

Eastern Michigan University

School of Health Sciences

Clinical Laboratory Science Program Handbook

Clinical Laboratory Science
Eastern Michigan University
341 Marshall Building
Ypsilanti, MI 48197

Revised 2018

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Welcome

On behalf of the faculty of the clinical laboratory sciences, I am pleased to welcome you to an exciting and dynamic profession. Since this profession is continuously expanding, the B.S. in Clinical Laboratory Sciences is only a step toward becoming a professional clinical laboratory scientist. It is critically important for you to realize that health care providers and employers want graduates who are not only technically competent but also excellent communicators, critical thinkers, and problem solvers. In order for you to understand the direction and philosophy of education and learning of our school and this program, I've included the Program's Mission Statement, Program Goals, and Career Entry Level Competencies for you to read.

Upon successful completion of this program, you will have gained the minimum knowledge skills and competencies to function as a competent clinical laboratory scientist at job entry level. We, the faculty, desire to assist you in becoming a successful clinical laboratory scientist by enhancing your critical thinking and communication skills. We also want you to be proud of your accomplishments, abilities, and potential, and we want to be able to say that we are pleased to have you as a colleague. Our reward is your success.

Eastern Michigan University and, hence, the Program in Clinical Laboratory Sciences, is an equal opportunity institution and does not discriminate on the basis of race, color, religion, sex, age, marital status, national origin, disability, or status as a disabled or Vietnam-era veteran. The Constitution and Bylaws of the University afford equal treatment regardless of political views or affiliation, and sexual orientation.

Contact information for the CLS Program:

Lynne Shetron-Rama, PhD, MT(ASCP)
Program Director, Clinical Laboratory Science Program
341 Marshall Building, Eastern Michigan University
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This Handbook was prepared to provide you a quick reference to certain program information and policies. You should keep it in an accessible place. Revisions and/or additions will be distributed as new editions

School of Health Sciences
Phone: (734) 487-4096

Clinical Laboratory Science Faculty and Staff

Program Director: Lynne Shetron-Rama, Ph.D., MT(ASCP)

Education: PhD Immunology and Microbiology, Wayne State School of Medicine
BS Medical Technology and Secondary Science Teaching
Michigan Technological University

Work History: Post Doctorate University of Michigan, U of M Med School, Ann Arbor,
Secondary Science Teacher- OCS Auburn Hills, MI
Medical Technologist, William Beaumont Hospital, Royal Oak, MI

Academic and Research Interest: Bacterial Pathogenesis, Microbiome modeling, Host cell immunology, Sporocidal testing

Assistant Professor: Teresa Mortier, PhD, MT(ASCP)

Education: PhD Educational Leadership, Eastern Michigan University
MS Post-Secondary Education, The University of Akron
BS Medical Technology, The University of Akron

Work History: Faculty, Clinical Laboratory Science, Eastern Michigan University
Program Director, Medical Laboratory Technician program, Baker College
Adjunct Professor, Medical Assisting, The University of Akron-Summit College
Staff Medical Laboratory Scientist, Genesys Regional Medical Center
Senior Medical Laboratory Scientist, Akron Children's Hospital
Staff Medical Laboratory Scientist, Akron Children's Hospital
Staff Medical Laboratory Scientist, Suburban Medical Laboratory

Academic and Research Interests : Student learning theory (tacit and explicit), reflective practice.

Staff/Clinical Coordinator Marian Cabaj M.Ed, MLS(ASCP)^{cm}

Education

BS Medical Technology, Wayne State University
Cert. Anaerobic Bacteriology, Centers for Disease Control
Cert. Secondary Education, Oakland University
Cert. AARI - Adolescent Accelerated Reading Initiative, University of Michigan
M.Ed. Educational Leadership, Saginaw Valley State University

Work History

Medical Lab Sciences Clinical Coordinator Eastern Michigan University
High School Teacher –Anatomy and Physiology Health Education
Biology and Related
Chemistry Technologies
Physical Science High School
Reading Improvement
Middle School Teacher – 8th Grade Science Flint Schools
8th Grade Health
Microbiology Technologist – Quest Diagnostics
Microbiology Technologist- St. John Hospital
Assistant Core Lab Manager – Michigan Osteopathic Medical Center
Micro/Serology Technologist – Hutzell Hospital

Academic Interests Connection between reading abilities and student comprehension and retention of subject matter.

Lecturer:

Sharon Ziemba, BS,MS, MLS(ASCP),SBB
Jerry Davis, BS, MT(ASCP), MPH
William LeBar, MS, MT(ASCP)
Andy Mazzara MS, MT(ASCP)

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Clinical Affiliates and Instructors

Cytogenetics Henry Ford Hospital, Detroit, MI
Jessica Payne
Jpayne1@hfhs.org
313-916-1490

Histotechnology: Williams Beaumont Hospital, Royal Oak, MI
Sarah Bajer, B.S., HTL(ASCP)
248-551-9079

Medical Laboratory Science:

University of Michigan Medical Center, 1500 E. Medical Center Dr., Ann Arbor MI 48109

Garden City Hospital, 6245 Inkster Road, Garden City, MI
Emily Harding, MLS(ASCP)^{cm}, Blood Bank Coordinator

Mercy Memorial Hospital, 718 N. Macomb St., Monroe, MI
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Tina Anchor, Manager

VA Ann Arbor Health Care System, 2215 Fuller Rd. Ann Arbor, MI

Licking Memorial Hospital, 1320 W. Main St., Newark, Ohio 43055
Lorei Reinhard, Laboratory Director

Bixby Medical Center, Promedica, 818 Riverside Avenue, Adrian, MI 49221
Catherine Shaffner, Education Coordinator

St Anthony and Alverno Clinical Laboratories, 301 Homer St., Michigan City, IN
Alisha Coplin, System Education Coordinator

St Joseph Chelsea, Brighton, Livingston and Ann Arbor
Joan Lutovsky, Clinical Lab Manager

New Vision Medical Laboratories, Lima, Ohio
Jamie Lauf, MT(ASCP)SBBCM, jslauf@mercy.com

St. Luke's Hospital, Maumee, Ohio
Mary Matuszak, MT (ASCP)

The Toledo Clinic, Toledo, Ohio
Dan Trumbull, MT (ASCP), MBA

Pathology Laboratories, Inc., Toledo, Ohio
Brenda Goszkowski, MLS(ASCP)CM

McLaren Greater Lansing, Lansing, MI
Ericka Covington, MBA, MLS(ASCP)CM

Borgess Medical Center, Kalamazoo, MI
Andrea Horvath, MLS (ASCP)CM

Medical University of South Carolina Medical Center, Charleston, South Carolina 29425
Karen Pregnall, EdD, CT(ASCP), HTL(ASCP)

Hillsdale Hospital: 168 S Howell St, Hillsdale, MI 49242
MaryLee Playford, Clinical Lab Manager.

Mission Statement

The Eastern Michigan University CLS Program exists to provide collaborative leadership in health care and health promotion by:

Employing innovative teaching strategies to prepare competent, caring, adaptable, critical thinking practitioners.

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Conducting and applying research to expand the knowledge base of health care and its delivery.

Improving the quality of life of the citizens of the region through community and professional service.

Our mission is to lead, through academic excellence, regional health promotion efforts and health care delivery into the next century.

Program Goals- Medical Laboratory Scientist

The Clinical Laboratory Science Program will prepare entry level medical laboratory scientists/medical technologists (MLS/MT) who demonstrate professionalism reflective of the standards of practice, code of ethics and requirements of the profession.

The program will prepare medical laboratory scientists who demonstrate entry level theory in the clinical disciplines of chemistry, hematology, immunohematology, immunology, management, microbiology and molecular biology.

The program will prepare medical laboratory scientists who demonstrate entry level knowledge in the technical skill performance and decision making processes of medical laboratory science.

Career Entry-Level Competencies

A Medical Laboratory Scientist has the appropriate educational background to perform laboratory procedures using established and approved protocols that require the broad exercise of the independent judgment and responsibility with minimal technical supervision; maintains equipment and records; performs quality assurance activities related to test performance. The term medical laboratory scientist includes persons who perform a broad range of laboratory procedures as well as persons who concentrate their activities in an area such as blood banking, chemistry, hematology, immunology, microbiology, histology, cytology or cytogenetics.

The medical laboratory scientist reports to a supervisor or laboratory director. The scientist has an understanding of the roles and relationships of practitioners in the health-related fields. The scientist's role subsumes all aspects of the technician's role. The following are examples of the scope of entry level competencies for the scientist.

In collaboration with a supervisor, he or she:

- Recognizes, evaluates and solves problems related to the collection and processing of biological specimens for analysis
- Performs specimen collection and processing, complex laboratory procedures on clinical samples; recognizes deviation from expected results; analyzes and corrects problems using scientific principles and reports results in a timely and accurate method
- Correlates and interprets data based on knowledge of pathophysiology
- Analyzes quality control data, makes judgments concerning the results and takes appropriate action to maintain accuracy and precision
- Answers inquiries regarding specimen collection and processing, test results, methodology, test specificity and sensitivity, and specific factors that can influence test results

- Participates in the evaluation of new techniques and procedures in the laboratory in terms of personnel, equipment, space, method comparison, cost analysis, and establishment of reference intervals; writes and revises technical procedures
- Incorporates principles of educational methodology in the instruction of new employees and students and in the laboratory's in-service/continuing education program
- Gives direction and guidance to medical laboratory technicians and support personnel
- Performs all laboratory functions in a safe manner, including application of universal precautions as appropriate
- Establishes and maintains a productive and efficient work environment that promotes interpersonal relationships and a positive work attitude
- Communicates effectively using a variety of modes
- Maintains and practices ethical standards
- Maintains and respects patient confidentiality

Pass Rate

The programs overall pass rate on the Board of Certification exam for Medical Laboratory Scientist offered through the American Society of Clinical Pathologists over the last 3 years is 88%. The graduation rate is 100% and a job placement rate of 100%.

Program Accreditation

The EMU Medical Laboratory Science Clinical Concentration is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

National Accrediting Agency for Clinical Laboratory Sciences
 5600 N. River Road, Suite 720
 Rosemont, IL 60018-5119
 847.939.3597 info@naaccls.org <http://www.naaccls.org>

Program Concentrations

The CLS Program offers four areas of concentration:

Medical Laboratory Science - Clinical	Pre-Professional and CRA
Histotechnology	Cytogenetics

MEDICAL LABORATORY SCIENCE CLINICAL CONCENTRATION

The Clinical Concentration prepares graduates to sit for the Medical Laboratory Scientist certification exam offered by the American Society for Clinical Pathology. Certified Medical Laboratory Scientists perform a wide variety of testing on blood and body fluids, and are employed by hospital, reference, and research laboratories. A second admission is required for this concentration.

Additional Requirements:

AHPR 200 Medical Terminology
 BIO 110 Introductory Biology
 BIO 111 Introductory Biology Lab

BIO 301 Genetics
BIO 305 Cell and Molecular Biology
CHEM 121 General Chemistry I
CHEM 122 General Chemistry I Lab
CHEM 123 General Chemistry II
CHEM 124 General Chemistry II Lab
CHEM 270 Survey of Organic Chemistry
CHEM 271 Organic Chemistry Lab
CHEM 351 Foundations of Biochemistry
MATH 170 Elementary Statistics OR SOCL 250 Quantitative Applications in Sociology

Major Requirements:

CLSC 203 and 204 Clinical Laboratory Techniques and Laboratory
CLSC 300 Molecular Diagnostics
CLSC 307 Urinalysis, Body Fluids, Hemostasis
CLSC 332 Microbiology I
CLSC 335 Clinical Immunology
CLSC 336 Clinical Immunology Lab
CLSC 401W Laboratory Management/Education
CLSC 402 Clinical Chemistry
CLSC 403 Clinical Chemistry Lab
CLSC 407 Hematology
CLSC 408 Hematology Lab
CLSC 432 Clinical Microbiology
CLSC 433 Clinical Microbiology Lab
CLSC 434 Advanced Immunohematology
CLSC 459 Clinical Microbiology Practicum II
*CLSC 450 Hematology/Coag Practicum
*CLSC 452 Clinical Immunology/Immunohematology Practicum
*CLSC 454 Clinical Chemistry Practicum
*CLSC 456 Clinical Microbiology Practicum

*These four courses are an off-campus, full time clinical internship

PRE-PROFESSIONAL CONCENTRATION

The professional concentration is the preferred course of study for students considering graduate school or advanced studies in the clinical sciences. The professional track also can be used as preparation for careers in medicine, dentistry, and veterinary science.

Additional Requirements:

AHPR 200 Medical Terminology
BIO 110 Introductory Biology I
BIO 111 Introductory Biology Lab
BIO 120 Introductory Biology II
BIO 121 Introductory Biology Lab
BIO 301 Genetics
BIO 305 Cell and Molecular Biology

CHEM 121 General Chemistry I
CHEM 122 General Chemistry I Lab
CHEM 123 General Chemistry II
CHEM 124 General Chemistry II Lab
CHEM 281 Quantitative Analysis
CHEM 371 Organic Chemistry I
CHEM 372 Organic Chemistry II
CHEM 373 Organic Chemistry Lab
CHEM 351 Foundations of Biochemistry
PHY 221 Mechanics, Sound and Heat
PHY 222 Electricity and Light
MATH 170 Elementary Statistics OR SOCL 250 Quantitative Applications in Sociology

Recommended Courses:

BIO 306 Cell and Molecular Biology and Genetics Lab
PHIL 223 Medical Ethics

Major Requirements*:

CLSC 203 and 204 Clinical Laboratory Techniques and Laboratory
CLSC 300 Molecular Diagnostics
CLSC 307 Urinalysis, Body Fluids, Hemostasis
CLSC 332 Microbiology I
CLSC 335 Clinical Immunology
CLSC 336 Clinical Immunology Lab
CLSC 401W Laboratory Management/Education
CLSC 402 Clinical Chemistry
CLSC 403 Clinical Chemistry Lab
CLSC 407 Hematology
CLSC 408 Hematology Lab
CLSC 432 Clinical Microbiology
CLSC 433 Clinical Microbiology Lab
CLSC 434 Advanced Immunohematology

* Please note that CLSC labs are open to Clinical students first, then to students in the Professional concentration.

HISTOTECHNOLOGY CONCENTRATION

Program Director: Jamie Pert (William Beaumont Hospital)

Histotechnologists perform a variety of diagnostic and research procedures in the anatomic sciences. Basic histologic techniques involve the processing and staining of tissue specimens that have been removed from humans or animals by biopsy or autopsy. Advanced techniques involve the use of the electron microscope, immunofluorescence microscopy, autoradiography, cytogenetics and medical photography.

Students may be accepted into the histotechnology specialization after completing the required science, mathematics and clinical laboratory science courses. University general education requirements must also be met. The senior year consists of an 11-month internship at William Beaumont Hospital School of Histotechnology.

Additional Requirements:

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AHPR 200 Medical Terminology
BIO 110 Introductory Biology I
BIO 111 Introductory Biology Lab
BIO 120 Introductory Biology II
BIO 121 Introductory Biology Lab
BIO 251 Human Anatomy and Physiology I
BIO 252 Human Anatomy and Physiology II
BIO 301 Genetics
BIO 305 Cell and Molecular Biology
BIO 476 Mammalian Histology
CHEM 121 General Chemistry I
CHEM 122 General Chemistry I Lab
CHEM 123 General Chemistry II
CHEM 124 General Chemistry II Lab
CHEM 270 Survey of Organic Chemistry
CHEM 271 Organic Chemistry Lab
CHEM 351 Foundations of Biochemistry
MATH 170 Elementary Statistics OR SOCL 250 Quantitative Applications in Sociology
PHIL 223 Medical Ethics

Major Requirements:

CLSC 203 and 204 Clinical Laboratory Techniques and Laboratory
CLSC 300 Molecular Diagnostics
CLSC 307 Urinalysis, Body Fluids, Hemostasis
CLSC 332 Microbiology I
CLSC 335 Clinical Immunology
CLSC 336 Clinical Immunology Lab
CLSC 401W Laboratory Management/Education
CLSC 407 Hematology
CLSC 408 Hematology Lab
*CLSC 416 Basic Histotechnique and Histochemical Staining Methods
*CLSC 417 Basic Electron Microscopy
*CLSC 418 Immunohisto-Cytochemistry
*These three courses are an off-campus, full time clinical internship

CYTOGENETICS CONCENTRATION

Program Director: Jessica Payne (Henry Ford Hospital)

Cytogenetic technologists work independently under general supervision and can interpret and implement established procedures to prepare biological specimens for cytogenetics analysis, perform the analysis and construct and interpret karyotypes.

Students may be accepted into the cytogenetics specialization after completing the required science, mathematics and clinical laboratory science courses. University general education requirements must also be met. The senior year consists of a two semester internship at Henry Ford Hospital in the Cytogenetics department. The program consists of an integrated presentation of didactic material and intensive laboratory study in the area of cytogenetics that includes specimen preparation, cell culture, chromosome analysis, microscopy and photography.

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Additional Requirements:

AHPR 200 Medical Terminology
BIO 110 Introductory Biology I
BIO 111 Introductory Biology Lab
BIO 120 Introductory Biology II
BIO 121 Introductory Biology Lab
BIO 301 Genetics
BIO 305 Cell and Molecular Biology
BIO 476 Mammalian Histology
IHHS 226 Computers in Allied Health
CHEM 121 General Chemistry I
CHEM 122 General Chemistry I Lab
CHEM 123 General Chemistry II
CHEM 124 General Chemistry II Lab
CHEM 270 Survey of Organic Chemistry
CHEM 271 Organic Chemistry Lab
CHEM 351 Foundations of Biochemistry
MATH 170 Elementary Statistics OR SOCL 250 Quantitative Applications in Sociology

Major Requirements:

CLSC 203 and 204 Clinical Laboratory Techniques and Laboratory
CLSC 300 Molecular Diagnostics
CLSC 332 Microbiology I
CLSC 335 Clinical Immunology
CLSC 336 Clinical Immunology Lab
CLSC 401W Laboratory Management/Education
CLSC 407 Hematology
CLSC 408 Hematology Lab
Two from the following:
*CLSC 410 Cytogenetics Clinical Internship I
*CLSC 411 Cytogenetics Clinical Internship II
*CLSC 412 A and B Clinical Internship (summer)

*These two courses are an off-campus, full time clinical internship

Criteria for Program Admission

Any EMU student is admitted into the Clinical Laboratory Sciences Program by declaring their Major Area of Study as Clinical Laboratory Sciences in the Academic Advising Office, 3rd floor, Pierce Hall. After declaring your major, a CLS advisor will be assigned. You should make an appointment as soon as possible to review your coursework, to determine your area of study (concentration), and to plan the sequence of courses you need to take. (Marshall 2nd floor advising office) It is also important to meet with your CLS faculty advisor each semester to avoid any delays in your academic progress. Please contact the CLS Program Director if you have any questions about advising procedures.

Second Admission

The CLS Medical Laboratory Science concentration requires a second admission, and is highly competitive. Applications are due by March 15th, with interviews scheduled in April. For details about the application process, please refer to the MLS Second Admission Application Packet.

Students are eligible to apply to the program after completion of a minimum of 60 semester hours, including 45 semester hours of prerequisite mathematics and science courses. Applicants must have a minimum GPA of 2.8, with no grade below 'C' in any BIO, CHEM, MATH, or CLSC course. In addition, the applicant must not have repeated any BIO, CHEM, MATH, or CLSC course required for the major more than once. Applicants to the second admission must obtain a passing grade on all CLSC practical exams. Clinical courses must have been taken three years prior to second admission. Admission committee reserves the right to review these requirements on an individual basis. Except for the clinical courses prerequisite courses for admission to the clinical internship may be taken at this University, another four-year college or university, or at a community college. The following courses must be completed before an application will be considered: Organic Chemistry with lab (CHEM 270/271), Introductory Biology (BIO 110,111), and Clinical Laboratory Techniques (CLSC 200). Those that have taken all courses at EMU may receive more points during second admission.

International students must have a TOEFL score of 570 or above (230 on the computer-based exam or 88 on the internet-based exam).

Those applicants that are accepted will be required to attend group visits to our clinical sites. These are scheduled in September and October. Individuals are expected to demonstrate proficiency in all areas of the laboratory during a Senior Lab Review that will take place during the students' last semester before clinical internship (including finals week) on campus.

There may be internship sites that are only available to individuals with US citizenship.

If accepted, clinical assignments will be based on your application, references, GPA, interview, clinical site rankings of students, and student clinical site preferences. The program does not take location of clinical sites into consideration when making assignments.

Placement in an internship requires that the student carry personal health insurance, has all required vaccinations, a drug screen, and a background check. These requirements are the student's financial responsibility.

There are separate applications and procedures for Histotechnology and Cytotechnology programs. Students must apply directly to these hospital-based programs. For more information, please review the application information located at the end of this Handbook.

Criteria for Program Continuance

Students accepted into the program must maintain a GPA of 2.7 to continue in the program, with no grade below 'C' in any BIO, CHEM, MATH, or CLSC course. A grade of 'D' (including 'D+' or 'D-') or 'F' in

any course in the major will, upon recommendation by the Program Review Committee, result in dismissal from the CLS Program.

Freedom from any kind of administrative, academic, or social probation must be maintained. While on academic probation, no student may register for, remain in, or receive credit for science courses or practical arts courses in the CLS Program major.

Continuance in the Clinical Internship is based upon passing each Practicum with a grade of 'credit'. All practicum courses are graded as credit/no credit as defined in the EMU Undergraduate Catalog. The EMU grade grievance policy applies to all clinical practicum courses.

To graduate from Eastern Michigan University with a Bachelor of Science degree in Clinical Laboratory Science, a student must fulfill general education requirements, CLS program requirements, and electives to equal the minimum total of 124 college-level credits. No class required for graduation can be a D or below. The catalog requirements in effect at the time of a student's initial registration at a college or University or the requirements of a subsequent catalog, including those in effect at the time of the student's graduation, may be used to complete graduation requirements.

Certification Exam

Upon successful completion of the MLS Clinical Concentration, graduates are eligible to sit for the American Society for Clinical Pathology (ASCP) exam to become a certified Medical Laboratory Scientist. For more information about the exam, visit www.ascp.org.

Code of Ethics

Being fully cognizant of my responsibilities in practice of medical laboratory science, I affirm my willingness to discharge my duties with accuracy, thoughtfulness, and care. Realizing that the knowledge obtained concerning patients in the course of my work must be treated as confidential, I hold inviolate the confidence placed in me by patients and physicians. Recognizing that my integrity and that of my profession must be pledged to the absolute reliability of my work, I will conduct myself at all times in a manner appropriate to the dignity of my profession.

Essential Functions

To progress successfully through the curriculum and to function as a practicing clinical laboratory scientist, the individual must be able to perform complex psychomotor skills correctly.

It is recommended that applicants for the clinical internship consider their abilities to perform clinical laboratory procedures. To meet these requirements the individual must:

- Display manual dexterity, fine motor skills and good eye-hand coordination for handling small samples for various body fluids, micropipettes, and test tubes, and adjust instruments to perform laboratory procedures in a safe manner, according to OSHA guidelines
- Show visual acuity for microscopic analysis, computer screens, small devices
- Distinguish and discriminate colors and shadings used in stains and chemical reactions
- Use reasonable judgment under stressful conditions

- Have physical, mental, and emotional health to perform productively, accurately, and in a timely manner
- Read and communicate in English (verbal and written)
- Communicate with patients, caregivers, healthcare professionals, supervisors, and administrators
- Ability to hear, using assistive devices if necessary
- Be responsible for transportation to clinical sites

You may be asked to demonstrate your abilities for any or all of the above Essential Functions prior to acceptance into the clinical internship.

Affective Performance

The student must demonstrate appropriate values, attitudes, and ethical standards of practice universally held by members of the profession. The CLS program will follow all University policies stated in the 'Student Conduct Code and University Disciplinary Process' which is found in the undergraduate catalog <http://catalog.emich.edu/>.

The student must maintain strict confidentiality of patient information and test results. The student must safeguard the dignity and privacy of patients and provide patient information only to appropriate health care professionals, per the policies of the clinical site.

Early Concern Note

The EMU CLS Program has adopted the Early Concern Note process to help students identify behaviors that could potentially limit their ability to engage effectively as a medical laboratory scientist and to develop action plans to address such behaviors. Your advisor and the program director will work with you to support you to successfully carry out your plan.

Early Concern Note

Please complete this note if you have any concerns about the professional and/or academic behavior of a clinical laboratory science student.

Student Name _____

Course(s): _____ Date: _____

Name, title/role of person(s) initiating Early Concern Note (print):

Names of persons in attendance at meeting to discuss/develop Early Concern Note:

This form is being completed based on: my direct observation(s) or encounter(s) with this student
 information about this student provided to me by a third party
 other: _____

A student with any of the following patterns of behavior is not meeting the professional and/or academic standards of the profession of clinical laboratory science. Please mark the area which best describes your concerns about this student. Provide comments in the space provided on the back.

Integrity and Personal Responsibility: The student

- fails to fulfill responsibilities reliably
- misrepresents or falsifies actions and / or information
- fails to accept responsibility for actions
- fails to respect patient confidentiality
- Other _____

Motivation to Pursuit of Excellence and Insight for Self-improvement: The student

- displays inadequate personal commitment to learning
- is resistant or defensive in accepting constructive criticism
- remains unaware of his/her limits
- resists considering or making changes based on feedback
- appears to seek or accept the minimally acceptable level of effort as a goal
- Other _____

Personal Interactions - Compassion and Respect: The student

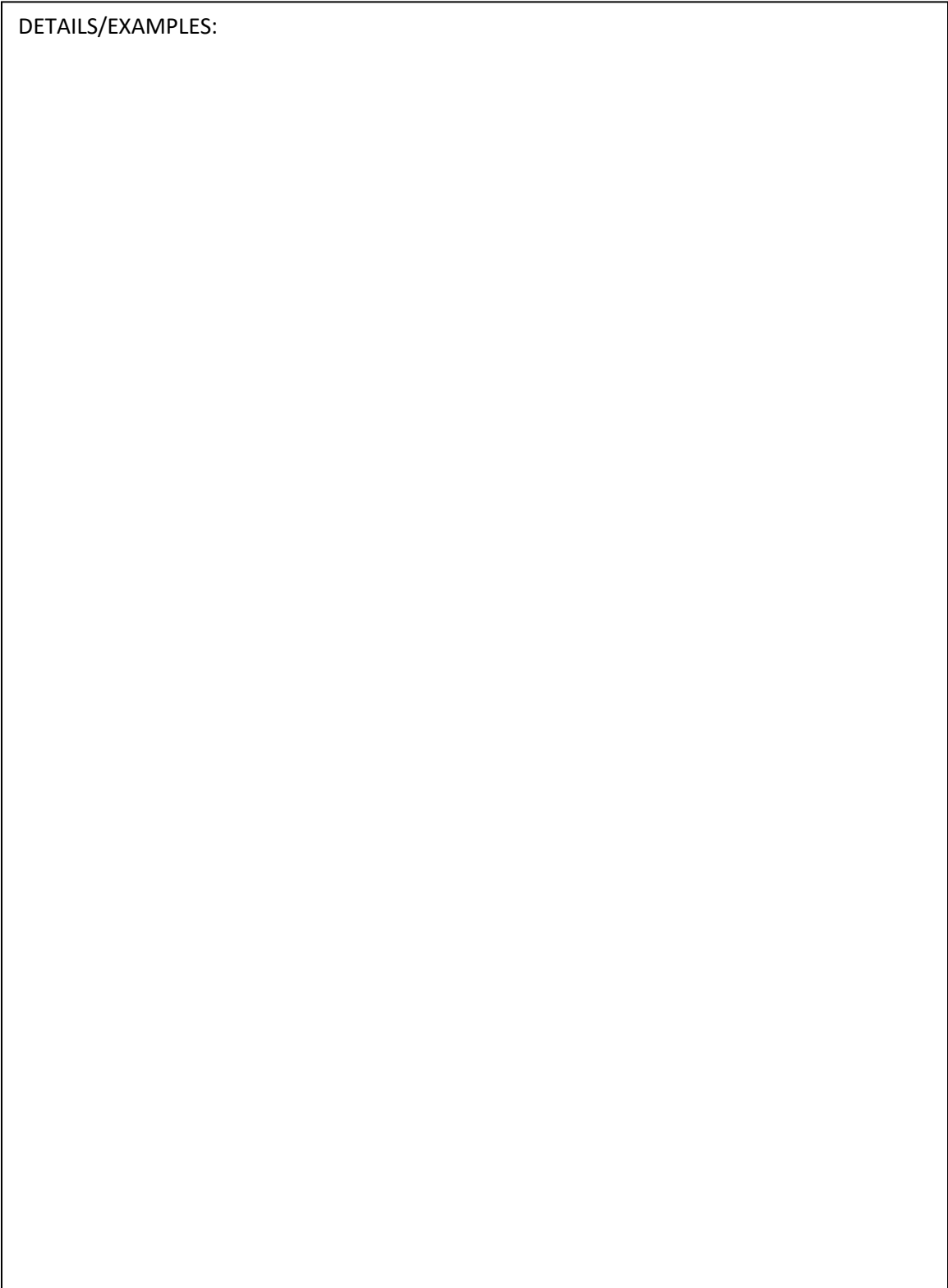
- inadequately establishes rapport or empathy with patients or families
- does not function and interact appropriately within groups
- is insensitive to the needs, feelings or wishes of others
- uses demeaning or disrespectful language about others
- is abusive or arrogant during times of stress
- fails to maintain a professional appearance / attire
- Other _____

Academic Performance Issues: The student

- consistently fails to complete individual assignments by course deadlines
- consistently fails to complete individual or group assignments according to course instructions
- currently is demonstrating academic performance that will likely lead to a course grade lower than a C
- consistently fails to contribute to course group processes
- demonstrates insufficient participation as related to course activities
- Other _____

This page must be used to describe details and examples of student behaviors which led to the completion of this form. This form will be shared with the student and the information will be used to counsel the student on the problem(s) identified.

DETAILS/EXAMPLES:



STUDENT COMMENTS (required):

PLANNED NEXT STEPS FOLLOWING MEETING:

Instructions:

- 1 Meet with the student to review/discuss the concerns on the Early Concern Note.
- 2 Ask the student to complete the student comment section above.
- 3 Discuss an action plan with the student to address the behavior(s).
- 4 Student should submit a plan in writing.
- 5 Student and instructor signatures are required.

Signature(s) and Title(s) of individuals completing report:

_____ Date _____

I have reviewed the contents of this Early Concern Note with the student: YES NO

For completion by the student:

I have read this evaluation and discussed it with the course or fieldwork instructor. The student's signature on this form is intended only to verify that the student has reviewed the form with the course or fieldwork instructor.

Student Signature _____ Date _____

Modified with permission from the work of Maxine Papadakis papadakm@medsch.ucsf.edu

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SOCIAL NETWORKING

Students are expected to use social media judiciously (sensibly, carefully, cautiously etc.).

Information posted on Facebook, Twitter, Instagram and other social networking sites is considered public domain and available for viewing. Students are not permitted to post anything in social media that is reputation damaging to EMU's preceptors, the SPE site/facility, EMU faculty/staff, past EMU graduates or fellow EMU students. Violations of this policy are subject to disciplinary action up to and including not releasing a verification statement to sit for the ASCP BOC exam and dismissal from the program.

Examples of inappropriate posting on Social Media include but are not limited to:

- Content that is disrespectful or has an aggressive tone
- Content containing vulgarity, obscenities or profanity
- Content that displays (even in jest) an individual getting hurt, attacked or humiliated
- Content that could be judged as racist, bigoted or demeaning to an individual, a group or an organization
- Content that might be perceived as illegal, such as narcotics or underage drinking
- Content that represents EMU in a negative light

Sharing information that is not available to the public should be avoided. Please follow these proper confidentiality procedures:

- Do not post confidential or proprietary information about any person, business or organization.
- Do not post content that could potentially create a security risk for any person, business or organization.
- Do not post personally identifiable information about any person. This includes screen names, personal photos, hobbies, addresses and phone numbers, and work or school information.
- Do not use social media to collect personal information of users. Most websites' terms and conditions, as well state and federal laws, impose requirements and restrictions that govern collection of the personal information.
- Understand and follow all policies related to confidentiality, such as FERPA, HIPAA, and EMU's employee policies.

Clinical Internship Dress Code

To promote a professional image, the student is expected to wear the following:

- A clean, white lab coat with a name tag, or other appropriate protective laboratory wear as indicated by the clinical site
- Street clothes such as slacks and shirts or scrubs. No jeans, sweat suits, or shorts should be worn. Extremes in dress style should be avoided. *Dress professionally.*
- Remove jewelry from piercings before arriving at the clinical site.
- Note that many hospitals are 'fragrance free', so avoid wearing perfume or cologne to the clinical site
- No head phones or ear buds.
- Cover all visible tattoos.
- No artificial or long nails.
- Long hair should be tied back

The above guidelines are designed for student safety, professional development, and patient consideration. Any student who does not follow these guidelines may be asked to leave and return in the appropriate dress.

Transportation During Clinical Internship

Throughout the clinical internship it is the student's responsibility to provide transportation to and from the facility. This might be managed through private or public transportation, arrangements with classmates, etc. University transportation is not available for this purpose.

Performance Assessment, Expectations, and Grading

The Clinical Practicum Grading Criteria will consist of the following:

1. Completion of study questions provided by EMU Faculty and/or clinical instructors.
2. Completion of all technical tasks as indicated by EMU Faculty and/or clinical instructors.
3. Successful completion of written examinations with a minimum passing grade of 70%.
4. Completion of Clinical Rotation Evaluation Form.
5. Satisfactory evaluation of clinical performance conducted by clinical instructors.
6. Handling of student complaints related to clinical rotations.
 - A. Students will discuss the problem with the clinical instructor.
 - B. If the problem is not resolved the student will contact the Program Director.

Determination of Grade Credit/No Credit

In order to achieve a grade of "credit" for a clinical rotation, the student must have a total score of 70% or greater on the combined evaluation of the Clinical rotation task list score, Professional evaluation score, study questions, pre or post test scores and completed evaluation of rotation.

Final grade determinations of credit or no credit are assigned at the end of the clinical rotation by the EMU faculty coordinator, after discussion with the student and clinical instructor. *All three evaluations*

Revised 2018

will be considered and failure of any one of the three may result in a no credit grade with possible dismissal from the program.

If a student fails a rotation and is removed from the rotation by the clinical site, the clinical instructors and EMU faculty will review the evaluations. They will determine if the student will be able to continue in the program and be allowed to remediate the material in the rotation that the student failed or was removed from.

Evaluation of Students' Professional Capabilities

Clinical affiliates will evaluate each student's performance in the following areas during their clinical training:

Initiative

- Performs routine assigned tasks
- Seeks unsolicited tasks

Interest

- Asks relevant questions
- Is alert and attentive

Responsibility

- Completes required assignments
- Informs instructor when leaving area

Reaction to Criticism

- Accepts constructive criticism
- Applies constructive criticism as positive information

Interpersonal Relationships

- Works as a team member
- Functions well with others in a teacher/student setting
- Helps others willingly

Professional Performance

- Maintains work quality and quantity under stress
- Maintains professional composure

Integrity

- Admits to errors or mistakes
- Follows procedures without shortcuts
- Shows consistent attention to detail

Cleanliness and Orderliness

- Leaves working area clean and neat
- Replenishes supplies and reagents

Promptness

- Arrives on time
- Begins work promptly

Confidence

- Displays confidence after instruction
- Recognizes limitations

Illness Policy

In case of illness, students are responsible for contacting the primary instructor and EMU clinical coordinator within one hour of scheduled arrival. Advance notice is requested if possible.

A student has 3 days of absence during the clinical internship to use for illness or other emergency purposes. This time is not to be used for travel to and from clinical site.

Students will be expected to complete all objectives. If this is not possible because of missed days, additional clinical time will be required. Make-up time will be scheduled at the convenience of the clinical instructor and may be scheduled in the evening and/or weekends.

Unexcused Absences

If a student has any unexcused absence from any one rotation, the student may be removed from that rotation which will result in failure and dismissal from the program.

Minimizing Health Hazards

In order that the risk of health hazards is minimized in the laboratory, each student is required to comply with the safety regulations established by the assigned facility. Each clinical facility has well-developed standards for safety, in addition to commonplace regulations such as lab coats and closed footwear. The student is responsible for providing his/her own protective clothing and for complying with safety regulations.

Prior to acceptance into clinical rotations, students are required to provide documentation of a recent immunizations such as negative 2-step TB skin test or negative chest X-ray, mumps, rubella, rubeola, and tetanus (see Required Documentation, page 27). A hepatitis B vaccine must be received or formally declined (see Hepatitis B form, page 26). Vaccinations may be received from the student's personal physician, Michigan Department of Public Health or on campus at the Snow Health Center. Additional documentation includes providing proof of recent physical examination, current CPR certification, Blood Borne Pathogens and HIPPA training.

Clinical affiliates must provide emergency health care for illness or injuries resulting from clinical assignment, although students are responsible for any costs associated with treatment.

Students accepted for clinical internships must carry personal health insurance.

Screening

Many of our clinical affiliates require that students provide a background check and a drug screen. All students accepted for clinical internship are required to provide a background check and a drug screen at their own expense.

Malpractice Liability Insurance

All EMU students at clinical sites that are enrolled in the CLS program are covered by an institutional policy provided by EMU that provides liability insurance. It is the responsibility of the CLS program to advise students regarding liability insurance coverage. EMU requires no responsibility on the part of the clinical site to provide liability insurance coverage for students.

Campus Provisions for Health Care

Snow Health Center provides a variety of medical services, which are available to all Eastern Michigan University students and their spouses. The Health Center is open weekdays, but is closed Saturdays, Sundays, and holidays.

Snow Health Center is responsible for the provision of the following services: primary medical and emergency care, diagnosis and treatment of common injuries and illnesses, administration of vaccinations, immunizations and allergy shots, tuberculosis testing, specialty clinics for treating specific problems in the medical specialties of gynecology, dermatology, and mental health. The Health Center also assists in the student health insurance program and provides other ancillary services, including a prescription pharmacy, a medical laboratory, and a X-ray department.

Nominal charges are made for services rendered by the Health Center. The services of the mental health counselors are free of charge.

Student health insurance is offered to students wishing to have additional coverage for situations requiring medical attention beyond the scope of care available at the Snow Health Center. The Student Government promotes the insurance program, encouraging all students to participate who are not covered by another form of health insurance or who prefer to carry additional insurance.

Health Care at Clinical Facilities

It is the clinical facility's responsibility to provide emergency health care for illness or injuries resulting from clinical assignment. Students are responsible for all costs involved in treatment.

Students requiring emergency care during the time they are at the clinical site may elect to use the emergency services of the facility or Snow Health Center, if appropriate. Any registered student is eligible to use the Snow Health Center.

Protect Yourself from Exposures

If you are handling blood, semen, vaginal secretions, or body specimens where there is visible blood, be particularly careful to protect yourself against infection from the virus that causes AIDS, and the virus that causes hepatitis - which can also be fatal.

“Healthcare personnel are at risk for occupational exposure to bloodborne pathogens, including hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV). Exposures can occur through needlesticks or cuts from other sharp instruments contaminated with an infected patient's blood or through contact of the eye, nose, mouth, or skin with a patient's blood. Important factors that influence the overall risk for occupational exposures to bloodborne pathogens include the number of infected individuals in the patient population and the type and number of blood contacts.

Most exposures do not result in infection". (CDC.gov) For more information on exposures refer to this website: http://www.cdc.gov/HAI/pdfs/bbp/Exp_to_Blood.pdf

In addition, the clinical laboratories are specially designed and equipped for laboratory procedures, with large working spaces, sinks, plenty of running water, disinfectants, and decontaminates. In such an environment, workers are more likely to wear protective clothing, put on gloves, wash their hands after each patient exposure, and take care to prevent needle sticks and open wound contamination. Recently, the Occupational Safety and Health Administration of the US Department of Labor has started enforcing CDC's recommended precautions for laboratory workers by on-site inspections if requested by workers. This comes under OSHA's charter, which says that employers must provide "employment and a place of employment free from recognized hazards."

Safety Rules for Laboratory Workers

Protect yourself from infection. Follow these precautions recommended by the US Centers for Disease Control:

1. Avoid contaminating the outside of containers during specimen collection. The lids should be tight. (Enclose specimen in a second container, such as a sealed bag when transferring to a reference lab.)
2. Wear vinyl or latex gloves when processing specimens, especially if you have any cuts or scratches on your hands. Dispose of, rather than disinfect, gloves after use.
3. No mouth pipetting.
4. Use precautions when handling needles. No bending, breaking, recapping, or removing needles from disposable syringes. Place in puncture-resistant containers.
5. Use masks and eye shield if splashing or aerosolization is anticipated. (A tube in a centrifuge could cause this.)
6. Use biological safety cabinets for blending, sonicating, and vigorous mixing.
7. Decontaminate work surfaces with a chemical germicide after spills and when work is completed. (A one to ten dilution of household bleach is effective.)
8. Dispose of contaminated materials in bags and in accordance with institutional policies for disposal of infective waste.
9. Decontaminate equipment before repair or shipping.
10. Wash hands and remove protective clothing before leaving laboratory.

Ref: CDC Morbidity and Mortality Weekly Report, 6/24/88. "Update: University Precautions for Prevention of Transmission of Human Immunodeficiency Virus, Hepatitis B Virus, and other Bloodborne Pathogens in Health-Care Settings," as well as "Recommendations for Prevention of HIV Transmission in Health-Care Settings." Available through the National AIDS Information Clearinghouse, PO Box 6003, Rockville MD 20850.

Student Employment During Clinical Internship

If financially possible, it is recommended that a student not be employed while completing clinical rotations. This recommendation is made so that students have more time to study and perform successfully both in the clinical rotations and on certification examinations.

Students may work up to twenty hours a week. If students wish to be employed as a laboratory aide while completing clinical rotations, this employment must occur outside of the prescribed rotation hours. This employment is non-compulsory and paid. In addition participation in service work (health fairs and screenings) is strictly a student volunteer service and not a requirement of the program.

Students may apply for laboratory assistant positions. However, the clinical site is under no obligation to hire EMU students.

Counseling (Academic and Personal)

The Clinical Laboratory Sciences faculty are available for academic counseling. Generally, a student should retain the same advisor they have been seeing. Counselors are available at Snow Health Center for problems of a non-academic nature.

University Library

The University library is available to all EMU registered students. You will be formally enrolled in EMU courses while completing your internship. In addition, there are many references available at the clinical sites.

Internship Scheduling and Holidays

Internships are about 40 hours per week, and vary from 22 weeks to 25 weeks in length. Each clinical affiliate will determine the internship daily schedule and holiday schedule. Students should be aware that clinical internship may require training on day, afternoon and/or evening shifts these are considered as normally scheduled clinical experiences. Students may be scheduled for a rotation during Winter or Spring Recess and these are considered as normally scheduled clinical experiences.

Sample Rotation Schedule

Week	Dates	Rotation
1 - 2	1/4 – 1/5 1/6 – 1/15	Orientation Blood Bank
3 – 5	1/18 – 1/20 1/21 – 2/5	Phlebotomy Blood Bank
6 – 9	2/8 – 3/5	Hematology
10	3/8 – 3/12	Urinalysis
11 - 17	3/15 – 4/30	Microbiology
18 – 22	5/3 – 6/4	Chemistry
23	6/7 – 6/11	Coagulation
24	6/14 – 6/18	Immunology

Eastern Michigan University
Clinical Laboratory Sciences Program

TO: All Students in the Clinical Laboratory Sciences Program
FROM: Lynne Shetron-Rama, PhD, MT(ASCP), Program Director
RE: **Hepatitis B Vaccinations**

In 1991 the US Department of Labor, Occupational Safety and Health Administration (OSHA) passed a standard: "to eliminate or minimize occupational exposure to Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV) and other bloodborne pathogens."

The major concern is the protection of employees in health care settings who "face a significant health risk as a result of occupational exposure to blood and other potentially infectious materials because they may contain bloodborne pathogens, including hepatitis B virus which causes Hepatitis B, a serious liver disease, and human immunodeficiency virus, which causes Acquired Immunodeficiency Syndrome (AIDS). The Agency further concludes that this exposure can be minimized or eliminated using a combination of engineering and work practice controls (universal precautions), personal protective clothing and equipment, training, medical surveillance, Hepatitis B vaccination, signs and labels, and other provisions."

This standard is now in effect and mandates compliance by all health care providers.

What this means to you as a Clinical Laboratory Science student is that you may be required by the hospitals in which you will be doing your rotations to have a series of vaccinations prior to entering their facilities.

The Hepatitis B vaccine (HBV) requires a series of three inoculations for full protection. It is recommended that you receive the HBV vaccine as early as possible in your CLS educational program to minimize the risk of exposure to HBV. The list of required vaccinations are on the attached list.

If you choose not to take this protection, you will need to sign a declination form.

You will need to check your insurance coverage to determine the most economical way for you to receive the vaccinations that you need. One possibility is through the Snow Health Center which will provide the necessary protection for you "at cost".

Either return the completed forms to me by leaving them in my mailbox or mail them to me at:

Clinical Laboratory Sciences Program
341 Marshall Building
Ypsilanti, MI 48197

New MLS Intern Required Documentation

NAME: _____

STUDENT ID #: E _____ Date of Birth: _____

INTERNSHIP SITE: _____

MEDICAL DOCUMENTATION – Required for Placement

Immunization	Date	Status	CC Initials	Student Initials
Hepatitis B		Immune Non-immune NI-immunization date		
Rubella		Immune Non-immune NI-immunization date		
Varicella		Immune Non-immune NI-immunization date		
Rubeola		Immune Non-immune NI-immunization date		
Mumps		Immune Non-immune NI-immunization date		
Tetanus		Immune Non-immune NI-immunization date		
Diphtheria		Immune Non-immune NI-immunization date		
Pertussis		Immune Non-immune NI-immunization date		
Influenza Vaccine (Yearly) <i>Administered after 9/1/2017</i>		Administered		

Requirement	Date Completed	Status	CC Initials	Student Initials
TB TEST 2 step ppd (within 6 months) Chest X-ray (within 3 years)		Positive Negative x 2		
PHYSICAL EXAMINATION (within last 6 months)		Passed Failed		
Urine Drug Screen Non-DOT 10 panel Within 60 days of Clinical Placement start date		Positive Negative		
Color Blindness Test Physical Exam		Pass Fail		
Proof of Health Insurance <i>For duration of internship</i>		Covered Not Covered		
SNOW Training in CPR /First Aid/Blood Borne Pathogen/HIPPA		Completed Not Completed		
Limited Criminal Background Check: Michigan/Indiana/Illinois/Ohio/South Carolina		Felony No Felony		
OIG Sanction Check Exclusions Program Office of Inspector General http://oig.hhs.gov/fraud/exclusions.asp		Record No Record		
Graduation Audit		On Target Missing Credits		
ASCLS DUES		Paid Unpaid		

The student has met all the criteria listed on this form. Proof of documentation is accessible by contacting the Medical Lab Clinical Coordinator at Eastern Michigan University (mcabaj@emich.edu).

 Signature: Marian Cabaj, Medical Lab Sciences Clinical Coordinator

 Date

 Student Signature

 Date

**RESPONSIBILITIES of STUDENTS PARTICIPATING in
EASTERN MICHIGAN UNIVERSITY
CLINICAL LABORATORY SCIENCES INTERNSHIPS**

Each student participating in the internships of the Clinical Laboratory Sciences Program - Clinical Concentration must comply with the rules and regulations set forth below:

1. Students must follow all administrative policies, standards, regulations, and practices of the Hospital. The hospital will require attendance to their orientations for practices unique to that setting. Students may be required to attend orientation during academic breaks from the University. Failure to comply with this availability and /or said policies, standards, regulations, and practices may result in the Hospital's request that the University terminate the student's enrollment in the Program.
2. Students must follow all applicable dress codes and must supply, at his/her own expense, all necessary lab coats, or required scrubs.
3. Student must provide his/her own transportation, living accommodations, and other expenses, including meals.
4. Student must report to the Hospital on time. Absences of more than two hours must be made up. Students will generally not be allowed to leave early.
5. Student must conform to the standards and practices established by the Program while training and the Hospital must comply with all requirements set forth in the Student Handbook.
6. Students must maintain the confidentiality of medical records in accordance with Hospital standards and practices.

I have read the rules and regulations listed above and agree to abide by them. I understand that I will in no way be considered to be a servant, agent, or employee of the Hospital and I shall not be entitled to any fringe benefits, Worker's Compensation, or any other rights which may be offered to Hospital employees.

I am a student in good standing at Eastern Michigan University.

I have read the Student Handbook and understand my responsibilities.

(Student's signature)

(Date)

SUBMIT THIS FORM WITH YOUR APPLICATION

**STUDENT INCIDENT REPORT PROCEDURE FOR EASTERN MICHIGAN UNIVERSITY
CLINICAL LABORATORY SCIENCES LABORATORIES AND
AFFILIATION HEALTH CARE AGENCY CLINICAL SITES**

PROTOCOL

1. Student should report the incident immediately to the faculty member, and their clinical supervisor.

Examples of incidents: a fall, a bite, a needle stick by a contaminated needle, physical or mental injury by a patient, muscle strain or injury as a result of lifting, moving, a patient.

2. Faculty member or student will report the incident to the clinical nurse manager/head nurse/supervisory person of the unit or health care agency.
3. Faculty member and student will fill out an incident report and file it with the affiliating health care agency and the MLS program at Eastern Michigan University.
4. EMU faculty member or clinical site instructor will counsel student regarding the incident and the options of seeking advice and/or medical care for the incident.

It is the student's right and responsibility to seek medical advice and/or treatment. The following options are available:

- a. If available, the student may seek medical advice and/or care at the affiliating health care agency where the incident occurred and it will be the student's responsibility to provide direct reimbursement for any diagnostic services and/or treatment deemed necessary.
 - b. The student may seek medical advice and/or care at Snow Health Center, Eastern Michigan University. It will be the student's responsibility to provide direct reimbursement for any diagnostic services and/or treatment deemed necessary.
 - c. The student may seek medical advice and/or treatment, it will be the student's responsibility to provide reimbursement for any diagnostic services and/or treatment deemed necessary, or
 - d. The student refuses to seek medical advice and/or treatment.
5. The faculty member will write up a detailed account of the incident, including the counseling the student received, and the option: A, B, C, or D that the student chose. The student should sign this document and a copy be placed in student's file.

Student

Date

EMU Faculty/Clinical Site Instructor

Date

Department Head

Date

**EASTERN MICHIGAN UNIVERSITY
CLINICAL LABORATORY SCIENCES PROGRAM**

Needle Stick Incident Report

On _____ (Date), I _____
suffered a needle stick with a contaminated needle or exposure to blood, blood products or body fluids.
The details of the incident are attached.

I understand that as a result of the contaminated needle stick or exposure to blood, blood products or
body fluids, I am at risk for development of hepatitis and/or AIDS.

I understand that I have the right and responsibility for seeking medical advice and/or treatment for the
contaminated needle stick or exposure to blood, blood products or body fluids from affiliating health
care agency, from Snow Health Center, Eastern Michigan University, and/or from my own personal
physician.

If I seek medical advice and/or treatment, I understand that I am responsible for all medical, diagnostic,
and treatment expenses.

I understand that upon seeking medical advice and/or treatment from my attending physician, that if
he/she deems it necessary, he/she can forward a written request to affiliating health care agency
requesting the attending physician to obtain a blood sample from the patient involved in the incident to
be tested for hepatitis and/or the AID virus. The patient involved has the right to refuse such requests.
I understand that the County Health Departments will provide anonymous free testing and counseling
for the HIV virus.

I understand that if I choose not to seek medical advice and/or treatment for the contaminated needle
stick or exposure to blood, blood products or body fluids that Eastern Michigan University and/or the
Affiliating Health Care Agency will not be held liable for the injury incurred or any subsequent injuries or
disease as a result of not seeking medical advice and/or treatment.

I have received counseling regarding the above statements and I have read and understand the material
above.

Student

Date

EMU Faculty/Clinical Site Instructor

Date

Department Head

Date

Eastern Michigan University
Clinical Laboratory Science Program Handbook

Signature Page

I have been provided with a copy of Eastern Michigan University's Clinical Laboratory Sciences Program's Student Handbook.

The material in the handbook that includes the Program's rules, regulations, and policies was reviewed in my presence and I was given the opportunity to discuss, and have the material clarified.

The material reviewed included the following:

Program Mission Statement

Program Goals

Program Entry Level Competency Statements

Program Admission and Continuance Policies and Criteria

Program Course Requirements and Sequence

Application for Clinical Rotations and Criteria

Essential Functions

Health and Safety policies

MLS Curriculum

Signature_____

Printed Name_____

EMU Student Number_____

Professional Skills and Responsibilities

As a student, I can meet these standards.

A. Essential Observational Requirements:	YES	NO
1. Observe laboratory demonstrations in which biologicals (i.e., body fluids, culture materials, tissue sections, and cellular specimens) are tested for their biochemical, hematological, immunological, microbiological, and histochemical components.		
2. Characterize the color, odor, clarity, and viscosity of biologicals, reagents, or chemical reaction products.		
3. Employ a clinical grade binocular microscope to discriminate among fine structural and color (hue, shading, and intensity) differences of microscopic specimens.		
4. Read and comprehend text, numbers, and graphs displayed in print and on a video monitor.		
B. Essential Movement Requirements:	YES	NO
1. Move freely and safely about a laboratory.		
2. Reach laboratory bench tops and shelves, patients lying in hospital beds or patients seated in specimen collection furniture.		
3. Able to carry supplies & reagents and physically access instruments.		
4. Perform moderately taxing continuous physical work, often requiring prolonged sitting or standing, over several hours.		
5. Maneuver phlebotomy and culture acquisition equipment to safely collect valid laboratory specimens from patients.		
6. Control laboratory equipment (i.e., pipettes, inoculating loops, test tubes) and adjust instruments to perform laboratory procedures.		
7. Use an electronic keyboard (i.e., 101-key IBM computer keyboard) to operate laboratory instruments and to calculate, record, evaluate, and transmit laboratory information.		
8. Travel to numerous clinical laboratory sites for practical experience.		

C. Essential Communication Requirements:	YES	NO
1. Read and comprehend technical and professional materials (i.e. textbooks, magazine, and journal articles, handbook, and instruction manuals).		
2. Follow verbal and written instructions in order to correctly and independently perform laboratory test procedures.		
3. Clearly instruct patients prior to specimen collection.		
4. Effectively, confidentially, and sensitively converse with patients regarding laboratory tests following hospital policy.		
5. Communicate with faculty members, fellow students, staff, and other health care professionals verbally and in a recorded format .		
6. Independently prepare papers, prepare laboratory reports, and take paper, computer, and laboratory practical examinations.		
D. Essential Intellectual Requirements:	YES	NO
1. Comprehension, measurement, mathematical calculation, reasoning, integration, analysis, comparison, self-expression, and criticism.		
2. Be able to exercise sufficient judgment to recognize and correct performance deviations.		
E. Essential Behavioral Requirements:	YES	NO
1. Be able to manage the use of time and be able to systematize actions in order to complete professional and technical tasks within realistic constraints.		
2. Possess the emotional health necessary to effectively employ intellect and exercise appropriate judgment.		
3. Be able to provide professional and technical services while experiencing the stresses of task-related uncertainty (i.e., ambiguous test ordering, ambivalent test ordering), emergent demands (i.e., stat test orders), and a distracting environment (i.e., high noise levels, crowding, complex visual stimuli).		
4. Be flexible and creative and adapt to professional and technical change.		
5. Recognize potentially hazardous materials, equipment, and situations and proceed safely in order to minimize risk of injury to patients, self, and nearby individuals.		

6. Adapt to working with unpleasant biologicals.		
7. Support and promote the activities of fellow students and of health care professionals.		
8. Be honest, compassionate, ethical and responsible. The student must be forthright about error or uncertainty. The student must be able to critically evaluate her or his own performance, accept constructive criticism, and look for ways to improve (i.e., participate in enriched educational activities).		

Student name: _____

Signature: _____ Date: _____

Clinical Laboratory Science

Second Admission Application Packet

The deadline to apply to the Clinical Lab Science program is **March 15th**. The application form and all supporting documentation must be received by this date. Please present your application materials, neatly organized into a folder or large envelope, to the Program Director. **Interviews will be scheduled in April.** Use the checklist below to complete your application and include this as the cover sheet of your packet.

- Second Admission Application Form
- Resume
- Transcripts from all colleges attended, including EMU ('official' copies are not required)
- TOEFL score report (international students only)
- Student Responsibility Form (Handbook) and Professional Skills and Responsibilities form (also in Handbook)
- Request recommendations from three references, to be sent directly to the Program Director or submitted by the student in a signed and sealed envelope
- Personal statement: A 500 to 1000 word essay describing what you think the profession of Medical Lab Science (MLS) is, if you have explored other health professions, and why you chose MLS

If accepted, clinical assignments will be based on your application, references, GPA, interview, clinical site rankings of students, and student clinical site preferences. The program does not take location of clinical sites into consideration when making assignments.

Placement in an internship requires that the student carry personal health insurance, has all required vaccinations, a drug screen, and a background check. These requirements are the **student's financial responsibility.**

For graduation, you must satisfy both General Education and curriculum requirements to total the minimum number of hours required by the University.

Name

EMU Student Number

Clinical Laboratory Science Second Admission Application Form

Name _____ EMU ID _____

Address _____

Phone _____

List the schools you have attended, the dates of attendance, and degrees received. Copies of transcripts (unofficial copies) must be included in the application packet.

College/University	City/State	Major/Degree
College/University	City/State	Major/Degree
College/University	City/State	Major/Degree

Semester hours completed to date _____ Cumulative GPA _____

Students are eligible to apply to the program after completion of a minimum of 60 semester hours, including 45 semester hours of prerequisite mathematics and science courses. Applicants must have a minimum GPA of 2.8, with no grade below 'C' in any BIO, CHEM, MATH, or CLSC course. In addition, the applicant must not have repeated any BIO, CHEM, MATH, or CLSC course more than once.

The following courses must be completed before you apply to the CLS Program. Please note when each course was completed, as well as the grade you received.

Organic Chemistry (CHEM 270) Date complete: _____ Grade: _____

(CHEM 271) Date complete: _____ Grade: _____

Introductory Biology (BIO 110) Date complete: _____ Grade: _____

Clinical Laboratory Techniques (CLSC 200) Date complete: _____ Grade: _____

I am applying for an internship that will begin in summer _____ or winter _____. (check one)

TOEFL score (international students only) _____

TOEFL score must be 570 or above (230 on the computer-based exam or 88 on the internet-based exam)

List of persons from whom you have requested references

Name	Position/Company	Phone
------	------------------	-------

Name	Position/Company	Phone
------	------------------	-------

Name	Position/Company	Phone
------	------------------	-------

The program admission evaluation committee may contact an EMU Professor for input on the selection process. Please list an EMU professor you would like contacted. _____

List any extracurricular and/or professional activities

Do you have any physical or mental limitations for which accommodations should be made? If yes, explain.

To assist the Clinical Laboratory Science Program in assessing its efforts in the recruitment of minority students, please check one of the following (responses are voluntary):

- () White non-Hispanic
- () Black non-Hispanic
- () Native American
- () Asian (includes Southeast Asia, subcontinent of India, Pacific Islands)
- () Hispanic (includes Mexico, Puerto Rico, Cuba, Central and South America)

Eastern Michigan University is an equal opportunity institution that does not discriminate on the basis of sex, race, religion, or national origin.

My signature indicates that all information is complete and accurate. Deliberate failure to provide accurate information may be grounds for dismissal from the Clinical Laboratory Science Program. If admitted, I am committed to follow courses as outlined with my advisor.

Signature	Date
-----------	------

Name (print)

Clinical Laboratory Science Recommendation Form

Candidate's Name: _____

Student ID: _____

Candidate: Sign and date **one** of the statements below. Forward this form to the person from whom you are requesting a recommendation.

- A. I wish to have access to the letters and I understand that under the Family Education Rights to Privacy Act of 1974, I have the right to read these recommendations.

Signature: _____ Date: _____

- B. I wish these letters to be confidential and I hereby waive any and all access rights to these recommendations granted me by the above laws.

Signature: _____ Date: _____

To: _____ Date: _____

_____ is to be considered for placement as a clinical intern. Consequently, your comments concerning this student's qualification would be appreciated. Please complete this evaluation form and return it to the Clinical Laboratory Science office as soon as possible.

In view of the highly technical and professional field for which this student is being considered, it is imperative that we know something more of his/her qualifications than a transcript reveals. Thus, we rely heavily on your honest evaluation of this candidate, and truly appreciate your efforts in this regard.

How long have you known the applicant?

In what capacity?

What is your overall recommendation for this applicant?

- () Strongly recommend
- () Recommend
- () Recommend with some reservations
- () Do not recommend

Personal and Professional Appraisal

	Exceeds expectations	Meets expectations	Does not meet expectations	Not able to evaluate
Interpersonal skills				
Character				
Communication skills				
Attitude				
Judgment				
Maturity				
Motivation				
Personality				
Personal appearance				
Psychomotor skills				

Please add any comments that might assist us in considering this student for an internship position. Attach additional pages if necessary.

Name (please print) Title Organization

Address City/State/ZIP

Signature Date

Phone Email

Return to: Lynne Shetron-Rama, PhD, MT(ASCP)
 Program Director, Clinical Lab Science
 341 Marshall
 Eastern Michigan University
 Ypsilanti MI 48197
 lshetron@emich.edu

Henry Ford Health System

Internship in Cytogenetic Technology

Thank you for your interest in cytogenetic technology. I hope that this letter will answer some of the question you may have about our program.

Program goals: the student receives didactic instruction and hands-on experience in the cytogenetics and molecular genetics laboratories. The will achieve entry level competencies in all areas. The will be eligible for a Bachelor's degree in Clinical Laboratory Science, Allied Health or Biomedical Laboratory Diagnostics from their affiliated university.

Length of program: Undergraduate students who have achieved senior status will enroll for two semesters of 14 credit hours each. They are expected to spend 6 hrs. per day in the laboratory. Starting times will vary and will be determined by the particular competency being taught.

Tuition: Tuition at 50% of the undergraduate rate will be paid to the Cytogenetics Department by the affiliated university.

Pre-requisites:

- Student must maintain a GPA of 3.0 or better
- Students must have completed courses in

General biology

General chemistry

Genetics **and/or** human genetics

Molecular diagnostics **and/or** molecular biology

Clinical laboratory techniques

Computer application in Allied Health

Hematology

Microbiology **and/or** immunology

Laboratory management

Medical Terminology

Statistics

Certification: Certification is issued through the American Society for Clinical Pathology Board of Registry. Students are eligible to take the exam after completion of the internship and 12 months employment.

Additional information required:

- Set of transcripts
- Three letters of recommendation
- Letter of intent (briefly describe your interest in cytogenetics, your expectations from the profession, etc)

Prior to being accepted into the program, the student will be interviewed by the laboratory director and assistant program director. Please call for an Appointment or if you have any questions.

Direct correspondence to: Jessica Payne
Cytogenetics Laboratory
Tech One Building
440 Burroughs
Detroit, MI 48202
Suite 446

Ph. 313.870.1737
Email jpayne1@hfhs.org

Application

Name: _____

Address: _____

Phone (home): _____

Phone (work): _____

Email: _____

Enclosed:

- ✓ Transcripts
- ✓ Letters of recommendation
- ✓ Letter of intent

I certify that all the information included in this application is true to the best of my knowledge.

Signature of Applicant

Date

Henry Ford Health System Cytogenetic Internship Program adheres to equal opportunity practices. No applicant will be denied entrance on the basis of race, color, creed, national origin, sex, marital status, height, weight, age or handicap.

Histotechnologist Application Process

A Histotechnologist [Application Packet](#) [1] may be downloaded or requested from the program director. The start dates and application deadlines are as follows:

Start date: September of each year

Application deadline: April 15 of the same year

The following information must be received prior to application deadline:

1. Histotechnologist Application Packet [1]
2. *Official transcripts from all colleges and universities attended.
3. If you are a graduate from a foreign university, you must have your transcript evaluated in U.S. degree equivalency, equivalent years in U.S. college or university, equivalent American courses, grades *and* credit hours. The report must be sent directly to us. See below for a listing of preferred evaluating agencies.

Note: If you are a graduate from a foreign university, you must take a minimum of one biology course (anatomy or physiology or higher level) with lab, **AND** one chemistry course with lab at a regionally accredited college or university in the United States, plus have documentation of English proficiency.

4. If you are not a United States citizen, you must provide documentation of permanent residency status (Greencard) from the United States Citizenship and Immigration Services.

5. A few science course taken via the internet *may* be allowed, if enough science courses with "hands-on" laboratories have been taken at a regionally accredited college or university in the US.

6. **Three *Official Letters of Recommendation** on forms provided in the Application Packet [1] sent from the reference to us (Letters from family members and friends are not acceptable.) Two (2) science instructors/advisors and one (1) supervisor are preferred. If unable to provide two science instructors/advisors and or one employment supervisor, please contact the program director for suggested alternatives for character references.

7. Academic Course Plan

8. Personal Statements

9. \$40.00 application fee (check or money order in U.S. funds made out to *Beaumont Hospitals*.)

Once all application materials have been received, the applicant will be contacted to schedule a personal on-site interview. Prior to the interview, the student must read the information

contained within the Pre-interview Mandatory Education [4] and download the tests and signature sheets. The student should bring the completed tests and signature sheets with them to the interview. The interview will not take place without these forms. Applicants will be contacted to set up an interview.

An Admissions Committee is responsible for reviewing the applications, conducting the interview and selecting the students.

Admission is competitive, and is based on number and types of science courses taken, grades, recommendations, statement of career goals, types of job(s), interview, etc.

*Official documents must be sealed and either signed or stamped across the back flap by the school official or reference. Letters or transcripts that are not sealed or signed appropriately or appeared to be tampered with will not be accepted and the applicant will not be considered.

Beaumont's School of Histotechnology considers all applicants regardless of race, color, religion, sex, age, weight, height, national origin, marital status or handicaps.

Preferred Agencies for Foreign Transcript Evaluations

[EDUCATIONAL CREDENTIAL EVALUATORS, INC.](#) [5]

P.O. Box 514070
Milwaukee, WI 53202-3470
Telephone: 414.289.3400

[INTERNATIONAL EDUCATION RESEARCH FOUNDATION, INC.](#) [6]

P.O. Box 3665
Culver City, CA 90231-3665
Telephone: 310.258.9451

Other Acceptable Evaluation Agencies can be found at the [American Society for Clinical Pathology Board of Certification website](#) [7].

Source URL <http://www.beaumont.edu/other-education/allied-health/histotechnologist>