM		
Course #	Title	Credits
HWC 503	Field Education IV	6
	Required Specialization Practice course	3
	Required specialization course	3
	Two Advanced Practice Electives	6
HWC 597	Community Learning and Professional Preparation II (Year-Long)	-

*A minimum of nine (9) Advanced Practice elective credits are required. Elective offerings vary from term to term. (See Section V. B. Credits)

Advanced Standing Program

Students who have graduated from a CSWE accredited baccalaureate program in social work within the past five years may apply for the Advanced Standing Program. 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. Students in this program 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. Students in the Advanced Standing Program must choose a [Specialization](#), but will generally follow the format listed above (Advanced Curriculum/Second Year Specialization.)

Part-Time Program

This option is designed for students who choose not to follow the regular full-time schedule. Students must take a minimum of two courses per semester (6 credits) but may take up to three courses per semester (9 credits). Part-Time students begin Field Education during the Fall semester of their second year. Social Work Practice courses must be taken concurrently with Field Education in the second year (HWC 513 with HWC 500; HWC 514 with HWC 501). HWC 505, Integrating Seminar, must be taken in the Spring semester of the second year. The degree requirements are typically completed in three to four years.

FALL CLASS SCHEDULE - MSW STUDENTS (1ST YR)

Course #	Title	Credits
HWC 509	Foundations of Social justice: Challenging Oppression	3
HWC 511	Research I	3
HWC 596	Community Learning and Professional Preparation I (Year-Long)	1

SPRING CLASS SCHEDULE - MSW STUDENTS (1ST YEAR)

Course #	Title	Credits
HWC 510	Social Policy & Social Determinants	3
HWC 512	Research II	3
HWC 596	Community Learning and Professional Preparation I (Year-Long)	-

FALL CLASS SCHEDULE - MSW STUDENTS (2ND 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 - MSW STUDENTS (2ND 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 - MSW STUDENTS (3RD YEAR)

Course #	Title	Credits
HWC 503	Field Education III	4
	Required Specialization Practice Course	3
	Required Specialization Course	3
	*HWC Elective	3
	*HWC Elective of (HWC 519) Psychopathology 3	-
	*Psychopathology and Three Electives may be taken in any semester after the successful completion of the Second Year.	
HWC 597	Community Learning and Professional Preparation II (Year-Long)	1

SPRING CLASS SCHEDULE - MSW STUDENTS (3RD YEAR)

Course #	Title	Credits
HWC 503	Field Education IV	4
	Required Specialization Practice Course	3
	Required Specialization Course	3
	*HWC Elective	3

SPRING CLASS SCHEDULE - MSW STUDENTS (3RD YEAR)

Course #	Title	Credits
	*HWC Elective of (HWC 519) Psychopathology 3	3
	*Psychopathology and Three Electives may be taken in any semester after the successful completion of the Second Year.	
HWC 597	Community Learning and Professional Preparation II (Year-Long)	1

Additional Requirements:

The following courses are required and may be taken in any semester after the successful completion of the 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.

Ph.D. in Social Welfare

The Ph.D. Program in the School of Social Welfare is a policy research degree that focuses on social problem/social welfare issues such as poverty, health, violence, and aging. It operates under the auspices of the [Stony Brook University Graduate School](#) and is committed to the School of Social Welfare's mission of social justice. Taking full advantage of the resources of both the Graduate School and the multidisciplinary [Health Sciences Center](#) as well as affiliated faculty throughout the University, the program features small classes, a supportive environment for doctoral students, and a rigorous course of study. Upon receipt of this Ph.D., graduates will be well prepared to teach, direct research projects in government and social agencies, and carry out policy analyses in the field of social welfare.

***PLEASE NOTE:** At this time the School is temporarily pausing admissions and applications are not being accepted. Between the retirement of our eminent doctoral chair and the arrival of several new faculty members with research profiles, the School believes it is the perfect time to review and reinvigorate our doctoral program. We will be able to plan strategically in a new and thoughtful way for the program's future and the future of our students. The School website will be kept up to date with the latest information about the Doctoral program.

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 available by calling or emailing the School of Social Welfare Office of Student Services: Iva.Bory@stonybrook.edu or call: 631-444-3170.

MSW/MPH Dual Degree Program

Public Health Social Work is a rapidly expanding field of practice. These professionals work directly with individuals to improve their lives and conduct rigorous data analysis to promote the well-being of local and global communities.

Public health social workers are comprehensively trained to understand and address social issues affecting the health of individuals, families, communities, and populations, such as homelessness, substance use, violence, and environmental contamination.

School Of Dental Medicine

DEAN: Mary R. Truhlar, DDS, MS

OFFICE: 160 Rockland Hall

PHONE: (631) 632-8900

WEB: dentistry.stonybrookmedicine.edu

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/

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. 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	152
HBA 531	Nervous System	67
HBY 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
MED 510	Transition to Medical and Dental School	66

Clinics

Course #	Title	Hours
HDG 521	Clinic I: Introduction to Patient Care	33

Second-Year Program

Course #	Title	Hours
HBH 531	Pharmacology	40
HDC 601	Children's Dentistry I	50
HDE 611	Endodontic Technique	53
HDE 615	Introduction to Endodontics	21
HDG 601	Health Care Systems and Clinical Practice	33
HDG 614	Operative Dentistry II	34
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
HDR606	Advanced Imaging Techniques	10
HDS 601	Oral and Maxillofacial Surgery	66
HDS 602	Pain Control I	36

Course #	Title	Hours
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
Clinics		
HDC 621	Year II Children's Dentistry Clinic	95
HDG 621	Year II Operative Dentistry Clinic	234
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
HDE 711	Endodontic Technique HDG704 Practice Development I	47
HDC 702	Advanced Orthodontic Concepts	18
HDC 701	Advanced Pediatric Dentistry	96
HDG 724	Year III Clinical Management of Dental Emergencies I	20
HDG 704	Practice Development I	31
HDG708	Advanced Esthetic Concepts	20
HDG 706	Implantology	30
HDI 702	Diagnosis and Management of Oro-Facial Pain	16
HDI 704	Foundation in Dental	10

Course #	Title	Hours	Course #	Title	Hours
	Professional Development III		HDG 721	Year III Operative Dentistry Clinic	2
HDI 705	Patient III: Interdisciplinary Treatment Planning	50	HDG 724	Year III Dental Emergencies Clinic	20
HDI 732	Community II: Service Learning Experiences	120	HDP 721	Year III Periodontics Clinic	255
HDO 701	Oral Biology III	11	HDR 722	Year III Fixed Partial Prosthodontics Clinic	162
HDO 702	Oral Pathology	85			
HDO 703	Oral Pathology Conference I	26	HDR 723	Year III Removable Prosthodontics Clinic	124
HDO 704	Translational Oral Biology	39			
HDO 705	Oral Medicine	20	HDR 726	Year III Radiology Clinic	20
HDO 706	Oral Facial Genetics	22	HDS 721	Year III Oral and Maxillofacial Surgery Clinic	24
HDP 701	Diagnosis and Treatment of Periodontal Diseases II	18			
			Fourth-Year Program		
HDP 702	Periodontal Clinical Seminar	12	Course #	Title	Hours
HDR 707	Advanced Removable Prosthodontics	12	HDG 803	General Dentistry Seminar IV	24
HDR 708	Advanced Esthetic Concepts	20	HDG 804	Practice Development II	39
HDR 709	Oral and Maxillofacial Radiologic Interpretation	26	HDG 805	Care for Medically Complex and Geriatric Patients	27
HDS 701	Advanced Oral and Maxillofacial Surgery Treatment Planning	6	HDI 802	Community I: Population, Oral health and Epidemiology	16
HDS 703	Medical Emergencies II	3	HDI 804	Foundations in Dental Professional Development IV	13
			HDI 832	Community II: Service Learning Experiences	120
Clinics			HDO 803	Oral Pathology Conference II	24
HDC 721	Year III Children's Dentistry Clinic	246	HDR 806	Advanced Imaging Techniques	10
HDE 725	Year III Endodontics Clinic	30	HDR 807	Advanced Removable Prosthodontics	12

Course #	Title	Hours	Course #	Course Title	Department
HDS 803	Medical Emergencies III	2	HDI 841	Dental Anesthesiology Selective	Hospital Dentistry & Dental Anesthesiology
Clinics			HDI 842	Endodontics Selective	Periodontology & Implant Dentistry
HDC 821	Year IV Dental Care for the Developmentally Disabled Clinic	20	HDI 843	Oral & Maxillofacial Surgery Selective	Oral & Maxillofacial Surgery
HDG 821	General Practice Program Clinic I (see also HDP 821)	628	HDI 844	Orthodontics Selective	Orthodontics & Pediatric Dentistry
HDG 822	General Practice Program Clinic II (see also HDP 821)	431	HDI 845	Periodontics Selective	Periodontology & Implant Dentistry
HDG 824	Year IV Dental Emergencies Clinic	5	HDI 846	Research Selective	Office of Research & Faculty Development
HDP 821	Year IV Periodontics Clinic I (component of HDG 821)	60	HDR 804	Esthetic Dentistry Elective	Prosthodontics & Digital Technology
HDP 822	Year IV Periodontics Clinic II (component of HDG 822)	60	HDR 821	Advanced Prosthodontics Selective	Prosthodontics & Digital Technology
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 707	Radiology Selective	General Dentistry
HDI 806	Elective in Ethics and Professionalism	Oral & Maxillofacial Surgery
HDI 840	Children's Dentistry Selective	Orthodontics & Pediatric Dentistry

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 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 annual 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 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.

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 Education Program in Periodontics

Program Director: Dr. Hossein Bassir

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 teaching hospitals, Northwell Health. The program objective is to produce highly educated and clinically competent periodontists competent 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
Treatment Planning in Restorative/ Implant Dentistry II
Literature Review (Biology and Pathology of the Periodontium/ Clinical Periodontology)
Orthodontic and Periodontal Literature Review/Treatment Planning Seminar II
Provisionalization of Dental Implants
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
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
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

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

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

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/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 Prosthodontics
1105 Westchester Hall

Stony Brook, NY 11794-8712
Phone: 631-632-3161
Email: SDM_OMFR@stonybrookmedicine.edu

Advanced Specialty Education Program in Oral and Maxillofacial Radiology

Program Director: Mina Mahdian, DDS, MDSc

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

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

Departments

General Dentistry

Department of General Dentistry

Acting Chair: Dr. Dan Colosi

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 predoctoral divisions of Behavioral Sciences and Practice Management, Operative Dentistry and Dental Materials, 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.

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 a format similar to private practice 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, the Foundation, Community and Health Care Systems and Practice Development. The Patient 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 whereby students engage in interactive lectures and panel discussions, exploring factors impacting the patient-doctor relationship and ethical decision making. Community epidemiology of oral disease. The Practice Development conveys the business of dentistry, including health care systems, 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 PROGRAMS

The 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.

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 300 hours of didactic instruction relevant to the understanding of biological and molecular processes involved in oral diseases. The department is responsible for instruction to dental students in the body of basic biological and molecular processes involved in oral disease. 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. 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.
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- 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. This course also 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 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.

ORAL AND MAXILLOFACIAL SURGERY

• *Department of Oral & Maxillofacial Surgery*

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 gingivitis and stage I-IV periodontitis..

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.

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. The department has established an advanced education program in Oral & Maxillofacial Radiology.

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.
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; Program 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: Admission to undergraduate CLS program
3 credits

HAD 416 Immunoematology

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 immunoematology 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; Program 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; Program 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; Program 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; Program Consent Required
1-6 credits, Letter graded (A, A-, B+, etc.)

HAL

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.)

HAL 515 Foundations of Athletic Training

Introduces the student to athletic training and the role of the athletic trainer. Topics include the historical development of the profession, concept of the sports medicine team, and injury documentation. Emphasizes strategies for injury prevention, assessment, and treatment. Focuses instruction on the recognition and management of medical emergencies, training and conditioning techniques, and the fabrication and application of taping, wrapping, supportive, and protective devices.
4 credits, Letter graded (A, A-, B+, etc.)

HAL 520 Principles of Physical Agents

Introduces the use of therapeutic interventions to manage a variety of musculoskeletal conditions. Emphasizes an evidence-based practice approach to making sound clinical decisions for the use of therapeutic modalities. Topics include tissue response to injury, pain physiology, psychological response to injury, and therapeutic interventions for inflammatory and non-inflammatory conditions.
3 credits, Letter graded (A, A-, B+, etc.)

HAL 525 Evidence Based Practice

Introduces concepts of evidence based practice (EBP) in athletic training. The student will learn how to obtain, process, examine, and appraise peer reviewed journal articles. The students will become a consumer of literature and form a foundation for clinical practice as well as identifying areas of interest for future research projects through literature searches and round table discussions of literature.

1 credit, Letter graded (A, A-, B+, etc.)

HAL 530 Critical Care

Instructs the student in the recognition and management of emergent medical conditions in persons experiencing acute trauma or critical illness. Topics include patient assessment, head and spine injury management, basic life support measures, environmental emergencies, and sudden cardiac arrest. Prerequisite: Current certification in Basic Life Support (CPR).

3 credits, Letter graded (A, A-, B+, etc.)

HAL 535 Clinical Diagnosis & Treatment I

Focuses on the principles of clinical diagnosis and treatment of orthopedic injuries to the lower extremity. Emphasizes the components of the comprehensive orthopedic clinical evaluation and diagnosis including history, inspection, palpation, functional testing, special evaluation techniques, and the establishment and implementation of therapeutic interventions.

5 credits, Letter graded (A, A-, B+, etc.)

HAL 540 Clin Diagnosis & Treatment II

Focuses on the principles of clinical diagnosis and treatment of orthopedic injuries of the head, cervical spine, and upper extremity. Emphasizes the components of a comprehensive orthopedic clinical evaluation and diagnosis including history, inspection, palpation, functional testing, special evaluation techniques, and the establishment and implementation of therapeutic interventions. Prerequisite: Year 1 Summer Courses

5 credits, Letter graded (A, A-, B+, etc.)

HAL 545 Clin Diagnosis & Treatment III

Focuses on the principles of clinical diagnosis and treatment of orthopedic injuries of the thoracic and lumbosacral spine. Emphasizes the components of a comprehensive orthopedic clinical evaluation and diagnosis including history, inspection, palpation, functional testing, special evaluation techniques, and the establishment and implementation of therapeutic interventions. Prerequisite: Year 1 Fall Courses

3 credits, Letter graded (A, A-, B+, etc.)

HAL 550 Advanced Therapeutic Interventions

Progression of previously learned therapeutic interventions. Emphasizes the use of therapeutic exercise and manual therapy techniques in order to rehabilitate patients from both surgical and non-surgical orthopedic conditions. Prerequisite: Year 1 Spring Courses

5 credits, Letter graded (A, A-, B+, etc.)

HAL 555 Healthcare Management for Athletic Training

Provides students with the ability to analyze various issues, policies, and procedures encompassing the ethical administration of athletic training in a managed-care model. Includes US federal healthcare laws, legal liability, issues, personnel management, facility organization and design, equipment maintenance, budgeting, record keeping, health care services, informatics, counseling, and public relations. Exposes students to principles that enhance their networking, professional development, and personal branding skills.

Prerequisite: Year 1 Spring Courses

3 credits, Letter graded (A, A-, B+, etc.)

HAL 560 Nutrition And Supplement Use for Sport Performance

Provides an understanding of basic nutrition science as well as the use of supplements to enhance athletic performance. Students will become familiar with the principles of diet planning, food labeling, biological functions and food sources of primary nutrients, energy balance, weight management and physical activity; the role of nutrition in chronic disease development; nutrition throughout the life cycle and current nutrition-based controversies. Reviews the advantages and disadvantages to using dietary supplements. Addresses scientific research on recommended dosage and potential side effects. Addresses both the needs of competitive athletes and everyday needs and concerns. Upon completion of this course, students should be able to evaluate and make recommendations about diet plans, dietary supplements, as well as maintaining a healthy lifestyle. Focuses on the analysis of needs of various athletes to determine if specific supplements should be recommended to improve performance. Prerequisite: Year 2 Fall Courses

3 credits, Letter graded (A, A-, B+, etc.)

HAL 565 Research Design for Athletic Training

Presents research design and related methods commonly used to contribute to the evidence-based practice of athletic training. Provides the necessary tools for students to process and apply the skills needed to develop independent research studies. Includes literature searches, appraising scientific literature, formulating a research question or hypothesis, and selecting appropriate research designs and methods. Presents information in the context of protecting human subject and health information based on the policies and procedures of the Committee on Research Involving Human Subjects (CORIHS) and IACUC. Prerequisite: Year 1 Fall Courses

2 credits, Letter graded (A, A-, B+, etc.)

HAL 570 Research Methods for Athletic Training

Introduces the student to research in athletic training. Includes the research process, read, examine, and comprehend peer reviewed journal articles. Students will begin assembling a research project on a topic related to athletic training through the development of a research question and the composition of a literature review and methodology based on their proposed topic. The culmination of this course will result

in submission of an application to the IRB. Prerequisite: Year 1 Spring Courses
2 credits, Letter graded (A, A-, B+, etc.)

HAL 571 Research Seminar I

This course is intended to review parametric and nonparametric statistics that will be implemented into students research design in an effort to draw statistical inferences and answer research questions. Once students receive IRB approval time will be allotted for students to recruit subjects and pilot test their research projects. If students complete their pilot testing, they will be afforded time to begin their final projects. Prerequisite: Year 1 Summer Courses
1 credit, Letter graded (A, A-, B+, etc.)

HAL 572 Research Seminar II

Culmination of the athletic training programs research curriculum. Upon receiving IRB approval, students will recruit subjects and collect data to answer their research questions. The goal of this course is to complete the proposed research projects and develop a publishable manuscript and a poster that can be presented at a state, regional, or national conference. Prerequisite: Year 2 Fall Courses
1 credit, Letter graded (A, A-, B+, etc.)

HAL 575 General Medical Conditions

Provides a working knowledge of the pathophysiology and management of common diseases and other medical disorders or disabilities as they relate to athletes and the physically active. Prerequisite: Year 2 Summer Courses
4 credits, Letter graded (A, A-, B+, etc.)

HAL 581 Athletic Training Clinical I

This course provides the student with their first clinical experience. The student will be supervised by a preceptor at all times during their clinical experience. The student will practice patient care and professional skills and behaviors on a daily basis. Emphasis is placed on topics related to the students previous areas of classroom study (foundations of athletic training, principles of physical agents, evidence-based practice, lower extremity evaluation, diagnosis, and therapeutic intervention) and immediate incorporation of concurrent classroom topics (upper extremity evaluation, diagnosis, and therapeutic intervention, critical care). Prerequisite: Year 1 Summer Courses
7 credits, Letter graded (A, A-, B+, etc.)

HAL 582 Athletic Training Clinical II

This course offers assignments in clinical settings related to the students area of study (Principles of Physical Agents, Clinical Diagnosis and Treatment I and II, Critical Care). This course will give the student the opportunity to observe and integrate skills under the supervision of a preceptor. The student will practice comprehensive patient care and professional skills and behaviors on a daily basis in preparation for independent clinical practice upon graduation. Prerequisite: Year 1 Fall Courses
7 credits, Letter graded (A, A-, B+, etc.)

HAL 583 Athletic Training Clinical III

This course provides the student with their capstone clinical experience. The student will be supervised by a preceptor at all times during their clinical experience. The student will practice comprehensive patient care and professional skills and behaviors on a daily basis in preparation for independent clinical practice upon graduation. Prerequisite: Year two Summer I courses
3-5 credits

HAL 584 Athletic Training Clinical IV

This course provides the student with their capstone clinical experience. The student will be supervised by a preceptor at all times during their clinical experience. The student will practice comprehensive patient care and professional skills and behaviors on a daily basis in preparation for independent clinical practice upon graduation. Prerequisite: Year 2 Summer Courses
7 credits, Letter graded (A, A-, B+, etc.)

HAL 585 Athletic Training Clinical V

This course provides the student with their capstone clinical experience. The student will be supervised by a preceptor at all times during their clinical experience. The student will practice comprehensive patient care and professional skills and behaviors on a daily basis in preparation for independent clinical practice upon graduation. Prerequisite: Year 2 Fall Courses
7 credits, Letter graded (A, A-, B+, etc.)

HAL 586 General Medical Clinical

This course provides the student with general medical clinical experience through rotations with health care providers in different settings. The student will be supervised by a preceptor at all times during their clinical experience. The student will practice comprehensive patient care and professional skills and behaviors on a daily basis in preparation for independent clinical practice upon graduation. Prerequisite: Year 2 Fall Courses
1 credit, 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; U2 Standing
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 220 Fundamentals of Human Anatomy and Physiology for the Health Professions I

This is the first course in a two-part sequence that introduces fundamentals of 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. Topics include the integumentary system; muscular system; skeletal system; peripheral; central and autonomic nervous system; and special senses. On-site laboratory sessions are designed to give an in-depth understanding and illustrate principles learned during lecture with emphasis for students pursuing clinical fields. G/P/NC grade option is not available; this course cannot be taken for credit in addition to HAN 200. Open to non HSC students. Prerequisite: college biology or chemistry course with lab; U2 standing or higher.
4 credits

HAN 222 Fundamentals of Human Anatomy and Physiology for the Health Professions 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; cardiovascular system; lymphatic system; immune system; respiratory system; digestive system; nutrition; urinary system; reproductive system; fluid, electrolyte, acid-base balance and heredity. On-site laboratory sessions offer an in-depth understanding designed to illustrate principles presented during lecture with emphasis for students pursuing clinical fields. G/P/NC grade option is not available; cannot be taken for credit in addition to HAN 202. Open to non HSC students. Prerequisite: HAN 220
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 that 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: HAN 251; WRT 102; 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 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 435 Sales and Marketing in Health Care

Introduces the essential aspects of marketing and sales in the changing health care world. Addresses the concept of marketing, the nature of marketing strategy and the environment in which marketing operates. Provides a framework for understanding the consumer, along with key selling methods. Topics include the "Four Ps" of marketing, promotional elements of marketing, the communication process, and personal selling. Restricted to students approved for appropriate senior year track in the Health Science major.
3 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 a comprehensive overview of aging and disability. Includes introduction to the field of geriatrics, age related disabilities, developmental 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. 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. Topics include: gender, sexuality, race, poverty, "invisible disabilities", eugenic sterilization, and assisted suicide. 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 Disability

Provides a comprehensive overview of the theories of child development, disabilities that impact children, the impact of family dynamics on children and the societal and familial relationships on perceptions of children's ability. Includes developmental, language, medical, motor, and sensory needs of children.

3 credits

HAN 448 Disability and Employment

Explores the historical, legal, and practical aspects of disability and employment in the U.S. Introduces U.S. history of disability and employment; pertinent employment-related legislation; existing governmental and not-for-profit vocational rehabilitation programs; roles of placement professionals; and current disability employment practices. Examines Title I of the Americans with Disabilities Act, with particular attention on ramifications of landmark Supreme Court cases. 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 a 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 (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

Explores 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 hands-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); 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 498 International Seminar

Examines qualitative interventions in public health; determines how an effective intervention is created; distinguishes which approaches are effective and which are not. Students will develop respect for the creative low technology approaches used to problem solve and learn hands-on-the-ground techniques for meeting community needs such as building physical structures including latrines, eco-stoves or small home. Other projects as appropriate may include teaching school children or giving hygiene instructions. Students will meet with community organizers and families who have been the recipients of interventions, and officials of non-governmental organizations (NGOs) that work with the community.
1-3 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 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 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; HAO 519; HAO 561

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 519; 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. Prerequisite: Second Year Summer and Fall Courses

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 will 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 500; HAO 505, HAO 507, HAO 508; HAO 519; HAO 561

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; HAO 561

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 500, HAO 505, HAO 506, HAO 509, HAO 561

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. Prerequisite: Successful completion of all prior coursework.

4 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 all prior coursework.

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. Prerequisite: Successful completion of all prior coursework.

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: Successful completion of all prior coursework.

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. Prerequisite: HAO 549

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. Prerequisite: Successful completion of all prior coursework.

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: Successful completion of all prior coursework.

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: Year Two Summer and Fall Courses
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. Prerequisite: Successful completion of all prior coursework.
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. Prerequisite: Successful completion of all prior coursework.
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. Prerequisite: Successful completion of all prior coursework.
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 504; HAO 505; 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 I C

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 593 Case Studies

This clinical reasoning seminar focuses on the synthesis of all clinical and academic coursework in formulating a comprehensive plan of care. Emphasis is placed on students responding spontaneously to case presentations in class, much as they would be expected to do in the clinical setting. Prerequisite: Successful completion of all prior coursework.
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. Prerequisite: HAO 597 and successful completion of all prior coursework

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. Prerequisite: Successful completion of all prior coursework.

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. Prerequisite: HAO 596

12 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. Open to entry-level PA students only.

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 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, S/F graded

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, S/F graded

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. 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 entry-level 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 Medical and Research Writing for Health Professionals

Reviews medical writing techniques and procedures. Cultivates personal style and content. Demonstrates components of medical writing to create essays and research proposals utilizing an editing process to refine content and format. Includes review and critique of writings. Students are required to develop and submit a medical essay or article that meets the publication requirements of a peer-reviewed professional or biomedical journal. 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 Integrative 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 310 Applied Phonetics of English

Provides a foundation for studying the speech sounds used in the production of American English. Discusses the branches of phonetics, classification of speech sounds, sound to symbol transcription using the International Phonetic Alphabet and second language and social/regional dialectical influences.

3 credits

HAS 311 Speech and Language Development

Provides the students with knowledge about a child's speech and language development from birth through adolescence. Topics include theories of speech and language acquisition, neurological basis of speech language development including the motor and perceptual basis, speech and language development during infancy, preschool, school-age and adolescence, speech and language sampling analysis, and the importance of cultural linguistic diversity and environmental influences on development.

3 credits

HAS 312 Anatomy and Physiology of the Speech, Language, and Hearing Mechanism

Provides basic understanding of the anatomy and physiology of the speech, language and hearing mechanism. Students will be able to apply their knowledge of anatomy and physiology of the speech and auditory mechanism to different disorders and diseases. Cannot be taken for credit in addition to LIN 380.

3 credits

HAS 313 Speech Science

Introduces acoustics, psychoacoustics, acoustical and articulatory properties of speech production, theories and models of speech perception and apply theoretical information with current technology and research in the field. Discusses instrumentation used to measure respiratory, laryngeal, velopharyngeal and pharyngeal components. Prerequisite: HAS 312

3 credits

HAS 314 Guided Observations in Speech-Language Pathology

Introduces students to practical and professional issues in the assessment and intervention of children and adults with various communication and swallowing disorders within the context of guided video observations. Students will obtain 25 clock hours of diagnostic and therapy video-guided observations required for entry into a SLP graduate program.

2 credits, S/U grading

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 498 SHTM Place Holder

For students who are on track to advance to Health Science BS program.
12 credits, S/F graded

HAS 499 SHTM Place Holder

For students who are on track to advance to Health Science BS program.
12 credits, S/F graded

HAS 500 SHTM Advanced Standing

Place holder credits for Health Technology and Management students.
0-9 credits, S/F graded

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 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. 3 credits, Letter graded (A, A-, B+, etc.)

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 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.)

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. Prerequisite: Admission to upper division Respiratory Care program.
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. Prerequisite: Admission to upper division Respiratory Care program.
2 credits

HAT 309 Communication Skills for Health Care Professionals

Provides 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. Prerequisite: HAT 306
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. Prerequisite: Admission to upper division Respiratory Care program.
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. Prerequisite: HAT 331
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 cardiology. 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 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

HAY

HAY 500 Neuroscience for Physical Therapy

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. Follows the anatomy of a system, its physiology, pathophysiology and clinical relevance to the physical therapist. Introduces clinical topics as they relate to neuroscience including neurological testing; control of posture and balance; pain; muscle tone and spasticity; feedback versus feedforward control; reflex versus voluntary control; control of reaching and locomotion; perception and learning. Engages students in discussions identifying variant and invariant characteristics from one system to another and how systems work. Prerequisites: First Year Summer Courses 4 credits, Letter graded (A, A-, B+, etc.)

HAY 501 Growth and Development Across the Life Span

Provides students with foundational knowledge of typical human development. Examines developmental sequences with emphasis on biophysical changes, motor skills, cognition, and psychosocial issues across the lifespan. Discusses the impact of social, cultural, and environmental differences on typical development. Integrates didactic information with observation experiences in order to prepare them for future coursework that requires application of these skills to the atypical population. Prerequisites: First Year Courses 3 credits, Letter graded (A, A-, B+, etc.)

HAY 502 Psychosocial Aspects of Disability

Examines the psychological and social factors that directly or indirectly affect an individual with a disability. Topics include identification of pre-morbid factors that contribute to the adjustment or responses to disability; impact of disability on family roles; the effects of pain on the individual; the influence of culture and spirituality on individual and family expectations of the health care system; and the economic, sexual, and societal aspects of disability. Explores the interactions of the individual with disability within the community. Focuses on concerns of the individual beyond physical rehabilitation. Topics include mental health disorders; motivation and adherence; humor in medicine; terminal illness; substance abuse; eating disorders; self-injurious behavior; and interpersonal abuse. Emphasizes the utilization of psychosocial information in the establishment of the plan of care for patients across the life span. Prerequisite: Second Year Fall Courses 2 credits, Letter graded (A, A-, B+, etc.)

HAY 504 Neurological Physical Therapy I

The first of a three course series designed to prepare second year physical therapy students to evaluate and treat patients with neurological dysfunction during their clinical experiences. Prepares students to examine, assess, and establish problem lists for individuals with various neurological disorders. Examines fundamental testing and assessment skills for sensation, musculoskeletal function, tone, reflexes, coordination, motor control, balance, postural stability, and function. Students will gain experience choosing appropriate outcome measures and gain competence in performing these measures. Justification for clinical decisions will be highlighted throughout. Prerequisites: First Year Courses 2 credits, Letter graded (A, A-, B+, etc.)

HAY 505 Neurological Physical Therapy II

The second of a three course series designed to prepare second year physical therapy students to evaluate and treat patients with neurological dysfunction during their clinical experiences. Students will learn fundamental assessment skills including advanced balance testing; tests for levels of consciousness; advanced gait assessment; and tests for motor control of the extremities. Introduces various treatment approaches and integrates these approaches to create a comprehensive and patient-centered plan of care. Justification for clinical decisions will be highlighted throughout. Prerequisites: Second year summer courses 2 credits, Letter graded (A, A-, B+, etc.)

HAY 506 Neurological Physical Therapy III

The last of a series of three courses designed to prepare second year physical therapy students to evaluate and treat patients with neurological dysfunction during their clinical experiences. Offers continued practice and synthesis of examination data during the evaluation process, however, major emphasis is to develop and implement appropriate intervention strategies based on the best available evidence for people with neurological or neuromuscular disorders. Prerequisites: Second Year Fall Courses 4 credits, Letter graded (A, A-, B+, etc.)

HAY 507 Orthopedic Physical Therapy I

Explores neuromusculoskeletal concepts within the patient/client management model. Introduces an emphasis on clinical decision-making and problem solving through ongoing hypothesis generation and testing. Content is provided that students will apply to paper cases as they establish goals, organize subjective and objective exams, and practice screening skills. Information that is obtained during typical physical therapy exams is utilized in discussions to practice the evaluation process including ruling out red flags, identifying yellow flags, establishing a physical therapy diagnosis, developing a problem list, and generating an intervention plan. Prerequisites: First Year Courses 2 credits, Letter graded (A, A-, B+, etc.)

HAY 508 Orthopedic Physical Therapy III

Explores neuromusculoskeletal concepts within the patient/client management model. Orthopedic physical therapy practice of the upper extremities and spine is explored with an emphasis on clinical decision-making and problem solving through ongoing hypothesis generation and testing. Asked to apply content to paper cases and establish goals, organize subjective and objective exams, and practice screening skills. Information that is obtained during typical physical therapy exams is utilized in discussions to practice the evaluation and intervention process including ruling out red flags, identifying yellow flags, establishing a physical therapy diagnosis, developing a problem list, generating and implementing an intervention plan. Prerequisite: Second Year Fall Courses 4 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 512 Prosthetics and Orthotics in Physical Therapy

Provides a theoretical knowledge base as a framework for clinical intervention when providing treatment using orthotic and/or prosthetic devices for clients across the lifespan who present with amputations, diabetes, neurological disorders, and pathokinesiologic deficits of the musculoskeletal system. Presents course materials that reinforces course work from earlier basic science courses. Students will be expected to recall pertinent content from previous courses, apply that information in a clinically relevant manner, and critically solve problems covering client examination, evaluation, diagnosis, and treatment when presented with a variety of clinical scenarios. Prerequisites: First Year Fall Courses 3 credits, Letter graded (A, A-, B+, etc.)

HAY 513 Orthopedic Physical Therapy II

Explores neuromusculoskeletal concepts within the patient/client management model. Evaluation skills are sharpened as clinical decision-making and differential physical therapy diagnosis, prognosis and intervention are introduced in the framework of neuromusculoskeletal dysfunction. These general skills are then applied to various neuromusculoskeletal dysfunctions of the lower extremity. Functional anatomy, including the osteokinematics, arthrokinematics, myology and neurology of the lower extremity are explored as they relate to surgical and non-surgical neuromusculoskeletal conditions. Prerequisites: Second Year Summer Courses 2 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 and biomechanics as it applies to movement of the extremities and spinal column. Includes evaluation procedures such as manual muscle testing, measurement of joint range of motion, and gait assessment. Direct patient contact is scheduled. Prerequisites: First Year Summer Courses 4.5 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, complementary and preventive medicine. Examines and integrates general fitness, nutrition and complementary medicine into exercise prescriptions for the following chronic diseases and conditions: cardiovascular disease; endocrinology and metabolic disorders; pulmonary disease; oncology; disorders of the bones and joints; depression; and intellectual disability. Students will engage in a project to incorporate wellness goals, assessments and screenings of a client and the development, implementation and assessment of an individualized wellness program. Evidence based, peer reviewed articles will be used to support or refute current health, wellness and prevention strategies and programs. Prerequisites: Second Year Courses 2 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 Foundations of Patient Care

Emphasizes patient care in the acute care environment. Prepares students for functional mobility training for patients in all settings. Applies the laws of physics to body mechanics in order to safely and effectively assist patients with bedside functional mobility training. Prepares students to effectively guard patients during ambulation and engage in gait training with assistive devices. Students will perform initial evaluations, create physical therapy plans of care, and use vital signs and lab data to guide clinical decision making. Engages students through case studies and integrated clinical experiences with patients of varying diagnoses and complexity to prepare them for their first clinical internship. Prerequisite: 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 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 543 Integumentary and Vascular Physical Therapy

Presents principles of skin anatomy and physiology, normal and abnormal wound healing, and the anatomy and role of both peripheral vascular system and lymphatic systems. Discusses physical therapy assessment and interventions. Includes focused practice in myofascial mobility and extensibility, lymphedema management, wound assessment, debridement, wound dressing choices, and other available modalities. Engages students in practical skills during interactive lab sessions to demonstrate competence and integrate information in a clinically relevant manner to provide a framework for future safe and effective intervention with clients. Prerequisite: First Year Fall Courses 2 credits, Letter graded (A, A-, B+, etc.)

HAY 544 Biophysical Agents in Physical Therapy

Introduces various physical, mechanical and electrotherapeutic biophysical agents. Covers the role of such agents in the management of impairments and pathology involving the musculoskeletal, neuromuscular, cardiopulmonary, and integumentary systems. Explores evidence-based informed decision making for each of these agents through the analysis of appropriate literature. 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 ethics within patient education, advocacy and interpersonal relationships. and discussions involving the APTA 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 2 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 557 Introduction to Evidence Based Practice

Introduces the concepts of evidence informed decision making by exploring the evidence based practice (EBP) model and the five steps of the EBP process. This is the second didactic course in the critical inquiry sequence, building upon the integration of research concepts that allows for the critical analysis of varying levels of research literature. Review of physical therapy literature will be used as a tool to integrate the students critical inquiry skills, depth of knowledge, and related clinical significance. Prerequisite: Second Year Fall Courses
1.5 credits, Letter graded (A, A-, B+, etc.)

HAY 558 Evidence Based Practice Seminar

Explores a broad spectrum of research literature examining student's clinical experience and common physical therapy topics. Requires students to independently search, evaluate literature concerning a clinical question, and critically evaluate the strength of several levels of evidence by assimilating inquiry skills, clinical experiences and current depth of knowledge with evidence from the literature. Students judge the strength of the evidence of each paper and draw conclusions regarding its clinical significance. When lacking evidence, challenges student to suggest ways to strengthen the current evidence. This is the terminal didactic course in the critical inquiry sequence. 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 Professional Practice II: Clinical Education

Taught concurrently with theoretical and practical coursework in the curriculum to prepare the students for their first clinical experience. Offered before HAY 595 Clinical Internship I to prepare students for patient and caregiver instruction and to provide students with knowledge of the roles and responsibilities of the student and the clinical instructor within the healthcare environment. Examines different learning and teaching 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 opportunity to work in small groups for application of these principles. Preparation for the first clinical education experience, specifically clinical site and academic program expectations, professional behavior, and student responsibilities, are discussed in detail. Prerequisites: Second year summer courses
1.5 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 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 Education I

An eight-week full time clinical experience course and the first of four clinical experiences in the curriculum. Allows the student to apply and integrate the academic knowledge, skills, and professional behavior acquired in the curriculum. Students are expected to demonstrate advanced beginner to intermediate level competency in all categories of the Clinical Performance Instrument (CPI) at the conclusion of the course. A licensed physical therapist is responsible for close supervision and guidance during the learning experience. Pre-requisites: All coursework prior to HAY 595.
8 credits, S/F graded

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 620 Cardiopulmonary Physical Therapy I

Introduces students to the interpretation of data from various diagnostic tests commonly encountered in patients with cardiac and/or pulmonary dysfunction. Engages classroom and laboratory activities designed to promote clinical decision making skills regarding the titration of exercise and the development of physical therapy interventions, including airway clearance techniques. Concentrates on the psychomotor skills needed to treat this patient population and the clinical reasoning skills required to ensure patient safety and improve patient outcomes. Prerequisites: Summer Year 2 Courses
2 credits, Letter graded (A, A-, B+, etc.)

HAY 621 Cardiopulmonary Physical Therapy II

Integrates material from prior coursework and utilizes information to develop an evidence-based total plan of care for patients with cardiac and/or pulmonary dysfunction.

Students engage in simulation-based learning experiences to help understand the relationship between pathophysiology and signs and symptoms; choose and perform appropriate assessments; evaluate clinical data; design and perform physical therapy interventions; respond to changes in patient status; and make appropriate recommendations for equipment and community programs for patients with cardiac and/or pulmonary dysfunction. Prerequisites: Summer Year 3 courses.

2 credits, Letter graded (A, A-, B+, etc.)

HAY 692 Clinical Education II

A nine-week full time clinical experience course and the second of four clinical experiences in the curriculum. Allows the student to apply and integrate the academic knowledge, skills, and professional behavior acquired in the curriculum. Students are expected to demonstrate intermediate level competency in all categories of the Clinical Performance Instrument (CPI) at the conclusion of the course. A licensed physical therapist is responsible for close supervision and guidance during the learning experience. Pre-requisites: All coursework prior to HAY 692.
9 credits, S/F graded

HAY 693 Clinical Education III

An eight-week full time clinical experience course and the third of four clinical experiences in the curriculum. Allows the student to apply and integrate the academic knowledge, skills, and professional behavior acquired in the curriculum. Students are expected to demonstrate intermediate level competency in all categories of the Clinical Performance Instrument (CPI) at the conclusion of the course. A licensed physical therapist is responsible for close supervision and guidance during the learning experience. Pre-requisites: All coursework prior to HAY 693.
8 credits, S/F graded

HAY 694 Clinical Education IV

A full time ten-week clinical experience course and the final clinical experience in the curriculum. Allows the student to apply and integrate the academic knowledge, skills, and professional behavior acquired in the curriculum. Students are expected to demonstrate entry level competency in all categories of the Clinical Performance Instrument (CPI) at the conclusion of the course. A licensed physical therapist is responsible for close supervision and guidance during the learning experience. Pre-requisites: All coursework prior to the HAY 694.
10 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.
(A, B, C, F) Grading

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.

(A, B, C, F) Grading

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.
5 credits, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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 neuronatomy, 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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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 autotoxins, 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. Letter graded (A, B, C, F)

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, S/U grading

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 633 Quantitative Methods in Pharmacology

This course introduces second-year graduate students to the quantitative approaches that underlie modern research in Pharmacology. Students will be exposed to tools and techniques that are widely applied in different fields of biomedical research. Students will receive an introduction to the command line, coding and statistics, and learn to apply these tools to pharmacokinetic compartmental analysis, molecular modeling, image analysis, structural biology, biological big data analysis and genomics. Students will be actively engaged in data analysis and will be expected to participate in group discussion. 3 credits

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 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

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 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 courses is directed to graduate students, post-doctorate and medical fellows, and advanced medical students, who are are contemplating careers in infectious disease research. Prerequisite: HBM, BMO 503 and BMO 520
3-4 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 unrelated 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 699 Dissertation Research on Campus

For the student who has been advanced to candidacy (G5); permission of dissertation advisor.

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. All international students must enroll in one of the graduate student insurance plans and should be advised by an International Advisor.

Fall, Spring, Summer, 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 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.

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 Chekov 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 man 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 95 Dental Assisting I September - December (Fall Term)

First course in two part series to complete the 11 month program in Dental Assisting.
0 credit, S/F graded

HD 96 Dental Assisting II January - June (Spring Term)

Second course in two part series to complete the 11 month program in Dental Assisting.
0 credit, S/F graded

HD 322 Summer Research: Oral Biology Pathology

Summer Research: Oral Biology Pathology
2-4 credits

HD 422 Summer Research Oral Biology and Pathology

Summer Research: Oral Biology and Pathology
2-4 credits

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

HD 500 DENTL MEDICNE I FALL

DENTL MEDICNE I FALL
0 credit, Letter graded (A, B, C, F)

HD 501 DENTL MEDICNE I SPRG

DENTL MEDICNE I SPRG
0 credit, Letter graded (A, B, C, F)

HD 502 DENTL MEDICNE I SUMR

DENTL MEDICNE I SUMR
0 credit, Letter graded (A, B, C, F)

HD 600 DENTL MEDCNE II FALL

DENTL MEDCNE II FALL
0 credit, Letter graded (A, B, C, F)

HD 601 DENTL MEDCNE II SPRG

DENTL MEDCNE II SPRG
0 credit, Letter graded (A, B, C, F)

HD 602 DENTL MEDCNE II SUMR

DENTL MEDCNE II SUMR
0 credit, S/U grading

HD 700 DENTLMEDCNE III FALL

DENTLMEDCNE III FALL
0 credit, Letter graded (A, B, C, F)

HD 701 DENTLMEDCNE III SPRG

DENTLMEDCNE III SPRG
0 credit, Letter graded (A, B, C, F)

HD 702 DENTLMEDCNE III SUMR

DENTLMEDCNE III SUMR
0 credit, Letter graded (A, B, C, F)

HD 800 DENTL MEDCNE IV FALL

DENTLMEDCNE III FALL
0 credit, S/U grading

HD 801 DENTL MEDCNE IV SPRG

DENTL MEDCNE IV SPRG
0 credit, S/U grading

HD 802 DEN MED CLN TUTOR IV

DEN MED CLN TUTOR IV
0 credit, S/U grading

HD 803 DENTAL STUDIES

Dental Medicine Clinical Tutorial continued
1-12 credits, S/U grading

HD 805 Summer Research

Continuation of Year II Research Selective
0 credit, S/U grading

HD 900 FALL SEMESTER V *HR

FALL SEMESTER V *HR
0 credit, S/U grading

HD 902 Summer Semester V

Summer Semester V
0 credit, S/U grading

HDC**HDC 601 Children's Dentistry I**

This course offers an introduction to pediatric dentistry 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, (A, B, C, F) Grading

HDC 621 Year II Children's Dentistry Clinic

Provides clinical experience for the preventive, interceptive, corrective, operative, surgical treatment of children. Faculty supervision.
0 credit, (A, B, C, F) Grading

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 and trauma management. Prerequisite: HDC 601
0 credit, (A, B, C, F) Grading

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 and advanced behavior management. Prerequisite: HDC 621
0 credit, (A, B, C, F) Grading

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, U/S/H grading

HDE**HDE 540 Year I Summer Session DC****HDE 541 Year 1 Fall Session N****HDE 542 Year 1 Spring Session T****HDE 543 Year I Summer Session 0****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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

HDE 640 Year II Summer Session DC

0 credit, (A, B, C, F) Grading

HDE 641 Year 2 Fall Session N

0 credit, (A, B, C, F) Grading

HDE 642 Year 2 Spring Session T

0 credit, (A, B, C, F) Grading

HDE 643 Year II Summer Session O

0 credit, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

HDG 505 Clinic I

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, S/U grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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. 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, (A, B, C, F) Grading

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.

0 credit, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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.

0 credit, (A, B, C, F) Grading

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, (A, B, C, F) Grading

HDG 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, (A, B, C, F) Grading

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.

0 credit, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

HDG 805 Care of Medically Complex and Geriatric Patients

The didactic and clinical components of the Year IV course Care for the Medically Complex 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, (A, B, C, F) Grading

HDG 808 Year IV Geriatrics Elective - Geriatrics

This elective will provide students with unique interprofessional educational experiences focusing on health promotion and disease prevention in medically complex and geriatric patients. Interprofessional student team triads (DDS/NP/SW) will utilize a patient-centered approach to collaboratively assess patient's oral health, clinical prevention and social service needs, and develop a coordinated plan of care with supervision of IPE clinical faculty (DDS/NP/SW). They will incorporate the USPSTF evidence-based recommendations for clinical preventive services by utilizing the Electronic Preventive Services Selector (ePSS); an application designed to provide primary care clinicians timely decision support regarding appropriate screening, counseling, and preventive services, taking into account patient characteristics (age, gender) and behavioral risk factors. 0 credit, (A, B, C, F) Grading

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. 0 credit, U/S/H Grading

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. 0 credit, U/S/H Grading

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, U/S/H Grading

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, Letter graded (A, B, C, F)

HDI 502 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, version for implementation in 2013). The course will constitute 16 hours and will feature interactive lectures and small group discussion seminars.

0 credit, Letter graded (A, B, C, F)

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, Letter graded (A, B, C, F)

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, B, C, F)

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, Letter graded (A, B, C, F)

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, Letter graded (A, B, C, F)

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, B, C, F)

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, B, C, F)

HDI 631 Off-site Clerkship

0 credit, Letter graded (A, B, C, F)

HDI 702 Diagnosis and Management of Oro-Facial Pain

This course is designed to present information regarding the diagnosis and management of Orofacial Pain and Temporomandibular Disorders. The course will consist of a series of lectures and case presentations. The information provided in this course will allow the student to understand the dentist's role in managing simple and complex orofacial pain problems. The area of temporomandibular disorders will be emphasized since the dentist plays a major role in managing these pain disorders.

0 credit, Letter graded (A, B, C, F)

HDI 703 Implantology

A comprehensive didactic course that provides a solid foundation for the student in this new discipline of dental implantology. 29 course hours.

0 credit, Letter graded (A, B, C, F)

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 lecturers 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, Letter graded (A, B, C, F)

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, B, C, F)

HDI 707 Radiology Selective

The student will participate in performing basic acquisition and primary processing of cone-beam CT studies under appropriate supervision. Describe major findings and construct a consistent imaging diagnosis based on a cone-beam CT study. Recognize a selection of more subtle appearances of pathology and normal anatomic variants as apparent in case conference cases; discuss major findings and trends in the current scientific literature in oral and maxillofacial imaging.

0 credit, Letter graded (A, B, C, F)

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, B, C, F)

HDI 802 Community I: Population, Oral Health and Epidemiology

This course provides an introduction to public health and the relationship of dentistry to the health care industry in the United States. A global perspective will be presented so that students can understand the epidemiology of oral diseases in the United States as compared to other countries. The social and community context of healthcare will be presented utilizing the principles of public health so that students will be able to assess the needs of their patients and their communities.

0 credit, Letter graded (A, B, C, F)

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 831 Off-site Clerkship

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, B, C, F)

HDI 840 Year IV Children's Dentistry Selective

Clinical observation and self-study experience to gain an understanding of the operations of the CFCP 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 841 Year IV Dental Anesthesiology Selective

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

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, B, C, F)

HDO 501 Oral Biology I

Oral Biology is taught in Years I, II and III and is divided into 7 Units. In Year I there are 2 Units: Unit I (Development of the Face/Oral tissues and tooth histology and pathology) and Unit 2 (Bone Biology and Pathology).
0 credit, Letter graded (A, B, C, F)

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, B, C, F)

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, B, C, F)

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.

Please note that this may be taken twice for a total of 4 credits.
2 credits, Letter graded (A, B, C, F)

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, B, C, F)

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, B, C, F)

HDO 533 Regional Anatomy, Orofacial Neuroscience and Pain Control

This course includes a series of lectures and discussions dealing with head and neck gross anatomy and microanatomy and biochemistry of orofacial pain. It will provide an in-depth understanding of the underlying neuroanatomy and biochemical events leading to the perception of acute and chronic orofacial pain.
2 credits, Letter graded (A, B, C, F)

HDO 534 Research Design and Biostatistics

This course aims to improve the understanding of basic research methods and statistical concepts and principles and introduce some fundamental statistical tools, in the context of oral health research. The first part of this course covers basic assumptions and concepts of clinical and biomedical research, research methodologies, critical thinking, and evidence based dentistry. Residents will develop the skills needed to recognize the quality of the scientific evidence and the quality of various publications, the ability to conduct an evidence-based analysis of the literature, and the ability to present an evidence-based presentation on a controversial topic related to dentistry. The components of a research proposal and the basic elements of compliance will be discussed. The second part of the course covers concepts from statistics such as: summarizing, organizing, and presenting different types of sample data; simple probability; discrete and continuous probability distributions such as the Binomial and Normal distributions; the mean and variance of a probability distribution; sampling distributions; hypothesis testing; statistical significance;

confidence intervals; non-parametric techniques; ANOVA; correlation and regression; categorical data analysis, tests for proportions, and Chi-Squared tests. Students will apply the techniques learned in class on a given data set, where they will analyze the data and perform statistical testing. The third part of the course students will discuss and evaluate the statistical methods used in relevant papers as well as in proposed students projects.

1 credit, S/U grading

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. Prerequisites: Permission of instructor required; HBP 531 suggested; students must have had a background in cellular biochemistry molecular biology. Fall and Spring, 2 credits, Letter graded (A, B, C, F)

HDO 540 Research Design and Laboratory Techniques Biomedical

This course aims to introduce theoretical principles and experimental techniques used for laboratory investigation in biomedical research. Students will familiarize themselves with the instrumentation and techniques used to investigate different molecular and cell biological problems through a combination of lectures and demonstrations. Various topics will be covered such as tissue culture and isolation and characterization of DNA, RNA and proteins using various techniques. Students will be introduced to recombinant DNA technology including cloning in various non-viral and viral vectors that allow modulation of gene expression. Transgenic mice technology and Cre-lox system and gene editing technologies will be introduced. In addition, the use of mass spectrometry, microarray and DNA deep sequencing to understand biological processes will be discussed..

3 credits, Letter graded (A, B, C, F)

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, B, C, F)

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, B, C, F)

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, B, C, F)

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, B, C, F)

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, B, C, F)

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, B, C, F)

HDO 599 Graduate Research

Original investigations undertaken with supervision of a faculty member.

1-12 credits, Letter graded (A, B, C, F)

HDO 601 Oral Biology II

Year II Oral Biology is a continuation of Year 1 oral biology concepts with an additional four units.

0 credit, Letter graded (A, B, C, F)

HDO 690 Oral Biology and Pathology Seminar

Research seminars by students, staff, and visiting scientists which may include review of current literature and presentation of student research. Prerequisite: Enrollment in the MS or PhD program in Oral Biology and Pathology. Fall and Spring. 1 credit, Letter graded (S/U) May be repeated for credit.
1 credit

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, B, C, F)

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, B, C, F)

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, B, C, F)

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, B, C, F)

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, B, C, F)

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, B, C, F)

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, B, C, F)

HDO 805 Summer Research

SUMMER RESEARCH
0 credit, S/U grading

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, B, C, F)

HDP 540 Year I Summer Session DC

0 credit, Letter graded (A, B, C, F)

HDP 541 Year 1 Fall Session N

0 credit, Letter graded (A, B, C, F)

HDP 542 Year 1 Spring Session T

0 credit, Letter graded (A, B, C, F)

HDP 543 Year I Summer Session 0

0 credit, Letter graded (A, B, C, F)

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 knowledge and skills acquired include the ability to obtain data necessary to formulate a periodontal diagnosis, diagnose periodontal diseases including gingivitis, Stage I, Stage II, Stage III and Stage IV periodontitis, develop an individual, comprehensive, sequenced treatment plan using diagnostic and prognostic information which also incorporates patient's goals, values, and concerns, and provide patient education regarding preventive oral health procedures. Non-surgical treatments of periodontal disease including scaling and root planing (hand and ultrasonic instrumentation), and utilization of antimicrobial rinses and local drug delivery are reviewed using lectures, video clips, laboratory, and clinical exercises. Lectures utilize 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: 1) Periodontal Health, Gingival Diseases and Conditions, 2) Periodontitis, 3) Other Conditions Affecting the Periodontium, 4) Peri-Implant Diseases and Conditions. Topics reviewed include: Dental Biofilm-Induced Gingivitis and Non-Dental Biofilm-Induced Gingivitis, Periodontitis, Periodontitis as a Manifestation of Systemic Disease, and Systemic diseases or conditions affecting the periodontal supporting tissues. The role of occlusion with regard to periodontitis is discussed. 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 clinical case presentations. All aspects of patient evaluation, diagnosis, prognosis and treatment planning will be included in the presentation.

0 credit, Letter graded (A, B, C, F)

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, B, C, F)

HDP 640 Year II Summer Session DC

0 credit, Letter graded (A, B, C, F)

HDP 641 Year 2 Fall Session N

0 credit, Letter graded (A, B, C, F)

HDP 642 Year 2 Spring Session T

0 credit, Letter graded (A, B, C, F)

HDP 643 Year II Summer Session O

0 credit, Letter graded (A, B, C, F)

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, B, C, F)

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, B, C, F)

HDP 721 Year III Periodontics Clinic

Emphasizes the application of knowledge in the treatment of patients with advanced disease.

0 credit, Letter graded U/S/H Grading

HDP 740 Year III Summer Session DC

0 credit, Letter graded (A, B, C, F)

HDP 741 Year 3 Fall Session N

0 credit, Letter graded (A, B, C, F)

HDP 742 Year 3 Spring Session T

0 credit, Letter graded (A, B, C, F)

HDP 743 Year III Summer Session O

0 credit, Letter graded (A, B, C, F)

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 U/S/H

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 U/S/H

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 operatory 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, (A, B, C, F) Grading

HDR 540 Year I Summer Session DC

SUMMER II: YEAR I
6 credits, S/U grading

HDR 541 Year 1 Fall Session N

6 credits, S/U grading

HDR 542 Year 1 Spring Session T

6 credits, S/U grading

HDR 543 Year I Summer Session 0

6 credits, S/U grading

HDR 606 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.

0 credit, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

HDR 640 Year II Summer Session DC

0 credit, (A, B, C, F) Grading

HDR 641 Year 2 Fall Session N

0 credit, (A, B, C, F) Grading

HDR 642 Year 2 Spring Session T

0 credit, (A, B, C, F) Grading

HDR 643 Year II Summer Session 0

0 credit, (A, B, C, F) Grading

HDR 707 COMPREHENSIVE PROSTHODONTICS

Didactic instruction in clinical applications of removable and fixed 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. Instruction will include evidence-based recall and maintenance of fixed and removable prostheses.

0 credit, (A, B, C, F) Grading

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.

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, U/S/H

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, U/S/H

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.

0 credit, U/S/H

HDR 740 Year III Summer Session DC

0 credit, (A, B, C, F) Grading

HDR 741 Year 3 Fall Session N

0 credit, (A, B, C, F) Grading

HDR 742 Year 3 Spring Session T

0 credit, (A, B, C, F) Grading

HDR 743 Year III Summer Session 0

0 credit, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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.

0 credit, (A, B, C, F) Grading

HDR 807 Advanced Removable Prosthodontics

In Year IV, additional didactic instruction in clinical applications of prosthodontics. These sessions 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.

0 credit, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, U/S/H Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, (A, B, C, F) Grading

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, alveoloplasty, 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, U/S/H Grading

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, U/S/H Grading

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

Every plate of food around the world tells a story. Is there sufficient nutrition? How far has the food traveled? Who can afford it? Will the food promote health or chronic disease? Which multi-national corporation delivered it? This online course explores why food matters and how our food choices impact the planet. We will travel around the world examining food security, hunger and malnutrition, food waste, agricultural practices, economic challenges and environmental concerns including climate change. Students will gain the ability to evaluate local and global food issues through case studies worldwide. Course materials will draw on published research and popular media. Assignments will be shaped by the student's academic and professional interests.

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 including topics that impact nutrition recommendations for patients. Course material will also include trends in health care organizations as it relates to food and nutrition service delivery. Students will explore how these trends may shape patient perceptions of favorable and unfavorable dietary choices, as well as food availability via market trends. 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 526 The Nuts and Bolts of Planning, Monitoring, Evaluating and Funding Nutrition Policies & Programs

This online course prepares students to advance population health by theorizing a nutrition or food related policy or program promoting sustainable food systems, and to develop

the skills necessary to operationalize such a policy or program. Students will use logic models to conceptualize the policy or program, and develop in-depth monitoring and evaluation strategies. In addition, students will learn to coordinate program planning with budget development so as to create realistic programs. Lastly, students will learn how to display data and seek funding to facilitate initial or continued implementation, or to further policy development. Prerequisite: HFN 502 or HFN 525
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 541 Critical Care and Nutrition Support

This online course will explore the role and impact of medical nutrition therapy in the critical care setting and its influence on patient outcomes. This will include the assessment of specific patient-populations such as acute respiratory distress syndrome (ARDS), burns, continuous veno-venous hemodialysis (CVVHD), sedated/intubated patients, and traumatic brain injuries (TBI). The impact of preoperative, perioperative, and postoperative feeding strategies will be discussed as well as potential pros and cons of immune enhancing supplements. Prerequisite: HFN 516
3 credits, Letter graded (A, A-, B+, etc.)

HFN 542 Advanced Pediatric and Neonatal Support

This online course will explore the nutrition needs of infants, children, and adolescents with an in-depth examination of medical nutrition therapy for select pediatric and neonatal diseases and chronic illnesses. Special emphasis will be placed on growth and development, pediatric nutrition assessment, and the effect of chronic and acute illnesses on the nutritional status and health outcomes of infants, children and adolescents. This course is designed to reinforce the fundamentals of nutrition and to build competence in the area of nutrition assessment, monitoring, and evaluation of nutritional status with in the pediatric populations, including neonates. Prerequisite: HFN 516
3 credits, Letter graded (A, A-, B+, etc.)

HFN 551 Evidence-Based Concepts in Integrative Nutrition

This online course will explore the underlying concepts of integrative nutrition, the practice of providing individualized

medical nutrition therapy to optimize health, and treat complex chronic illnesses, through food and the judicious use of supplements. Such discussion will build on prior coursework, especially Macronutrients and Metabolic Regulation and Micronutrients and Functional Nutrition, to explore how nutrition can modulate major systems and functions including the gastrointestinal system, the immune system, the central nervous system, detoxification, oxidation and inflammation. Prerequisite: HFN 512, 514
3 credits, Letter graded (A, A-, B+, etc.)

HFN 552 Case-Based Approaches to Integrative Nutrition Therapy

During this online course students will apply the concepts of integrative nutrition, as well as material in other clinically relevant courses, to a variety of complex clinical cases. Case study assignments will include detailed assessment strategies and care plans to include dietary intake and supplementation, as well as appropriate monitoring and evaluation techniques. Prerequisite: HFN 551
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

HFN 580 Practical Applications (3 credits) Students enrolled in this online course will have the opportunity to choose between three types of culminating projects: a research paper addressing a clinical question, a continuous quality improvement project addressing a clinical question or practice or a practicum project. Students will work with a faculty mentor who will supervise and guide the student as they select their project and topic and progress through the semester. Students may also seek an onsite agency mentor if utilizing their worksite to complete a CQI project, but will be responsible to provide all requested information to their assigned faculty mentor who will ultimately recommend a grade. (Only for those matriculated in program code HFNMZ) (Prerequisite: completion of 27 credits inclusive of 575; Prerequisite/Co-Requisite: HFN 578)
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.)

HFN 583 Professional Applications in Nutrition Care

This online course will prepare students to advance the field of clinical nutrition by developing, implementing and evaluating high quality clinical nutrition therapies and services, through the following: execution of continuous quality improvement projects, development of innovative nutrition care plans through case studies of complex patient cases, business plans for clinical services, and/or presentations of the critical analysis of the research literature. By permission only.
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

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 methods, 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.)

HHS**HHS 510 Aphasia and Related Disorders**

Provides current theory and practice in the identification, assessment, and intervention of aphasia in adults. Includes the anatomy, neuropathology and the cognitive and communication characteristics associated with different types of aphasias and Right Hemisphere Syndrome. Covers evidence-based practices in the assessment and intervention, multicultural issues during service delivery, patient and family

education, and client advocacy. Students will learn how to translate research into clinical practice.
3 credits, Letter graded (A, A-, B+, etc.)

HHS 511 Cognitive Communication Disorders

Provides information about the assessment and intervention of cognitive communication disorders, including traumatic brain injury, primary progressive aphasia and dementia. Discusses evaluating and treating cognition, including attention, memory and executive function skills. Discusses evidence based practice for assessment and intervention with a focus on The World Health Organization's International Classification of Functioning, Disability, and Health model. Opportunities will be available for interprofessional practice and discussion about multicultural service delivery, partner/family education and challenges that clinicians face in today's healthcare system.
1 credit, Letter graded (A, A-, B+, etc.)

HHS 512 Neuroscience in Communication Sciences and Disorders

Covers the neuroanatomy and neurophysiology of the speech, language, hearing, and swallowing mechanism. This intensive neuroscience course includes neuroanatomical dissections, lectures, and clinical problem solving. Requires students to conduct a cranial nerve exam examining the cranial nerves responsible for speech and swallowing with a client diagnosed with a communication or swallowing disorder. Uses team-based and problem-based learning in the classroom to help students apply their theoretical knowledge into clinical practice.
3 credits, Letter graded (A, A-, B+, etc.)

HHS 513 Adult Dysphagia

Examines the anatomy and physiology of normal and disordered swallowing in the adult population. Includes assessment and intervention of swallowing disorders; etiologies of swallowing disorders; working with tracheotomy/ventilator dependent populations; ethical considerations; documentation; insurance coverage; importance of client advocacy; and education of family and other professionals. Students will refine their skills through case scenarios, role-playing situations, interprofessional education and interprofessional practice. Prerequisites: Completion of Year One Fall Courses
3 credits, Letter graded (A, A-, B+, etc.)

HHS 514 Neuromotor Speech Disorders

Covers the etiology, assessment and intervention of motor speech disorders secondary to developmental or acquired central and/or peripheral damage to the nervous system of adults and children. Includes the identification and differentiation of various motor speech disorders secondary to neurological injury. Discusses best practice in assessment and intervention with an emphasis on evidence-based practice, ethical case studies, functional treatment outcomes, importance of interprofessional education, and client advocacy. Students will observe in the ALS team clinic at Stony Brook University Hospital.
3 credits, Letter graded (A, A-, B+, etc.)

HHS 520 Preschool Child Language Disorders

Examines the theories of language development, evidence-based practice assessment and intervention of language delays/disorders in preschool children, multicultural service delivery, treatment advocacy and outreach, designing intervention plans, establishing and maintaining collaborative relationships, and the role of family in the intervention process. Students will apply their theoretical knowledge to clinical practice by eliciting a language sample from a preschool child.
3 credits, Letter graded (A, A-, B+, etc.)

HHS 521 Speech Sound Disorders

Covers articulation and phonological development, theories of development, and disorders in children. Discusses best practice in assessment and intervention with an emphasis on evidence-based practice, language difference versus disorder, multicultural issues in service delivery, and phonological awareness. Students will apply theory into clinical practice by completing a speech sample assignment with a child diagnosed with a speech sound disorder.
3 credits, Letter graded (A, A-, B+, etc.)

HHS 522 Early Intervention in Speech-Language Pathology

Includes information about the normal development of feeding/oral-motor skills and its relation to overall motor development. Discusses feeding, craniofacial syndromes and disorders. Students will observe a session at the Cleft Palate - Craniofacial Center. Discusses information about clinical practice in early intervention, caregiver training, multicultural issues in service delivery, and counseling of families. Includes discussion about evidence-based practice approaches to assessment and intervention of children who are medically fragile and how to best facilitate communication and feeding with these children.
3 credits, Letter graded (A, A-, B+, etc.)

HHS 523 Language and Literacy Disorders in School-Age Children and Adolescents

Provides an overview about school-age and adolescent language and literacy disorders. Covers models of language and reading development. Discusses evidence-based practice assessment and intervention of oral and written language disorders in school-age children and adolescents, multicultural service delivery, treatment advocacy and outreach, designing intervention plans accounting for Common State Core Standards and Response to Intervention (RTI), and providing therapy services to children in schools. Students will apply their theoretical knowledge to clinical practice by eliciting narrative samples from a school-age child.
3 credits, Letter graded (A, A-, B+, etc.)

HHS 524 Autism and Social Communication Disorders

Reviews current research about speech-language, cognitive, and social communication aspects of Autism Spectrum Disorders. Discusses possible theories of ASD, the diagnostic criteria used to identify these children, best practices in

assessment and intervention. Focuses on the role of families in the assessment and intervention process, using effective intervention strategies, and collaborative and interdisciplinary models of service delivery for children diagnosed with Autism and social communication disorders.

2 credits, Letter graded (A, A-, B+, etc.)

HHS 526 Foundations of Teaching English Language Arts to Bilingual Language Learners

Provides the students with an understanding of methods of teaching English language arts to bilingual English language learners, including literacy for meeting the State learning standards for students. This is a required course for students who wish to obtain a Bilingual Extension in any registered and approved Base Certification Program. There is a requirement of 25 hours of field experience dedicated to observations and paraprofessional authentic activities.

3 credits, Letter graded (A, A-, B+, etc.)

HHS 530 Voice and Resonance Disorders & Instrumentation

Provides a thorough understanding of physical, physiological and pedagogical principles in understanding professional and nonprofessional impaired voice production in children and adults. Discusses vocal anatomy, voice classification, and us of instrumentation for assessment and intervention. Provides information about evidence-based practices in assessment and intervention, multicultural issues, and client advocacy. Students will integrate their theoretical skills with clinical practice by engaging in real life scenarios and case studies.

3 credits, Letter graded (A, A-, B+, etc.)

HHS 531 Fluency Disorders

Provides the theoretical knowledge about the nature and possible etiologies of fluency disorders, and evidence-based practice assessment and intervention in the preschool, school-age, adolescent and adult populations. Emphasizes working with family and friends of persons who stutter. At the culmination of the course, students will complete a diagnostic evaluation and an intervention plan of a person with a fluency disorders.

2 credits, Letter graded (A, A-, B+, etc.)

HHS 532 Aural Rehabilitation

Provides information and strategies for aural habilitation/rehabilitation with children and adults. Topics include hearing aids, cochlear implants, assistive technology, speech reading, auditory training, listening skills impacted by hearing loss, deafness, auditory processing disorders and communication strategies and counseling techniques. Students will develop an intervention plan based on communication skills and needs of the individual and learn about collaborating as part of multidisciplinary teams.

2 credits, Letter graded (A, A-, B+, etc.)

HHS 533 Augmentative and Alternative Communication

Examines the design, selection, and use of augmentative and alternative methods of communication. Addresses the

populations for which they are appropriate, and issues related to the prevention, assessment and intervention of persons using augmentative and alternative methods and devices, client advocacy, and service delivery models. Students will also learn about incorporating evidence-based practices and multicultural services delivery in assessment and intervention.

2 credits, Letter graded (A, A-, B+, etc.)

HHS 536 Seminar in Medical Speech-Language Pathology

Prepares students to provide evidence-based practice assessment and intervention with patients in a medical setting. Students will apply ethical and professional practice skills during problem-based and team-based case studies. Topics include: identifying the role of the SLP as a member of the rehabilitation team in healthcare, identifying pertinent background information and applying the information in making decisions about the patient's communication and swallowing function, creating functional treatment plans, and interprofessional education and practice. Students will also participate in neurology grand rounds.

1 credit, Letter graded (A, A-, B+, etc.)

HHS 537 Seminar in Professional, Ethical and Multicultural Issues in Communication Sciences and Disorders

Covers an overview of the policies of the graduate program in Speech-Language Pathology and current issues and procedures related to the clinical practice of speech-language pathology. Topics include knowledge and skills related to professional ethics, SLPs in different work settings, documentation, confidentiality, mandatory reporting of abuse, regulations and requirements for professional practice, cultural considerations for studying, assessing and treating communication and swallowing disorders in culturally and linguistically diverse (CLD) populations, knowledge and skills related to certification and licensure, employment seeking skills, cultural linguistic diversity, clinical fellowship, and information about ASHA and its role in the profession.

2 credits, Letter graded (A, A-, B+, etc.)

HHS 539 Seminar in Counseling

Provides an overview about counseling in speech-language pathology, specifically in interdisciplinary and collaborative healthcare and educational settings. Covers the role of the speech-language pathologist in the counseling process, contemporary counseling issues, models of counseling, multicultural issues and advocacy during prevention and wellness, screening, assessment and treatment in different service areas. Incorporates case studies and team-based learning.

1 credit, Letter graded (A, A-, B+, etc.)

HHS 540 Foundations of Clinical Practice

Provides the students with a thorough understanding of the assessment and therapy principles, methods and procedures in speech-language pathology. Topics include Health Insurance Portability and Accountability Act (HIPPA), universal precautions, CALIPSO, writing behavioral objectives, session plans, progress notes, individual and group therapy,

data accountability and recording, and teaching strategies. Students will attain 25 hours of supervised clinical observation if they did not attain at the undergraduate level. Corequisite: HHS 581
2 credits, Letter graded (A, A-, B+, etc.)

HHS 542 Clinical Concepts in Audiology

Provides knowledge and skills necessary to perform the responsibilities as outlined in the scope of practice of the speech-language pathologist. Discusses pure tone screenings, otoscopic inspection, tympanometry screening, listening checks for hearing aids, multicultural screening considerations, and counseling patient/family.
2 credits, Letter graded (A, A-, B+, etc.)

HHS 544 Diagnostics in Speech-Language Pathology

Covers principles and methods of evidence-based practice assessment of a variety of communication and swallowing disorders across the lifespan. Includes analyzing and interpreting testing data, designing functional intervention plans based on the results, reporting assessment results to clients, family, and other professionals working in educational and health related fields, teaching students to be critical consumers of assessment materials, client advocacy and outreach, and professional ethics and practice. Students will engage in team-based and problem-based learning experiences. Students will acquire experience writing the different sections of a diagnostic report. Corequisite: HHS This course is taken concurrently with HHS 587
2 credits, Letter graded (A, A-, B+, etc.)

HHS 546 Speech Language Pathology in Schools

Covers the role of the speech-language pathologist in the school setting, models of service delivery, historical and legal foundations of education, scheduling, individualized education planning, multicultural service delivery, importance of collaboration and consultation, Common Core Standards, managing the educational environment to maximize communication opportunities, and communication with family and professionals. Describes models and theories of typical and atypical growth and behavior across age groups, and philosophies that provide the foundation for research-based special education practice.
3 credits, Letter graded (A, A-, B+, etc.)

HHS 551 Research Methods and Resources in Communication Sciences and Disorders

Teaches students to be critical consumers of different types of research in the field of communication sciences and disorders. Topics include research designs; accessing and assessing articles in journals; using Refworks; creating an annotated bibliography; ethics in research; Institutional Review Board; Evidence-Based Practice in communication disorders; HIPAA; and constructing a presentation/professional poster. Students will be required to write a research proposal including a research question, theoretical position, supportive literature review, and methodology.
2 credits, Letter graded (A, A-, B+, etc.)

HHS 572 Speech and Language Pathology in the Schools Clinical

Required clinical/seminar for students pursuing their TSSLD certification. Students will complete 150 clock hours of supervised clinical practice in a school setting. Seminar will meet once weekly and allow students to discuss evidence-based practice assessment and intervention in the school setting, models of service delivery, multicultural diversity, advocacy and outreach, classroom management, NYS Standards, educating family, collaboration with professionals, and reflect about their clinical experiences.
4 credits, Letter graded (A, A-, B+, etc.)

HHS 574 Speech and Language Pathology in the Schools Bilingual Clinical

Required clinical/seminar for students pursuing their Bilingual Extension certification. Students are required to complete 150 clock hours (50 hours with bilingual population) of supervised clinical practice in a bilingual school setting. There will be a seminar which will meet once weekly and allow students to discuss evidence-based practice assessment and intervention in the school setting, models of service delivery, multicultural diversity, advocacy and outreach, classroom management, NYS Standards, educating family, collaboration with professionals, and reflect about their clinical experiences
4 credits, Letter graded (A, A-, B+, etc.)

HHS 581 Clinical I

Integrates information learned in concurrent speech-language pathology courses through real-life clinical experiences, classroom discussions and clinical simulations with other allied health professionals. Clinical clock hours will be obtained for real-life experiences and clinical simulations. Students will complete an evidence-based practice presentation to faculty and peers at the culmination of this course. Corequisite: HHS 540 Foundations of Clinical Practice
.5 credit, Letter graded (A, A-, B+, etc.)

HHS 582 Clinical II

Integrates information learned in previous and concurrent speech-language pathology courses through real-life clinical experiences and classroom discussions. Students will provide prevention, and evidence-based practice assessment and intervention services with adults and children. Clinical clock hours will be obtained for real-life experiences at clinical sites affiliated with Stony Brook University. Students will complete an evidence-based practice presentation to faculty and peers at the culmination of this course. Prerequisites: HHS 540 and HHS 581 (with a minimum grade of B)
1 credit, Letter graded (A, A-, B+, etc.)

HHS 583 Clinical III

Integrates information learned in previous and concurrent speech-language pathology courses through real-life clinical experiences and classroom discussions. Students will provide prevention and evidence-based practice assessment and intervention services with children and adults. Clinical clock hours will be obtained for real-life experiences at an outside placement. Students will complete an evidence-based practice presentation to faculty and peers at the culmination of this

course. Prerequisites: HHS 540, HHS 581, HHS 582 (with a minimum grade of B)
1.5 credits, Letter graded (A, A-, B+, etc.)

HHS 584 Clinical IV

Integrates information learned in previous and concurrent speech-language pathology courses through real-life clinical experiences and classroom discussions. Students will provide prevention, and evidence-based practice assessment and intervention services with children or adults. Clinical clock hours will be obtained for real-life experiences at an outside placement. Students will complete and evidence-based practice presentation to faculty and peers at the culmination of this course. Prerequisites: HHS 540, HHS 581, HHS 582, and HHS 583 (with a minimum grade of B).
3 credits, Letter graded (A, A-, B+, etc.)

HHS 585 Clinical V

Integrates information learned in previous and concurrent speech-language pathology courses through real-life clinical experiences and classroom discussions. Students will provide prevention and evidence-based practice assessment and intervention services with children or adults. Clinical clock hours will be obtained for real-life experiences at an outside placement. Students will complete an evidence-based practice presentation to faculty and peers at the culmination of this course. Prerequisites: HHS 540, HHS 581, HHS 582, and HHS 583 (with a minimum grade of B). NOTE: This course required clinical for students not completing the TSSLD or TSSLD with Bilingual Extension. Foundations of Clinical Practice, Clinical I, Clinical II, Clinical III, and Clinical IV are pre-requisites for this course.
3 credits, Letter graded (A, A-, B+, etc.)

HHS 586 Audiology Clinical

Provides practical skills necessary to perform the responsibilities as outlined in the scope of practice of the speech-language pathologist. Students will gain hands-on experience performing pure tone screenings, otoscopic inspection, tympanometry screenings, listening checks for hearing aids, and making referrals to audiologists. Corequisite: HHS 542
.5 credit, Letter graded (A, A-, B+, etc.)

HHS 587 Diagnostics in Speech-Language Pathology Clinical

Students will provide evidence-based practice assessment with children and adults diagnosed with communication and swallowing disorders. Students will be selecting and administering evaluation procedures, adapting evaluation procedures, interpreting and synthesizing information to determine diagnoses, considering multicultural service delivery and treatment advocacy and outreach, designing intervention plans, establishing and maintain collaborative relationships, making appropriate referrals and recommendations, providing counseling and education to patients/family and other professionals, writing diagnostic reports, and adhering to the ASHA Code of Ethics. Corequisite: HHS 544
.5 credit, Letter graded (A, A-, B+, etc.)

HHS 594 Capstone Project in Speech-Language Pathology and Praxis Examination Preparation

This hybrid course will cover the nine ASHA areas of specialty, including speech sound disorders; child language/literacy disorder; adult language/neurological disorders; voice disorders; fluency disorders; augmentative and alternative communication; dysphagia; research methods; and cultural aspects of communication disorders. Discusses basic human communication; audiology/hearing; counseling; professional issues; and research. Provides necessary tools to prepare and present a professional poster illustrating students' research study. Students will write a research paper summarizing their capstone project for submission to a journal or for a professional presentation.
2 credits, Letter graded (A, A-, B+, etc.)

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 Medical Students (Spring) January - June.

Second Year Medical Students (Spring) January - June.
0 credit

HM 700 Third Year Medicine (Fall) July - December

Third Year Medicine (Fall) July - December.
0 credit

HM 701 Third Year Medicine (Spring) January - June

First term as a Third year medical students (Spring) January - June
0 credit

HM 800 Fourth Year Medicine (Fall) July - December

Fourth Year Medicine (Fall) July - December.
0 credit

HM 801 Fourth Year Medicine (Spring) January - May

First term Fourth year medical students (Spring) January - May

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

HMA**HMA 500 First Year 3-Year Medicine (Fall)**

First Year 3-Year Medicine Students (Fall) July - December
0 credit

HMA 501 First Year 3-Year Medicine (Spring)

First Year 3-Year Medicine Students (Spring) January - June
0 credit

HMA 600 Second Year 3-Year Medicine (Fall)

Second Year 3-Year Medicine Students (Fall) July - December
0 credit

HMA 601 Second Year 3-Year Medicine (Spring)

Second Year 3-Year Medicine Students (Spring) January - June
0 credit

HMA 700 Third Year 3-Year Medicine (Fall)

Third Year 3-Year Medicine Students (Fall) July - December
0 credit

HMA 701 Third Year 3-Year Medicine (Spring)

Third Year 3-Year Medicine (Spring) January - May
0 credit

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 spritual dimensions of the clinical enounter; 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

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: A Capstone Experience for RN to BS Students

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
0-5 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 the 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 plan and present a proposed evidence-based quality improvement project to address a 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 plan and present a proposed evidence-based quality improvement project to address a 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. Prerequisite: Submission of an approved Clinical Practice Portfolio Assessment.

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

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 490 Professional & Ethical Communication in Digital Era

This course will explore the professional and ethical issues facing nurses who communicate through online workplace and social media platforms in accordance with Nursing: Scope and Standard of Practice (ANA, 2015), The Essentials of Baccalaureate Education for Professional Nursing Practice (AACN, 2008), and QSEN Competencies (2005).

1 credit

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 496 Working Together: Interprofessional Conversations-Cultural Diversity, Patient Safety, and Quality Care

This elective course explores theoretical frameworks and core competencies related to interprofessional collaborative practice, leading to effective communication, culturally sensitive care, improved patient safety, and quality care. Professional roles and responsibilities are emphasized through relationship-building, team dynamics, and communication concepts taught by faculty across disciplines. Cultural awareness and sensitivity are emphasized. Effective team performance in the planning, delivery, and evaluation of patient/population-centered care is

appraised through the use of simulation and the completion of a root cause analysis (RCA).
2 credits

HNC 497 Introduction to Genetics and Genomics in Nursing

This course will introduce the student to genetics and genomics in relationship to health care screening, treatment, prevention and privacy in accordance with Nursing: Scope and Standard Practice (ANA, 2015), The Essentials of Baccalaureate Education for Professional Nursing Practice (AACN, 2008), and QSEN Competencies (2005).
1 credit

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 explore concepts, frameworks, models, and theory as a foundation for guiding nursing practice, research, education, and other applied science scholarship.
3 credits, Letter graded (A, A-, B+, etc.)

HND 615 Genomics

This course will explore the role of genetic factors in the, causation, treatment, and prevention of human disease. Emphasis will be placed on translation of genetic discoveries into interventions which improve health outcomes.
3 credits, Letter graded (A, A-, B+, etc.)

HND 625 Health Care Policy and Social Justice

This course will explore the interface among federal, state and local governments, from a historical to a contemporary perspective, relative to social determinants of health. Emphasis will be placed on correlating components of healthcare to health policy, fiscal implications, access to care, and delivery of care.
3 credits, Letter graded (A, A-, B+, etc.)

HND 635 Biostatistics

This course will provide knowledge of statistical approaches used in health research and epidemiology. Emphasis will be placed on applying statistical methods to critically evaluate evidence used in clinical decision making.
3 credits, Letter graded (A, A-, B+, etc.)

HND 640 Principles of Epidemiology and Global Health

This course will provide a systematic and selective overview of conceptual approaches and research findings relative to epidemiology and the impact of social contexts on the global health of populations.
3 credits, Letter graded (A, A-, B+, etc.)

HND 645 Large Data Analyses

This course will provide an overview of real-world and healthcare data sets available at the federal, state, and local levels. Emphasis will be placed on the query of large data sets and developing analytical methods to answer research questions.
3 credits, Letter graded (A, A-, B+, etc.)

HND 647 Doctoral Research Seminar

This course will emphasize development of doctoral-level academic skills essential for establishing the scientific foundation of nursing practice and scholarship, and culminate in comprehensive review of select literature. Practice experiences will provide opportunities to acquire these and other competencies.
4 credits, Letter graded (A, A-, B+, etc.)

HND 650 Systems Theory

This course will provide knowledge and opportunities for identifying responsibilities inherent in the leadership role, opportunities for change, and strategies to improve and enhance health care delivery from a systems perspective.
3 credits, Letter graded (A, A-, B+, etc.)

HND 655 DNP Synthesis I

This course will emphasize methodology, and culminate in development of a proposal for a comprehensive doctoral-level project which seeks to advance health outcomes. Practice experiences will provide opportunities to acquire these and other competencies.
5 credits, Letter graded (A, A-, B+, etc.)

HND 665 DNP Synthesis II

This course will emphasize data collection and measurement, and culminate in the analysis of data from a comprehensive doctoral-level project which seeks to advance health outcomes. Practice experiences will provide opportunities to acquire these and other competencies. Required prerequisite: HND 655.
6 credits, Letter graded (A, A-, B+, etc.)

HND 670 Independent Studies

This elective course provides an opportunity to use advanced critical thinking and investigative skills to develop or refine specific competencies that support the advancement of

human health. Except for extraordinary circumstances, Independent Studies cannot replace courses for a degree.
Prerequisite: By permission of faculty.
0-4 credits, Letter graded (A, A-, B+, etc.)

HND 675 DNP Synthesis III

This course will emphasize scholarly presentation, and culminate in the synthesis and dissemination of results from a comprehensive doctoral-level project which seeks to advance health outcomes. Practice experiences will provide opportunities to acquire these and other competencies. Required prerequisite: HND 665.
6 credits, Letter graded (A, A-, B+, etc.)

HND 682 Doctor of Nursing Practice (DNP) Continuing Coursework

This elective course provides an opportunity to achieve program-essential requirements following a course-disrupting circumstance that is beyond the student's control
0-6 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: HNG 540 and HNG 588; Co-Requisite: HNG 515
3 credits, Letter graded (A, A-, B+, etc.)

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: HNG 540 and HNG 588; Co-Requisite: 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 placed 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 540, HNG 551, HNG 588
4 credits, Letter graded (A, A-, B+, etc.)

HNG 518 Advanced Theory and Clinical Practice in Pediatric Nursing Across the Continuum 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. Prerequisite: HNG 525

4 credits, Letter graded (A, A-, B+, etc.)

HNG 519 Advanced Theory and Clinical Practice in Adult-Gerontology Nursing Across the Continuum I

This course focuses on 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, 540, and 588
4 credits, Letter graded (A, A-, B+, etc.)

HNG 520 Pediatric Pathophysiology

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 517

4 credits, Letter graded (A, A-, B+, etc.)

HNG 528 Advanced Theory and Clinical Practice in Pediatric Nursing Across the Continuum 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

4 credits, Letter graded (A, A-, B+, etc.)

HNG 529 Advanced Theory and Clinical Practice in Adult-Gerontology Nursing Across the Continuum 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 527

5 credits, Letter graded (A, A-, B+, etc.)

HNG 538 Advanced Theory and Clinical Practice in Primary Care Pediatric Nursing I

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. Pre-requisites: HNG 528

5 credits, Letter graded (A, A-, B+, etc.)

HNG 539 Advanced Theory and Clinical Practice in Primary Care Adult-Gerontology Nursing I

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

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 537

5 credits, Letter graded (A, A-, B+, etc.)

HNG 548 Advanced Theory and Clinical Practice in Primary Care Pediatric Nursing II

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 Primary Care Adult-Gerontology Nursing II

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.

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. Co-requisite: HNG 587
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. 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 567 Evidence-Based Pract: Promoting Mentl Hlth Wellness

This course explores the current evidence surrounding societal mental health wellness. Students will select a topic of exploration and use the steps of evidence-based practice in the development of solutions to improve mental health outcomes throughout the lifespan. Pre-requisites: HNG 515, HNG 588, HNG 540, HNG 541
2 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 540, HNG 588
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. Prerequisite: HNG 572

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. Prerequisite: HNG 574

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. Prerequisites: HNG 513, HNG 522, and HNG 542

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. Prerequisite: HNG 578

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. Conceptual frameworks of wellness, health promotion, and disease prevention will be utilized. The course is designed to foster the effective use of communication strategies in documentation, client education, and patient advocacy. Effective coordination of care, integration of evidence-based practice, and the application of bioethical principles of care are emphasized. An introduction to clinical decision making, diagnosis, and the management of gynecologic and antenatal patients will be emphasized. This course develops the paradigm of family-centered, community-based health care, which respects multicultural traditions. Prerequisites: HNG 501, HNG 515, HNG 540, and HNG 588

HNG 582 Continuing Course Work

Continuing Course Work
0-5 credits, S/U grading

HNG 585 Midwifery II

This is the second of four sequential courses which builds upon the foundational concepts of clinical practice in midwifery. The focus of this course is to provide a comprehensive understanding of gynecology, maternal and fetal physiology, and antenatal care. The conceptual frameworks of health promotion, disease prevention are reinforced. The use of communication strategies and documentation principles are emphasized. This course

further understanding of family-centered, community-based, multicultural care across the lifespan. Pre-requisites: HNG 581
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
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.
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.
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. Prerequisites: HNG 515, HNG 540, HNG 588, HNH 510, HNH 511, and HNH 512

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 514

4 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 90 hours are required. Prerequisites: HNH 532 and HNH 540 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.)

HNH

HNH 290 Introduction to Nursing

This course is designed as an introduction to nursing for students who plan a career in nursing but are not yet enrolled in a school of nursing. The student will be oriented to the nature and scope of the profession of nursing and settings where nursing is practiced.
2 credits

HNH 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

HNH 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

HNH 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

HNH 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

HNH 310 Pathophysiology

This is a foundation course introducing the student to the basic mechanisms of disease and pathophysiology.
3 credits

HNH 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 pathophysiological 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 States. Emphasis is placed on the application of healthcare policy as it relates to the nurse's role as lobbyist, patient advocate, and professional change agent. The impact of specific policies and regulating agencies upon nursing practice is also examined. 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
0-5 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

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 the Undergraduate nursing student to understand Patient and Family Centered Care (PFCC) as a collaborative model of practice. Selected case studies are used to illustrate theoretical concepts, current clinical practices, and ethical dilemmas.

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 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

HPA

HPA 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. The course also identifies issues between management and the labor force. Prerequisite: HPH 529 or Departmental Permission

3 credits, Letter graded (A, A-, B+, etc.)

HPA 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. Decision making with regard to capital budgets and expenditures are reviewed. Co-requisite: HPH 529 or Departmental Permission

3 credits, Letter graded (A, A-, B+, etc.)

HPA 530 Health Operations Management

This online course 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. Students will receive exposure 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 the optional synchronous Zoom learning sessions, will be presented and discussed via a distance learning format (using Blackboard)

3 credits, Letter graded (A, A-, B+, etc.)

HPA 536 Health Law and Compliance

Explores the way in which legal matters relevant to health professionals are analyzed, discussed and resolved through the lens of policy, ethics, governance and law. 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; antitrust laws; fraud and abuse laws; and negligence in the delivery and financing of health care. Prerequisite: HPH 529 or Departmental Permission
3 credits, Letter graded (A, A-, B+, etc.)

HPA 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. Prerequisite: HPH 529 or Departmental Permission
3 credits, Letter graded (A, A-, B+, etc.)

HPA 542 Health Leadership and Change: Comprehensive Capstone Project

Provides an in depth examination of leadership theory and the essential qualities required to lead successfully 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 an interactive capstone research project. Prerequisite: HPH 529 or Departmental Permission.
3 credits, Letter graded (A, A-, B+, etc.)

HPA 564 Health Quality and Information Systems Management

Explores two critical components of healthcare administration through a split module format, dedicating seven weeks per topic and one week exploring the synergies between both topics. The first module will explore information systems management and the second module will explore healthcare quality and performance improvement concepts. The Information Systems Management module will discuss how healthcare decision-making and management are increasingly driven and dependent upon information. The sheer diversity of the information required by the healthcare enterprise surpasses the information needs of almost any other type of organization. Healthcare managers at every level of the organization are forced to be information managers. The Quality and Performance Improvement module will explore healthcare quality management methodologies and examine 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. Students will understand 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. An emphasis will be placed on the critical importance of data analytics to monitor performance improvement activities. CQI and lean strategies are introduced to students as well. Prerequisite: HPH 529 or Departmental Permission.
3 credits, Letter graded (A, A-, B+, etc.)

HPA 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. Provides direction and insight for understanding industry certification. Prerequisite: HPH 529 or Departmental Permission.
3 credits, Letter graded (A, A-, B+, etc.)

HPA 580 Integrative Experience

This course provides a 100-hour field placement that provides students with opportunities to gain practical health management experience in the health services field. Field placements strive to integrate real-world experience in administration and management of health services by enhancing health administrative skills under the direction, mentorship or supervision of a knowledgeable preceptor in an environment that promotes learning. Students will complete aspects of the health management integrative experience on site in individual practicum placement settings. In addition to the field placement and under supervision of a faculty member, students will maintain and submit weekly logs of their activity and attend three synchronous sessions that will allow reflection, synthesis, and professional development based upon the individual experiences of students. Prerequisites: Students will need departmental permission to register for this course. Permission is granted only after students have matched with a preceptor and placement site and completed all necessary Program forms. Designated PPH faculty and staff are available to assist students with this process. 3 credits, Letter graded (A, A-, B+, etc.)

HPA 586 Health Management Professionalism and Ethics

Explores 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: HPH 529 or Departmental Permission. 3 credits, Letter graded (A, A-, B+, etc.)

HPA 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. Prerequisite: HPH 529 or Departmental Permission.

3 credits, Letter graded (A, A-, B+, etc.)

HPD

HPD 519 Systematic 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 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. 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.

ABCF Grading

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 673 Longitudinal Data Analysis

This course covers the theory and application of univariate and multivariable techniques appropriate for longitudinal data. Students will be exposed to both theory and application addressing repeated measures challenges.

3 credits, Letter graded (A, A-, B+, etc.)

HPD 674 Statistical Methods in Clinical Outcomes and Health Services Research

Clinical outcomes research frequently involves the analysis of nonexperimental retrospective databases. Such databases pose a number of statistical challenges, due to their nonexperimental design and various data limitations. This course will review and discuss multivariate methods in clinical outcomes research, focusing on specific issues involved in building and interpreting these models. These issues include causal inference, selection bias, measurement error, missing data problems, multicollinearity, and serial correlation. Clinical outcomes and health services research studies will be reviewed and discussed to illustrate these statistical issues and how they have been addressed in published research. Students will be asked to review and evaluate clinical outcomes and health services research papers, and present their reviews for discussion in class.

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. ABCF Grading 3 credits, Letter graded (A, A-, B+, etc.)

HPD 685 Research in Population Health and Clinical Science.

This course will introduce students to health services and clinical outcomes research methods and applications of these approaches. The course will begin with an overview of key statistical methods, outcomes measurement issues, and methods for assessing the economic value of clinical treatments. The second part of the course will consider specific applications of health services and clinical outcomes research from a review and critique of published studies. Students will present and critique these studies together with the instructor. Specific areas of applications will include: Estimating the Production of Health Hospital Volume and Clinical Outcomes Estimating Clinical Outcomes with Patient-Level Data Racial and Ethnic Disparities and Medical Treatments Electronic Medical Records and Clinical Outcomes Cost Effectiveness Applications 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.

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. Prerequisite: Must be advanced to candidacy (G5); permission of instructor S/U grading, may be repeated for credit 0-9 credits, S/U grading

HPH

HPH 201 What is Public Health? A Humanities Approach

The idea of public health could arguably be described as an endeavor of figuring out how to promote health protective measures across populations of disparate individuals, who, even though they are mostly strangers to one another, depend on one another in important ways. In this sense, despite individual needs and preferences, we are all in it together. At the same time, we are a society which prizes personal responsibility and seeks out individual attention and expression. That we are not a homogeneous people, but rather a mosaic of individuals in the United States, draws this problem of balancing values into bolder relief. How do we keep a population safe and healthy while respecting our highly individualized national character? This course introduces the field of public health by way of examining the tension between a population as a whole and the individuals who make it up through reference to novels, narrative accounts, drama, and essays where students have an opportunity to

think through seminal threshold questions on their own. When should immunization be required and when does a mandatory vaccination policy violate bodily integrity? When it comes to health care, are we responsible for our neighbor? How about policies pertaining to smoking cigarettes, or firearms, or even diet? Where should the government nudge paternalistically, and where does government oversight go too far? How about the opioid epidemic sweeping across the heartland? Who is accountable? How about the intersection between money and health care? What are our citizens owed just by virtue of being a citizen? Should healthcare in general not be socialized?

This course is interdisciplinary, representing a fusion of the humanities and public health, with an eye toward confronting the many ethical issues which arise upon seeking a preventive approach to healthcare.

3 credits

HPH 201 What is Public Health? A Humanities Approach

The idea of 'public health' could be described as an endeavor of figuring out how to promote health protective measures across populations of disparate individuals who nevertheless depend on one another in important ways. At the same time, we are a society which prizes personal responsibility and seeks out individual attention and expression. How do we keep a population safe and healthy while respecting our highly individualized national character? This course examines this tension through reference to novels, narrative accounts, drama, and essays where you will have an opportunity to think through these seminal 'threshold' questions on your own. This course is offered as both EGL 290 and HPH 201.

3 credits

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 public health informatics and statistical methods with their application in biomedical and public health research. The course will provide necessary knowledge and skills to perform various data management tasks to create and manage data sets using SAS. Students are expected to enroll in parts 1 and 2 sequentially within the same academic year. This course will also introduce summarizing and exploring data, probability theory, discrete and continuous probability distributions, populations and samples, sampling distributions and statistical inference, hypothesis testing, one-sample and two-sample. Prerequisites: Admission to Graduate Public Health Program or Department Consent. 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 public health informatics and statistical methods and their application in biomedical and public health research. The course will provide necessary knowledge and skills to perform various data management tasks to create and manage data sets using SAS. Students are expected to enroll in parts 1 and 2 sequentially within the same academic year. This course includes introductions to the use of 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 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 Care Systems

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 521 Introduction to Clinical Research

This introductory seminar series provides a broad-based overview of clinical science research methods, as well as guidance for critically reviewing the peer-reviewed literature. Class lectures, exercises, and interactive small group sessions will cover framing a research question, formulating a research hypothesis, critically appraising the literature, exploring study design options, conducting research ethically and responsibly, selecting clinical outcomes, and evaluating analytical alternatives. Students enrolled in the Master of Public Health degree program can not use this course (earn credit) to their degree requirements. 1 credit, 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 Programs and Policies to Improve Health

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 provides students with an overview of concepts and issues related to healthcare leadership. Through the examination of management topics and healthcare situations, the student will explore the skills and knowledge needed to be successful in a diverse healthcare environment. Topics include healthcare leadership, organizational design as it relates to the uniqueness of healthcare organizations, managing professionals, and supervisory to mid-level management. It is designed for the Health Policy and Management concentration but is open to all MPH students. Prerequisite: Admission to Graduate Public Health Program or Department Consent.
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 535 Clinical and Community Preventive Medicine

This course prepares residents to transition from the role of learners to practitioners of preventive medicine. Didactic lectures emphasize clinical preventive medicine, which entails mastering the science of preventive medicine practice, grounded in the evidence-based clinical preventive services guidelines as developed by the United States Preventive Services Task Force (USPSTF) [i.e. screenings, behavioral counseling, and chemoprophylaxis/preventive medications], while case-based simulated sessions provide an opportunity to become skilled in the art of preventive medicine practice, built upon the principles of lifestyle medicine, motivational intervention, brief action planning and other evidence-based strategies for health behavior change. The work of the preventive medicine physician in public health, referred to as community preventive medicine or community medicine, is also covered in this course, including the Community Preventive Services (CPSTF) guidelines, to help prepare residents for the medical practice of prevention in the public health domain. The role of the preventive medicine physician in the seamless integration and effective collaboration between clinical medicine and public health is emphasized where appropriate. 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; HPH 525 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 Global Health and Demography

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; HPH 507 and HPH 501 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; HPH 501 3 credits, Letter graded (A, A-, B+, etc.)

HPH 566 Clinical Trials

This course introduces the design, conduct, and analysis of clinical trials. Topics will include types of clinical trials, study design, treatment allocation, randomization and stratification, quality control, sample size requirements, patient consent, and interpretation of results. 2 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 basic public health knowledge through completion of several competency-driven learning experiences. Most core and concentration course work must be completed before the student can participate in Capstone. Students will be introduced to the process of writing grant proposals and developing budgets, professional networking with non-academic community partners, publishing in the scientific literature; communicating practice-based projects in both oral and poster presentation formats, and planning for their future careers as public health professionals. They will self-assess their own conflict styles and apply negotiation and mediation skills to address community and/or organizational challenges, and reflect on their conflict styles when considering case studies. Students will also engage in inter-professional education learning activities to improve their understanding and communication of their roles, values/ethics, and how to work effectively as part of an inter-professional team. Students will apply systems thinking to a case study to create a logic model that demonstrates the complex systems involved in a population health issue. Lastly, they will present their own work as part of their Practicum to fellow students, and discuss career plans. 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
3 credits, Letter graded (A, A-, B+, etc.)

HPH 590 Research Practicum

The goal of Research Practicum is to mentor students to successfully complete their research requirements. Expectations are that students will register for Research Practicum for three consecutive semesters. The Research Practicum is a planned experience with expectations identified each semester in conjunction with a research mentor and faculty supervisor. A practicum proposal, analysis report, and final deliverable (NIH proposal, Foundation proposal, or peer reviewed publication) are required.
0-9 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 as well as NYSDOH licensing.
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 and satisfies the clinical requirements necessary to be eligible for the national certification exam.
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 98 Clinical Continuation

This course is for SHTM non-credit program students continuing with clinicals.
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 certification exams.
0 credit, S/F graded

HWC

HWC 210 Overview of the Social Work Profession

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. Corequisite: HWC 306 and 315. 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. Corequisite: HWC 307 and HWC 316. 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. Corequisite: 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. Corequisite: HWC 301 and 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. Corequisite: 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. Corequisite: HWC 301 and 306.
3 credits

HWC 316 Integrating Seminar II

Builds on HWC 315. Corequisite: HWC 301 and 306. Prerequisite: HWC 315
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 342 School Social Work: An Overview

This course is an introduction to the practice of school social work. It gives an overview of the central issues that occur in schools. It discusses strategies to build a positive and safe school climate for diverse and disenfranchised populations. It examines the social/political context of working in the school and the impact of policies such as the Common Core, NCLB and Race to the Top. Topics will also include working with students struggling with psychiatric, psychological, substance use, and familial issues as well as assisting students in special education. An overview of crisis intervention techniques will be presented.

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 345 Social Work and Human Rights

The goals of social work are intertwined with the premise that the realization of universal human rights are essential to a just and ordered society. This class stresses the need for social workers to use a human rights framework for practice, especially in our interconnected global economy. Social workers can be vital to envisioning a just and equitable world and can be the architects laying the groundwork of that world's creation. Human rights can help link micro practice to macro practice and connect the varying roles of the social worker. This course will examine human rights, social work as a human rights profession, and in particular, vulnerable populations. This class will highlight timely issues such as human trafficking and environmental justice.

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 394 Continuation of Field Work Experience

Continuation of placement in practice settings under supervision of a licensed M.S.W.

0 credit, S/F graded

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. Corequisite: HWC 513.

4-6 credits, S/F graded

HWC 501 Field Education II

A continuation of HWC 500. Students will be graded S/F. Corequisite: 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. Corequisite depending on specialization- HWC 531 (for FYT) or HWC 564 (for IH) or HWC 570 (for CPPSA). 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. Corequisite depending on specialization- HWC 571 (CPPSA), HWC 532 (FYT), HWC 565 (IH). Prerequisites: HWC 502

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 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. Corequisite: HWC 596

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. Corequisite: 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. Corequisite: HWC 501. 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 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.
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. 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. 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. 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. 3 credits, Letter graded (A, A-, B+, etc.)

HWC 527 Social Work in the Political Process: Campaign School

Limited to 20 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's School of Social Work in West Hartford. 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. 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. 3 credits, Letter graded (A, A-, B+, etc.)

HWC 531 Advanced Practice Skills I: Developmental Processes

This course emphasizes the understanding of developmental theories and application to culturally responsive practice with families, youth, and young adults. Focus is placed on recognizing developmental issues and their implications for assessment, engagement, and early intervention strategies. Familial, cultural, and environmental factors that influence development are discussed. Corequisite: HWC 502 and 534. 3 credits, Fall semester. 3 credits, Letter graded (A, A-, B+, etc.)

HWC 532 Family, Youth, and Transition to Adulthood Advanced Practice Skills II: Intervention Skills

Building on the knowledge and skills in Advanced Practice Skills I, this course focuses on enhancing clinical effectiveness in interactions with children, adolescents, and young adults by strengthening assessment and diagnostic skills and

understanding related advanced theory. Topics include child welfare related interviewing skills, parenting and communication, advanced solution-focused therapy, motivational interviewing, cognitive behavioral therapy, behavioral health assessment and interventions, rapid assessment tools, and forensic therapeutic interventions. All of these topics are addressed within a trauma- and culturally-responsive framework. Professional and ethical considerations, evaluation of intervention effectiveness, and service delivery in an agency context are woven throughout the course. Corequisite: HWC 503 and 535. 3 credits, Spring semester.

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 534 Advanced Policy Practice

This course surveys historical and current policies relevant to social work practice with families, youth, and young adults. Students will engage in policy analysis including a critical analysis of oppression and inequality in the context of child and family federal policies. In addition, the course will explore culturally sensitive skill development and competencies related to policy practice including social action and activism. Corequisite: HWC 502 and 531. 3 credits, Fall semester.

3 credits, Letter graded (A, A-, B+, etc.)

HWC 535 Systems of Care: Critical Approaches and Analysis

This course provides a framework to examine the various systems of care affecting youth, families, and young adults. It explores advanced practice within local, state, and federal child welfare, education, and juvenile justice systems. Focus is placed on strategic planning, evaluation, program development, and organizational analysis including inter- and intra-organizational contexts. Corequisite: HWC 503 and 532.

3 credits, Spring Semester

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.

3 credits, Letter graded (A, A-, B+, etc.)

HWC 540 Therapeutic Approaches for People with Disabilities

This course will provide a framework for practice with individuals with disabilities based on cognitive-behavioral and solution-focused therapies. Emphasis will be placed on understanding the acute issues facing individuals with disabilities primarily from a social model lens which focuses on socio-environmental constraints and barriers. These include limited human rights, access to care and treatment choices, and socio-cultural forces. Psychosocial factors will also be explored. The empirical knowledge base that informs and guides the assessment and theory based interventions of individuals with disabilities will be examined and critiqued.

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.

3 credits, Letter graded (A, A-, B+, etc.)

HWC 542 School Social Work: Practice Policy and Research

Examines the practice of school social work in an in depth manner. It gives an overview of the central issues that occur in schools. It discusses strategies to build a positive and safe school climate for diverse and disenfranchised populations. The course will cover evidenced-based practices including DBT and CBT for schools. It examines the social/political context of working in the school. Topics will also include working with students struggling with psychiatric, psychological, substance use, and familial issues as well as assisting students in special education. Crisis intervention techniques and trauma-informed educational practices will be discussed.

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.

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 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. (Manhattan)

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: Groups, Organizations, and Communities (FYT) (CPPSA)

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.

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 (CPPSA)

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. #Students will be required to explore and integrate the ways in which legal frameworks determine the nature of practice processes and structures within their chosen field of Specialization. # Permission required for students not enrolled in the School of Social Welfare.

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.

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 LBGTQ 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.

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

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. 3 credits

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. 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.

3 credits, Letter graded (A, A-, B+, etc.)

HWC 564 Advanced Practice I: Assessment and Skills in Integrated Health

This course will build advanced competencies as applied in health and mental health settings. Students will learn how to conduct assessments that engage the family and the community, and develop skills for relationship building, care coordination, and strategies for defining and addressing the social determinants of health, utilizing interprofessional practice skills. Topics include primary prevention; acute and long term care; rehabilitation in inpatient and outpatient clinics; forensic social work; substance abuse; medically managed systems; chronic disease; HIV/AIDS; trauma and co-morbid psychiatric issues; cancer. Corequisite: HWC 502 and 574. 3 credits Fall semester

3 credits, Letter graded (A, A-, B+, etc.)

HWC 565 Advanced Practice II: Strategies and Interventions in Integrated Health

Building on the knowledge and skills in Advanced Practice I, students will learn current practice strategies, technological advancements, and interventions to address the major health concerns that impact society. Students will investigate population based treatments across systems that are trauma responsive, build on client's strengths, and that are culturally congruent. Corequisite: HWC 503 and 576. Prerequisite: HWC 564. 3 credits, Spring Semester

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.
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 569 Childhood Sexual Abuse and Long-Term Sequelae: Assessment and Intervention

Introduces students to the incidence and prevalence of childhood sexual abuse as a national problem. Covered are definition issues, sequelae during childhood, family constellation and adult sequelae. Addressed are assessment and current treatment modalities, particularly for families and offenders, as well as ethical and legal dilemmas and the subsequent health related difficulties of this childhood trauma. Special attention is paid to the cultural dynamics in sexual abuse. Students are expected to develop an awareness of and critically analyze current research. Focus is on examination of policy issues and legislation.
3 credits, Letter graded (A, A-, B+, etc.)

HWC 570 Advanced Tools for Change: Practice I

Building on foundation knowledge, values and skills, this course will deepen student capacity to work for social change. Students will build their expertise using interpersonal communication, relationship building, organizing skills in select areas such as visioning, problem analysis, community engagement, assessment, action research and mobilizing communities to work for change. This course expands upon the students' learning in their first year policy courses to utilize advanced critical theories to analyze social problems and develop tools for social change with a special emphasis on community and empowerment. Corequisite: HWC 502 and 572. 3 credits, Fall Semester
3 credits, Letter graded (A, A-, B+, etc.)

HWC 571 Advanced Tools for Change: Practice II

Building on the knowledge and skills in the first semester of Advanced Tools for Social Change, Part II focuses on developing students' skills in analyzing issues, developing powerful arguments and communicating persuasively with multiple audiences using multiple media platforms. Using a lens of critical theories, students will learn to engage with and mobilize constituents, form coalitions, lobby policymakers and leverage political power to challenge systemic structures of power and privilege and effect positive social change in the

areas of students' passion. Corequisite: HWC 503 and 573. 3 credits, Spring Semester
3 credits, Letter graded (A, A-, B+, etc.)

HWC 572 Leadership for Social Change

Leadership is widely understood as a critical success factor for advancing social change. In this class, students are educated to develop advanced leadership skills to create and sustain social-change organizations that address societal inequities. The course covers the many facets of social change leadership, including effective communication, strategic planning, and program development. The course will consider what it means to be a leader, the kinds of skills leaders need to succeed in diverse community settings, and what are the necessary preconditions for social change. Additional focus will be on anti-oppressive organizational and program development, management, resource development and financial management. Specific focus will be devoted to providing students with opportunities to develop their presentation and analysis skills and to receive peer feedback. Corequisite: HWC 502 and 570. 3 Credits, Fall Semester
3 credits, Letter graded (A, A-, B+, etc.)

HWC 573 Social and Political Change (Hybrid)

By its nature, social and political change is action oriented. This course will provide students with the opportunity and value, knowledge and skill based guidance to undertake an actual advocacy/community change oriented capstone project. Students will work with community based social change organizations on a social change project for approximately 35 hours during the semester in lieu of classroom meetings. During the 5 in-class meetings and online discussions, students will act as consultants to one another, reflecting on learning from project work, readings and other courses in the specialization. Corequisite: HWC 503 and 571. 3 credits, Spring Semester
3 credits, Letter graded (A, A-, B+, etc.)

HWC 574 Clinical Skills: Motivational Interviewing & Cognitive Behavioral Therapy in Integrated Health

This course introduces students to advanced evidence-based clinical modalities, that include group treatment, and short term interventions with an emphasis on Motivational Interviewing (MI) and Cognitive Behavioral Therapy (CBT) as applied in health and mental health care settings. Corequisite: HWC 502 and 564. 3 credits, Spring semester
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.
3 credits, Letter graded (A, A-, B+, etc.)

HWC 576 Integrated Health: Advanced Health Policy Systems

The course will address local, federal, state, and organizational policies and funding mechanisms impacting health and mental health. Topics include recent developments in health care reform and current issues and trends in primary and behavioral health care integration. The course will emphasize diversity, health disparities, and social and economic justice. Corequisite: HWC 503 and 565. 3 credits, Fall semester
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. Prerequisites: HWC 511 and 512. 3 credits
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. 3 credits
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.
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. 3 credits
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 587 Social Work Practice with the Military and Military Families

This course focuses on the specific challenges of those who serve in the military and the response of social work practitioners to those challenges. The course will explore the nature of war, its impact on those who are wounded - physically and mentally -- and the impact of the military experience on them and their loved ones/caregivers. Particular emphasis will detail the impact of recent wars in Iraq and Afghanistan on returning veterans, many suffering with PTSD, Traumatic Brain Injury and substance abuse problems. Additional areas of exploration include the challenges faced by women in the military, the wounded, those who contemplate suicide. Intervention strategies and case material will enhance student understanding. 3 credits, Fall Semester
3 credits, Letter graded (A, A-, B+, etc.)

HWC 588 The Dynamics of Trauma

This course will examine the complexity and range of traumatic events. For example, the way temperament, genetic pre-disposition and environment impact traumatic reactions; as well as the physiological and psychological reactions that individuals experience. Throughout this course we will examine therapeutic interventions with different populations (children, adults, groups, elders) as they recover from trauma experiences. This course will cover the range of psychological models that comprise trauma theory and examine the protective factors that mediate post-traumatic growth. Throughout this course we will examine cultural, legal, judicial and policy issues that impact trauma treatments.
3 credits, Letter graded (A, A-, B+, etc.)

HWC 589 Therapeutic Interventions for Trauma

This course will examine therapeutic interventions with different populations (children, adults, groups, elders) as they recover from trauma experiences. This course will appraise the range of psychological models that comprise trauma theory and examine the promotive factors that mediate Post-traumatic Growth. Throughout this course we will examine cultural, legal, judicial and policy issues that impact trauma treatment.

3 credits, Letter graded (A, A-, B+, etc.)

HWC 590 Overview of Family Violence

This advanced elective provides an overview of family violence in the United States including child abuse, intimate partner violence (IPV), and elder abuse. The course covers the etiology of each form of family violence, current evidence-based treatment modalities, and mental health and judicial approaches to these issues. Current research for each type of family violence and social policies will also be covered.

3 credits, Letter graded (A, A-, B+, etc.)

HWC 591 Social Work Issues in Higher Education

Through an interdisciplinary approach, which draws from social work strengths and empowerment perspectives, student affairs perspectives, and college student development theories, this course emphasizes how community on the college campus is influenced and shaped. Historical developments in higher education and student development as well as the impact of societal issues are introduced. This course will follow a student-community development lens and discuss a variety of important topics in higher education including: overview of major policies and programming, campus safety, campus climate and inclusion, social determinants, financial aid, relationships, and mental health.

3 credits, Letter graded (A, A-, B+, etc.)

HWC 592 Social Work in Education: Therapeutic Interventions

This course reviews a wide-range of clinical practice methods using a trauma-informed lens that are relevant to high school and higher education settings including crisis intervention, rapid assessment tools, biopsychosocial, and review of wellness and prevention services. Students are encouraged to critically examine components of contemporary education and to devise appropriate intervention strategies to accomplish the development of student-centered services, implement tele-mental health services, and a sense of community within education settings.

3 credits, Letter graded (A, A-, B+, etc.)

HWC 593 Social Work in Higher Education: Wrap-around Care Services

This course reviews the care coordination involved in the many college student support services offered across various departments including offices of disability support services, counseling and health centers, athletics, student affairs, and campus and residential life. An understanding of the transition from high school to college service systems, transition to adult

health care services, as well as how different higher education involved systems function on- and off-campus will also be discussed. Leadership development and social work practice roles to promote student success in higher education settings are emphasized.

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 Social Work Issues in Higher Education

This is an advanced practice elective course that introduces how political, socio-economic, cultural, and health issues impact higher education. This course prepares social workers to practice in college settings and with diverse student populations. Social issues on college campuses are emphasized including mental health, identity development, diversity and inclusion, leadership development, community organization, and social work practice roles in college settings.

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. Fall

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. Spring 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 research 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. Offered

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 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

HWC 800 Full Time SUMMER RESEARCH

F T SUMMER RESEARCH

0 credit, S/U grading

HWCA**HWCA 396 Community Learning and Professional Preparation Year I Part A**

This first part of a required two-part course will provide foundational knowledge, values and skills to prepare the BSW Junior as a Social Work professional. Topics covered in this course include professional pathways, areas of practice, advocacy and communication skills, and other topics specific to the students' social work education. Attendance is required at two full-day events and designated workshops at the Stony Brook campus per academic year. Dates will be posted at the beginning of the Fall term. Students graded S/U. (0.5 credit, U3 status)

.5 credit, S/U grading

HWCA 397 Community Learning and Professional Preparation Year II Part A

This first part of a required two-part course will provide foundational knowledge, values and skills to prepare the BSW Senior as a Social Work professional for entry to the job market and MSW degree programs. Topics covered in this course include professional pathways, advocacy and communication skills, and other topics specific to the students' social work education. Attendance is required at two full-day events and designated workshops at the Stony Brook campus per academic year. Dates will be posted at the beginning of the Fall term. Students graded S/U. (0.5 credit, U4 status)

.5 credit, S/U grading

HWCA 596 Community Learning and Professional Preparation Year I Part A

This first part of a required two-part course will provide foundational knowledge, values and skills to prepare the student as a social work professional. Topics covered in this course include professional pathways, areas of practice, advocacy and communication skills, and other topics specific to the students' social work education. Attendance is required

at two full-day events at the Stony Brook campus per academic year. Dates will be posted at the beginning of the Fall term. Students graded S/U. (0.5 credit, G1 status. Co requisite HWC 509)

.5 credit, S/U grading

HWCA 597 Community Learning and Professional Preparation Year II Part A

This first part of a required two-part course will provide advanced knowledge, values and skills to prepare the student as a Social Worker for entry into the profession. Topics covered in this course include professional pathways, licensure, advanced advocacy and professional communication skills, and other topics specific to the students' social work specialization. Attendance is required at two full-day events at the Stony Brook campus per academic year. Dates will be posted at the beginning of the Fall term. Students graded S/U. (0.5 credit, G2 status. Co requisite depending on specialization- HWC 534 (for FYT) or HWC 564 (for IH) or HWC 570 (for CPSA))

.5 credit, S/U grading

HWCB

HWCB 396 Community Learning and Professional Preparation Year I Part B

This second part of a required two-part course will provide foundational knowledge, values and skills to prepare the BSW Junior as a Social Work professional. Topics covered in this course include professional pathways, areas of practice, advocacy and communication skills, and other topics specific to the students' social work education. Attendance is required at two full-day events and designated workshops at the Stony Brook campus per academic year. Dates will be posted at the beginning of the Fall term. Students graded S/U. (0.5 credit, U3 status)

.5 credit, S/U grading

HWCB 397 Community Learning and Professional Preparation Year II Part B

This second part of a required two-part course will provide foundational knowledge, values and skills to prepare the BSW Senior as a Social Work professional for entry to the job market and MSW degree programs. Topics covered in this course include professional pathways, advocacy and communication skills, and other topics specific to the students' social work education. Attendance is required at two full-day events and designated workshops at the Stony Brook campus per academic year. Dates will be posted at the beginning of the Fall term. Students graded S/U. (0.5 credit, U4 status)

.5 credit, S/U grading

HWCB 596 Community Learning and Professional Preparation Year I Part B

This second part of a required two-part course will provide foundational knowledge, values and skills to prepare the student as a social work professional. Topics covered in this course include professional pathways, areas of practice, advocacy and communication skills, and other topics specific to the students' social work education. Attendance is required at two full-day events at the Stony Brook campus per academic year. Dates will be posted at the beginning of the Fall term. Students graded S/U. (0.5 credit, G1 status. Co requisite HWC 509)

.5 credit, S/U grading

HWCB 597 Community Learning and Professional Preparation Year II Part B

This second part of a required two-part course will provide advanced knowledge, values and skills to prepare the student as a Social Worker for entry into the profession. Topics covered in this course include professional pathways, licensure, advanced advocacy and professional communication skills, and other topics specific to the students' social work specialization. Attendance is required at two full-day events at the Stony Brook campus per academic year. Dates will be posted at the beginning of the Fall term. Students graded S/U. (0.5 credit, G2 status. Co requisite depending on specialization- HWC 534 (for FYT) or HWC 564 (for IH) or HWC 570 (for CPSA))

.5 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

NUR

NUR 630 Philosophical Foundations of Nursing Science

This course explores historical and current views of knowledge development underpinning philosophies of science, social science, and nursing science. Underlying ontological and epistemological assumptions of philosophical views and how they influence scientific inquiry in nursing will be addressed. A key component of these discussions will be the implications of diverse perspectives on theoretical thinking, scientific inquiry, and knowledge development in nursing.
3 credits, Letter graded (A, A-, B+, etc.)

NUR 631 Concepts, Theories and Knowledge Development in Nursing Science

This course will provide doctoral students with a systematic overview of concepts and theories as a foundation for knowledge development in nursing. Conceptual and analytical skills are developed through analysis and critique of nursing concepts, clinical phenomena and science-based theories. The course examines the theoretical and empirical foundation of nursing, approaches to the analysis and development of nursing concepts, the role of concepts in nursing science, and the applicability of nursing concepts and theories to clinical practice. Focus will be on development and use of conceptual language, critical thinking skills, and in analyzing literature portraying key nursing concepts.

3 credits, Letter graded (A, A-, B+, etc.)

NUR 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.)

NUR 636 Advanced Statistical Methods

This course will build on the foundations of NUR 635 and extend the doctoral students exposure to more complex inferential statistics used in healthcare research. Statistical applications will be explored in the context of nursing research. Practical application of these statistical methods will be conducted using SPSS statistical software.

3 credits, Letter graded (A, A-, B+, etc.)

NUR 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.)

NUR 660 Quantitative Designs and Methods in Nursing Research

This course explores the major designs and methods used for the investigation of problems requiring quantitative approaches. Types of research designs are analyzed including major strengths and limitations of each. Population sampling, participant selection, and data collection and analysis methods are compared and contrasted.

3 credits, Letter graded (A, A-, B+, etc.)

NUR 661 Qualitative Methods in Nursing Research

This course explores the major approaches to qualitative inquiry. Philosophical or theoretical underpinnings specific to each approach are analyzed. Selected frameworks for data collection and analysis are presented. Selection of participants, data collection and analysis of each tradition are

compared and contrasted. The elements of rigor in qualitative inquiry are explored.

3 credits, Letter graded (A, A-, B+, etc.)

NUR 662 Data Management and Informatics for Clinical Scientists

The aims of this course will be achieved by participation in a 45-hour (3 credit) course consisting of lectures, hands-on computer application training/labs, hands-on exercises/assignments, discussions and quizzes, and an individual final presentation. The course will provide training in questionnaire design, the use for REDCap for data input and managements, Excel for budget management, SPSS for data processing and analysis, and Power Point for print/slide presentations and report generation. Trainees will be instructed in the conduct for good clinical practice as it relates to data collection and data management. Trainees will be introduced to available comprehensive systems for collaborations, data management and data capture (e.g., REDCap, on Core) and issues of data security as it relates to clinical research. The hands-on exercises/assignments, discussions, quizzes, and homework assignments will help to develop skills in questionnaire design, methods of data study collection, data capture, and data management while enforcing skills for data analysis and presentation of study results. This course includes issues related to data management and data collection for a clinical research project to meet the needs of this group of trainees. Trainees will be evaluated by participation in the class exercises, homework assignments, quizzes, on-line course discussions through Blackboard, development of an individual simulated project, and an individual oral presentation of the students simulated project describing their choices for data management methods and results to be presented during the last two classes. The individual project will include development of a questionnaire, codebook, database and creation of a test data set for use in conducting analyses and the final presentation.

3 credits, Letter graded (A, A-, B+, etc.)

NUR 670 Independent Studies

This student-initiated elective course provides an opportunity to use enhance the depth of a student's chose area of research. The independent student can be in specific content areas or methodological or analytical approaches. Independent Studies cannot replace courses for a degree.

1-3 credits, Letter graded (A, A-, B+, etc.)

NUR 680 Integrating Big Data to Evaluate Population Health

This course will focus on available sources of population data, how to access them, and begin to explore geographic regions through data. Students will be introduced to the field of Biomedical Informatics. Innovative tools developed at Stony Brook by informaticians to evaluate population health will be presented. Students will learn how to use data to identify populations at risk who they are, where they live and to identify key focus areas to target intervention. With this knowledge students will be able to outline programs that may reduce health disparities, as well as evaluate other health risks in regional populations.

1-3 credits, Letter graded (A, A-, B+, etc.)

NUR	690	Dissertation Seminar I	NUR	699	PhD Dissertation Research -On Campus
<p>This course focuses on the development of the doctoral dissertation proposal. Students will apply their theoretical knowledge and research proficiency to transform their general ideas about their dissertation topic into a research strategy. Students will prepare key elements of the dissertation proposal, including Statement of the Problem, Research Questions and/or Hypotheses Conceptual/Theoretical Framework, Literature Review, and Research Methods. Using a seminar format, teaching-learning strategies are designed to promote critical/analytical thinking and scholarly discourse. 6 credits, Letter graded (A, A-, B+, etc.)</p>			3 credits, S/U grading		
NUR			NUR	700	PhD Dissertation Research-Off Campus
			3 credits, S/U grading		
NUR			NUR	701	PhD Dissertation Research-Off Campus (International)
			3 credits, S/U grading		
NUR	691	Dissertation Seminar II			
<p>This course focuses on the conduct of the doctoral dissertation under the guidance of the student's dissertation committee. Students will secure applicable human subjects protection, carry out their research methodologies, and complete analyses of data. The course culminates in a scholarly paper (Dissertation) that exemplifies the student's expertise and their new and creative contribution to nursing. Using a seminar format, teaching-learning strategies are designed to promote critical/analytical thinking and scholarly discourse. Students are required to provide regular updates of the study's progress to the dissertation committee chairperson. 6 credits, Letter graded (A, A-, B+, etc.)</p>					
NUR	697	Research Practicum			
<p>The course introduces graduate students to significant and methodologically rigorous research. School of Nursing faculty and affiliated faculty from Stony Brook Medicine and Stony Brook University will serve as preceptors as students engage in a supervised, hands-on practicum with ongoing research. Students will develop contracts that identify individualized learning outcomes of the practicum that will be facilitated by direct advisement and mentorship of School of Nursing and affiliated faculty. Opportunities during the practicum will include subject recruitment and screening, data collection and analyses, interpretation of results, research report writing and preparation of products for scholarly dissemination. 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 strategy. 3 credits, S/U grading</p>					
NUR	698	Teaching Practicum			
<p>The course introduces graduate students to the major pedagogical theories and practices in academia. Students will develop contracts that identify individualized learning outcomes of the practicum that will be facilitated by direct advisement and mentorship of School of Nursing faculty. The practicum will include the student teaching part of a course, developing learning modules and student assignments, evaluating student performance, and evaluating their own teaching performance. 3 credits, S/U grading</p>					