DEPARTMENT OF FUNDAMENTAL & APPLIED SCIENCES

Clinical Laboratory Science and Bachelor of Health Science-concentration in Laboratory Science Programs

STUDENT HANDBOOK
2017-2018

This handbook is available in alternate forms upon request. Please contact:
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Contents

Welcome! .................................................................................................................. 3
National Accrediting Agency for Clinical Laboratory Science .................................. 4
Our Mission ............................................................................................................. 4
Program Goals and Objectives ............................................................................... 4
ASCLS Code of Ethics ............................................................................................ 6
Pledge to the Profession ......................................................................................... 7
Faculty and Staff .................................................................................................... 7
Clinical Affiliates .................................................................................................... 8
Description of the Medical Laboratory Scientist Profession .................................. 9
Curriculum .............................................................................................................. 10
Degree Programs .................................................................................................... 10
Professional Program ............................................................................................. 12
Professional Program Admission .......................................................................... 12
Technical Standards (Essential Functions) for Admission and Retention in the Programs, with ADA Policy Statement .......................................................... 15
CLS Entry-Level Competencies ............................................................................. 17
Policies & Procedures ........................................................................................... 19
Academic Standards ............................................................................................. 19
   Academic Standing .............................................................................................. 19
Academic Standing—Clinical Experiential Courses ............................................. 19
   Academic Dismissal ............................................................................................ 21
   Academic Probation BHS Track ......................................................................... 21
   Readmission ........................................................................................................ 21
   Academic Integrity (Plagiarism and Cheating) .................................................... 21
   Grade Appeals .................................................................................................... 24
   Grading Scale ..................................................................................................... 24
   Tests and Examinations ...................................................................................... 24
Advising .................................................................................................................. 24
Affective Learning Objectives ............................................................................... 25
Attendance ............................................................................................................. 25
Blackboard ............................................................................................................ 25
Clinical Experience ............................................................................................... 25
Clinical Experience Service Work Policy ............................................................. 25
CLS Program Information Blackboard Organization .............................................. 26
Community Service Requirement ......................................................................... 26
Complaint Policy and Procedure ......................................................................... 27
Conferences ........................................................................................................... 28
Dress Code ............................................................................................................ 28
Electronic Devices and Recordings Policy ............................................................. 28
Expected Program Costs ....................................................................................... 28
Tuition and Fees .................................................................................................... 28
ASCLS-MI Mock Exam ......................................................................................... 29
Graduation ............................................................................................................. 29
Health Insurance .................................................................................................. 30
Hepatitis B Immunization ..................................................................................... 30
Welcome!

Dear Students,

Welcome to the professional programs in Clinical Laboratory Science and BHS-concentration in Laboratory Science. You are entering an exciting and challenging educational program, where you'll have the opportunity to gain new knowledge and new skills as you prepare to join this rewarding profession, and/or to go on to graduate school. You'll be able to learn and grow, and you'll be working with a group of dedicated faculty and staff whose goal is to help you succeed.

This handbook is designed to help you, too. Here you'll find guidance about program policies and answers to many of your questions. The Student Handbook of the Eugene Applebaum College of Pharmacy and Health Sciences contains information on College polices, too. You can find the current version of the College Handbook here: https://cphs.wayne.edu/students/2016-2017_studenthandbook_1.pdf

If you don't see the answers to your questions here or on the University web pages, please don't hesitate to ask.

Again, welcome to our programs, and best wishes.

Karen K. Apolloni, MSA, MLS(ASCP)CM
Program Director
The Clinical Laboratory Science Program at Wayne State University is accredited by:

National Accrediting Agency for Clinical Laboratory Science
(NAACLS)
5600 N. River Road Suite 720
Rosemont, IL 60018
Phone: 773-714-8880
Fax: 773-714-8886
Email: info@naacls.org
www.naacls.org

Our Mission

We will provide educational programs to well-prepared students to help them gain the knowledge and skills necessary for careers in the clinical laboratory. We engage in scholarship and research appropriate to this mission, and will foster collaborative relationships with healthcare partners and the community.

Program Goals and Objectives

Program Goals

1. To graduate well-qualified medical laboratory scientists who can function at career entry level now and are prepared to advance to leadership positions in the future
2. To help students to develop the professional attitudes and ethics necessary for careers in clinical laboratory science
3. To continuously improve our quality of instruction through innovations in teaching, using a variety of educational methods, resources, and experiences
4. To prepare students to be life-long learners who will remain current with advances in clinical laboratory science.

Program Objectives/Learning Outcomes

After completing our program:
1. Clinical Laboratory Science program graduates will demonstrate entry-level knowledge necessary to perform the full range of clinical laboratory testing.
2. Clinical Laboratory Science program graduates will apply principles and practices of professional conduct.
3. Clinical Laboratory Science program graduates will apply safety regulations and standards as appropriate to clinical laboratory science.
4. Clinical Laboratory Science program graduates will communicate appropriately with members of the health care team.
5. Clinical Laboratory Science program graduates will apply principles and practices of management and supervision as appropriate to clinical laboratory science.
6. Clinical Laboratory Science program graduates will utilize educational methodologies and terminology sufficient to train/educate users and providers of laboratory services.
7. Clinical Laboratory Science program graduates will apply principles and practices of clinical study design, implementation, and dissemination of results.
ASCLS Code of Ethics

Preamble

The Code of Ethics of the American Society for Clinical Laboratory Science sets forth the principles and standards by which clinical laboratory professionals practice their profession.

I. Duty to the Patient

Clinical laboratory professionals are accountable for the quality and integrity of the laboratory services they provide. This obligation includes maintaining individual competence in judgement and performance and striving to safeguard the patient from incompetent or illegal practice by others.

Clinical laboratory professionals maintain high standards of practice. They exercise sound judgment in establishing, performing and evaluating laboratory testing.

Clinical laboratory professionals maintain strict confidentiality of patient information and test results. They safeguard the dignity and privacy of patients and provide accurate information to other health care professionals about the services they provide.

II. Duty to Colleagues and the Profession

Clinical laboratory professionals uphold and maintain the dignity and respect of our profession and strive to maintain a reputation of honesty, integrity and reliability. They contribute to the advancement of the profession by improving the body of knowledge, adopting scientific advances that benefit the patient, maintaining high standards of practice and education, and seeking fair socioeconomic working conditions for members of the profession.

Clinical laboratory professionals actively strive to establish cooperative and respectful working relationships with other health care professionals with the primary objective of ensuring a high standard of care for the patients they serve.

III. Duty to Society

As practitioners of an autonomous profession, clinical laboratory professionals have the responsibility to contribute from their sphere of professional competence to the general well being of the community.

Clinical laboratory professionals comply with relevant laws and regulations pertaining to the practice of clinical laboratory science and actively seek, within the dictates of their consciences, to change those which do not meet the high standards of care and practice to which the profession is committed.
Pledge to the Profession

As a clinical laboratory professional, I strive to:

- Maintain and promote standards of excellence in performing and advancing the art and science of my profession.
- Preserve the dignity and privacy of others.
- Uphold and maintain the dignity and respect of our profession.
- Seek to establish cooperative and respectful working relationships with other health professionals.
- Contribute to the general well-being of the community.

I will actively demonstrate my commitment to these responsibilities throughout my professional life.

Faculty and Staff

Karen K. Apolloni, MSA, MLS(ASCP)\textsuperscript{CM}
Director, Clinical Laboratory Science Program
Assistant Professor (Clinical)

Janet M. Brown, MS, MLS(ASCP)\textsuperscript{CM}
Assistant Professor

Karen K. Krisher, PhD, MT(ASCP), D(ABMM)
Associate Professor (Clinical)

MaryAnne Stewart, MBA, ART (CSMLS), BSc., MLT (CSMLS)

Alicia Kuzia, MLS (ASCP)\textsuperscript{CM}
Instructional Assistant

Bhuvaneshwari Umamaheswaran, MA, MT(ASCP)
Part-Time Faculty
## Clinical Affiliates

<table>
<thead>
<tr>
<th>Hospital</th>
<th>City</th>
<th>State</th>
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<tbody>
<tr>
<td>Beaumont Hospital, Dearborn</td>
<td>Dearborn, Michigan</td>
<td>Michigan</td>
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<tr>
<td>Biotech Clinical Laboratories</td>
<td>Novi, Michigan</td>
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<tr>
<td>Ford Biomedical Laboratory</td>
<td>Dearborn, Michigan</td>
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<tr>
<td>Garden City Hospital</td>
<td>Garden City, Michigan</td>
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<td>Henry Ford Hospital</td>
<td>Detroit, Michigan</td>
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<td>Henry Ford Macomb Hospital</td>
<td>Clinton Township, Michigan</td>
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<td>Henry Ford West Bloomfield Hospital</td>
<td>West Bloomfield, Michigan</td>
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<td>Henry Ford Wyandotte Hospital</td>
<td>Wyandotte, Michigan</td>
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<td>ProMedica Monroe Regional Hospital</td>
<td>Monroe, Michigan</td>
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<td>St. Joseph Mercy Oakland</td>
<td>Pontiac, Michigan</td>
<td>Michigan</td>
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<tr>
<td>University of Michigan Health System Laboratories</td>
<td>Ann Arbor, Michigan</td>
<td>Michigan</td>
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In addition, we are an academic affiliate of DMC University Laboratories-Detroit Medical Center
Description of the Medical Laboratory Scientist Profession
From NAACLS Standards, 2012

“The medical laboratory scientist (clinical laboratory scientist) is qualified by academic and applied science education to provide service and research in clinical laboratory science and related areas in rapidly changing and dynamic healthcare delivery systems. Medical laboratory scientists perform, develop, evaluate, correlate and assure accuracy and validity of laboratory information; direct and supervise clinical laboratory resources and operations; and collaborate in the diagnosis and treatment of patients. The medical laboratory scientist has diverse and multi-level functions in the principles, methodologies and performance of assays; problem-solving; troubleshooting techniques; interpretation and evaluation of clinical procedures and results; statistical approaches to data evaluation; principles and practices of quality assurance/quality improvement; and continuous assessment of laboratory services for all major areas practiced in the contemporary clinical laboratory.

Medical laboratory scientists possess the skills necessary for financial, operations, marketing, and human resource management of the clinical laboratory.

Medical laboratory scientists practice independently and collaboratively, being responsible for their own actions, as defined by the profession. They have the requisite knowledge and skills to educate laboratory professionals, other health care professionals, and others in laboratory practice as well as the public.

The ability to relate to people, a capacity for calm and reasoned judgment and a demonstration of commitment to the patient are essential qualities. Communications skills extend to consultative interactions with members of the healthcare team, external relations, customer service and patient education.

Medical laboratory scientists demonstrate ethical and moral attitudes and principles that are necessary for gaining and maintaining the confidence of patients, professional associates, and the community.”

The Clinical Laboratory Science programs encompass health professions dedicated to providing accurate diagnostic information to medical practitioners. The field offers challenging opportunities for people with aptitudes in the basic sciences and interest in a health care career. The programs at Wayne State University provide students with the technical knowledge and specialized skills necessary for laboratory professionals. Success in each program requires manual dexterity and visual acuity.

In the past three years, over 97% of our graduates passed the ASCP MLS Certification Examination on their first attempt.
Curriculum

Degree Programs

Bachelor of Science in Clinical Laboratory Science

All programs consist of a preprofessional and a professional curriculum. The freshman and sophomore years constitute the preprofessional program comprising courses taught by the faculty of the College of Liberal Arts and Sciences. The professional program begins with the junior year and is taught by the faculty of the Department of Fundamental and Applied Sciences. The senior year consists of didactic course work and may include clinical experience in the laboratories of one of the affiliated hospitals.

Students are initially admitted to the Bachelor of Health Science concentration in laboratory science program. Students desiring certification as a clinical laboratory scientist/medical technologist must apply for clinical rotation placement in the summer before the beginning of their senior year (second professional year). Those accepted for clinical rotation placement will be transferred to the B.S. in Clinical Laboratory Science degree track for their senior/final year. Students who do not receive clinical placement remain in the B.H.S. track and graduate with the Bachelor of Health Science with a concentration in Laboratory Science degree.

These degrees require completion of 120-134 credits in course work that includes sufficient credits and courses to fulfill the University General Education Requirements (see General Education Program) and the required courses and credits in the professional program curriculum to meet graduation requirements. The distribution of the total credits for the degree is between the preprofessional program and the professional program curriculum.

The program leading to the Bachelor of Science in Clinical Laboratory Science prepares graduates to take a national certification examination in this discipline.

Please Note: Granting of the Bachelor of Science in Clinical Laboratory Science degree IS NOT contingent upon the students passing any type of external certification or licensure examination.

The programs offered in Clinical Laboratory Science utilize the facilities of the Eugene Applebaum College of Pharmacy and Health Sciences, the faculty of the Department of Fundamental and Applied Sciences, and the clinical laboratories and pathology departments of hospitals affiliated with the clinical laboratory science program.

Preprofessional Program

Preprofessional Admission: Students seeking admission to the preprofessional program in the College of Liberal Arts and Sciences should refer to the admission requirements of the University: Admission, Undergraduate. High school prerequisites for applicants pursuing the Bachelor of Science in Clinical Laboratory Science are:

- High school units
- Biology: 1
- Chemistry: 1
- Algebra: 1.5
- Geometry: 1
- Trigonometry: 0.5

Recommended: One to two units of a foreign language, one to two units in advanced English, and computer use skills.

Although the College of Liberal Arts and Sciences does not offer course work in the first unit of algebra, some mathematics deficiencies can be remediated by taking Mathematics 0993 or 0995 (see Placement Exam, Mathematics). Students with no preparedness in mathematics will have to correct this deficiency at
a high school. Before the first course in college chemistry or college mathematics can be taken, the student must pass a placement test in these subjects. A deficiency of any of the above high school units may extend the time required for completion of the courses prerequisite to beginning the professional curriculum in the junior year, or it may restrict the electives that may be taken. Any entrance deficiencies should be made up as early as possible, preferably in the first year.

**Preprofessional Curriculum**

Preprofessional sciences courses must be completed within the six years just prior to admission to a professional program. Exceptions to this policy may be made on a case-by-case basis at the discretion of the program faculty. Documentation of competency must be provided by the applicant requesting the exception. There is no appeal for an exception request of this policy. These courses are taken under direction of the College of Liberal Arts and Sciences

**First Year**

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
CHM 1220 -- (PS) General Chemistry I: Cr. 4
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
CHM 1240 -- Organic Chemistry I: Cr. 4
CHM 1250 -- Organic Chemistry I Laboratory: Cr. 1
CLS 2080 -- Clinical Laboratory Science Seminar: Cr. 1
CLS 3330 -- Medical Terminology: Cr. 1
COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 1800 -- Elementary Functions: Cr. 4
HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
Total credits: 33-38

**Second Year**

BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
BIO 2870 -- Anatomy and Physiology: Cr. 5
CHM 2220 or CHM 2280
   -- Organic Chemistry II: Cr. 3 (recommended)
   -- General Chemistry II: Analytical Chemistry: Cr. 3
CHM 2230 or CHM 2290
   -- Organic Chemistry II Lab: Cr. 2
   -- General Chemistry II: Analytical Lab: Cr. 2
ENG 3010 or ENG 3050
   -- (IC) Intermediate Writing: Cr. 3
   -- (IC) Technical Communication I: Reports: Cr. 3
   -- any Intermediate Composition (IC) course
PHI 1050 -- (CT) Critical Thinking: Cr. 3 (or Competency Examination)
STA 1020 -- Elementary Statistics: Cr. 3
HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
Total credits: 29-35
Professional Program

Professional Program Admission
The junior class is admitted to the professional curriculum in the Fall Semester only. An application for admission to the program must be submitted to the Clinical Laboratory Science Program by April 1 of the year one wishes to enter the professional curriculum.

The Admissions Committee is composed of clinical laboratory scientists on the faculty, academic service officers, and/or alumni or adjunct faculty from clinical affiliates. The Admissions Committee will interview and consider for admission applicants who have:

1. The following cumulative grade point averages by the end of the second semester of the year preceding admission to the professional program:
   (a) 2.7 or greater overall grade point average; and
   (b) 2.7 or greater combined science grade point average (biology, chemistry, and mathematics courses).
2. A grade of ‘C’ or better in ALL preprofessional courses.
3. No more than two repeats or withdrawals (marks of ‘W’ or ‘WF’) in science courses preferred.
   (If all courses are withdrawn in a single semester, it counts as one ‘W.’)
4. Completed all preprofessional courses (see above) by the end of the summer semester prior to admission to the professional program.
5. Submitted, in addition to the application, the following:
   (a) Two references (reference forms available in the CLS application packet) from: one employer and one science faculty member (If there is no employer, two science faculty references may be submitted).
   (b) If the student has transferred to Wayne State University, submitted official transcripts from all former undergraduate schools.
   (c) If a Wayne State student, student copy of Wayne State transcripts.

Since clinical positions are limited, the Admissions Committee must consider each applicant individually. A sound academic background and a familiarity with the profession and its demands, together with a desire to advance the field of clinical laboratory science through research, teaching, or service are important factors for consideration. Emotional stability, maturity and the ability to communicate are among the criteria used in considering students.

The decision of the Admissions Committee will be: 1) Accepted, 2) Denied, or 3) Conditional Acceptance. (If applicants are taking prerequisite courses during the application process, acceptance will not be final until satisfactory completion of the requirements.)

Note: If an admitted student’s grade point average falls below 2.7 prior to the start of the first semester in the professional program, that student’s admittance will be revoked.

All requests for additional information should be addressed to the Department of Fundamental and Applied Sciences, Clinical Laboratory Science Program, Eugene Applebaum College of Pharmacy and Health Sciences.

Professional courses and/or professional program admission requirements are subject to change without notification. The curriculum is subject to change due to adjustments in requirements for entry into professional practice, which may be separate from academic requirements. It is the student’s responsibility to obtain current information regarding the Clinical Laboratory Science program.
Degree Requirements (B.S. Program)
Candidates for the Bachelor of Science in Clinical Laboratory Science degree must complete 120-134 credits in course work, including sufficient credits to fulfill the University General Education Requirements (see General Education Program) not satisfied by either required courses or the student’s choice of electives in the preprofessional program. The distribution of the total credits for the degree will be between the preprofessional program (see above) and the following professional program.

Please Note: Granting of the Bachelor of Science in Clinical Laboratory Science degree IS NOT contingent upon the student passing any type of external certification or licensure examination.

CLS Professional Curriculum
Basic science courses in this program are taken under the direction of the faculty of Clinical Laboratory Science in cooperation with the faculty of the Department of Fundamental and Applied Sciences and the staff of affiliated clinical institutions.

Third and Fourth Years
CLS 3020 -- Hematology Lecture/Lab: Cr. 4
CLS 3040 -- Immunohematology Lecture/Lab: Cr. 4
CLS 3080 -- Instrumentation Lecture/Lab: Cr. 4
CLS 3090 -- Introduction to Professional Practice: Cr. 2
CLS 3100 -- Basic Techniques: Microscopy: Cr. 3
CLS 3280 -- Clinical Chemistry Lecture/Lab: Cr. 4
CLS 3090 -- Introduction to Professional Practice: Cr. 2
CLS 3100 -- Basic Techniques: Microscopy: Cr. 3

SIX-MONTH CLINICAL EXPERIENCE
(Second Semester/Senior Year):
Students are required to satisfactorily complete all coursework for the degree, other than the five clinical experience courses listed here, before starting the clinical experience. There are no exceptions allowed.

CLS 4000 -- Clinical Hematology: Cr. 5
CLS 4010 -- Clinical Chemistry: Cr. 4
CLS 4020 -- Clinical Blood Bank: Cr. 4
CLS 4030 -- Clinical Microbiology: Cr. 4
CLS 4050 -- Clinical Immunology: Cr. 1

CLS 4000, 4010, 4020, 4030, and 4050 are completed at a clinical laboratory affiliated with the Eugene Applebaum College of Pharmacy and Health Sciences.
Bachelor of Health Science
with a concentration in laboratory science

Students interested in the B.S. in Clinical Laboratory Science (CLS) are initially admitted into this degree track. If a student is not accepted into the CLS track in the Fall of the second professional program year, he/she may complete sufficient credits to graduate with the B.H.S. degree with a concentration in laboratory science degree. This degree is also for students interested in entering a subsequent graduate program. The curriculum allows flexibility in course selection to meet the prerequisites for the Pathologists' Assistants Program, Physician Assistant Program, or graduate school in a basic medical science. This degree does not include any clinical experiential courses. Admission to the CLS major program is required to register for clinical experiential courses. Students who graduate with the BHS with a concentration in Laboratory Science are NOT eligible to take the ASCP MLS examination, unless they later qualify through a hospital-based program or through some other route.

REQUIRED COURSES

CLS 3020 -- Hematology Lecture and Laboratory: Cr. 4
CLS 3040 -- Immunohematology Lecture/Lab: Cr. 4(or approved elective)
CLS 3080 -- Instrumentation Lecture and lab.: Cr. 4
CLS 3090 -- Introduction to Professional Practice: Cr. 2 (or approved elective)
CLS 3100 -- Basic Techniques: Microscopy: Cr. 3
CLS 3280 -- Clinical Chemistry Lecture/Lab: Cr. 4
CLS 4040 -- Laboratory Operations: Cr. 3 (or approved elective)
CLS 4210 - Hemostasis Lecture and Laboratory: Cr. 2
CLS 4230 -- Hematology 2: Cr. 2
CLS 5500 -- Immunology and Serology: Cr. 3
CLS 5510 -- Diagnostic Microbiology I: Cr. 4
CLS 5520 -- Diagnostic Microbiology II: Cr. 4
CLS 5530 -- Microbiology Simulation Laboratory
CLS 5993 -- (WI) Writing Intensive Course: Cr. 0
CLS 5020 -- Pathophysiology: Cr. 3 (or approved elective)

APPROVED ELECTIVES: Sufficient electives may be taken to complete the minimum of 120 credits needed for graduation. Electives must be approved by the CLS Program and may include (list is not all inclusive):

CLS 4990 -- CLS Professional Directed Study: 1-7

Nutrition
Ethics (PHI 1110 or 2320)
Genetics
Advanced Physiology

Cell Biology
General Physics
Advanced Psychology

CREDITS NEEDED TO GRADUATE: 120
Technical Standards (Essential Functions) for Admission and Retention in the Programs, with ADA Policy Statement

The faculty have identified the following non-academic essential criteria which all students are expected to meet, with or without reasonable accommodation, in order to participate in coursework and professional practice. These criteria are in addition to the academic conduct set forth by the University Student Code of Conduct.

**Observation Functions**—Students must be able to
- identify and distinguish objects macroscopically and microscopically and read charts, graphs, and instrument scales as well as discern fine details of texture and color (Note: Color blindness does not necessarily preclude admission to the program)
- observe and perform laboratory tests where biological specimens (body fluids, culture materials, and cellular specimens) are tested for their biochemical, hematological, immunological, and microbiological components
- characterize the color, odor, clarity, and viscosity of biological, reagents, or chemical reaction products

**Communication Functions**—Students must be able to
- communicate effectively in written and spoken English
- appropriately assess nonverbal as well as verbal communication from other students, faculty, staff, patients, and all members of the health care team

**Movement Functions**—Students must be able to
- move freely and safely from one location to another in classrooms and student laboratories and healthcare facilities
- reach laboratory benchtops and shelves
- reach patients lying in bed or seated in specimen collection chairs
- operate equipment in the laboratory or healthcare facility, including demonstrating sufficient coordination to allow delicate and controlled manipulations of specimens, instruments, and tools
- perform continuous physical work, often requiring prolonged standing or sitting, over a period of several hours

**Intellectual, Behavioral, and Professional Functions**—Students must be able to
- apply knowledge, skills, and values learned from previous coursework and life experiences to new situations
- measure, calculate, analyze, evaluate, interpret, integrate and synthesize information
- develop and exhibit problem solving skills
- possess the emotional health necessary to effectively use intellect and exercise appropriate judgment
- maintain mature, sensitive, and effective relationships with other students, faculty, staff, patients, and all members of the health care team
- recognize emergency situations and take appropriate actions
- work safely with mechanical, electrical, thermal, chemical, radiologic, and biological hazards and follow prescribed guidelines for working with hazards
- recognize and respond to safety issues appropriately
- follow written and verbal directions
- work independently and with others and under time constraints
- prioritize requests and work concurrently on at least two different tasks
- maintain alertness and concentration during a normal work period.
- learn and abide by professional standards of practice.
• engage in patient care delivery in all settings and be able to deliver care to all patient populations including but not limited to children, adolescents, adults, individuals with disabilities, medically compromised patients and vulnerable children or adults

Affective (valuing) Functions—Students must
• show respect for self and others and project an image of professionalism, including in appearance, dress, and confidence
• demonstrate complete personal integrity and honesty
• know that his or her values, attitudes, beliefs, emotions, and experiences affect personal perceptions and relationships with others
• possess skills and experience necessary for effective and harmonious relationships in diverse academic and work environments


(Use the link above to access more information.)

“Wayne State University is committed to a policy of non-discrimination and equal opportunity in all of its operations, employment opportunities, educational programs and related activities.

Several statutes set out the legal responsibilities of the University with regard to students and employees with disabilities – namely the Americans with Disabilities Act (ADA) and Michigan’s Persons With Disabilities Civil Rights Act (PWDCRA).

The University’s Students Disability Services facilitates reasonable modifications for students with disabilities and serves as a resource by providing technical assistance, information and disability awareness training to those in the University’s community. Contact the office at 577-1851 or visit their website at http://studentdisability.wayne.edu.”
CLS Entry-Level Competencies

Description of Entry Level Competencies of the Medical Laboratory Scientist

From NAACLS 2012 Standards:

“At entry level, the medical laboratory scientist will possess the entry level competencies necessary to perform the full range of clinical laboratory tests in areas such as Clinical Chemistry, Hematology/Hemostasis, Immunology, Immunohematology/Transfusion medicine, Microbiology, Urine and Body Fluid Analysis and Laboratory Operations, and other emerging diagnostics, and will play a role in the development and evaluation of test systems and interpretive algorithms.”

In regard to laboratory operations and the performance of laboratory tests involving Microbiology, Hematology, Chemistry, Body Fluids, Immunology, and Blood Bank, at career entry, the Laboratory Professional:

APPLIES
- Principles of basic laboratory procedures in order to perform tests
- Principles of special procedures related to testing
- Knowledge to identify sources of error in laboratory testing
- Knowledge of fundamental biological characteristics as they pertain to laboratory testing
- Principles of theory and practice related to laboratory operations (management/safety/education/research and development)
- Knowledge of standard operating procedures

SELECTS
- Procedural course of action appropriate for the type of sample and test requested
- Methods/reagents/media/blood products according to established procedures
- Instruments to perform test appropriate to test methodology according to established procedures
- Appropriate controls for test performed
- Routine laboratory procedures to verify test results according to established protocol
- Special laboratory procedures to verify test results
- Instruments for new laboratory procedures

PREPARES
- Reagents/media/blood products according to established procedures
- Instruments to perform tests
- Controls appropriate for testing procedures

CALCULATES
- Results from test data obtained from laboratory procedures

CORRELATES LABORATORY DATA
- And clinical data to assess test results
- And quality control data to assess test results
- With other laboratory data to assess test results
- With physiologic processes to assess/validate test results and procedures
EVALUATES
- Laboratory and clinical data to specify additional tests
- Laboratory data to recognize common procedural/technical problems
- Laboratory data to verify test results
- Laboratory data to check for possible source of errors
- Laboratory data to determine possible inconsistent results
- Laboratory data to recognize health and disease states
- Laboratory data to assess validity/accuracy of procedures for a given test
- Laboratory data to determine appropriate instrument adjustments
- Laboratory data to take corrective action according to predetermined criteria
- Laboratory data to recognize and report the need for additional testing
- Laboratory data to determine alternate methods for a given test
- Various methods to establish new testing procedures
- Laboratory and clinical data to assure personnel safety
- Laboratory operational procedures
- Test results obtained by alternate methodologies
- Laboratory data to establish reference range criteria for existing or new tests
- Laboratory data to make identifications/recommendations
Policies & Procedures

Academic Standards

Academic Standing

The student must maintain satisfactory progress in program coursework in order to advance in the program. Any student who receives an 'F' as a final grade will be subject to automatic dismissal. Students receiving less than 'C' (73%) in any core course (see list below) will not be considered for transfer to the BS in CLS degree program. Due to limited laboratory space, repeating a course will generally not be permitted.

Students must demonstrate sufficient skills, knowledge, and professional behavior to be placed in a clinical experiential sequence. Each student must have a cumulative GPA of 2.75 or higher in the professional courses AND an overall GPA of 2.75 or higher in all University coursework in order to be considered for transfer to the BS in CLS program in their senior year. Students must achieve a 'C' (73%) or better in all core professional courses (see list below) before advancing to the clinical experiential courses. Furthermore, no senior student with a grade of less than 'C' in any clinical course will be allowed to graduate with a BS in CLS. However, they may still graduate with the BHS concentration in Laboratory Science degree if those degree requirements are met (see above).

Core Professional Courses (The student must achieve a grade of C or higher in these CLS program courses in order to be considered for placement in the CLS track and clinical experiential courses)

- CLS 3020 -- Hematology Lecture/Lab
- CLS 3040 -- Immunohematology Lecture/Lab
- CLS 3080 -- Instrumentation Lecture/Lab
- CLS 3090 -- Introduction to Professional Practice
- CLS 3100 -- Basic Techniques: Microscopy
- CLS 3280 -- Clinical Chemistry Lecture/Lab
- CLS 4040 -- Laboratory Operations
- CLS 4210 -- Hemostasis Lecture and Laboratory
- CLS 4230 -- Hematology 2
- CLS 5070 -- Clinical Pathology Correlation
- CLS 5500 -- Immunology and Serology
- CLS 5510 -- Diagnostic Microbiology 1
- CLS 5520 -- Diagnostic Microbiology 2
- CLS 5530 -- Microbiology Simulation Laboratory

Academic Standing—Clinical Experiential Courses

Satisfactory completion of a clinical course has two components: completion of the clinical rotation and the associated practical examination and completion of a written exam. Failure to satisfactorily complete either component may result in removal from the BS in CLS program with the option to complete the degree on the BHS track.
Students in their clinical rotations must maintain an overall grade of “C” (≥73%) or better in each clinical rotation. Grades in each rotation will be determined as follows:

- Written Examination(s): 45%
- Practical Examination: 40%
- Lab Performance Support Document: 10%
- SOAPS & other assignments: 5%

In addition, any violation of work rules at the clinical site may result in dismissal from the clinical experience courses and from the program.

Written Examinations

Written examinations in the clinical courses (CLS 4000, 4010, 4020, 4030, and 4050) are taken online on Blackboard. The student must receive an overall exam grade of 73% or higher for the written exam for each clinical course. If a student fails to achieve 73% or higher on each exam, the student may retake the exam for that course ONE TIME. If a score of 73% or higher is achieved on the exam on the 2nd try, then a 73% will be recorded as the final score on that exam. If the student does not achieve a score of 73% or higher on the second attempt, then the student is placed on probation. If the student then fails to achieve an exam score of 73% or higher (after retesting as outlined above) in a second clinical course, then the student will receive grades of “D” or “F” for these clinical courses and will be dismissed from the BS in CLS Program.

If a student on probation for failing to achieve an exam score of 73% or higher (after retesting as outlined above) successfully completes the written examinations in all of the other clinical courses with scores of 73% or higher, then the student will be required to register for a directed study associated with the clinical course material (CLS 4990 for two credit hours) at Wayne State University for Summer semester. After completion of the directed study, the student is required to take the written comprehensive examination which covers the clinical course material one final time. If the student fails to achieve a score of 73% or higher on this comprehensive examination, or does not complete the directed study and exam retake by the deadline, then the student will receive a “D” or “F” for the clinical course and be dismissed from the BS in CLS Program. (While the directed study is being completed, the student will have an “incomplete” grade (I or Y) in the clinical course.)

Practical Examinations:

Each clinical rotation will evaluate the student with a practical exam. The clinical instructor will determine the test evaluation method in their laboratory. The objective is to ensure that each student is capable of performing as an entry-level clinical laboratory scientist by the conclusion of that rotation.

The student must attain a score of 80% or higher on the practical component of the rotation to pass the rotation. There are no retakes of the practical exam. If the student fails to achieve a score of 80% or higher, the student will receive an incomplete grade (I or Y) for that rotation and will be placed on probation. The student will be required to repeat this rotation at the end of the clinical experiential. If the student again fails to achieve a score of 80% or higher on the practical exam, or does not complete the repeat of the clinical rotation, the student will receive a “D” or “F” for the rotation and be dismissed from the BS in CLS Program.

Once on probation, if a student fails to achieve a passing grade (C or higher) in any other clinical rotation (either on written examination or practical), the student will be dismissed from the BS in CLS Program. Students who are dismissed from the BS in CLS Program during their clinical rotations or who fail to complete the clinical experiential for any reason have the option of
completing the degree requirements for the Bachelor of Health Science with a concentration in Laboratory Science degree.

Any student who fails to complete the clinical experiential satisfactorily will not be eligible to take the ASCP MLS certification examination.

**Academic Dismissal**

Any student who receives an 'F' as a final grade will be subject to automatic dismissal. Students receiving less than 'C' (73%) in any core course (see list below) will not be considered for transfer to the CLS track. Each student must have a cumulative GPA of 2.75 or higher in the professional courses AND an overall GPA of 2.75 or higher in all University coursework in order to be considered for transfer to the BS in CLS degree program for their senior year. Due to limited laboratory space, repeating a course will generally not be permitted.

**Academic Probation BHS Track**

A student in the BHS track who receives a second D-plus or lower in a professional course will be placed on probation. The third D-plus or lower will result in dismissal from the BHS program. A BHS student whose GPA falls below 2.0 in professional course work will be placed on academic probation and will be granted only one term to bring the GPA to 2.0 or above. An overall GPA of 2.0 or greater in professional program courses is required to graduate with the Bachelor of Health Science with a concentration in Laboratory Science degree.

**Readmission**

Students who have been dismissed for academic reasons and wish to be readmitted to the BHS concentration in laboratory science will have the opportunity to do so only once. Students must receive a 'C' or above in all repeated courses in order to continue in the program. The decision to readmit a student will be on a competitive basis and readmission is not guaranteed. If, upon readmission, the student fails to meet the academic standards of the Program he/she will be dismissed and not readmitted at any time thereafter.

Any student who has been dismissed for academic reasons during the first admission to the program but has successfully completed clinical laboratory science course work with a grade of 'C' or better need not repeat these courses upon final readmission. All courses receiving a final grade less than 'C' ('C-minus,' 'D,' or 'F') must be repeated. It may be necessary for the student to change status from full-time to part-time in order to repeat the academically substandard work. If more than one year elapses from the time these courses were successfully completed, and the student is readmitted, it may be necessary to repeat the entire course of study. The faculty reserves the right to recommend repetition of courses for any student who is readmitted to the professional program and, in specific cases, may alter this policy and assign a directed study.

**Academic Integrity (Plagiarism and Cheating)**

From: [http://doso.wayne.edu/academic-integrity.html](http://doso.wayne.edu/academic-integrity.html)

Academic misbehavior means any activity that tends to compromise the academic integrity of the institution or subvert the education process. All forms of academic misbehavior are prohibited at Wayne State University, as outlined in the Student Code of Conduct.
Students are expected to be honest and forthright in their academic studies. Students who commit or assist in committing dishonest acts are subject to downgrading and/or additional sanctions as described in the Student Code of Conduct. Faculty and students are responsible for knowing the different forms of academic dishonesty as well as for being aware of the Student Code of Conduct.

It is important that each of us share the responsibility for maintaining a reputable University committed to academic excellence. Faculty should encourage academic honesty among students by including a statement in the course syllabus and by discussing issues such as cheating and plagiarism. Similarly, students should protect themselves by thoroughly studying and preparing for tests and assignments and by discouraging dishonesty among other students.

Cheating
Intentionally using or attempting to use, or intentionally providing or attempting to provide, unauthorized materials, information or assistance in any academic exercise.

Examples:
- Copying from another student’s test paper.
- Allowing another student to copy from a test paper.
- Using unauthorized material such as a "cheat sheet" during an exam.

Fabrication
Intentional and unauthorized falsification of any information or citation.

Examples:
- Citation of information not taken from the source indicated.
- Listing sources in a bibliography not used in a research paper.

Plagiarism
To take and use another’s words or ideas as one’s own.

Examples:
- Failure to use appropriate referencing when using the words or ideas of other persons.
- Altering the language, paraphrasing, omitting, rearranging, or forming new combinations of words in an attempt to make the thoughts of another appear as your own.

Other
Other forms of academic misbehavior include, but are not limited to, the following acts:
- Unauthorized use of resources, or any attempt to limit another student's access to educational resources, or any attempt to alter equipment so as to lead to an incorrect answer for subsequent users. Enlisting the assistance of a substitute in the taking of examinations;
- Violating course rules as defined in the course syllabus or other written information provided to the student;
- Selling, buying or stealing all or part of an un-administered test or answers to the test. Changing or altering a grade on a test or other academic grade records.

Q: What happens when a faculty member suspects that a student has committed a dishonest act?
A: When a faculty member has reason to suspect that academic misbehavior has occurred, he/she may adjust the grade downward for the test, the paper, the part or other course-related activity in question, or for the entire course.

Q: Can the student appeal the downgrading decision by the faculty?
A: YES. The student can appeal the action by filing a statement in writing with the department or unit head within ten school days of the oral note or postmarked written notice. NOTE: If the
department head is the faculty, the appeal is to the dean. If the dean is the faculty, the appeal is to the provost.

Q: What should you do if you suspect wrongdoing?
A: Anyone can initiate charges against another individual or group believed to have committed academic misbehavior by writing and filing charges with the Student Conduct Officer.

If you know or suspect any individual or group of dishonesty please let someone know. The Student Conduct Officer, 577-1010, is responsible for directing and coordinating matters involving student discipline and is available to answer questions concerning the judicial procedure outlined in the Student Code of Conduct. The Office of the Ombudsperson, 577-3487, is also available to advise students at any stage in the proceedings.

Interim suspension: Whenever there is evidence that the continued presence of a student on University premises poses a substantial threat to that student or to others, or to the stability and continuance of normal University functions, the student my be suspended for an interim period pursuant to Section 7.0 of the Student Code of Conduct.

Q: What kinds of sanctions are there if a student is found guilty of academic misbehavior?
A: Students found in violation of committing, attempting or assisting to commit academic dishonesty may be subject to one or more of the following sanctions, in addition to the downgrading, depending on the seriousness of the violation:

Disciplinary Reprimand
A formal notification to the student that his/her conduct has been unacceptable and a warning that another offense may result in a more serious sanction.

Disciplinary Probation
A disciplinary status that does not interfere with the student’s rights to enroll and attend classes but that includes specified requirements or restrictions for a specific period of time as determined in the particular case.

Suspension
A denial of the privilege of continuing as a student anywhere within the University, and denial of all student rights and privileges for a specified period of time.

Expulsion
A permanent denial of the privilege of continuing or enrolling as a student anywhere within the University and permanent denial of all student rights and privileges.

Transcript disciplinary record
An entry onto the student’s transcript, permanently or for a specified period of time, indicating the violation and sanction imposed.

Other sanctions
Other sanctions may be imposed instead of or in addition to those specified above.

NOTE: The information contained on this page has been edited from the Student Code of Conduct and written in a condensed format. Anyone with specific questions regarding academic misbehavior should consult the source document at http://www.doso.wayne.edu/codeofconduct.pdf. If the provisions described on this page differ in any way from the provisions of the Student Code of Conduct, then the provisions of the Code shall prevail.

For additional information about the Student Code of Conduct, contact the Student Conduct Officer in the Dean of Students office, Room 351 Student Center, 577-1010.
Grade Appeals
For information regarding Final Course Grade Appeals please refer to the document found at this website https://cphs.wayne.edu/students/resources.php by selecting the GRADE APPEAL POLICY link.

Update (8/24/17): If, after your School/College appeal path is exhausted and you wish to continue with the grade appeal process, per the University Academic policy (https://provost.wayne.edu/academic-policy), you may request a Provost Review within 30 days of this decision. The request should be addressed to Dr. R. Darin Ellis, Associate Provost for Academic Programs and sent electronically to ag6461@wayne.edu. For assistance with the appeal process, you may contact the Ombudsperson Laura Birnie-Lindemann at ombudsoffice@wayne.edu.

Grading Scale
This is the University grading scale:
- 93 - 100 % A
- 90 - 92 % A-
- 87 - 89 % B+
- 83 - 86 % B
- 80 - 82 % B-
- 77 - 79 % C+
- 73 - 76 % C
- 70 - 72 % C-
- 67 - 69 % D+
- 63 - 66 % D
- 60 - 62 % D-
- below 60 % F

Tests and Examinations
It is important for the student to prepare for and take course exams at the date and time scheduled. The student will receive a zero for tests and exams missed due to unexplained absences. In general, make-up exams will not be given. If there are extenuating circumstances, the student can petition the Program Director to allow a make-up exam. This exam will be different in content from the original exam. Any make-up exam may contain an oral component. If the student is unable to come to a class or exam, the student is required to call (313-577-2050) or email the instructor explaining the absence.

Advising
Advising for students accepted into the professional program is done by the program director. The student should make an appointment with the program director a minimum of once each year while in the professional program, or more often if necessary. Students may also come in for advising without an appointment during regular office hours—see the notice on the door of the Mort Sci third floor office suite for current office hours. Advising may also be done by email message if appropriate. Advising sessions are confidential, and all advising and related activities and documentation follow FERPA guidelines.
Affective Learning Objectives
During the professional programs, the student will develop and demonstrate the following:

1. Attend lecture, discussion, and laboratory sessions regularly, arriving promptly.
2. Display readiness to participate in learning experiences by preparing ahead of time for lecture, discussion, and laboratory sessions.
3. Demonstrate respect for others by listening, communicating clearly, cooperating, and helping other students as appropriate.
4. Participate in class discussions, and present information (i.e., case studies) to the class.
5. Know and comply with established safety regulations and dress codes.
6. Maintain clean, orderly laboratory work areas, cleaning up as needed without being asked.
7. Demonstrate proper care and use of laboratory equipment.
8. Exhibit a reasonable degree of confidence in performance of laboratory procedures.
9. Accept instruction, correction, and constructive criticism calmly and maturely.
10. Strive to behave professionally, and to motivate other students to do so.

Attendance
Attendance is required for all lecture, discussion, and laboratory sessions for all CLS program courses. Attendance will be recorded and considered in computing the final course grade. (See individual course syllabi for details.) If a student is unable to come to a class or examination the student is required to notify the instructor of the absence, by phone (313-577-2050) or email. The student must provide this notification before the start of class whenever possible.

Missed laboratory exercises and lab practical exams cannot be made up. It is important for students to prepare for and take course exams at the date and time scheduled. If a student misses a quiz, test, or examination due to an unexplained absence, the student will receive a score of zero. Make-up exams will not be given in these situations. If there are extenuating circumstances, the student can petition the instructor or program director to allow a make-up exam. This exam will be different in content from the original exam. Any make-up exam may contain an oral component.

Arrangements may be made ahead of time with the instructor for an excused absence in special circumstances.

Blackboard
Blackboard is an online learning management system used at Wayne State University. All of our professional program courses use a Blackboard component.

Clinical Experience
The clinical experience is 6 months long, generally from January to June, and takes place at one of our clinical affiliate sites. (The clinical experience at the DMC, for which we serve as an academic affiliate, is longer.) Students at clinical sites generally are on-site in the lab all day long, Monday through Friday; exact starting and ending times vary from lab to lab. During the clinical experience, students follow the policies of the clinical affiliate. Students do not take time off for WSU Spring Break, or WSU snow days, etc. The start and end dates of the clinical experience are not guaranteed and may vary. Students may need to wait for several months or longer, after successfully completing the classroom work, to begin a clinical experience assignment. More details will be provided prior to the start of the clinical experience.
Clinical Experience Service Work Policy

Students are NOT to be substituted for regular staff in order to assume their responsibilities. During regularly scheduled clinical experience hours, students may perform procedures or be responsible for a workstation after the objectives for those procedures or for that area of the laboratory have been successfully completed. These responsibilities will be performed under the supervision of a clinical instructor.

Students, during their clinical experience, may voluntarily work for the clinical affiliates if service work is permitted by the affiliate and a position is available. Students must be progressing satisfactorily in the clinical experience in order to be hired and remain employed. Service work must not be performed during scheduled clinical experience hours. Students may only perform such work in an area of the laboratory where they have successfully completed assigned objectives with a grade of “C” or better. Service work must not interfere with a student's satisfactory progression in the clinical experience. Students must be compensated for service work and must follow the employment policies of the institution.

Clinical Site Placement Policy

We have a limited (and varying) number of clinical placement openings and so have established a policy and procedure to fairly determine clinical placements.

- Clinical placements are only available to students in good standing in the Bachelor of Science in Clinical Laboratory Science degree program and any student who is deemed ineligible for admission to the Bachelor of Science in Clinical Laboratory Science degree program is also ineligible for a clinical placement.
  - Eligibility is determined on this basis: Students must demonstrate sufficient skills, knowledge, and professional behavior to be placed in a clinical experiential sequence. Each student must have a cumulative GPA of 2.75 or higher in the professional courses AND an overall GPA of 2.75 or higher in all University coursework in order to be considered for transfer to the BS in CLS program in their senior year. Students must achieve a ‘C’ (73%) or better in all core professional courses (see policy on Academic Standing Core Courses) before advancing to the clinical experiential courses.
- Students will be ranked for clinical placement according to CLS program GPA
- All clinical sites interview potential students. If the site indicates a preference for a particular student and the student agrees, that student will be placed at that site
- For sites that do not indicate a preference, student preferences and geographical location will be considered in making placements
- In the event that there are more students ready for the clinical experience courses than places available after the above steps have been taken, then students will be placed according to program GPA, with highest-ranking students placed first
- Students who are not placed initially for January start will be placed on a waiting list. Students may need to wait for several months or longer, after successfully completing the classroom work, to begin a clinical experience assignment.
- As additional clinical placements become available, students will be placed according to GPA ranking, with highest-ranking students placed first, along with geographical considerations
- All students accepted for the clinical experience will eventually receive clinical placements

Any requests for a change to the above procedure must be made in writing to the program director within two weeks of the initial announcement of clinical placements. Any such written request will be reviewed by a committee of CLS program faculty and a decision on the request will be made within two weeks of
submission of the request. If a student wishes to appeal this decision, the student must then follow the Student Complain Procedure.

**CLS Program Information Blackboard Organization**

"CLS Program Information" is a Blackboard site for everyone involved in the CLS program. Here you will find student handbooks, forms (including the community service hours confirmation form), class schedules, and other program-related information and documentation.

**Community Service Requirement**

Students are expected to perform 10 hours of community service while in the professional program. This community service must be related to the CLS program or to health care--this includes serving as a class officer, volunteering to help with events such as Community Apple Days and the annual Mortuary Science Open House, participating in the AIDS Walk, etc. Community service hours are reported on the Community Service Hours Confirmation Form and handed in to the Program Director. The form is available on the CLS Program Information Blackboard Organization site.

**Complaint Policy and Procedure**

All student complaints must be addressed promptly and in a professional manner, and documented in writing. The Student Complaint Record Form is to be used for this purpose. This documentation will allow us to track resolution of complaints.

A. If the student has or anticipates a problem relating to status in the program, the student should consult the Program Director.

B. If the student has or anticipates a problem within a specific course, the student should communicate with the faculty member involved and together they should try to solve the problem. The Student Complaint Record Form must be filled out by the faculty member, signed by the student and the faculty member, and forwarded to the Program Director within 48 hours of the initial meeting.

1. if the problem is not resolved within one week, the student, the involved faculty member and the Program Director shall meet within the next week and work to resolve the problem. (*Note: at the discretion of the Program Director, an extension may be granted. Documentation of this arrangement must be attached to the original notifications.*)

2. it is within the discretion of the Program Director to talk to the student and the faculty member (alone or in a group) to reach a resolution before the scheduled meeting.

3. at the time of the scheduled meeting within the second week, the student and the involved faculty member shall provide written documentation setting out problems and providing factual information in support of statements.

4. if more time is needed, all parties may meet again at a specified date within a week.

5. if all parties agree to a resolution the decision will be binding.

6. if the problem cannot be resolved among the parties, the Program Director will decide the issue.

7. if the student or faculty member is dissatisfied with the resolution, either may seek the involvement of the Chair of the Department of Fundamental and Applied Sciences.
8. Further appeals must be addressed in this order:
   First, the Associate Dean of Health Sciences
   Next, the Dean of the College of Pharmacy and Health Sciences
   Next, the University Provost

Related Policies:
http://undergrad.wayne.edu/appeal.php

Conferences
In general, students are expected to attend the ASCLS-Michigan Annual Meeting in April of each year. **Students are required to attend for one day each year**, unless otherwise specified by the Program Director. Meeting locations and dates vary from year to year, and requirements for meeting attendance will be announced along with the Winter Semester class schedule.

Dress Code
Please dress appropriately for classes. Neat blue jeans and tee shirts are acceptable. Shoes with closed toes and heels/back must be worn in the laboratory—NO SANDALS OR CLOGS. Socks or hosiery must be worn in laboratory sessions. Shorts are not allowed in the laboratory, and skirts/dresses worn in the laboratory must be calf-length or longer. Long hair must be tied back in the laboratory. Long nails and fake nails are not allowed in the laboratory. Apparel/appearance considered acceptable during the clinical experience will be addressed by each clinical site.

Electronic Devices and Recordings Policy
Unless otherwise specified by the course instructor, computers, phones, tablets or other electronic devices are not to be used during any clinical laboratory science program class session, in either lecture or laboratory.

Class recordings: Students need prior written permission from the instructor before recording any portion of this class. If permission is granted, the audio and/or video recording is to be used only for the student’s personal instructional use. Such recordings are not intended for a wider public audience, such as postings to the internet or sharing with others. Students registered with Student Disabilities Services (SDS) who wish to record class materials must present their specific accommodation to the instructor, who will subsequently comply with the request unless there is some specific reason why s/he cannot, such as discussion of confidential or protected information.

Expected Program Costs

**Tuition and Fees**

**Tuition for Fall 2017**
Tuition In-State (Upper Division) $483.72/credit hour
Student Service Fee  $35.62/credit hour  
Registration           $221.45

Cost per Term, Average
For Fall semester, Junior Year Students will have 16 credit hours of CLS courses for an estimated tuition cost of $7739.52. This figure does not include lab fees, textbooks, late registration, course fees, etc. Program courses with a lab have an additional course materials fee. See the schedule of classes for those fees.

The number of credits for the other semesters varies and thus your tuition per semester will change accordingly.

Junior Year
Fall semester: 16 credits  Winter semester: 15 credits  Spring/Summer: 4 credits

Senior Year
Fall: 14 credits  Clinical Rotation: 16 credits

The fee schedule can be found on the WSU website:  
http://reg.wayne.edu/students/tuition_and_fee_charts.php

Book costs are not included but are approximately $350.00 during the Junior Year. Many of these books will also be used during the Senior Year.

In addition, it will be the responsibility of the student to pay for the following items:
- Background Check
- ASCLS-MI Mock Exam
- Attendance at the annual ASCLS-MI Conference

ASCLS-MI Mock Exam
This is a statewide exam that all CLS students take in February of Year 2 (the Senior Year). The cost is around $5.00. Awards will be presented at the annual ASCLS-MI Annual Meeting to the 1st, 2nd and 3rd place individual winners and to the 1st, 2nd and 3rd place team winners.

Graduation
Students completing the BHS-concentration in Laboratory Science degree usually complete the degree requirements at the end of the Fall Semester of Senior year (Year 2).

Students completing the BS in CLS usually complete the degree requirements during the following Spring/Summer Semester. However, the completion date may be different, depending on which clinical site the student attends.

To graduate you must apply for your degree by the Friday of the fourth week of the semester. If an application for a degree is filed for a previous graduation term in which you did not graduate, a new application fee is required.

Apply for graduation by going into Pipeline and clicking on “Apply for Degree or Certificate”. Complete the form, and submit it along with the fee ($40.00).
For those graduating in Spring/Summer Semester: If you want to attend Commencement, your Commencement is held in May, even though you are graduating in August. Apply for graduation by early February. You MUST indicate that you will graduate Spring/Summer semester but want to walk in the graduation ceremony in May.

If you do not want to participate in the May Commencement ceremony, you must apply for graduation by June.

**Health Insurance**
Clinical instruction may be provided throughout the professional program along with didactic course work. A portion of the Senior Year may be spent in one or more assignments in selected clinical facilities throughout the metropolitan Detroit area and Michigan. Patient care involves inherent risk of exposure to potential diseases, particularly blood-borne pathogens, and the risk of possible mishaps in patient care. Therefore, all students are required to maintain health insurance coverage which must be in effect prior to and during all periods in which the student is involved in clinical education. The student is responsible for the cost of the insurance and all other costs (such as travel, meals, and living expenses) associated with the clinical education portion of the program.

**Hepatitis B Immunization**
Immunization against the Hepatitis B virus is strongly recommended. Some clinical sites may require students to be immunized against Hepatitis B. You will receive information about Hepatitis B at Orientation.

**HIPAA and Related Confidentiality Issues**
From http://cphs.wayne.edu/hipaa/

HIPAA is the Health Insurance Portability and Accountability Act of 1996. Simplified, HIPAA was established to:

- Allow portability of pre-existing condition exemption between employer health insurance group plans
- Standardize electronic transactions in health care to reduce costs through adjustments in record formats, code sets, identifiers, eligibility, referral, claims, remittance, etc.

The general requirements encompass five specific areas:

- Electronic Data Interchange (EDI) - electronic transfer of information among organizations (New date of compliance 10/16/2003)
- Code Sets - uniform codes for illnesses and treatments (No definite date of compliance)
- Identifiers - standardized numbers identifying health providers, plans, and employers (No definite date of compliance)
- Security - standards for protecting confidentiality, integrity, and availability of data (No definite date of compliance)
- Privacy - standards defining appropriate and inappropriate disclosures of individually identifiable health information and how patient rights are to be protected (Final date of compliance 4/14/2003)
Learn more about HIPAA privacy rules here: http://cphs.wayne.edu/hipaa/training-overview.php

**Leave of Absence Policy**

A student who is in good academic standing may be granted a leave of absence from the CLS program in certain circumstances. Examples of such circumstances include a documented medical issue or military duty. The student must submit the leave request in writing to the program director along with appropriate documentation. The request will be considered by the program faculty committee and the student will receive their decision in writing. A student who is granted a leave of absence is not dismissed from the CLS program and will be placed in the first available space upon return.

Note: when the student is ready to return from the leave of absence the faculty will meet to determine whether some or all prior coursework must be repeated. Repeating some or all coursework may be deemed necessary depending on the length of the leave of absence, and the faculty committee’s determination will be given to the student in writing.

**Liability Insurance**

Students in the CLS track are required to purchase student liability insurance coverage before starting the clinical experience. You must apply for this insurance one month in advance of your clinical rotation start date, and make sure that the insurance is activated by your clinical rotation start date. You will need to provide proof of insurance both to the Program Director and to the clinical site. YOU WILL NOT BE ALLOWED TO START YOUR CLINICAL ROTATION WITHOUT THIS INSURANCE.

**Your Options:**

1. **American Society for Clinical Pathology** (ASCP) offers insurance for $18 (as of 10/1/15) for members.

   *You must be a member of ASCP (free for students) to acquire this insurance*
   
   - First, go to [www.ascp.org](http://www.ascp.org)
   - Across the top, select “students”
   - select “laboratory science students,”
   - then select “membership” from page icons.

   Next, look at [www.ascp.lockton-ins.com](http://www.ascp.lockton-ins.com)
   - Select “Laboratory & Pathology” from the menu
   - Select “Get Started”
   - Complete the step-by-step questions (profession: Medical Technologist).

2. **Healthcare Providers Service Organization** (HPSO) offers insurance for $38 (as of 10/1/15).

   You can apply for the insurance on-line:
   - Go to [www.hpso.com](http://www.hpso.com)
   - In the Professional Liability Insurance box, select Apply Now
   - Select “Individual”, then click on Continue
   - 1. Enter your State of Residence
   - 2. Select area of study: Clinical Lab Technician/Technologist
   - 3. Answer appropriately
4. Select Student
5. For graduation date, select 6/30/15, unless you are doing your clinical rotation at the DMC. In that case, please ask your education coordinator for the date to enter.

Click on Continue

after you obtain the quote, you can complete your application and purchase.

3. You can Purchase insurance here: www.proliability.com

From the Proliability home page, choose “Healthcare Professionals”, and then choose “Students” from the dropdown box. Next, choose the “Forms” tab and then click on “Get My Application” and fill out the online form. This will allow you to apply for insurance.

Mailing Address
Mercer Consumer
PO Box 14576
Des Moines, IA 50306

Phone:
1-800-503-9230
(7:30 a.m. to 5:00 p.m. Central, M-F)

Fax:
1-515-365-6338
Email
info@proliability.com

OneCard
From http://onecard.wayne.edu/
The OneCard is an all in one, multi-purpose identification and debit card. It provides students, faculty, staff and alumni access to a wide variety of campus services in a convenient, easy-to-use card. A OneCard offers safety, convenience and flexibility. Cardholders can add money to their account, turning their OneCard into a campus wide debit card. The card can be used for parking, door access, copying and printing services, as well as food and bookstore purchases.

Adding Money

There are several ways to add money to your OneCard:

**Online**
Visit Pipeline and click on the OneCard Quick Deposit Icon. Enter your ID number, credit card information and the amount of money you would like to deposit. The minimum amount that can be deposited online is $15. Funds deposited online are available immediately.

**Check or Money Order**
Checks and money orders are accepted at the OneCard/Parking Service Center in the Welcome Center, suite 257. Funds deposited by check or money order are available the next day.

**CSVT Machine**
Cash System Value Terminals (CSVT) allow you to deposit cash to add value to your OneCard. CSVT machines can be found around campus. (There is one in the LRC at the Applebaum building.) Just insert
your OneCard into the CSVT machine, select the deposit function, and deposit your cash. Please note that denominations of $1, $5, $10 and $20 are accepted and CSVT machines do not give change. You can only add the exact amount you would like to deposit. The minimum amount that can be deposited at a CSVT machine is $1. The funds deposited online are available immediately.

Parking
- For classes at the Mortuary Science Building, students may park in lot 23 or in structure 1 on Palmer Street. Entry to either site is by OneCard payment or cash payment.
- For classes at the Applebaum Building, students may park in the structure on John R across from the building, using either OneCard payment or cash for entry. You must enter the Applebaum Building on the side facing the Rehabilitation Institute of Michigan.
- A shuttle bus is available for transportation from WSU Main Campus to the Applebaum Building. The bus runs approximately every 1/2 hour from 7 A.M. to 9 P.M. See www.parking.wayne.edu for more information on parking.

Religious Observance Policy
Because of the extraordinary variety of religious affiliations represented in the University student body and staff, the Wayne State University academic calendar makes no provision for religious holidays. It is University policy, however, to respect the faith and religious obligations of the individual. Students who find that their classes or examinations involve conflicts with their religious observances are expected to notify their instructors in writing of such conflicts, no later than seven days after the start of classes each semester, so that alternative arrangements as suitable as possible can be worked out.

Safety
Participating in student laboratory exercises and in the clinical experience courses may expose the student to the risk of injury or infection from hazardous materials and equipment. Exposure to infectious organisms present in blood or body fluids, or on culture media, may occur.

The following rules must be followed in the laboratory:
- Attend all required safety training sessions and study safety training materials.
- Wear University/College/Program/Clinical Laboratory approved Personal Protective Equipment (PPE) appropriate to the functions being performed.
- Follow all Work Practice Controls (procedures) and all safety regulations required by laboratories in the program.
- Inform instructor of any infractions of violations of safety regulations.
- Follow chemical safety guidelines. (link to WSU Chemical Hygiene Plan: https://research.wayne.edu/oehs/pdf/chemical-hygiene-plan.pdf)
- Follow Universal Precautions guidelines for infectious materials. Treat every specimen as if it is contaminated.
- Report any and all personal injuries to instructor and follow University reporting/documentation procedures.
- Maintain a safe and organized workstation while in the laboratory.
Lab coats protect clothing from becoming soiled, contaminated, or damaged by chemical spills. You must wear a lab coat during each laboratory exercise. Each student will be issued two disposable lab coats during the first week of classes. One lab coat is to be kept in the Mortuary Science Building lab (room 315) and the other is to be kept in the CLS student lab in the Applebaum Building (room 4421). The lab coats must stay in the lab—you are not allowed to wear your lab coat in other areas of either building, or to take it home. We request that you wear clean lab coats in all lab sessions. If your lab coat becomes soiled or gets torn, please throw it away and request a clean coat.

Face shields and gloves will be also provided and must be worn as appropriate during Clinical Laboratory Science laboratory exercises. The faculty and staff will instruct you in proper use of personal protective equipment (PPE), safety devices, other laboratory equipment, and proper procedures/behaviors, and will monitor compliance with safety regulations.

Scholarships and Financial Aid

A financial aid assistant is available on Tuesdays (10:00—1:00) at the EACPHS Building. You may also contact the Financial Aid Office for additional sources of financial assistance at the Welcome Center Building, 42 W. Warren on Main Campus.

The Clinical Laboratory Science Program has the following scholarships currently available.

**Katherine M. Beattie Endowed CLS Scholarship**

Katherine M. Beattie was an alumna of this program, and generously provided this scholarship to help fund the professional educations of future generations of MT/CLS students. This scholarship provides a $1,000 scholarship for a student during the clinical experience. This scholarship will recognize scholastic achievement and provide financial assistance to students completing the CLS program. **Application deadline is December 1.**

**Dr. Alexander Wallace III and M. Anne Wallace Endowed Scholarship**

M. Anne Wallace was a member of the MT/CLS program faculty for many years and currently holds the title of “Professor Emerita”. The Dr. Alexander Wallace III and M. Anne Wallace Endowed Clinical Laboratory Science or Cytotechnology Scholarship was established by her to recognize scholastic achievement, to encourage continued progress, and to provide assistance to students in financing their education at Wayne State University, and is to be administered according to the following provisions:

- Annual award(s) of up to $2,000 are available for full-time BHS/CLS students of Wayne State University’s Eugene Applebaum College of Pharmacy & Health Sciences.
- The student must have a 2.7 cumulative G.P.A. at the end of fall semester.
- The student receiving the award will be selected on the basis of scholastic achievement, need, and qualities of leadership.
- The student receiving the award will be selected by the faculty of the Clinical Laboratory Science program. The selection will be reviewed by Emeritus Professor Wallace in accordance with the general policies and practices in effect for scholarships at the University.
- The application deadline is **March 1**.
- The Office of Scholarships and Financial Aid will disburse the new award according to regular University procedures during the Fall Semester of Professional Year 2 (the Senior year).

**Christine Ford Annual Scholarship**

Cris Ford was MT/CLS Department secretary for thirty-six years. Cris Ford loved helping people—especially students. After her passing, generous graduates, colleagues, and friends who continue to be
inspired by her selfless caring spirit and dedication to our students made contributions in her memory to establish this scholarship fund. This annual scholarship will be awarded to outstanding Clinical Laboratory Science students who are in need of tuition assistance.

- The application deadline is **March 1**.
- The Office of Scholarships and Financial Aid will disburse the new award according to regular University procedures during the Fall Semester of Professional Year 2 (the Senior year).

**Clinical Laboratory Science Program Scholarship**

CLS/BHS students in good standing are eligible for scholarship award according to need, as long as funds are available.

**Social Media Policy**

Healthcare systems, including our clinical sites, may monitor the social media postings of employees and job applicants and may take negative action regarding unprofessional or damaging postings. Students in the CLS program are held to the same standard. Students are warned that social media postings, even when initially made in private form, can become public. Information received by the program that reflects on character may result in disciplinary action, including removal from the program.

**Student Code of Conduct**

All students are required to follow the Wayne State University Student Code of Conduct. The details are available here: [http://bog.wayne.edu/code/2_31_02.php](http://bog.wayne.edu/code/2_31_02.php)

**Tardiness**

Students are expected to be in the classroom or laboratory before the scheduled class start time and to be ready to start work on time. Any incidences of tardiness will be recorded and considered in computing the final course grade. (See individual course syllabi for details.) Information or events missed because of tardiness will not be repeated. Additional time for exams will not be allowed if a student is tardy.

**Tuition and Fees—see “Expected Program Costs”**

**Useful Links:**

Professional Organizations:

- American Society for Clinical Laboratory Science (ASCLS) [http://www.ascls.org/](http://www.ascls.org/)
- American Society for Clinical Pathology (ASCP) [http://www.ascp.org/](http://www.ascp.org/)
- Student Code of Conduct: [http://bog.wayne.edu/code/2_31_02.php](http://bog.wayne.edu/code/2_31_02.php)