

Marshfield Clinic Health System – Marshfield Labs
Medical Laboratory Science Practicum
Student Handbook

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Program Summary

Marshfield Clinic Health System – Marshfield Labs provides the final year of training for students seeking a baccalaureate degree in Medical Laboratory Science (also known as Clinical Laboratory Science or Medical Technology). Marshfield Labs is affiliated with:

- University of Wisconsin – La Crosse
- University of Wisconsin – Oshkosh
- University of Wisconsin - Stevens Point
- Michigan Technological University, Houghton, MI

Students enroll in the Medical Laboratory Science program at one of the affiliated universities and complete their classroom studies on campus. Students then spend the equivalent of their senior year at Marshfield Labs (or other laboratory affiliated with their university) in a practicum program. The practicum is designed to expose students to the everyday workings of a laboratory and teach them the knowledge and skills necessary to work as Medical Laboratory Scientists. On completion of the practicum, students receive a Bachelor of Science Degree in Medical Laboratory Science from their university and/or a Certificate of Practicum Completion. They are then eligible to take a national Board of Certification exam to become certified as a Medical Laboratory Scientist.

Accreditation and Outcome Measures

The Medical Laboratory Science program at Marshfield Labs was established in 1947 and is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Information regarding program accreditation status may be obtained from NAACLS at 5600 N. River Rd., Suite 720, Rosemont, Illinois, 60018-5119, Ph. 773-714-8880, or at www.naacls.org.

Current outcome measures are available on the Lab Education [website](#).

Program Mission

The mission of the Marshfield Labs Medical Laboratory Science Program is to provide a quality educational experience for students completing a practicum in Medical Laboratory Science. In keeping with the mission of Marshfield Labs, the program will

provide didactic and practical training that will promote high standards of patient care and medical practice.

Program Goals and Competencies

The goal of the program is to produce an entry-level laboratory professional that can perform in-vitro analysis of biologic specimens according to the procedures established for routine and specialized areas of the laboratory. The graduate will be able to participate in the supportive functions of quality control, instrument operation, troubleshooting, teaching, and problem resolution. The graduate will exhibit qualities of leadership and professionalism. The graduates will be expected to:

- Analyze human and animal fluids
- Operate/maintain instrumentation and methods
- Maintain accurate and timely records
- Provide clear, appropriate, and timely communications
- Participate in educational instruction and professional development
- Maintain attendance
- Promote and contribute to safety
- Adhere to the standards of compliance programs
- Demonstrate an understanding of sound research design and practice
- Participate in the management of human, financial, and material resources
- Practice their profession in a professional and ethical manner

After demonstrating proficiency, students may be permitted to perform procedures under qualified supervision. By the conclusion of the rotation, students are expected to have acquired the knowledge and skills necessary to function as entry-level MLS professionals.

Admission Policy

Academic Requirements

Applicants must meet all of the following requirements in order to qualify for admission to the program.

1. A minimum cumulative grade point average (GPA) of 2.75 on a 4.0 scale.
2. A minimum of 90 semester hours (or equivalent) to include the following prerequisites*:

- a. Biology: A minimum of 16 semester (24 quarter) hours to include
 - i. General Biology
 - ii. Microbiology with lab experience
 - iii. Immunology
 - iv. Parasitology with lab experience
 - v. Genetics, Anatomy and Physiology, and Molecular Biology are strongly recommended.
- b. Chemistry: A minimum of 16 semester (24 quarter) hours to include
 - i. General Chemistry
 - ii. Organic Chemistry
 - iii. Biochemistry
 - iv. Quantitative analysis is strongly recommended and some laboratory experience must be included.
- c. Mathematics: A minimum of one college level course. Statistics is strongly recommended.
- d. Medical Laboratory Science:
 - i. Hematology with lab experience
 - ii. Immunohematology with lab experience
 - iii. Urinalysis with lab experience
 - iv. Medical Terminology and Instrumentation are strongly recommended.

*The courses acceptable toward meeting the above requirements would be any courses applicable toward a major in the above fields or in medical laboratory science. Survey courses do not qualify as fulfillment of the biology or chemistry prerequisites. Remedial math courses will not satisfy the mathematics requirements.

- 3. Applicants must possess, or be eligible for, a baccalaureate degree from their college or university upon satisfactory completion of the clinical practicum.
- 4. A Pre-test will be administered covering the prerequisite courses during the first week of clinical orientation. A minimum score of 60% is required. Students failing to achieve the minimum score will be required to complete remedial work and will continue at the program's discretion.
- 5. Applicants who wish to count college credit from a foreign university, who have completed the academic requirements prior to seven years ago, or who wish to seek advanced placement for prior education or experience, should contact the Program Director concerning additional requirements.

Application Process

Instructions for Application to the Student Program, Application and Reference Forms (PDF format) are available electronically on this web site.

The following documents should be received in the Laboratory Education office before October 1 to be considered for entry into the class beginning the following August:

- A completed application form.
- Official transcripts from all colleges and universities attended.
- Three letters of reference.

Completed applications are reviewed by the Program Director. Personal interviews are scheduled with qualified candidates.

Essential Non-academic Requirements

Applicants must demonstrate sufficient physical and emotional health to successfully participate in the program and become employable.

A specific list of essential functions is found on the fourth page of the Application Form. Applicants with special needs should inform the Program Director.

Students admitted to the program will be required to complete a Health Information Report documenting their current immunization status prior to beginning the practicum. A caregiver background check will be conducted by the student's university or the program.

Student Selection

All applicants who meet the requirements for admission and have completed the application process will be considered for admission to the program. A score sheet is completed for each applicant to facilitate the selection process. Applicants are ranked based on their application materials, academic performance, letters of reference, and personal interview. Applicants from affiliated institutions will be given selection preference over equally qualified candidates from other institutions. Student acceptance notices will be given to the Medical Laboratory Science advisor on each campus by November 1.

Admission to the Marshfield Labs Medical Laboratory Science Program is competitive with a limited number of student positions available annually. Attendance at an affiliated institution does not guarantee placement in the program.

Admission shall not be denied to any person because of race, color, creed, religion, sex, national origin, disability, ancestry, age, sexual orientation, pregnancy, marital status or parental status.

In the unlikely event of program closure, either at the laboratory or the university, any student formally notified of acceptance into the program is assured of being able to complete clinical training the following year.

Tuition/Fees

- Tuition - Students enrolled at a university during their practicum year pay tuition directly to the university. The university then reimburses a part of the tuition to Marshfield Labs. Students not enrolled at a university during their practicum year pay a fee directly to Marshfield Labs, due by November 1 of the practicum year. The fee for the current practicum year is \$5750. This fee is reviewed annually and is subject to change.
- Textbooks – The cost of required textbooks ranges from \$400-\$550 and is the responsibility of the student. Students will be provided a list of required and suggested textbooks prior to the practicum.
- ASCP Board of Certification Examination – The cost of national certification examinations is the responsibility of the student.
- Room and Board – The cost of all housing, meals, and travel during the practicum year, including all costs associated with rotation(s) at regional centers, is the responsibility of the student.
- Student Withdrawal – In the event of withdrawal, students enrolled at a university will be subject to the refund and withdrawal policies of their university. Students not enrolled at a university during the practicum will receive a 50% refund of their tuition if notice of withdrawal is received by the Program Director in writing before November 1. After November 1, no refund is given.
- Financial Assistance – Students who need financial assistance are encouraged to visit their university's Office of Financial Aid and apply for scholarships, grants, and/or student loans.

- Health Insurance – Students are responsible for their own medical care needs and their own health care costs. They are fully responsible for all costs related to general medical or emergency care including, but not limited to, immunizations, tests, procedures, office visits, and hospitalizations. Students may use the services of the Urgent Care Department, Emergency Department, or may seek care from a provider of their choice at their own expense. Marshfield Clinic Health System does not provide health insurance for students.

Student Policies and Procedures

Please refer to the Lab Education Policies and Procedures Handbook for policies pertaining to all students within the Marshfield Clinic Health System Lab Education programs. This student Handbook is a supplemental document meant to provide information specific to the Medical Laboratory Science Practicum.

Curriculum

Academic Calendar

Classes run from the Tuesday after Labor Day to approximately the second week in May, annually.

Clinical Courses

Each section rotation is considered the equivalent of a 400 level university course. Course titles may appear slightly different on official university transcripts. Credit values may vary according to the affiliate university. Faculty of the program include the Program Director, pathologists, PhD's, laboratory managers, practicing certified medical laboratory scientists, and other laboratory professionals. Faculty list provided to students separately.

Clinical Chemistry

Suggested Semester Credit Equivalent: 4

Includes a student lab (two weeks), main lab (two weeks), and didactic component. Includes general chemistry, special chemistry, and 24-Hr Services (stat lab) areas. Lead Faculty: Samantha Stackman, MLT(ASCP) and Sarah Beighley, MT(ASCP)

Clinical Hematology and Hemostasis

Suggested Semester Credit Equivalent: 6

Includes a student lab (three weeks), main lab (five weeks), and didactic component. Includes general hematology, special hematology, coagulation, and special coagulation areas. Lead Faculty: Laura Geiser, MLS(ASCP)^{cm}

Clinical Immunohematology (Blood Bank)

Suggested Semester Credit Equivalent: 4

Includes a student lab (two weeks) and main lab (three and a half weeks) component. Lead Faculty: Laure Kaiser, MT(ASCP)

Clinical Immunodiagnosics

Suggested Semester Credit Equivalent: 2

Includes a student lab (three days) and main lab (one week) component. Includes immunology and serology. Lead Faculty: Suzanne Golden, MLT(ASCP)^{cm}

Clinical Microbiology/Molecular Diagnostics

Suggested Semester Credit Equivalent: 6

Includes a student lab (four and a half weeks) and main lab (five weeks) component. Includes bacteriology, mycology, parasitology, and specimen processing and microscopy specific to the area. Lead Faculty: JoAnn Schultz, MT(ASCP) and Melanie Rootellis, MT(ASCP)

Urinalysis, Phlebotomy, and Regional Rotations

Suggested Semester Credit Equivalent: 3

Phlebotomy rotation includes a student lab (three days) and main lab (one and a half weeks) component. Urinalysis rotation includes a main lab (one and a half weeks) component. Regional Center rotation includes a laboratory (two days) component. Includes observation and performance of sample collection, sample processing, laboratory testing, and QC in a generalist environment. Lead Faculty: Aimee Nething, MT(ASCP) and Heidi Alexander, PBT(ASCP)

Laboratory Management Seminar

Suggested Semester Credit Equivalent: 1

Comprised of a specially scheduled block of presentations. Includes topics relating to the management and administration of a clinical laboratory. Lead Faculty: Caroline Raycher, HT(ASCP)

Lectures

Lectures are presented during Student Lab, Main Lab, and on most Monday mornings from November through May. Schedules are provided to students in advance. Attendance at all lectures is required.

If a presenter does not arrive within 10 minutes of the scheduled start time, one student should place a call to the Laboratory Education Office (x16332) or Program Director (16305) to inform them of the situation. If the presenter cannot be located within ten minutes, students should report to their assigned sections.

Evaluations

Students will be given several opportunities to provide feedback on their practicum experiences. The following student evaluations are given:

- 3 month
- 6 month
- Exit Evaluation and Exit Interview with Program Director
- Graduate – 6-12 months post-graduation

Graduation

The program awards a certificate of completion to students completing the program. The awarding of the certificate is not contingent upon passing any external licensure or certification examination. Students enrolled at a university during the practicum receive a baccalaureate degree from their university.

Academic Dismissal

The clinical course of study may be terminated prior to graduation for any one of the following reasons:

- Failure to maintain a grade level of 70% in classroom or practical instruction.
- Failure to comply with program, Marshfield Labs, or Marshfield Clinic Health System policies.
- Documented evidence of academic misconduct.
- A single breach of confidentiality.
- Conduct or attitude that is deemed objectionable or detrimental, or threatens the health, safety or welfare of any patients, invitees, or employees at the facility.
- Voluntary withdrawal.

Student Information

Student Rotations

The practicum year for Medical Laboratory Science (MLS) students starts the Tuesday after Labor Day and ends in May. All rotations address the theory, principles, methodologies, and clinical correlations specific to the area. Application of knowledge and skills is emphasized. Performance of manual and automated procedures is required. All students will spend 40 hours per week in the practicum.

During the first week of the practicum, students are scheduled to attend orientation sessions that are designed to familiarize the student with the policies and procedures of Marshfield Labs and Marshfield Clinic Health System.

The students then move on to our different rotations including:

- Student Lab – The student lab rotation starts after orientation and lasts until Thanksgiving break. All students proceed through the Student Lab rotations as a single group. The Marshfield Labs program is one of the few programs in the region to have a Student Lab. Physically, the Student Lab is an area separate from but adjacent to the Main Lab clinical testing area. Conceptually, Student Lab is a time when lectures are presented and basic lab skills reviewed to bring all students to the same level before their Main Lab rotations.
- Main Lab – The main lab begins after Thanksgiving break and lasts until May. Students may be scheduled in Main Lab rotations alone or with one other student. Main Lab rotates the students through all sections of our Laboratory and allows the student to work with our Laboratory Scientists at the bench while learning the critical skills necessary for professional practice. During the same period, students also attend lectures as a group on Monday mornings.
- Monday Lecture – The Monday Lecture series is given every Monday from 0800-1130 and runs concurrent with the Main Lab rotations. Students attend lecture in the morning and then move on to their Main Lab sections after lunch.
- Regional Laboratory Rotation – All students will have the opportunity to visit one of our Regional smaller labs during their Main Lab rotation.

Student Hours

Rotation schedules are provided to students in advance. Each student is responsible for reporting to their assigned section at the designated time. Students are to be in attendance Monday through Friday.

The student day is eight hours long, typically beginning at 0800 and ending at 1630. Beginning and ending times are determined by each section and may vary. Occasionally, hours may be altered, e.g., 0700-1530, to better coincide with instructors' hours and/or give the student maximum experience in a section. Hours may also be altered due to laboratory workload or other circumstances that may arise in the laboratory. Students should confirm beginning and ending times for each day in each rotation with the lead instructor(s) in the section.

Thirty minutes are allowed for lunch each day. One 15-minute break in the morning and another 15-minute break in the afternoon are allowed if time/workload permits. The lead instructor in each section will indicate to the student the times at which the student may leave the area for lunch and breaks.

Meals may be purchased in one of the Marshfield campus cafeterias. Lunches carried in must be eaten in the cafeterias or break rooms. Food and beverages are not allowed in the laboratories.

Absences

Tardiness:

- Tardiness is defined as not being present and prepared. Students are expected to be on time and prepared for the day indicated by their rotation schedules.
- Excessive tardiness will not be tolerated and is grounds for dismissal.

Lateness/Absences:

- Section Notification - Students must telephone their assigned section and speak directly with their lead instructor contact or a staff member who will convey a message to their lead instructor contact regarding the situation. Numbers can be found in the Lead Instructor Contact List provided separately.
- The student must then also email the Lab Education Department at labeleduc@marshfieldclinic.org with the following information: their anticipated date of return, the name of the person you notified in your section phone call, and a phone number where you can be reached should the Program Director want to speak with you directly.

Advance Notice Absences:

- Students who know in advance they might need time off for a personal appointment, job interview, or other reason, must request the time off from their lead instructor(s) and Program Director by e-mail as far in advance as possible.

- The lead instructor and Program Director will make the decision as to whether or not to allow the requested day/time off. Students will be informed of their decision by return e-mail.

Unexcused Absences:

- “Unexcused” means no notification was received by the section or Program Director and the whereabouts of the student could not be determined.
- Two consecutive unexcused absences will be considered grounds for dismissal.

Missed Work:

- All work missed due to absences for any reason must be made up by the student. The work missed must be made up, not the time missed.
- The lead instructor will determine when and how the work will be made up and will inform the Program Director of the plan.
- Excessive absences may require the student to spend additional time in a section at the end of the practicum year.

Student Storage

All students will be assigned a locker and a drawer in the Student Laboratory. Student lockers are for “clean” storage and drawers are for “dirty” storage. Please refrain from storing any biohazard or dirty items in your student lockers. Any items that need to be secured should be stored in lockers to keep them safe.

Student Communications

Student Email

At the beginning of the practicum, all students will be given a Marshfield Clinic Health System email address. This is considered the primary email for all official communications from the program. Students should check their clinic email daily and respond to requests promptly.

Student Clinic Devices

All Practicum students will be issued a Marshfield Clinic Health System laptop computer to be used during their practicums. Health System devices should be used in accordance with the Student Computer Use Policy and should remain secured at all times.

Program Director

Students are free to visit the Program Director's office at any time. If the door is closed the Program Director is not available. The student may also seek assistance from the Lab Education Program Coordinator.

Professional Activities

Students are encouraged to be members of the American Society for Clinical Laboratory Science (ASCLS), the national professional society for medical laboratory scientists / medical technologists. Membership information is available at: <http://www.ascls.org/>.

Students are also encouraged to be active members in the Wisconsin Society for Clinical Laboratory Science (ASCLS-WI). Students are encouraged to attend continuing education sessions offered regularly in the Lab and on the Marshfield campus.

**Welcome to Marshfield Clinic Health System Medical Laboratory
Science Practicum!**