

Application Requirements

Students applying to the program must submit an application using the "SLATE" application system. Apply to the program at <https://healthsciences.stonybrook.edu/apply/>

This is applicable to all current students, and transfer students. The only exception is for freshman who have already declared CLS as their major.

Instructions to apply to the program are online and can be found on the CLS Home Page within "The CLS Full Time" section of our site.

Academic Advising

If you are a science major, interested in Clinical Laboratory Sciences or looking to gain knowledge about the CLS Profession please contact Catherine.Gropper@stonybrook.edu to schedule an individual advising appointment.

National Certification Exam

All graduates of Stony Brook University's Clinical Laboratory Sciences Program are eligible to sit for the Board of Certification Examination administered by the American Society for Clinical Pathology (ASCP). For the past 3 years our Program Pass Rate has ranged from 96-100%

For more information on Academics, please refer to our website:



healthtechnology.stonybrookmedicine.edu

Learn More About This Career

In-depth knowledge about the profession is extremely important and will make you a stronger, more informed applicant who is confident and secure in your choice of a career.

An excellent place to begin learning more is www.ascp.org, the site of the American Society for Clinical Pathology and www.ascls.org, the web site of the American Society for Clinical Laboratory Science.

Additionally, 100% of students who graduate from Stony Brook's CLS program have found employment.

The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), located at:

600 N. River Rd., Suite 720,
Rosemont, IL
60018-5119

The CLS program is also registered as a qualifying program with The Office of Professions for New York State Licensure.



The State University of New York at Stony Brook is an affirmative action/equal opportunity educator and employer. This publication can be made available in an alternative format and is subject to change without notice.

Clinical Laboratory Sciences Program

Full Time Program

School of Health Technology and Management

Basic Sciences Tower - Level 2 - Room 442
Stony Brook, New York 11794 - 8205

631-444-6249 Cathy Gropper, Asst. to the Chair
(631) 444-8821 (Fax)
Catherine.Gropper@stonybrook.edu



Stony Brook Medicine

A Word From Our Chair

I would like to introduce you to Clinical Laboratory Sciences (CLS), our nationally recognized program at Stony Brook University.

You can apply your science education to a health care career when you become a CLS major at Stony Brook. An important member of the healthcare team, clinical laboratory scientists perform tests that analyze specimens to produce data for the diagnosis, prevention and treatment of disease.

Laboratory testing encompasses the following:

- Clinical Chemistry
- Hematology
- Immunology
- Immunohematology
- Microbiology
- Molecular Biology

The CLS department offers an upper-division program leading to the Bachelor of Science degree as well as the opportunity for Stony Brook freshmen to declare a lower-division CLS major.

If you are interested in learning more about the CLS program, I encourage you to contact catherine.gropper@stonybrook.edu to schedule an individual advisement appointment.

For more information you can also call the CLS Program at 631-444-6249, or visit online at:

healthtechnology.stonybrookmedicine.edu

Interim Chair:

Jeannie Guglielmo, M.S.,MAT,MLS(ASCP)^{cm}

Academic Prerequisites

A cumulative grade point of 2.5 on a scale of 4.0

Completion of a minimum of 57 credits or semester hours with a grade of "C" or better to include:

- 3 credits of College Mathematics (QPS)
- 3 credits of English Composition (WRT)
- 3 credits of Humanities(HUM)
- 3 credits of Art (ART)
- 3 credits of 100 Level Social and Behavioral (SBS)
- 3 credits of 200 Level Social and Behavioral (SBS)+
- 3 credits of Global (GLO)
- 3 credits Respect Diversity (DIV)*
- 8 credits of General Biology with Laboratory
- 3 credits of General Microbiology
- 12 credits - Chem. w/ lab. incl. 1 Org.Chem.
- 3 credits of Statistics

*Each course can only be counted towards one prerequisite with the exception of DIV. A student is permitted to take a course that fulfills GLO/DIV, HUM/DIV, SBS/DIV or SBS+/DIV

Program of Study for CLS

Foundations in CLS	1.5 credits
Medical Ethics	1.0 credits
Physiology	4.0 credits
Pathology	3.0 credits
Intro to Biochemistry	3.0 credits
Foundation in Phlebotomy	1.5 credits
Clinical Chemistry I, II, &III	8.0 credits
Hematology	4.0 credits
Clinical Microbiology I &II	8.0 credits
Parasitology/Mycology	3.0 credits
Medical Molecular Biology	3.0 credits
Computer Applications	2.0 credits
Coagulation, Urinalysis, Body Fluids	4.0 credits
Immunohematology	3.5 credits
Pharmacology	1.5 credits
Immunology	3.0 credits
Research Design	1.0 credits
Research Tutorial	2.0 credits
Clinical Laboratory Quality Management	1.0 credits
Management for Health Professional	1.0 credits
Advanced Seminar in CLS	2.0 credits

Laboratory Rotations

Clinical Chemistry Practicum	4.0 credits
Hematology Practicum	3.0 credits
Hemostasis/UA Practicum	1.0 credits
Microbiology Practicum	6.0 credits
Immunohematology Practicum	3.0 credits

About The Program

The Clinical Laboratory Sciences Program at Stony Brook University is an upper-division program leading to a Bachelor of Science degree. Upon completion of the program, the graduates are eligible to take the National ASCP Board Certification Exam and are New York State License eligible. Moreover, our CLS program has a 100% graduation rate for students entering their final year.

A clinical laboratory scientist is an important member of the health care team who performs and/or supervises many laboratory tests that confirms diagnoses, rules out suspected conditions, or monitors treatment to ensure that patients receive appropriate medication and therapy. In addition, clinical laboratory scientists participate in the development and implementation of new techniques in the clinical setting.

Special Opportunities For Freshmen

The program offers a four-year option that enables Stony Brook freshmen students to declare a lower division major.

If you are a Stony Brook student who declared Clinical Laboratory Sciences as your major during freshman year, you must complete the following in order to advance to the upper division major:

- Fulfill Prerequisite Courses w/ a grade of "C" or better.
- Complete Introduction Course (HAD 210) with an A- or better
- GPA 2.5 or higher is required

For further information on the CLS Freshman Declared major, please contact Jeannie Guglielmo at (631) 444-3046 or Jeannie.Guglielmo@stonybrook.edu

Freshmen are required to meet with a CLS advisor to declare the major. **Note:** An AOI in CLS does not mean you have declared the major.

Sample Course Sequence for Stony Brook Students for the Major in Clinical Laboratory Sciences

FRESHMAN			
FALL	Credits	SPRING	Credits
First Year Seminar 101	1	First Year Seminar 102	1
WRT 101	3	WRT 102	3
CHE 131 (SNW)	4	CHE 132 (SNW)	4
CHE 133	1	CHE 134	1
Humanities (HUM)	3	MAT 125 or MAT 126 (QPS)	3
MAT 123 or MAT 125 (QPS)	3	BIO 202 (STEM+)	3
Total	15	Engage Global Issues (GLO)	3
		Total	18

SOPHOMORE			
FALL	Credits	SPRING	Credits
BIO 203 (STEM+)	3	ARTS	3
BIO 204	2	Social and Behavioral Sciences- 200- to 400-level (SBS+)	3
Social and Behavioral Sciences - 100 level (SBS)	3	AMS 102 or AMS 110 (QPS)	3
CHE 321 (only offered in the fall)	4	BIO 315 Microbiology (only offered in the spring)	3
HAD 210 – Introduction to CLS	1	Respect Diversity and Foster Inclusiveness (DIV)	3
Total	13	Total	15

Notes:

1. Natural science courses (biology, chemistry, and organic) less than 10 years old are preferred.
2. Prerequisites are required for some of the above courses that are above the required minimum to enter the Clinical Laboratory Sciences Program.

Prerequisites:

1. All prerequisite courses must be completed with a grade of C or better.
2. The minimum cumulative grade point average (GPA) for applicants is 2.5.
3. Freshmen accepted into the lower division major must complete all prerequisites by the end of the sophomore year, pass HAD 210 – Introduction to CLS with a grade of A- or better, and meet the academic standards listed above.

Clinical Laboratory Sciences Prerequisites Course List
<input type="checkbox"/> 3 credits - Math
<input type="checkbox"/> 3 credits - English Composition (WRT 102)
<input type="checkbox"/> 3 credits - Humanities (HUM)
<input type="checkbox"/> 3 credits - Art (ART)
<input type="checkbox"/> 3 credits - 100 Level Social and Behavioral (SBS)
<input type="checkbox"/> 3 credits - 200 Level Social and Behavioral (SBS+)
<input type="checkbox"/> 3 credits - Engage Global Issues (GLO)
<input type="checkbox"/> 3 credits - Respect Diversity and Foster Inclusiveness (DIV) *
8 credits - General Biology with Laboratory <input type="checkbox"/> (BIO 202,203,204)
3 credits - General Microbiology <input type="checkbox"/> (BIO 315, HBM 320)
12 Credits - Chemistry to include:
<ul style="list-style-type: none"> • 8 credits - Chemistry with laboratory <input type="checkbox"/> (CHE 131, 132, 133, 134) OR <input type="checkbox"/> (AP CHEMISTRY +CHE 152, 154,331)
<ul style="list-style-type: none"> • 3-4 credits - Organic Chemistry <input type="checkbox"/> (CHE 321)
3 credits - Statistics <input type="checkbox"/> (AMS 110, AMS 102)
**HAD 210 Introduction to CLS Grade of A or A- <input type="checkbox"/> For Freshman Declared Majors ONLY

Required Minimum GPA 2.5
Required Minimum of 57 credits

All courses outcomes must be a grade of C or better**

*Each course can only be counted towards one prerequisite with the exception of DIV. DIV can be combined such as DIV/GLO, DIV/SBS, DIV/SBS+, DIV/ART, and DIV/HUM

Clinical Laboratory Technologists and Technicians



Clinical laboratory technologists operate sophisticated laboratory equipment, such as microscopes and cell counters.



Clinical laboratory personnel examine and test body fluids and cells.

Quick Facts: Clinical Laboratory Technologists and Technicians

2018 Median Pay	\$52,330 per year \$25.16 per hour
Typical Entry-Level Education	Bachelor's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2018	331,700
Job Outlook, 2018-28	11% (Much faster than average)
Employment Change, 2018-28	35,100

[What Clinical Laboratory Technologists and Technicians Do](#)

Clinical laboratory technologists and technicians collect samples and perform tests to analyze body fluids, tissue, and other substances.

[Work Environment](#)

Many clinical laboratory technologists and technicians work in hospitals. Others work in medical and diagnostic laboratories or doctors' offices.

[How to Become a Clinical Laboratory Technologist or Technician](#)

Clinical laboratory technologists typically need a bachelor's degree. Technicians usually need an associate's degree or a postsecondary certificate. Some states require technologists and technicians to be licensed.

[Pay](#)

The median annual wage for clinical laboratory technologists and technicians was \$52,330 in May 2018.

[Job Outlook](#)

Overall employment of clinical laboratory technologists and technicians is projected to grow 11 percent from 2018 to 2028, much faster than the average for all occupations. An increase in the aging population is expected to lead to a greater need to diagnose medical conditions, such as cancer or type 2 diabetes, through laboratory procedures.

[State & Area Data](#)

Explore resources for employment and wages by state and area for clinical laboratory technologists and technicians.

[Similar Occupations](#)

Compare the job duties, education, job growth, and pay of clinical laboratory technologists and technicians with similar occupations.

CAREER OPPORTUNITIES IN CLINICAL LABORATORY SCIENCE

Hospital/Medical Center: Laboratory Areas

Bacteriology
 Blood Bank
 Chemistry
 Information Technology
 Drug Analysis (Toxicology)
 Endocrinology/Fertility Testing
 Flow Cytometry
 Forensic Science
 Genetics
 Hematology
 Immunology/Serology
 Infection Control
 Molecular Diagnostics
 Transplant Services (Histocompatibility)

Health Care Administration

Clinical Services Manager/Administrator
 Health Care Administrator
 Hospital Quality Assurance Coordinator
 Infection Control Officer ► Epidemiologist
 Laboratory Supervisor ► Laboratory Administration
 Laboratory Utilization Review Coordinator
 Purchaser (Laboratory/Hospital/Medical Center)
 Staffing Coordinator (Lab, Health or Home Care)

Industry (TJ.S. or International)

Bioengineering
 Biomedical Specialist in Occupational Health
 Director of Marketing/Sales
 Editor/Writer-Medical Publications
 Food Technologist ► Quality Assurance Manager
 Installation Specialist/Instrumentation
 Medical Claims Reviewer/Auditor
 Quality Control/Quality Assurance Director
 Research Development Technologist/Director
 Research Scientist
 Salesperson
 Technical Representative Field Service Engineer



Clinical Laboratory Scientist (STAFF MEDICAL TECHNOLOGIST)

Health Care Agency/Government

Crime Laboratory Scientist
 Department of Health -Education
 Department of Health - Proficiency Test Consultant
 JCAHO Survey Team Member/CAP Inspector
 Laboratory Inspector Private Investigator/Special Agent (Forensic Lab)

Medical Informatics

Biometrician
 Installer/Educator
 Network Administrator
 Programmer
 Systems analyst
 Laboratory Information Systems Manager

Other Professional Routes

Dentistry
 Law (e.g. Patent Attorney)
 Legislative Area - Politician
 Medicine
 Optometry
 Pharmacy
 Public Health
 Veterinary Medicine

Education

Allied Health Dean/Health Sciences Administrator
 Education Coordinator ► Program Director
 Educator of Students in Clinical Settings
 Faculty Member in CLS program
 Instructor in Med., Allied Health or Other Programs

Health Maintenance Organization

Laboratory Supervisor ► Administrator
 Consultant to Physician Office Laboratories

Research-Basic and Applied

Research Assistant
 Associate Scientist/Scientist
 Director of Research

For program information contact:

Catherine.Gropper@stonybrook.edu
 631-444-6249

<https://healthtechnology.stonybrookmedicine.edu/programs/clinical>