

Spring

2023



UMass

Dartmouth



Department of Medical Laboratory Science

CLS Option Student Handbook

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Introduction

The American Society of Clinical Laboratory Science defines clinical laboratory science professionals as vital healthcare detectives, uncovering and providing laboratory information from laboratory analyses that assist physicians in patient diagnosis and treatment, as well as in disease monitoring or prevention (maintenance of health). Clinical laboratory science professionals generate accurate laboratory data that are needed to aid in detecting cancer, heart attacks, diabetes, infectious mononucleosis, and identification of bacteria or viruses that cause infections, as well as in detecting drugs of abuse. In addition, they monitor testing quality and consult with other members of the healthcare team. Laboratory testing encompasses such disciplines as clinical chemistry, hematology, immunology, immunohematology, microbiology, and molecular biology. US News and World Report has listed careers in the clinical laboratory in the top 50 careers of 2010 and 2011 due to an increased need for qualified professionals and good starting salaries.

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Accreditation Statement

The option in clinical laboratory science is an integrated program, accredited by the National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Rd, Suite 720, Rosemont, IL 60018-5119.

Telephone: 847-939-3597 or 773-714-8880.

Website: <http://www.naacls.org>

Email: INFO@naacls.org

Outcome Measures

RESULTS FROM NATIONAL CERTIFICATION EXAMINATIONS

The certification examination for graduates from the Clinical Laboratory Science program is the Medical Laboratory Scientist (MLS) examination offered by the Board of Certification (American Society for Clinical Pathology). The pass rate for graduates who have taken the exam within one year following graduation:

| | |
|--------------------|---|
| CLS Class of 2020: | 96% Pass Rate (National pass rate was 75%) |
| CLS Class of 2021: | 100% Pass Rate (National pass rate was 75%) |
| CLS Class of 2022: | 91% Pass Rate (National pass rate not determined yet) |

GRADUATION/ATTRITION RATES

For students who begin the senior year, the graduation rates are:

| | |
|--------------------|---------------------------------|
| CLS Class of 2020: | 100% (with a 0% attrition rate) |
| CLS Class of 2021: | 100% (with a 0% attrition rate) |
| CLS Class of 2022: | 100% (with a 0% attrition rate) |

EMPLOYMENT SUCCESS RATES

| | |
|--------------------|--|
| CLS Class of 2020: | 100% Placement (23 graduates had a job or continued education within one year of graduation) |
| CLS Class of 2021: | 100% Placement (19 graduates had a job or continued education within one year of graduation) |
| CLS Class of 2022: | 100% Placement (21 graduates had a job or continued education within one year of graduation) |

Mission Statement

In accordance with the mission statements of the University system and UMass Dartmouth campus and standards of the National Accrediting Agency for Clinical Laboratory Science, the Department of Medical Laboratory Science perceives its mission to be the education of professional clinical laboratory scientists, cytotechnologists, biotechnologists, and health care practitioners as defined by the following attributes:

- Ability to relate knowledge and skills to other fields of endeavor
- Competency in the chosen practice area
- Ability to appropriately communicate orally and/or in writing with scientists, health care professionals, and the patient public
- Development of a broad understanding of the issues that underscore the imperatives of our times
- Commitment to life-long learning and professional competence
- Development of professionalism.

Goals

The Department goals for students focus on education in their specified discipline or option plus those that (1) help students identify their personal goals and development with a sense of self-worth, self-confidence, and capacity to have an impact on events in their lives, (2) involve students in professional organizations and activities that support their personal development, (3) develop students' scholarly and intellectual capacities to the fullest and instill in them a permanent commitment to learning, (4) interrelate subject matter throughout their academic career, and (5) raise the students' awareness of their role as competent, ethical, and caring healthcare practitioners.

Learning Outcomes

After completion of this program, the graduate will be able to demonstrate entry- level competence providing quality patient care in the following areas of professional practice:

- Satisfactory scientific content in major disciplines: clinical biochemistry, microbiology, immunology, genetics, hematology, hemostasis, statistics, phlebotomy, urinalysis/body fluids, and molecular diagnostics.
- Collecting and processing biological specimens for analysis.
- Performing analytical tests on body fluids, cells, and other samples.
- Make critical judgments by integrating and relating data generated by the various clinical laboratory departments.
- Evaluating quality control, instituting corrective procedures, and developing a quality assurance plan.
- Performing preventive and corrective maintenance on equipment and instruments or referring to appropriate sources to repair.
- Evaluating new techniques and procedures for their applicability to a given laboratory.
- Demonstrating concern for patients and cooperating with laboratory personnel and other health care professionals.
- Communicating effectively and professionally with patients, laboratory personnel, other health care professionals and the public.
- Applying principles of safety, management and supervision, governmental regulations and standards related to laboratory practice.
- Being familiar with education methodologies, current information systems, and research methodology.
- Interpret clinical data as it relates to patient diagnosis and treatment.
- Assess critical pathways and perform outcome analyses.

Recommendations for Success in the MLS Program

The MLS program at the University of Massachusetts Dartmouth is a rigorous academic program.

It is important for students to know that many of their previous study habits such as straight memorization of facts, studying only for recognition of the answer on a multiple-choice exam, or studying the night before an exam will not allow for the successful progression and completion of the MLS program. Students must truly learn the content of each course and apply it to the situations presented during exams. All MLS courses are integrated in content, meaning that information in one course may be applied to others because the field of laboratory medicine is also integrated. Recommendations to help you succeed in the program:

- Read and review course content daily – do not study just for the exams.
- Review course materials thoroughly prior to class discussions or lab exercises.
- Study to analyze, interpret, and problem solve.
- Understand that by design you may not be able to find the answer directly written in your notes or textbook – this field is about analysis and critical evaluation of information.
- Use the course objectives to guide your study and to critically assess your learning.
- Do not fall behind - each class will continue to layer information from week to week.
- Communicate questions or areas needing clarification early to your instructor.
- Get enough sleep and eat properly.
- Remember that the instructors' goal is to help you learn and succeed - seek their help, and do not wait until the last minute.

Essential Functions

In addition to the previously stated academic requirements, admission to the upper division of the option in clinical laboratory science also requires evidence that the student is able to meet the following non-academic criteria (essential functions or technical standards).

1. Observation. The student must be able to participate actively in laboratory exercises and clinical experiences. In particular, the CLS student must be able to:

- Participate actively and independently in laboratory and clinical exercises.
- Use the microscope to identify structures, cells, and organisms.
- Recognize and distinguish text, numbers and graphics in print and on monitor screens.
- Complete forms and enter computer data.
- Inspect specimens and reagents for suitability.
- Operate analytical instruments appropriately and safely.

2. Communication. The student must be able to communicate with fellow students, faculty, staff and members of a health care team. In particular, the CLS student must be able to:

- Independently and effectively report, discuss, or explain the results of laboratory tests in English to classmates, faculty, laboratory personnel, physicians and other health care providers.
- Read and comprehend technical and professional materials written in English.
- Follow verbal or written instructions given in English in order to perform laboratory test procedures correctly, either independently or as part of a team.
- Converse with patients and/or the public regarding laboratory tests or instructions for specimen collection in an effective, confidential, and sensitive manner.
- Communicate appropriately and in a timely manner with faculty, students, staff, and health professionals.

3. Motor skills. The student must have sufficient motor skills to independently perform basic diagnostic tests and meet minimum affiliate standards. In particular, the CLS student must be able to:

- Obtain, manipulate and measure specimens safely and with precision.
- Manipulate reagents, materials, instruments, computers, and analytical equipment according to established procedures and standards, safely and with speed, accuracy, and precision.
- Move safely about the laboratory.
- Reach laboratory bench tops and shelves.
- Reach patients lying in hospital beds or seated for purposes of collection specimens.
- Perform moderately taxing continuous physical and mental work, often requiring prolonged sitting or standing, over an eight to ten hour period.
- Lift and move objects weighing up to 10 pounds on a regular basis.
- Hold, manipulate and control laboratory equipment (i.e., pipettes, inoculating loops, phlebotomy needles) to collect blood specimens and perform laboratory procedures.

4. Intellectual/Conceptual, Integrative and Quantitative Abilities. The student must be able to problem solve and comprehend spatial relationships of structure. In particular, the CLS student must be able to:

- Possess and use the following intellectual skills: comprehension, measurement, mathematical calculation, reasoning, integration, analysis, and comparison.
- Exercise sufficient judgment to recognize and correct deviations from acceptable performance.
- Receive and implement constructive criticism appropriately.
- Evaluate the performance of peers, tactfully offering constructive comments.

5. Behavioral. The student must have the ability to interact appropriately in a professional manner with fellow students, faculty, staff and members of a healthcare team and demonstrate honesty and integrity by adherence to MLS, UMD and affiliate facility code of conduct and academic honesty policies. In particular the CLS student must be able to:

- Manage the use of time and prioritize actions in order to complete tasks within realistic constraints.
- Possess the necessary emotional health to exercise good judgment and demonstrate honesty, compassion, integrity, tolerance, responsibility and ethical behavior.
- Exercise good judgment in responding to stressful and emergency situations with patients or peers.
- Be flexible and creative in adapting to professional and technical change.
- Recognize potentially hazardous materials, equipment, and situations and proceed in a manner designed to minimize risk of injury to self and nearby personnel.
- Adapt to working with unpleasant biological materials or reagents.
- Support and promote the activities of colleagues, adopting a team approach to learning, task completion, problem solving and patient care.

Summary of the Online Medical Laboratory Science Curriculum

First Year

| | | Credits |
|----------------------|---|----------|
| Spring Semester | | |
| ENL 264 | Communicating in the Sciences | 3 |
| MTH 147 | Fundamentals of Statistics | 3 |
| PHL 215 | Introduction to Ethics | <u>3</u> |
| | | 9 |
| Maymester & Summer I | | |
| MLS 301 | Principles of Microbiology | 4 |
| Summer II | | |
| MLS 313 | Medical Microbiology | <u>3</u> |
| | | 7 |
| Fall Semester | | |
| MLS 325 | Clinical Immunobiology | 3 |
| MLS 331 | Fundamentals of Clinical Hematology | 3 |
| MLS 341 | Clinical Chemistry in Diagnostic Techniques | <u>3</u> |
| | | 9 |
| Wintercession | | |
| MLS 327 | Applications of Immunology and Human Genetics to Immunohematology | 2 |

Second Year

| | | |
|-----------------|--------------------------|----------|
| Spring Semester | | |
| MLS 401 | Clinical Microbiology I | 4 |
| MLS 421 | Immunohematology I | 2 |
| MLS 431 | Hematology I | <u>2</u> |
| | | 8 |
| Summer I | | |
| MLS 443 | Clinical Biochemistry I | 4 |
| Summer II | | |
| MLS 426 | Phlebotomy & Urinalysis | 2 |
| MLS 432 | Hematology II | <u>3</u> |
| | | 9 |
| Fall Semester | | |
| MLS 411 | Clinical Microbiology II | 3 |
| MLS 422 | Immunohematology II | 3 |
| MLS 444 | Clinical Biochemistry II | 3 |
| MLS 450 | Senior Seminar | <u>3</u> |
| | | 12 |

The total number of credits required for a Bachelor of Science degree in Medical Laboratory Science with an option in Clinical Laboratory Science is **120**.

University Studies Requirements

| <u>Cluster 1 Foundations for Engagement in the 21st Century</u> | | <u>Cluster 2 Science</u> | |
|--|---------|---------------------------------|---------|
| 1a Writing and Reading | ENL 101 | 2a Natural Science | MLS 211 |
| 1b Writing and Reading | ENL 102 | 2b Science in the Engaged Comm. | MLS 313 |
| 1c Intermediate Writing | ENL 264 | | |
| 1d Mathematics | MTH 147 | | |
| 1e Engagement | MLS 115 | | |

| <u>Cluster 3 The Cultural World</u> | | <u>Cluster 4 Social World</u> | |
|-------------------------------------|-----------|-------------------------------|-----------|
| 3a Literature | 3 credits | 4a Human Questions & Contexts | 3 credits |
| 3b Visual & Performing Arts | 3 credits | 4b Nature of US Society | 3 credits |
| | | 4c Nature of Global Society | 3 credits |

| <u>Cluster 5 UMD Experience</u> | |
|---------------------------------|---------|
| 5a Capstone | MLS 450 |
| 5b Engagement | MLS 450 |

Admission Criteria

University Admissions Requirements:

For information about applying to the University of Massachusetts Dartmouth, please visit the undergraduate website at www.umassd.edu/apply/. For specific requirements, please visit www.umassd.edu/undergraduate/about/.

MLT to MLS Degree Completion Admission Requirements:

The student must

- Hold an associates degree from a NAACLS accredited CLT/MLT program or equivalent coursework and ASCP CLT/MLT certification
- Submit proof of current ASCP certification
- A minimum of one year and a half of work experience
- Provide the Statement of Support and the Clinical Facility Fact Sheet completed by a current employer or practicum site
- Possess a minimum 2.0 GPA
- Complete the UMD online application
- Submit official transcripts from all schools attended
- Submit an updated resume

Grade Requirements for Medical Laboratory Science

1. The minimal acceptable grade in **all** MLS classes = **C-**. Less than a C- will be treated like a class failure even though university credits may be earned.
2. All department, college, and university requirements other than MLS 400 level classes, must be satisfactorily completed PRIOR to entering the second year.
3. A third enrollment to achieve C- or better will not be granted.
4. You must also achieve a minimum **2.0** GPA every semester in MLS Department required courses.

Failure to achieve the minimum will result in:

1st instance <2.0 = warning

2nd instance <2.0 = probation

3rd instance <2.0 = dismissal from major

Courses for calculation of the MLS Semester GPA:

| 1 st Semester | 2 nd Semester | 3 rd Semester | 4 th Semester | 5 th Semester | 6 th Semester |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| MTH 147 | MLS 301 | MLS 325 | MLS 401 | MLS 426 | MLS 411 |
| | MLS 313 | MLS 327 | MLS 421 | MLS 431 | MLS 422 |
| | | MLS 331 | MLS 431 | MLS 443 | MLS 444 |
| | | MLS 341 | | | MLS 450 |

Department of Medical Laboratory Science Grading Criteria:

| LETTER | Quality Points | |
|--------|----------------|-------|
| A+ | 4.0 | 97+ |
| A | 4.0 | 94-96 |
| A- | 3.7 | 90-93 |
| B+ | 3.3 | 87-89 |
| B | 3.0 | 84-86 |
| B- | 2.7 | 80-83 |
| C+ | 2.3 | 77-79 |
| C | 2.0 | 74-76 |
| C- | 1.7 | 70-73 |
| D+ | 1.3 | 67-69 |
| D | 1.0 | 64-66 |
| D- | 0.7 | 60-63 |

-0.5 or greater; the grade will be rounded up to the next highest whole number; lower than 0.5 will be rounded down. For example: a 59.4 would be a 59 and not 60, but a 59.5 would be rounded up to a 60.

Accepted by the Department of Medical Laboratory Science, 2-3-2016

MLS COURSE PREREQUISITES AND COREQUESITES

Courses must be taken in the term and order that they are listed. Failure of a course will result in the student being ineligible to continue until the next offering of the course. Students will need to successfully pass the course on the second offering to continue with the degree.

Honorlock Information

Honorlock will proctor your exams this semester. Honorlock is an online proctoring service that allows you to take your exam from the comfort of your home. You DO NOT need to create an account, download software or schedule an appointment in advance. Honorlock is available 24/7, and all that is needed is a computer, a working webcam/microphone, your ID, and a stable internet connection.

To get started, you will need Google Chrome and download the [Honorlock Chrome Extension](#).

When you are ready to complete your exam, log into myCourses, go to your course, and click on your exam. Clicking "Launch Proctoring" will begin the Honorlock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. Honorlock will be recording your exam session through your webcam, microphone, and recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.

Honorlock support is available 24/7/365. If you encounter any issues, you may contact them through live chat on the [support page](#) or within the exam itself.

Some guides you should review are [Honorlock MSR](#), [Student FAQ](#), [Honorlock Knowledge Base](#), and [How to Use Honorlock](#).

Academic Integrity

Unacceptable student conduct is described in both the University student handbook as well as the general catalog. A reprint of this information is also available from any MLS faculty member. Students found guilty of academic dishonesty are subject to severe disciplinary action, which may include expulsion from the

University. You are referred to the Student Judicial Code for due process in such a situation. In addition to the specific instances described in these documents, (plagiarism and Code of Responsible Computing), the MLS faculty reaffirm the University academic honesty standards and also consider the following as incidences of academic dishonesty:

1. Copying answers to study questions or other assignments from any source (the answer key, another student's answers, textbook, study companion, reference book, etc.) is considered plagiarism.
2. Substituting another student's answers for your own on an examination, quiz, or laboratory exercise. This includes modifying your laboratory results to meet a perceived outcome or fit into a desired range.
3. Obtaining, in advance, copies or information of any kind regarding examinations, quizzes, or laboratory exercises including information from students in other sections. The MLS faculty supports the learning process by providing students with instructional objectives to use as study guides. Review sessions prior to a test are routinely scheduled, when requested, for all MLS required courses. An individual needing additional assistance for better topic understanding should make an appointment with the appropriate instructor.

UMass Student Association for Medical Laboratory Science

Founded in the mid 1960s, this organization has been continuously active on the campus with meetings and social events in the local constituent chapter of the American Society for Clinical Laboratory Science (ASCLS: Central New England), the Regional chapter of ASCLS (ASCLS: Region I which includes New York and New England), and the national organization itself.

UMass Dartmouth students account for more than half of all Student Presidents of ASCLS:CNE, which is approximately one third of all Student Representatives for Region I, and is proud to have eight ASCLS National Student Forum Chairs and Vice Chairs. No other program in the country comes close to this level of leadership activities. Students attend state and local scientific meetings, compete in poster session contests, and lobby state and federal legislators on behalf of patient care and quality clinical laboratory science. The club has

monthly meetings, some of which are specific to each class year. Pot-luck lunches and suppers are a noted specialty!

The club maintains its own Facebook page for easy communications and the alumni maintain their own Facebook page, which allows for classmates to keep up to date on each other's activities and networking for both full time and part time employment opportunities.

Minimum Computer Specifications

Apple Laptop

Operating System: 10.14X

Processor: Core i5

Memory/RAM: 8GB

Windows Laptop:

Operating System: 32-bit and 64-bit versions Windows 10

Processor: Intel Core i5

Memory/RAM: 8GB

Second Year Dress Code

The student shall adhere to the dress code policies according to their place of employment or site of the clinical practicum.

Affiliates

Baystate Medical Center, Springfield, MA

Beth Israel Deaconess Medical Center- Boston, MA

Beth Israel Deaconess- Milton, Milton, MA

Beth Israel Deaconess- Plymouth, Plymouth, MA

Boston Children's Hospital, Boston, MA

Boston Healthcare VA System, W. Roxbury, MA

Boston Medical Center, Boston, MA

Cambridge Health Alliance, Cambridge, MA

Cape Cod Healthcare System, Hyannis, MA

Care New England- Kent Memorial Hospital, Warwick, RI

Care New England- Women & Infants Hospital, Providence, RI

Charlton Memorial Hospital, Fall River, MA
Cooley Dickinson Health Care- A Massachusetts General Hospital Affiliate, Northampton, MA
Dartmouth – Hitchcock Medical Center, Lebanon, NH
Good Samaritan’s Medical Center, Brockton MA
Massachusetts General Hospital, Boston, MA
Massachusetts Institute of Technology, Boston, MA
Milford Regional Medical Center, Milford, MA
Miriam Hospital, Providence, RI
Morton Hospital A Steward Family Hospital, Taunton, MA
New England Baptist Hospital, Boston, MA
Norwood Hospital A Steward Family Hospital, Norwood, MA
Providence VA Medical Center, VISN-1, Providence, RI
Signature Healthcare System (Brockton Hospital), Brockton, MA
South Shore Hospital, South Weymouth, MA
St. Anne’s Hospital, Fall River, MA
St. Elizabeth’s Medical Center, Brighton, MA
St. Luke’s Hospital, New Bedford, MA
Sturdy Memorial Hospital, Attleboro, MA
Tufts Medical Center, Boston, MA

Immunization Policy

Prior to the start of the clinical practicum, all students are required to meet immunization requirements as mandated for students in health-related fields by the assigned affiliate, the University of Massachusetts Dartmouth, the Commonwealth of Massachusetts, and/or the Department of Health.

The student is required to document current immune status for Hepatitis B, measles, mumps, rubella, varicella (chicken pox), tetanus/diphtheria, polio, and flu. In addition, the student is required to show results of a tuberculin skin test. In general, the information must be obtained from the student's primary care physician. Verifying immune status may require laboratory testing and vaccinations. The student is responsible for all costs. The program director will provide the appropriate form and a detailed list of requirements to the student at the completion of the junior year of study. The completed forms with documentation materials are submitted to the program director and are handled confidentially. The information is released to the individual student's affiliate only with the student's written permission.

Clinical Rotation Requirement

All MLS seniors are required to participate in clinical rotations.

Clinical Rotation Placement

Students need to specify their intended clinical practicum site at the time of application. The program director will work with that facility to create a contract agreement for the student to perform their practicum. This process must be started early into the students two years in the program to ensure the contract is complete prior to the scheduled semesters for the practicum. Students cannot start their practicum until their affiliate contracts are complete.

Student Service Work

Students may not perform paid or unpaid service work during assigned academic hours of the clinical practicum. Students may obtain paid positions during their discretionary time. Students shall not sign (or initial) out work or verify results on a computerized system. This includes using their own name or code or that of a hospital employee. This statement should not prohibit a student from performing tests or working with

instruments. The Department faculty recognizes the importance of hands-on experience so long as that experience occurs under appropriate supervision. The responsibility for the test results must remain with the instructor since this individual is employed by the affiliate.

Students who have graduated from a phlebotomy program must provide a copy of their certificate to the Program Director and are exempt from the phlebotomy rotation.

Clinical Practicum Performance Evaluation and Grading

Evaluation during the clinical practicum courses takes a variety of forms. In general, academic material will be evaluated by means of examinations designed to assess students' overall attainment of theory and development of skills. In addition, at the completion of each rotation, clinical faculty will evaluate the performance of each student while in that department. This evaluation is divided into three sections and serves to evaluate the student with respect to the following.

1. Overall technical skills, to include, but not limited to, manual dexterity; speed; power of observation; accuracy; compliance with safety procedures; organization; discrimination.
2. Application of theory to technical skills, to include, but not limited to, problem solving, respect for and operation of instruments and equipment.
3. Personal characteristics, to include, but not limited to, courtesy, punctuality, ability to function in stressful situations, interactions on telephone, ability to function with peers and others, professional ethics, confidentiality, utilization of chain of command, performance of minimum/maximum work.

University faculty review the individual student's performance evaluation, convert the results into a numerical grade using a rubric designed by the faculty, and incorporate the grade into the overall final grade for the course. The percentage of the final grade represented by the performance evaluation is the purview of the faculty and will be included in the course syllabus.

Senior Capstone

Each senior is required to research and present one (1) case study. This case study fulfills the University capstone requirement.

Seniors are assigned a case study during their hospital clinical rotation. The student has access to the assigned patient's medical chart including demographics, history, physical exam findings, laboratory data, imaging data, other relevant testing and the patient's diagnosis. Students are expected to correlate exam findings, laboratory data and imaging data to the patient's condition/diagnosis. Research is done on the particular condition. There are a wide variety of diagnoses ranging from musculoskeletal diseases, visceral diseases, infectious diseases, etc. The case study is presented as a research document. Areas of content must include: abstract, learning objectives, abbreviations, case presentation, past medical history, pathogenesis, relevant laboratory/imaging/other data, discussion, treatment and prognosis, case conclusion, and references. References will be cited in International Committee of Medical Journal Editors (ICMJE) format. Oral presentations are given to the class and department faculty prior to completion of the senior seminar (MLS 450).

Selection of a case. In consultation with the clinical liaison and/or designated laboratory staff, and faculty advisors, the student will be assigned a case study during the first month of their clinical rotation. The primary focus of the case will reflect the particular discipline that the student chose on campus. The major disciplines include hematology, clinical chemistry, microbiology, and immunohematology. However, the case must also require investigation of laboratory data from ***a minimum of two*** other disciplines.

Case study advisor. Once the case study is selected, a case study advisor from the University faculty will be assigned to the student. Determination of the particular advisor will depend on the primary focus of the case study. The role of the case study advisor is to help the student identify the issues that must be addressed in preparing the report and meet the deadlines associated with the preparation of the case study report.

Graduation

1. To register for graduation, students must complete the “Intent to Graduate” form by November 1. This form is available in the Registrar’s Office.
2. Notification concerning cap and gowns will be mailed by the bookstore directly to the student.
3. Please note: earning the B.S. degree in Medical Laboratory Science - Clinical is dependent only upon successfully meeting all University, College, and Departmental requirements. Earning the B.S. degree is independent of passing the certification examination. Conversely, successfully earning the degree does not guarantee passing the certification examination. Students are encouraged to take the certification examination as soon as possible following graduation.

Post-Graduation

Certification

Graduates from the MLS Program of the University of Massachusetts Dartmouth are eligible to take the national examination for certification as medical laboratory scientists. The American Society of Clinical Pathology’s Board of Certification (BOC) conducts the examination. Most employers require certification for employment. Application forms, certification examination eligibility requirements, examination content guidelines, and practice tests are available online.

American Society of Clinical Pathologists (ASCP)

Board of Certification (BOC)

33 W. Monroe St., Suite 1600

Chicago, IL 60603-5617

(312) 541-4999 (www.ascp.org/boc)

1-800-257-2727

Licensure

Some states require licensure for those who wish to practice in the field of Clinical Laboratory Science.

Licenses are issued to qualifying persons. In order to obtain a license, states require that the individual has

passed the national certification examination. Some states require that the exam is provided from a particular certifying agency and there may be additional conditions that must be met. Those considering employment in a state should contact the State Department of Health for further information. States that currently have licensure laws include: California, Florida, Hawaii, Louisiana, Montana, Nevada, North Dakota, New York, Tennessee, West Virginia, and Puerto Rico.

Professional Organizations

American Society for Clinical Laboratory Science (ASCLS)

1861 International Drive, Suite 200

McLean, VA 22102 (571)748-3770 | Email ascls@ascls.org

For those with specialized interests:

American Society for Microbiology (ASM)

1752 N Street, N.W.

Washington, D.C. 20036-2904

(202) 737-3600

AABB

8101 Glenbrook Road

Bethesda, MD 20814-2749

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American Society of Hematology (ASH)

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ASCLS 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.

ASCLS Code of Ethics

The code of ethics of the American Society for Clinical Laboratory Science sets for 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 judgment 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 patients, 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.

Possible Careers

Medical Laboratory Science graduates can travel down any number of career paths: working in hospital or physician's labs, in specialty laboratories such as those that deal with cancer treatment, in fields such as molecular biology and toxicology, in blood banks, in medical research, in the public health agencies that track diseases and viruses, and in many other paths. Many of our students go on to graduate studies in areas such

as medicine, public health, and hospital laboratory management, while others do sales or marketing for medical and pharmaceutical firms.

Alumni from UMass Dartmouth's Department of Medical Laboratory Science currently hold the following positions. Graduates of similar programs throughout the state, region and the nation enter similar careers.

Staff Clinical Laboratory Scientist

Clinical Hematologist

Clinical Toxicologist

Coagulation Specialist

Medical Bacteriologist

Microbiology Supervisor

Immunohematology Supervisor

Public Health Microbiologist

Public Health Mycologist

Point of Care Supervisor

Diagnostic Services Manager

Research Associate (many areas)

Medical Products Manufacturer

Laboratory Information Services Director

Computer Services Director

College Professor

Biomedical Engineer

Health Care Paraprofessional

Patent Attorney

Hospital President

Ambulatory Care Outreach Coordinator

Chiropractor

Obstetrician (DO)

Infectious Disease Physician (MD)

Family Medicine Physician (MD)

Military Scientist

On-Board Medical Diagnostics Specialist
Science Teacher (Elementary or High School)
Clinical Microbiologist
Clinical Chemist
Clinical Virologist
Clinical Mycologist
Specialist in Blood Banking
Chemistry Supervisor
Infection Control Specialist
Public Health Virologist
Public Health Inspector
Laboratory Manager
Research Director
Quality Control Specialist
Hospital Information Services Director
Industrial Design Engineer
Medical Equipment Engineer
Health Care Attorney
Corporate Vice President
Hospital Systems Group President
On-Board Diagnostics Services Director
Surgeon (MD)
Cardiologist (MD)
Pediatrician (MD)
Health Care Legislative Assistant
Emergency Medicine Technician (EMT)
Acupuncturist
Forensic Scientist
Physician Assistant (Primary Care, Dermatology, Psychiatry)
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