Major in Clinical Laboratory Sciences

School of Health Technology and Management

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Clinical Laboratory Sciences

Clinical laboratory scientists utilize a wide variety of sophisticated equipment and skills to perform tests that analyze specimens to produce data for the diagnosis, prevention and treatment of disease. Many of the same tests are used for organ transplants, therapeutic drug monitoring, crime investigation, genetic studies and research. The program now offers three specializations (Forensic Medical Diagnostics, Laboratory Information Systems and Clinical Cytogenetics) within its traditional clinical laboratory curriculum. A double major in clinical laboratory sciences and biology is available.

Pre-Application Requirements for the Major in Clinical Laboratory Sciences

1. 3 credits of English composition
2. 6 credits in the arts and/or humanities, excluding performance, studio, skills, and techniques courses
3. 6 credits in the social and behavioral sciences
4. 12 credits of chemistry with labs (including one course in organic chemistry)
5. 8 credits of biology with labs (See Note 1)
6. 3 credits of microbiology
7. 3 credits of statistics
8. 2.50 cumulative g.p.a.

Notes:
1. Students completing the courses at Stony Brook should take BIO 202, BIO 203, and BIO 204 Fundamentals of Biology.
2. Courses in anatomy, computer literacy, genetics, molecular biology, and physiology are recommended.
3. Stony Brook freshmen are eligible to declare clinical laboratory sciences as a major. In addition to the requirements listed above, students in this four-year program must successfully complete HAD 210 Introduction to Clinical Laboratory Sciences with a grade of B+ or higher.

For more information, please visit http://www.hsc.stonybrook.edu/shtm/index.cfm.

HAD

Clinical Laboratory Sciences

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. 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. 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. Open to west campus students.

1 credit