DEPARTMENT of MEDICAL AND MOLECULAR SCIENCES

MEDICAL LABORATORY SCIENCE STUDENT HANDBOOK (2025-26)

In order to facilitate the success and ensure the welfare of students in the Medical Laboratory Science major, and in their future careers as medical laboratory scientists, the policies stated herein have been adopted. Feel free to contact the Program Director if you have any questions concerning department policies.

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Please indicate your understanding of these policies by **signing** on the indicated spaces on **Pages 19, 20 and 21** and **email the entire handbook with signed signature pages to Andrew Hollinger at ahollin@udel.edu. Thank you.**

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DEPARTMENT OF MEDICAL AND MOLECULAR SCIENCES

MISSION STATEMENT

The Department of Medical and Molecular Sciences is committed to providing skilled, critical-thinking practitioners equipped to be future leaders in health sciences. In this pursuit, the Department is committed to active engagement of undergraduate and graduate students in experiential learning, to forming collaborative partnerships with educational, clinical, industrial and research experts locally and globally, to discovering innovative breakthroughs in research that contribute to the health and basic sciences body of knowledge, and to functioning as an expert resource regarding all issues related to Medical and Molecular Science.

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I. GOALS AND COMPETENCIES REQUIRED OF STUDENTS

It is the goal of the University of Delaware to encourage students to achieve their highest standard of scholarship and to help them assume responsibility for developing and achieving their own goals and objectives. In accordance with this, the primary educational goals of the Department of Medical and Molecular Sciences are to provide students with an excellent comprehensive education in medical laboratory science leading to a baccalaureate degree, to prepare students to function in entry-level, professional positions as medical laboratory science practitioners for the healthcare environment of the 21st century, and to prepare students to be life-long learners so as to remain current with advances in medical laboratory science.

The curriculum design assures student-oriented instruction in the theory and techniques of diagnostic laboratory procedures. The affiliate clinical laboratory practicums are a continuum of this specialized education and are designed to broaden the student's education and experience. This approach to education enables students to graduate from the University as medical laboratory scientists, prepared to enter the profession and eligible for national certification. Thus, the demonstration of specific professional, entry-level competencies is expected of students.

The Medical Laboratory Science Program's educational objectives, as listed below, encompass the pre-analytical, analytical, and post-analytical components of each area of the laboratory including clinical chemistry, hematology, hemostasis, immunohematology, immunology, microbiology, molecular diagnostics/genetics, phlebotomy, urinalysis and body fluids, and laboratory operations. To accomplish the educational goals of the program and some of the general education goals of the University, the curriculum incorporates cognitive, psychomotor and affective competencies. Students are expected to demonstrate entry-level proficiency for the following competencies. After successfully attending lectures, completing assignments, performing analyses in student laboratories, and participating in clinical practicums, the student will be able to:

- Demonstrate proper procedures for the collection, safe handling, and analysis of biological specimens.
- Utilize scientific principles (e.g., physiology, immunology, biochemistry, genetics, microbiology, etc.), laboratory principles, and methodologies as they apply to clinical and medical settings.
- Perform laboratory testing with accuracy.
- Evaluate problems that impact laboratory services and take corrective action.
- Operate laboratory equipment properly, troubleshoot, and perform preventive and corrective maintenance.
- Utilize proper techniques in the performance of all laboratory testing.
- Interpret accurately laboratory test data and determine their clinical significance.
- Using statistical analysis, evaluate laboratory data.
- Apply principles of continuous assessment to all laboratory services.
- Utilize principles of quality assurance and quality improvement for all phases of laboratory services, i.e., pre-analytical, analytical, and post-analytical.
- Comply with established laboratory safety regulations and regulations governing regulatory compliance related to laboratory practice.

- Communicate, through oral and written skills, effectively and professionally to enable consultative and educational interactions with health care personnel, the public, and patients in order to function successfully as a member of the health care team.
- Demonstrate ethical behavior and professionalism and maintain confidentiality of patient information.
- Develop skills and knowledge to be life-long learners.
- Apply principles of educational methodology to educate providers and users of laboratory services.
- Evaluate published scientific studies utilizing knowledge of research design.
- Apply principles and concepts of laboratory operations to critical pathways and clinical decision making, performance improvement, dynamics of healthcare delivery systems in relationship to laboratory services, human resource management, and financial management.
- Demonstrate a commitment to the future of the medical laboratory profession through involvement in a national professional society.

General Education Goals of the University

After successfully attending lectures and completing assignments in the liberal arts courses, the student will be able to:

1. Read critically, analyze arguments and information, and engage in constructive ideation.

2. Communicate effectively in writing, orally, and through creative expression.

3. Work collaboratively and independently within and across a variety of cultural contexts and a spectrum of differences.

4. Critically evaluate the ethical implications of what they say and do.

5. Reason quantitatively, computationally, and scientifically.

II. ESSENTIAL FUNCTIONS REQUIRED OF STUDENTS

You have chosen to pursue a healthcare profession, where honesty and integrity are critical personal characteristics required both in academic studies and in the practice of the profession of Medical Laboratory Science. The Essential Functions are requirements of the Program, and they comprise physical, emotional, and professional/intellectual demands required of a medical laboratory scientist. Throughout your professional studies, you will be evaluated to assess your ability to meet these standards. The demonstration of these professional, entry-level competencies is expected from students.

The ***physical demands*** required of students include the ability to:

1. Perform manual laboratory procedures safely and with dexterity.

2. Operate state-of-the-art instruments and laboratory information systems, including proper use of computers and keyboards.

3. Read and employ information displayed on a computer monitor or in print, e.g., text, numbers, graphs, etc.

4. Use a binocular microscope and differentiate microscopic components for structural and color (shading/intensity) differences.

5. Describe the visual characteristics of bodily specimens and chemical and immunologic reactions, e.g., color, clarity, viscosity, agglutination, etc.

6. Perform delicate manipulations which require good hand-eye coordination, e.g., pipetting, use of inoculating loops, etc.

7. Utilize equipment for the safe collection of blood specimens from patients.

8. Participate in safe laboratory practices through one's ability to move effectively in the workplace, to access laboratory work areas, and to reach hospitalized patients and outpatients for the purpose of blood collection.

The ***emotional demands*** required of students include the ability to:

1. Perform laboratory procedures accurately and quickly even under stressful conditions.

2. Maintain composure and professionalism while providing appropriate laboratory services under stressful situations, such as time constraints, emergencies, rudeness, etc.

3. Utilize independent judgment and act logically in the performance of one's duties.

4. Organize and accept responsibility for one's work, including acknowledgement of errors or uncertainty and acceptance of constructive criticism.

5. Employ sufficient psychological stability to consistently and dependably utilize critical thinking in order to formulate and implement safe and ethical healthcare decisions in a variety of healthcare settings.

The ***professional/intellectual demands*** required of students include the ability to:

1. Communicate in a professional, positive, tactful manner with patients, physicians, nurses, other health care and non-health care employees, and fellow laboratory personnel.

2. Communicate, comprehend, and follow directions understandably in English as evidenced by verbal, written, and reading skills.

3. Communicate, through the use of assistive devices (e.g., hearing aids, phone receivers, etc.) if needed, so as to converse understandably in English.

4. Maintain patient confidentiality and exercise ethical judgment, integrity, honesty, dependability, and accountability in the performance of one's responsibilities.

5. Perform multiple laboratory tests simultaneously while maintaining efficiency, organization, and accuracy.

6. Demonstrate the intellectual skills required to: comprehend scientific and medical information, perform mathematical calculations, analyze information, evaluate information, and use critical thinking skills to solve problems.

7. Maintain a well-groomed, neat, professional appearance.

III. HEALTH AND SAFETY REQUIREMENTS

- **Laboratory Attire**

For health and safety reasons and to facilitate a professional work environment, the following restrictions are placed on laboratory attire:

1. Full length white lab coats that meet Occupational Safety and Health Administration (OSHA) standards must be worn zipped up or entirely fastened at all times in the laboratory.
2. Shorts, short pants, short skirts/dresses and open-toe shoes are not permitted. Legs should be covered to the ankle and the feet should be covered heel to toe.
3. Each student must provide their own safety supplies if not provided by the department including: approved lab coats and eye/face protection (goggles/safety glasses and face shield). NOTE: the Department of Medical and Molecular Sciences may provide some of these items.
4. Hair must be short or tied back at all times.
5. Additional requirements may be implemented due to current health concerns (e.g., COVID-19 pandemic).

- **Hazardous Substances**

Students should be aware that chemicals and biological substances that can be potentially hazardous are handled routinely in the course of clinical laboratory work. This includes chemicals and biologicals that are classified as reproductive hazards. The mishandling of reproductive hazards may cause infertility, sterility, or other undesirable health effects to you or to a developing embryo or fetus. If you have a particular health concern, it is especially important to discuss the materials you handle, whether they are biological or chemical, with your physician. All reasonable safety precautions are taken to ensure the safety of learners, and students are fully instructed in safe-handling procedures. The State of Delaware Right to Know Law, the Chemical Hygiene Plan, the University's Bloodborne Pathogen Program, Biosafety and Fire Safety for Laboratories are reviewed, and students are instructed in specific safety precautions in each course as necessary. Students are encouraged to contact the instructor or the Department of Environmental Health and Safety at 831-8475 to discuss any concerns related to the use of these materials, or for information and training related to safety. The ultimate responsibility for following such procedures and complying with safety guidelines lies with the student. Potentially hazardous materials that are handled include:

1. Pathogenic microorganisms
2. Human blood, urine, feces, and other bodily fluids which may be possible sources of infectious disease (e.g., hepatitis B virus, HIV, etc.)
3. Corrosive and hazardous chemicals

Medical Laboratory Science students are expected to work with these materials, as these materials constitute the basis for the bulk of testing performed in clinical laboratories. **No exceptions (other than a specific medical reason) will be permitted.**

- **Health Requirements**

Students must meet the published essential functions of the program. To safeguard the health and safety of fellow students, faculty, and patients when performing educational activities on campus and in the clinical setting, students are required to have a routine physical examination before the start of the fall semester of junior and senior year. Students are required to submit documentation of the physical examination, consisting of physician verification that the student appears to be free from disease or any impediment which would interfere with normal activity, study, or physical effort.

In addition, to provide supplemental support and training for students needing assistance with differentiating microscopic components for color (shading/intensity) differences, students are required to complete a screening test for color blindness administered by the Department of Medical and Molecular Sciences.

- **Immunizations**

Per University of Delaware requirements, Students are no longer required to receive the COVID-19 primary vaccine and boosters. UD strongly recommends that all students, faculty, and staff remain up-to-date with COVID-19 vaccination as defined by the Centers for Disease Control and Prevention (CDC).

Before starting the senior clinical practicums and by stated program deadlines, students are **required** to have specific testing and/or immunizations (or documentation thereof) for tetanus, measles, mumps, and rubella (MMR), varicella (chickenpox), hepatitis B virus (HBV), influenza (seasonal flu) and tuberculosis (2-step PPD/Tuberculin Skin Test or Quantiferon Gold). **Such immunizations and testing**

should begin as early as possible, and information will be provided for related services available through Student Health Services at UD.

Students are required to submit documentation of immunity as evidenced by **positive immune titers** for several of these diseases. Additional information will be provided and students will be required to subscribe to *PreCheck* and **upload all required documentation** and additional practicum-related documents to *SentryMD*. For the safety of patients, the affiliate institutions have the right to refuse student participation in clinical practicums, if the student is unwilling to comply with immunization requirements. **NOTE:** We endeavor to alert students early to complete all items that have been required by our affiliates in recent years. The hospital/clinical affiliates are at liberty to modify or increase their requirements based on their specific institutional policies, and we will have to abide by these to utilize these sites for clinical practicum courses.

To participate in any clinical practicums, ALL testing/immunizations must be completed and submitted by the posted deadline.

- **Health Insurance**

Students are required to have health insurance during the senior clinical practicums. Documentation of coverage must be provided to PreCheck/SentryMD when requested. In addition, students should be prepared to produce proof of health insurance during the clinical practicums upon request by a clinical instructor.

- **Drug Screening**

Students are required to complete a urine drug screening (UDS) prior to the commencement of the senior clinical practicums as indicated in information provided by the MMSC Manager of Clinical Operations/External Relations. In the summer prior to senior year, information will be sent to students from the Department of Medical and Molecular Sciences with specific instructions about how and when to order and complete this testing. NOTE: Affiliated institutions have different requirements about the timespan between completing the UDS and starting a practicum at their site, so students are responsible for following these instructions to avoid the possibility of having to repeat the testing at their own cost. In addition, requirements from some hospitals may necessitate students completing more than one UDS to meet the institution's time constraints for testing vs. starting a rotation. For example, some sites want the UDS to be performed within a specific maximum number of days prior to starting a practicum, so students may have to repeat the test to meet that institution's requirements. Students should be aware that the **results of the urine drug screening must be released to the affiliate institutions at which the students will be participating in clinical practicums**. For the safety of patients, the affiliate institutions reserve the right to request a urine drug screening at or just prior to the commencement of the clinical practicum. Also, please **NOTE: Drinking an excessive amount of water just prior to submitting a specimen may invalidate the test and require a repeat test order/submission at the student's expense.**

In the event of a **positive drug screening**, the student will be referred to the University of Delaware's Student Wellness & Health Promotion to complete BASICS and at least one additional follow-up session. The student is expected to contact Student Wellness & Health Promotion within 3 business days following the referral. Once the Medical Laboratory Science Program Director has been notified by Student Wellness & Health Promotion that the student has completed BASICS and one additional follow-up session, the student must submit to a second drug screening with 24 hours' notice.

The student will not be allowed to begin or continue clinical activities until documentation of a negative drug screening is provided. If the second screening is positive, it will be difficult to place the student in clinical practicums, the student's graduation date most likely will be postponed as a result, and the student may have difficulty obtaining employment as a medical laboratory scientist.

Please NOTE: regardless of state laws legalizing **cannabis (marijuana)** use, cannabis is a constituent tested for in urine drug screening tests. Testing positive for cannabis (and/or any other constituent of the urine drug screening) will result in the requirements listed above for a positive drug screening and may be a reason to be denied a scheduled clinical practicum, leading to a delay of graduation. This could also negatively impact the student's employment efforts.

Again, please NOTE that excessive water consumption just prior to submitting a urine sample for the urine drug screening may result in a **"Negative-Dilute"** result. **This will require ordering, paying for, and completing another urine drug screening**. Please plan accordingly for your urine drug screening – first morning appointments with a full bladder are recommended.

- **Criminal Background Check**

Students are required to complete a criminal background check prior to the commencement of the senior clinical practicums. In the summer prior to senior year, information will be sent to students from the Department of Medical and Molecular Sciences with specific instructions about how and when to order and complete this requirement. Documentation of such must be provided **to PreCheck/SentryMD prior to the deadline to ensure a timely start for the clinical practicum. Students should be aware that the results of the criminal background check must be released to the affiliate institutions at which the students will be participating in clinical practicums.**

- **Other Requirements**

There are some requirements that are specific to certain affiliate institutions, including but not limited to: child abuse registry investigation and adult abuse registry investigation. Students attending clinical practicums at these institutions must meet these requirements as well. These requirements are subject to change as the requirements of the affiliate institutions change.

- **Important Notes**

1. Students should be aware that results from the criminal background check, urine drug screening, child abuse registry investigation and adult abuse registry investigation could negatively impact the student's ability to participate in the clinical practicum courses. In addition, candidates applying for employment in healthcare are typically required to undergo a criminal background check and urine drug screening. **Each student should use sound judgment and avoid situations which could result in poor decisions**. Failure to do so could jeopardize the student's ability to complete the Medical Laboratory Science degree and may have an impact on future employment in healthcare.

2. **Failure to complete immunizations, other testing, drug screening and criminal background checks within specified time periods could negatively impact the completion of clinical practicums and delay graduation.**

IV. ACADEMIC REQUIREMENTS

- **Grading**

The student must obtain a grade of C- or higher in each of the Department of Medical and Molecular Sciences (MMSC) courses and a grade of P (Pass) in the undergraduate clinical practicum courses to progress in the major. A grade of C- requires attainment of a minimal grade of 70%. In Pass/Fail courses, a grade of P requires attainment of a minimal grade of 70%. MMSC course grades are NOT curved or adjusted. NOTE: Most MMSC courses are offered only once per year. Needing to repeat a course/courses may result in a delay in graduation. See below.

In the event a grade of less than C- is earned in one or more of the Medical Laboratory Science courses, the student should refer to the "Department of Medical and Molecular Sciences Student Readmission and Appeal Policies." This document follows in section VII. This could result in a **delay in graduation**. Methods of grading will be defined for each course at the beginning of the course. Students should become familiar with the methods of grading at the start of each course.

NOTE: In accordance with University policy as of completion of this handbook, if available **and pre-approved by the department**, courses taken at another institution prior to and through Spring 2022 must achieve a grade of C or better to transfer (a grade of C- is not acceptable). For courses taken after Spring 2022, a grade of "C-" is acceptable for transfer to UD. For course transfer information see **http://www.udel.edu/registrar/transfer/transins.html**. **Please note that there may not be comparable courses deemed equivalent to the upper level MMSC courses in the Medical Laboratory Science curriculum at other institutions.** Those that are can be found on the **Transfer Credit Matrix**. It is up to the student needing to repeat a course to identify a potential transfer course and submit the course syllabus with the required information found on the Transfer Credit website prior to enrolling in the course to ensure that it will be accepted by the Medical Laboratory Science program director/faculty for substitution. By failing to do so and taking a course at another institution prior to getting approval, the student risks spending resources for a course that may not satisfy the requirement.

- **Laboratory Attendance**

Punctual attendance is required at all Medical and Molecular Sciences laboratory sessions. If a student cannot attend lab due to illness, death of a family member, or a personal emergency, **the student must notify the lab instructor by email or phone prior to the start of lab**. **If he/she cannot be reached, notify the Department office (302-831-2849)** prior to the start of the laboratory session. Except in cases of personal emergency, failure to email or call will result in a **zero** (0) for **all** laboratory activities performed that day. Authority for excusing class absences rests with the instructor who will typically request documentation. The student should be prepared to show documented evidence of illness (e.g., a note from a licensed clinician verifying the student's illness) or of a serious emergency upon request. Upon the student's return to campus, it is the student's responsibility to consult with the instructor to schedule a make-up time. Any make-up work must be completed within **one week**. Please be aware that each laboratory requires meticulous preparation and many of the specimens used are either fresh or unstable, thus making it difficult or impossible to completely recreate a laboratory session for a single student. It is each student's responsibility to complete all assignments. It is important to stress that

full lab attendance is mandatory for success in each course. Only one (1) total absence (excused or unexcused) is considered reasonable. For students with approved DSS attendance accommodations, only two (2) total absences (excused or unexcused) are considered reasonable.

Examples of **unexcused absences** from a laboratory session include but are not limited to scheduling routine medical and dental appointments, scheduling employment-related appointments, expanding university breaks beyond the allotted time, oversleeping, picking someone up at the airport, or scheduling other travel for personal reasons. Unexcused absences will result in a **zero** (0) for **all** laboratory activities, including proficiencies, quizzes, and/or exams, scheduled that day.

Examples of excused absences from a laboratory session include religious holidays, athletics participation, or participation in other extracurricular activities where the student is an official representative of the university. The student **must** notify the instructor in writing of their planned absence within the **first two weeks** of class. As needed, the assistant dean of students for the College of Health Sciences will be consulted.

- **Lateness**

Each student is expected to be at his/her laboratory bench with materials ready by the start of the laboratory session. If the student arrives ≥5 minutes late to the start of the laboratory and does not have an excused absence, the student may participate in the laboratory session but will incur a **10% deduction** on all laboratory worksheets, proficiencies, quizzes, and/or exams that day. If a student arrives ≥20 minutes late for lab and does not have an excused absence, the student may participate in the laboratory session but will incur a **30% deduction** on all laboratory worksheets, proficiencies, quizzes, and/or exams that day. Laboratory sessions will not be rescheduled or extended beyond their scheduled time.

- **Lecture Attendance**

Attendance at all Medical and Molecular Sciences lectures is strongly recommended. The student must abide by the regulations set forth in each course syllabus, so the student should familiarize themselves with the **attendance policy contained in each course syllabus/manual**. In general, absence from class due to illness, death of a family member, personal emergency, or observance of a religious holiday will constitute cause for an excused absence. Examples of unexcused absences include but are not limited to: scheduling routine medical and dental appointments, scheduling employment-related appointments, expanding spring break or Thanksgiving break beyond its allotted time, or scheduling other travel or entertainment (concerts, etc.) for personal reasons. Faculty members have set policies in place in their courses and the student is required to follow these policies.

- **Examinations are scheduled by the instructor within the class period.** Students are expected to be in the class prepared to begin the exam **before the stated start time** for the examination, including hourly (formative) exams and final exams. The instructor may require students arriving late to an exam to receive a grade of **zero** (0) or to take the exam at a scheduled later time of their choosing using a different makeup exam at their discretion. Excused absences from any exam **MUST** be communicated and documented **prior to** the scheduled start of the exam and will be reviewed and decided upon by each instructor.

- **Comprehensive Examination**

Each student is required to successfully complete a comprehensive examination in the spring semester of the senior year to be certified as having completed an approved course of study in Medical Laboratory Science, thus becoming eligible for the ASCP BOC (American Society for Clinical Pathology Board of Certification) national certification examination. Criterion for successfully completing the comprehensive examination is defined as obtaining a minimum grade as determined by the instructor. The grades from the comprehensive examination will be incorporated into the final grade for MMSC 480 Senior Seminar II, which requires a minimum grade of C- (minimum grade of 70%) to pass the course. There will be preliminary, mid-semester, and final comprehensive examinations administered that will be included in the grading for this course as well.

Students will be tested using a computerized examination in the same proportions as the ASCP BOC MLS examination covering each of the following areas: clinical chemistry, hematology/hemostasis, immunohematology, immunology/serology, laboratory operations, microbiology (bacteriology, mycology, parasitology, virology), and urinalysis/body fluid analysis including pre-analytical, analytical and post-analytical components of clinical diagnostic testing. **The final comprehensive examination is an in-person examination and the in-person date will be communicated within the course syllabus.** No excused absences will be permitted, and the date of the comprehensive examination will be determined several months prior to the scheduled exam. Students must earn a minimum grade as determined by the instructor. If the grade achieved is less than the minimum grade required, students will be required to **take a re-examination** for the purpose of achieving the minimum grade required. Re-examinations will be scheduled in advance by the instructor and excused absences will not be accepted for this purpose either. The retake examination may be administered electronically or via hard copy examinations but will be taken in-person and will be different from the original comprehensive examination.

Note: Graduating from the University with a Bachelor of Science degree is **not** contingent upon the student passing a **national certification examination or licensure examination**. Passing the comprehensive examination is an assignment requirement for a specific course.

- **Academic Integrity, Student Grievances, and Disciplinary Action**

The Department of Medical and Molecular Sciences holds academic integrity across all of our academic programs in the highest regard. Honesty, professional ethics, and reliability are essential in the profession of Medical Laboratory Science, and these qualities are emphasized in all of the undergraduate professional and clinical courses. Students should become familiar with the Student Guide to University Policies. Any incidence of personal misconduct, suspected cheating on examinations and/or assignments, plagiarism, or any other form of academic dishonesty by a student will be communicated to Community Standards and Conflict Resolution. If warranted, the incident may be adjudicated as indicated by the Student Conduct Process. Determination of misconduct may result in a failing grade in the course and automatic dismissal from the Medical Laboratory Science major.

During clinical practicums, any student grievance shall be discussed with the site Clinical Instructor first, and the site Clinical Coordinator, if necessary. If a problem is unresolved, the Technical Laboratory Director, Laboratory Clinical Coordinator, Section Supervisor, Clinical Instructor, MMSC Manager of Clinical Operations/External Relations, and/or MLS Program Director, and the student will meet to discuss the matter of concern.

Students should be aware that clinical affiliates maintain the right to remove a student from the clinical practicum if student behavior violates existing rules and regulations of that facility, or if the student's behavior is in any way disruptive or detrimental to the hospital/laboratory, employees, visitors, or patients. If the student is removed from a clinical facility, the student would not complete that practicum resulting in a grade of F. While the student will not be reinstated at that facility, the student has the right to grieve his/her case to Community Standards and Conflict Resolution. If Community Standards and Conflict Resolution finds in favor of the student, the F will be removed and the student can complete the practicum at another affiliate site; however, this would result in a delay in graduation. If Community Standards and Conflict Resolution does not find in favor of the student, this would result in a delay in graduation and the inability to achieve a degree in Medical Laboratory Science.

Student grievances are handled according to the policies of the Department of Medical and Molecular Sciences, the College of Health Sciences, and the University at large. Students should refer to the Student Guide to University Policies for detailed information on academic and non-academic grievance procedures.

V. CLINICAL EXPERIENCE

- **Overview**

ChristianaCare and other clinical affiliates provide supervised, structured, diagnostic laboratory experience in winter and spring terms of the senior year. Typically, most of the class has the advantage of having undergraduate clinical experience in the laboratories of ChristianaCare and at least two other clinical affiliates, but this will vary based on site availability and other factors. Supervised clinical education practicum assignments are scheduled during the fall semester of senior year for rotations that begin in February and continue through the end of May. Student schedules will depend in part on timely completion and submission of all required documentation. When significant extenuating circumstances occur, practicums may be scheduled in winter and/or summer sessions on a case by case basis, but this is not available for general request by students.

- **Expenses**

During the clinical practicum period, students should plan for added expenses for 1) transportation (gas, car expenses, train, etc.) and uniforms and 2) living off-campus near a clinical site for at least a three-week rotation during the senior year when the commuting distance is excessive. *PreCheck/SentryMD* require a fee for service (one time) and documentation of work and evaluations completed during the clinical practicum site require a subscription to *Trajecsys* for the length of the clinical practicum period(s). There are also review book/material costs associated with the clinical practicum courses.

- **Guarantee of Clinical Assignment**

The Medical Laboratory Science Program guarantees all students, who begin the medical laboratory science (MLS-BS) major in their junior year, that sufficient affiliate sites will be available for senior clinical practicums so as not to impact negatively on expected graduation dates. By utilizing

multiple affiliates, unexpected situations at affiliate sites should not impact student practicum placements.

However, a remote possibility remains that a situation out of the control of the Program could occur. If a major unforeseen event at an affiliate or in the region should occur at the time of the senior practicums, every effort will be made for the student to complete the applied experience during Summer Session at no additional tuition expense. In the latter case, graduation would be postponed until the summer graduation cycle. Delays related to insufficient passing grades and/or conduct-related incidents do not fall under this category.

- **Senior Clinical Practicum Attendance and Housing**

The student should report to his/her clinical practicums **eight hours a day (excluding lunch and breaks) for five days a week** for 15 total days per rotation. Exact times will be arranged by the individual laboratory supervisor. If time is missed for an excused absence, it will be made up at the convenience and discretion of the affiliate instructor (i.e., during the flex days at the end of the rotation period or another suitable time as determined by the affiliate instructor). In general, absence from clinical practicums due to illness, death of a family member, a personal emergency, or observance of a religious holiday will constitute cause for an excused absence. Authority for excusing such absences rests with the clinical instructor who may request appropriate documentation. Examples of unexcused absences include but are not limited to: scheduling routine medical and dental appointments, scheduling excessive personal appointments, expanding spring break beyond its allotted time, or scheduling travel or entertainment for personal reasons. **Any time missed (excused and/or unexcused) that cannot be made up during the spring semester may result in completion of the rotation period at a later date with postponement of graduation.**

Students should block out the entire practicum schedule periods including any flex/make-up dates as it is important to be available and prepared to complete all necessary clinical practicum time as scheduled by the manager of clinical operations/external relations to meet graduation requirements. **Do not assume** that there will be no illness, weather-related or other emergency-related absences and schedule other activities or travel on the flex/make-up dates on the clinical practicum calendar.

Students should schedule employment-related interviews/orientation and interviews for post baccalaureate education only during times not scheduled for practicums. In the event such scheduling is out of the student's control and cannot be accomplished outside of the practicum period, the student must provide the contact name of the individual mandating such scheduling to the manager of clinical operations/external relations and to the affiliate instructor. The student must receive permission from the affiliate instructor to be absent from the rotation period, and the missed time must be completed at an alternate time during that clinical practicum period (possibly on weekends if offered by the clinical affiliate). Students are expected to complete 15 days for each scheduled practicum (not a combination of hours made up at the end of the day). There will be additional time required for the in-person comprehensive examination date, the in-person comprehensive examination retake (if required), and for on-campus and/or assigned independent practicum-related activities above the 15 day minimum on-site practicums for the purpose of meeting UD credit requirements. These dates will be scheduled at the time of clinical practicum scheduling and will be communicated to students in advance.

All missed time from the clinical rotations that was not previously arranged requires the notification of the affiliate Clinical Coordinator AND the MMSC Manager of Clinical Operations/External Relations **before the start of the scheduled workday**. **All absences must be documented on the *Clinical***

Practicum Attendance Record through Trajecsys. **Students should be prepared to show documented evidence of illness or serious emergency upon request.**

VI. STATE LICENSURE

If interested in practicing outside the state of Delaware, candidates are responsible for ensuring compliance with other states' laws/statutes relative to licensure. At minimum, a candidate must apply for licensure through that state's licensure board for clinical/medical laboratory scientists.

Steps to follow in seeking a clinical/medical laboratory scientist license are:

- Early in your academic career, visit the state licensure board in the state in which you want to apply for your initial licensure and review the application requirements for that state. Web-links or contact information for each state are available through the **ASCLS** website (www.ascls.org). Please NOTE: The University of Delaware Medical Laboratory Science program will prepare students for success on the ASCP Board of Certification (BOC) (with adequate student preparation and engagement). **Successful completion of the University of Delaware Medical Laboratory Science program does not guarantee that state licensure requirements of all states requiring licensure will be met.** It is the STUDENT'S responsibility to determine what the requirements are in advance of completion of the degree at the University of Delaware and to work with the Manager of Clinical Operations/External Relations and the student's academic advisor to ensure completion of those requirements. California requires a full year of clinical practicums or work experience to qualify for CA licensure as a clinical laboratory scientist as well as other requirements. This is just one example.
- Some states will require verification of clinical practicum completion. Contact the Medical Laboratory Science Program Director for completion of forms or documents requiring an official university signature.
- All applications for licensure will require an official transcript indicating conferral of your degree. Requests for official transcripts are completed online through UDSIS or the Registrar's Office. Please note through the Registrar's website the actual date of conferral of the degree on the transcript prior to requesting official transcripts.

VII. STUDENT READMISSION AND APPEAL POLICIES

Progression in the medical laboratory science major requires that the student receive a final grade of C- or higher in each MMSC course. A student who receives less than C- in one MMSC course may continue in the major contingent on the guidelines outlined in "Progression" below. To avoid problems that may impede progression in the major, a student who finds themselves in academic difficulty is encouraged to seek assistance from the Office of Academic Enrichment and the Center for Counseling and Student Development.

- **Progression**

If a student receives less than C- in **one** MMSC course, the student must complete the following procedure:

1. The student will indicate in writing a plan for progression in the major to the Program Director within five working days after notification of the final grade.

2. The student may retake a MMSC course at the University of Delaware that they did not successfully complete. The student must earn a grade of C- or higher in the course.

3. **The student will be permitted to repeat a comparable course to the MMSC course at another institution provided that it meets the approval of the faculty member who teaches that course.** Courses from other institutions will not be substituted as the initial course requirement; see above under GRADING.

NOTE: In accordance with University policy, courses taken at another institution must be graded C- (effective Fall 2022, prior to that a grade of C or better is required for transfer courses). For course transfer information see **http://www.udel.edu/registrar/transfer/transins.html**.

- **Appeal**

If a student receives less than C- in **more than one** MMSC course, they must begin the formal appeal process as outlined below if they wish to remain in the major. Each appeal will be reviewed on an individual basis.

1. **The student will submit written documentation of extenuating circumstances to the** MLS Program Director for review by the Department of Medical and Molecular Sciences Undergraduate Program Committee within five working days after notification of the final course grade.

2. The Undergraduate Program Committee, upon review and careful examination of the documentation, will vote to permit or deny the student's appeal for reinstatement into the Medical Laboratory Science major.

3. If the student's appeal is granted, the student must follow steps 2 through 3 as indicated in the "Progression" section.

4. A plan of corrective action and performance improvement that addresses the academic difficulties of the individual will be developed and must be agreed upon by the student.

The policies and procedures in this document are subject to change if deemed necessary by the Department of Medical and Molecular Sciences. In the event a need arises for an immediate change in policy and/or procedure, the change will be communicated to students and an updated Student Handbook will be distributed to the students.

STUDENT SIGNATURE

It is the student's responsibility to read and understand the policies in this document.

I HAVE READ AND UNDERSTAND THE REQUIREMENT TO COMPLETE A CRIMINAL BACKGROUND CHECK AND URINE DRUG SCREENING PRIOR TO COMMENCEMENT OF THE SENIOR CLINICAL PRACTICUMS. MY SIGNATURE ATTESTS THAT I AUTHORIZE THE DEPARTMENT OF MEDICAL AND MOLECULAR SCIENCES TO RELEASE THE RESULTS OF THE CRIMINAL BACKGROUND CHECK AND URINE DRUG SCREENING TO THE AFFILIATE INSTITUTIONS AT WHICH I WILL BE PARTICIPATING IN CLINICAL PRACTICUMS.

I HAVE READ AND UNDERSTAND THE ESSENTIAL FUNCTIONS REQUIRED OF STUDENTS. I UNDERSTAND THAT IT IS MY RESPONSIBILITY TO NOTIFY THE PROGRAM DIRECTOR IN THE EVENT THAT I CANNOT FULFILL THE REQUIREMENTS AS OUTLINED IN THE ESSENTIAL FUNCTIONS. MY SIGNATURE ATTESTS THAT I UNDERSTAND THE REQUIREMENTS OF THE ESSENTIAL FUNCTIONS, AND I CERTIFY THAT I AM ABLE TO FULFILL THEM.

MY SIGNATURE ATTESTS THAT I HAVE READ AND UNDERSTAND ALL OF THE POLICIES RELATED IN THIS DOCUMENT FOR PROGRESSION IN AND COMPLETION OF THE MEDICAL LABORATORY SCIENCE PROGRAM.

_____ _____ _____ _____

WITNESS to Student's Signature **Date** **Student's Signature** **Date**

(Parent or guardian can be a witness.) **MEDICAL LABORATORY SCIENCE STUDENT**

_____

Please Print Student's Name

RELEASE FOR TRAINING AND PARTICIPATION IN VENIPUNCTURE

I, the undersigned student of the University of Delaware's Medical Laboratory Science Program, UNDERSTAND AND HEREBY EXPRESSLY ACKNOWLEDGE that as part of the instruction that I am to receive as part of the University of Delaware's Medical Laboratory Science Program, I will be asked to draw blood by venipuncture or by finger stick on other medical laboratory science students, and that such other medical laboratory science students will be asked to practice drawing blood by venipuncture or by finger stick on me;

I UNDERSTAND AND HEREBY EXPRESSLY ACKNOWLEDGE that these activities might, under some circumstances about which I have been advised, pose certain dangers, including, but not limited to, the exposure to such diseases as HIV/AIDS and Hepatitis and, therefore, involve the risk of serious injury or death;

I HEREBY RELEASE, WAIVE, DISCHARGE AND COVENANT NOT TO SUE the University of Delaware, its officers, agents, servants, employees, assigns, or successors, or students of the University of Delaware's Medical Laboratory Science Program, from any and all liability, claims, demands, actions or causes of action arising out of any damage, loss or injury to my person or my property or resulting in my death, while enrolled in the University of Delaware's Medical Laboratory Science Program and participating in the activities contemplated by this RELEASE, whether such loss, damage, or injury is caused by the negligence of the University of Delaware, its officers, agents, servants, employees, assigns, or successors, or students of the University of Delaware's Medical Laboratory Science Program or from some other cause;

I HEREBY ASSUME FULL RESPONSIBILITY FOR AND RISK OF BODILY INJURY, DEATH OR PROPERTY DAMAGE that I suffer while enrolled in the University of Delaware's Medical Laboratory Science Program and participating in the activities contemplated by this RELEASE, caused by the negligence of the University of Delaware, its officers, agents, servants, employees, assigns, or successors, or students of the University of Delaware's Medical Laboratory Science program or otherwise;

I HAVE READ AND VOLUNTARILY SIGN THE RELEASE AND WAIVER OF LIABILITY, and further agree that no oral representations, statements of inducement apart from the foregoing written agreement have been made.

_____ _____ _____ _____

WITNESS to Student's Signature **Date** **Student's Signature** **Date**

(**Parent or guardian can be a witness**.) **MEDICAL LABORATORY SCIENCE STUDENT**

_____

Please Print Student's Name

STUDENT AGREEMENT

As a student of the University of Delaware, I understand that I may be asked to perform tasks that might pose a risk of exposure to Bloodborne Pathogens causing such diseases as HIV/AIDS and Hepatitis, which can lead to serious illness or death. Accidental exposure to human blood or other potentially infectious materials (OPIM) must be reported immediately. I understand that I will be directed to obtain a risk evaluation, conducted by a clinician familiar with post-exposure evaluation and treatment, which is recommended by Centers for Disease Control and Prevention (CDC) and if deemed necessary, initiation of post-exposure prophylaxis (PEP). The CDC specifically recommends that PEP be initiated within two hours of HIV exposure to prevent disease transmission. **I understand that I am personally responsible for the cost of the post-exposure medical management and treatment and that the University of Delaware is in no way responsible for these expenses.**

_____ _____ _____ _____

WITNESS to Student's Signature Date **Student's Signature Date**

(Parent or guardian can be a witness.) **MEDICAL LABORATORY SCIENCE STUDENT**

_____

Please Print Student's Name