

DEPARTMENT *of*
MEDICAL AND MOLECULAR SCIENCES

MASTER OF SCIENCE
IN
MEDICAL LABORATORY SCIENCE
Program Policies



February 2021



**DEPARTMENT OF
MEDICAL AND MOLECULAR SCIENCES**

STUDENT HANDBOOK

for

MS in MEDICAL LABORATORY SCIENCE STUDENTS

In order to facilitate the success and ensure the welfare of students in the MS in Medical Laboratory Science program 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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DEPARTMENT OF MEDICAL AND MOLECULAR SCIENCES

MISSION STATEMENT

The Department of Medical and Molecular Sciences is committed to providing skilled, critically-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 Sciences.

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 career-entry, 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 (graduate level), as listed below, encompass the pre-analytical, analytical, and post-analytical components of each area of laboratory services including clinical chemistry, hematology, hemostasis, immunohematology, immunology (strongly recommended), microbiology, molecular diagnostics/genetics, urinalysis, and body fluids. 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 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 health care 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, student laboratories, and clinical practicums 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 health care 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 eye-hand coordination, e.g., pipetting, use of inoculating loops, etc.
7. Participate in safe laboratory practices through one's ability to move effectively in the work place, to access laboratory work areas, and to reach hospitalized patients and out-patients 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 laboratory 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 provide 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 or snapped up 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 will be provided and must consistently use his, her or his own safety supplies including: lab coats, eye/face protection (goggles/safety glasses and face shield) and face masks as required during COVID pandemic restrictions.
4. Hair must be short or tied back at all times.

- **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 body fluids which may be possible sources of infectious disease (i.e., hepatitis B virus, HIV)
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 summer rotations. Students are required to submit documentation of the physical examinations, 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 when requested, no later than April 1st.

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**

Well in advance of starting the clinical practicums, students are **required** to have specific testing and/or immunization (or documentation thereof) for tetanus, measles (rubeola), mumps, and rubella (MMR), varicella (chicken pox), hepatitis B virus, influenza (seasonal flu) and tuberculosis (2-step PPD/Tuberculin Skin Test or Quantiferon Gold). **Such immunizations should begin as early in the final spring semester as possible**, since students will be involved in clinical practicums at area hospitals during the final summer semester.

Students are required to submit documentation of immunity as evidenced by positive immune titers for several of these diseases. Additional information will be provided in the fall preceding the final spring and summer semesters. For the safety of patients, the affiliate institution has the right to refuse student participation in clinical practicums, if the student is unwilling to comply with immunization requirements.

Prior to commencing the final summer semester clinical practicums, all testing/immunizations must be completed by April 1st.

- **Health Insurance**

Students are required to have health insurance during their graduate students at the University of Delaware, and must provide documentation of such coverage prior to the start of clinical practicums. Documentation of such must be provided to the clinical education coordinator by April 1st. 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 prior to the start of clinical practicums. In the final spring semester, information will be sent to students from the Department of Medical and Molecular Sciences with specific instructions about how to order and complete this testing. Documentation of such must be provided by **April 1st of the final spring semester prior to commencing the clinical practicums during the final summer semester**. 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 institution reserves the right to request a urine drug screening at the commencement of the clinical practicum.

In the event of a **positive** drug screening, the student will be referred to the University of Delaware's Student Wellness & Health Promotion for a substance abuse referral. The student is expected to schedule an appointment with 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 the sessions as recommended, 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.

- **Criminal Background Check**

Students are required to complete a criminal background check prior to the start of the clinical practicums. In the final spring semester, information will be sent to students from the Department of Medical and Molecular Sciences with specific instructions about how to order and complete this requirement. Documentation of such must be provided by **April 1st prior to the final summer semester of the program**. 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 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 B- or higher in each of the Department of Medical and Molecular Sciences (MMSC) courses and a grade of P (Pass) in the clinical practicum courses to progress in the major. A single MMSC grade of C-, C or C+ is permitted. A passing grade 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. NOTE: Most MMSC courses are offered only once per year.

In the event a grade of less than B- is earned in more than one of the Medical Laboratory Science graduate courses, the student will have to repeat the corresponding course. 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, courses taken at another institution must be graded C or better to transfer (a grade of C- is not acceptable for the University of Delaware). For course transfer information see <http://www.udel.edu/registrar/transfer/transins.html>. Please NOTE: It will be very difficult to identify a comparable Masters level MMSC course at another institution, and most MMSC courses are offered only once per year at the University of Delaware. See below for requirements to be in "Clear" status in the MS in Medical Laboratory Science (Non-Thesis) program.

Grade Requirements for Satisfactory Progress. Failure to satisfactorily progress in the program will be based on the University Graduate Policy as noted below: The Office of Graduate Studies

monitors the academic progress of all graduate students and notifies students in writing of all academic deficiencies. The cumulative GPA after each 9-hour increment determines academic standing. The University's Academic Probation Policy is expressed in the following chart.

If a student is on:	Earns a GPA of	The status becomes
Any status	3.0 or above	Clear
Clear	2.99-2.5	Warning
Clear	2.49-2.0	Probation
Probation	Below 3.0	Dismissal
Warning	Below 3.0	Probation
Any status	Below 2.0	Dismissal

Reasons for Dismissal/Termination from the Program. The Office of Graduate Studies notifies students when they are dismissed from graduate programs without completing a degree. Dismissals usually take place at the end of a term. Students may be dismissed for the following reasons:

- Upon the expiration of the 18 month time limit required for students to complete their degree (unless a plan for part-time completion has been pre-approved).
- Upon the failure to meet the grade point average requirements as stated in the policy on Academic Deficiency and Probation.
- University of Delaware policies for appeal of dismissal can be found at <https://grad.udel.edu/policies/graduate-academic-policies/>

- **Laboratory Attendance**

Attendance is required at all Medical Laboratory Science student laboratory sessions. If a student cannot attend due to illness, death of a family member, a personal emergency, or observance of a religious holiday, the student **must** notify either the instructor or the Department office (831-2849) of his/her absence **prior to** the start of the laboratory session. Failure to properly provide documentation of excused absence results in the same penalty as an unexcused absence. Authority for excusing class absences rests with the instructor who may request documentation. The student should be prepared to show documented evidence of illness (i.e., note from a physician or the Student Health Services verifying the student's illness) or of a serious emergency upon request. Upon the student's return to class, the student should consult the appropriate instructor to schedule a make-up time. Please be aware that each laboratory requires meticulous preparation and many of the specimens used are unstable, thus making it difficult or impossible to re-create a laboratory session for a single student.

Any unexcused absence from a laboratory session will result in a grade of "0" for all the work associated with that session, including the professional performance evaluation, laboratory worksheets, pre-laboratory questions and the laboratory report. 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 spring break beyond its allotted time, or scheduling other travels for personal reasons.

- **Lateness**

The student is expected to be at his/her laboratory bench with materials ready by the announced start of the laboratory session. If the student is not present when the laboratory begins, the student will not be permitted to participate in the laboratory session and will receive a grade of "0" for all the work associated with that session, including the professional performance evaluation, laboratory worksheets, pre-laboratory questions and the laboratory report. The lab session will not be rescheduled.

- **Lecture Attendance**

Attendance at all Medical Laboratory Science lecture sessions is highly recommended. The student must abide by the regulations set forth in each Medical Laboratory Science course, so the student should consult the policy contained in each course manual. In general, absence from class due to illness, death of a family member, a 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 beyond its allotted time, or scheduling other travels for personal reasons.

- **Computerized Testing**

The Department of Medical and Molecular Sciences utilizes ExamSoft or Canvas Quizzes with Respondus Lockdown Browser to administer in-class examinations. In several Department courses, students will be required to bring a laptop or tablet with video camera capability to the classroom to participate in testing.

- **Comprehensive Examination**

Each student is required to successfully complete a comprehensive examination in the final semester of the program 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 (to be announced) in each discipline section.

Students will be tested using a computerized examination method in each of the following areas: clinical chemistry, genetics and molecular diagnostics, hematology/hemostasis, immunohematology, immunology/virology/serology, microbiology (bacteriology, mycology, parasitology), and urinalysis/body fluid analysis on the original comprehensive examination. Students **MUST** earn a minimum grade as announced in each content area. **NOTE:** Immunology is not a required course in the curriculum but **IS** included as a major section on the ASCP Board of Certification exam. Students are strongly recommended to take an immunology course.

Note: Graduating from the University with a Master of Science degree is **not** contingent upon the student passing a national certification examination or licensure examination.

- **Student Grievances and Disciplinary Action**

Honesty and reliability are essential in the profession of Medical Laboratory Science, and these qualities are emphasized in all of the graduate professional and clinical courses. Any incidence of personal misconduct, suspected cheating on an examination, plagiarism, or any other form of academic dishonesty by a student will be communicated to the Office of Student Conduct. If warranted, the incidence may be adjudicated by the Student Conduct System. Determination of misconduct may result in an F in the course and automatic dismissal from the Medical Laboratory Science (MS) program.

During clinical practicums, any student grievance shall be discussed with the UD MMSC Clinical Education Coordinator and the affiliate Laboratory Clinical Coordinator, if necessary. If a problem is unresolved, the affiliate Technical Laboratory Director, Laboratory Clinical Coordinator, Section Supervisor, Clinical Instructor, University Clinical Education Coordinator and/or 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 is violative of 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 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 re-instated at that facility, the student has the right to grieve his/her case to the Office of Student Conduct. If the Office of Student Conduct finds in favor of the student, the F will be removed and the student can complete the practicum at another affiliate; however, this would result in a delay in graduation. If the Office of Student Conduct does not find in favor of the student, this would result in a delay in graduation and the inability to achieve an MS 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 *University of Delaware Student Guide to University Policies* for detailed information on academic and non-academic grievance procedures (available at <http://www.udel.edu/stuguide/current>).

V. CLINICAL EXPERIENCE

- **Overview**

Christiana Care and other clinical affiliates provide supervised, structured, diagnostic laboratory experience for the undergraduate and graduate students in the Medical Laboratory Science programs. Typically, each student has the advantage of having clinical experience in the clinical laboratories of multiple clinical affiliates. A particular clinical affiliate may not be offering clinical experiences in any given term depending upon their staffing and ability to educate UD MLS students. Students need to be flexible and accept the assigned clinical practicum experiences available to graduate on schedule.

Supervised clinical education practicum assignments are made during the final spring semester of the MS in MLS program for rotations that begin in early June and continue through the end of August, extending beyond the traditional summer session schedule to facilitate completion of 12 weeks of clinical practicums.

- **Expenses**

During the clinical practicum, students should plan for the possibility of added expense for 1) transportation and uniforms and 2) living close to the clinical site for at least a three-week rotation during the final summer session when the commuting distance is excessive.

- **Guarantee of Clinical Assignment**

The Medical Laboratory Science Program guarantees all students, who begin the MS in Medical Laboratory Science program and maintain clear status, that sufficient affiliate sites will be available for clinical practicums so as not to impact negatively on expected graduation dates. By utilizing multiple affiliates, unexpected situations at affiliate sites should not impact on 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 should prevent a student from being placed in a clinical practicum, every effort will be made for the student to complete the applied experience during Fall semester at no additional tuition expense. In the latter case, graduation would be postponed until the Fall graduation cycle.

- **Clinical Practicum Attendance and Housing**

The student should report to his/her clinical practicums eight hours a day, five days a week for 15 days per rotation period. 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, however students should be prepared for a delay in graduation if clinical practicums are not completed as scheduled due to the limited time available in the summer to complete 12 weeks of clinical practicums. 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, or scheduling other travels for personal reasons. **Any time missed that cannot be made up during the summer semester may result in completion of the rotation period at a later date with postponement of graduation.**

The student should make every effort to schedule employment-related interviews/orientation and interviews for post baccalaureate education outside of clinical practicum schedules. In the event such scheduling is out of the student's control and cannot be accomplished except during a scheduled clinical practicum day, the student must provide the contact name of the individual mandating such scheduling to the University instructor 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 outside of the scheduled clinical practicum dates.

All missed time from the clinical rotations that was not previously arranged requires the notification (via phone) of the affiliate Clinical Coordinator AND the University Instructor before the start of the scheduled work day. **All absences must be documented on the *Clinical Practicum***

Attendance Record. 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.
 - 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.
 - Some licensure requirements include significantly greater number of clinical hours than those included in the University of Delaware MS in Medical Laboratory Science program. Scheduling additional hours should be requested EARLY in the program and the student must be prepared to graduate later, pending availability of these additional clinical hours.
 - All applications for licensure will require an official transcript indicating conferral of your degree. Requests for official transcripts are completed online through UDSIS or [Registrar's Office](#).
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