

OST 671
Human Pathology

CLERKSHIP ELECTIVE ROTATION SYLLABUS

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At Michigan State University College of Osteopathic Medicine (MSUCOM), we are constantly working to improve our curriculum and to meet accreditation guidelines. We need to meet the challenges of modern medicine that force us to innovate. While changes will generally be instituted at the beginning of the school year, changes may also be implemented semester to semester.

Please be mindful of the need to read your syllabi before beginning your rotation.

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ROTATION REQUIREMENTS

REQUIREMENT	SUBMISSION METHOD (for submission due dates, refer to table at the end of the syllabus)
Attending Evaluation of Clerkship Student	Students must select their attending physician as directed within the rotation description in Medtrics. At the start of the last week of the rotation, students will need to request an evaluation in Medtrics. By requesting an attending evaluation from their assigned attending physician, the attending physician will receive an automated email link connecting them to their assigned Attending Evaluation within Medtrics. Attendings will be able to electronically access and submit the forms on behalf of their students.
Student Evaluation of Clerkship Rotation	Students will submit their rotation evaluations electronically at the conclusion of every rotation by accessing the Medtrics system: https://msucom.medtricslab.com/users/login/ . By the last week of each rotation, students will receive an automated email link connecting them to their assigned evaluation. Students can also access pending evaluations on the 'Home' or 'Evaluations' tabs within their Medtrics accounts.
Mid Rotation Form	Completed 100% and needing no revisions to the appropriate drop box in D2L

INTRODUCTION AND OVERVIEW

This clerkship provides in-depth exposure to in-hospital pathology as a specialty and the role of pathologist in the practice of medicine including areas of study such as histopathology, microscopy, autopsy, hematology, and microbiology. Anatomic and clinical pathology with emphasis on clinical-pathological correlation are emphasized during this rotation.

ELECTIVE COURSE SCHEDULINGPreapproval

- This course does not require preapproval from the IOR. The student should follow the below directions for elective course confirmation and enrollment.

Required Prerequisites

- This course does not require any prerequisite courses.

Course Confirmation and Enrollment

- The student must be an active student at MSUCOM.
- Student must complete five core rotations prior to any elective rotation.
- It is the student's responsibility to provide the elective site/rotation acceptance material to the COM.Clerkship@msu.edu for MSU confirmation and scheduling.
 - MSUCOM clerkship confirmation is complete when the rotation is visible on the students Medtrics schedule.
- It is the student's responsibility to ensure enrollment prior to beginning any course/rotation.

- Enrollment will be processed by the MSUCOM Registrar's Office upon clerkship confirmation.
- Enrollment can be verified by the student by reviewing the Student Information System
- MSUCOM confirmation must occur at least 30 days in advance of the rotation.
- Once confirmed, the rotation may only be cancelled 30 days or more in advance of the start date.

ROTATION FORMAT

Students will work daily in the assigned pathology office of the hospital with pathologists and staff learning the fundamentals as applied to inpatient pathology. Students are expected to be present during every scheduled day in the clinical setting. Unless otherwise specified by in-house faculty the student is expected to be present from 7am-5pm although night calls may be included in exposing students to the variety of pathologist roles. Students are expected to complete two hours of reading per night based on the day's cases and schedule for the following day.

GOALS AND OBJECTIVES

GOALS

1. Develop an increased understanding of the science and practice of pathology in the hospital setting by the end of the rotation.

OBJECTIVES

1. Complete a basic review of the basic concepts of pathology and histology through a study of disease processes in current and archived patient material.
2. Understand the basic principles and patterns of histopathology used in evaluation of patient specimens in surgical pathology.
3. Demonstrate basic microscopy skills in the areas of cytology, hematology, and urinalysis.
4. Be able to assist with an autopsy.
5. Develop an appreciation of the interface between laboratory science and clinical medicine.
6. Obtain skills in the interpretation of various clinical laboratory studies for chemistry, immunopathology, and hematology/blood bank.
7. Participate with pathologists during performance of frozen section.

COMPETENCIES

1. Apply knowledge of the biomedical sciences, such as functional anatomy, physiology, biochemistry, histology, pathology, and pharmacology, to support the appropriate application of osteopathic principles and OMT.

COLLEGE PROGRAM OBJECTIVES

In addition to the above course-specific goals and learning objectives, this clerkship rotation also facilitates student progress in attaining the College Program Objectives. Please refer to the complete list provided on the MSUCOM website (<https://com.msu.edu/>) and in the Student Handbook.

REFERENCES

REQUIRED STUDY RESOURCES

Desire 2 Learn (D2L): Please find online content for this course in D2L (<https://d2l.msu.edu/>). Once logged in with your MSU Net ID, your course will appear on the D2L landing page. If you do not see your course on the landing page, search for the course with the following criteria, and pin it to your homepage: **OST 671 Pathology**.

If you encounter any issues accessing this D2L course, please email the CA (on the title page of this syllabus). It is your responsibility to make sure you have access to the course D2L page on the first day of the course.

Student D2L email addresses must be forwarded to your MSU email account.

SUGGESTED STUDY RESOURCES

Recommended Texts

There are no required or recommended textbooks. Readings will be assigned based on cases observed.

Recommended Websites

There are no required or recommended websites.

WEEKLY READINGS/OBJECTIVES/ASSIGNMENTS

MID ROTATION FEEDBACK FORM

This form is required for this rotation, including both two- and four-week rotations.

Two-week Rotation: This will need to be completed by the Attending or Resident and dated by the 1st Friday of the rotation. Students must upload the form to a D2L drop box by 11:59 on the last day (Sunday) of the rotation.

Four-week Rotation: This will need to be completed by the Attending or Resident at the end of week two of the rotation. It should be dated no later than the 3rd Wednesday of the rotation. Students must upload the form to a D2L drop box by 11:59pm on third Sunday of the clerkship to be eligible to obtain a Pass in the rotation.

ROTATION EVALUATIONS

Attending Evaluation of Student

Attending Evaluation of the Student is completed electronically via Medtrics by the supervisor designated within the Medtrics rotation description. To initiate this evaluation, each student must select their attending physician as directed within the rotation description in Medtrics. Students will receive an email from Medtrics to select the attending 7 days prior to the end of the rotation. Should your rotation lack a rotation description or if you have any questions, please contact COM.Clerkship@msu.edu. Upon selecting the attending physician directed within the Medtrics rotation description, the attending physician will receive an automated email link connecting them to their assigned Attending Evaluation within Medtrics.

Attendings will be able to electronically access and submit the Attending Evaluation of the Student. Attendings will access the electronic form within Medtrics by selecting the email

link on a smart device. No login (username/password) will be required for attendings to access their pending evaluation(s) assigned to them. After the electronic form has been submitted by their attending, students can review the Attending Evaluation of the Student that were completed by visiting the 'Evaluations' module (in the 'About Me' tab) of their Medtrics profiles.

Students are encouraged to seek formative/verbal feedback on their performance at least weekly. Students are also encouraged to discuss the Attending Evaluation of the Student with the supervisor completing the evaluation.

Any evidence of tampering or modification while in the possession of the student will be considered "unprofessional behavior" and will be referred to the Committee on Student Evaluation (COSE).

Student Evaluation of Clerkship Rotation

Students will submit their rotation evaluations electronically at the conclusion of every rotation by accessing the Medtrics system: <https://msucom.medtricslab.com/users/login/>. By the last week of each rotation, students will receive an automated email link connecting them to their assigned evaluation for the respective rotation. Students can also access their pending evaluations on the 'Home' or 'Evaluations' tabs within their Medtrics accounts.

Unsatisfactory Clinical Performance

The Instructor of Record will review/investigate a student's performance on a rotation when a concern is raised by the supervisor(s), and/or when the Attending Evaluation of Clerkship Student contains any below expectation marks within the professionalism area, any unsatisfactory written comments, or a total of two or more below average marks on the evaluation. After investigations, the Instructor of Record will determine a final grade for the student.

Professionalism concerns, as well as accolades, will also be referred to the MSUCOM Spartan Committee Clearinghouse for resolution, per MSUCOM's Common Ground Framework for Professional Conduct.

CORRECTIVE ACTION

There is no corrective action available for this course.

As determined by the IOR, the student will receive an N grade for the course if all assignments are **not completed** successfully within 14 days after the last day of rotation at 11:59pm (except for the Attending Evaluation). Additionally, a letter of unprofessional behavior for late submission of assignments will be sent to the MSUCOM Spartan Community Clearinghouse.

BASE HOSPITAL REQUIREMENTS

Students are responsible for completing all additional requirements set by the hospital/clinical site at which they are completing a rotation. Students are not responsible for

reporting to MSUCOM the results of any requirements that exist outside of those listed above.

COURSE GRADES

All rotation requirements must be completed to determine a grade for the course.

Students are required to ensure their rotation requirements are completed and submitted correctly.

P/Pass – means that credit is granted, and that the student achieved a level of performance judged to be satisfactory by the department according to the student's didactic and clinical performance.

NGR/No Grade Reported – means that a final grade ('Pass' or 'No Grade') cannot be determined due to one or more missing course requirements. The NGR grade will be changed to a final grade once all the completed course requirements have been submitted to and processed by MSUCOM (either to the department or Clerkship Team). An 'NGR' grade will NOT remain on a student's transcript.

N/No Grade – means that no credit is granted, and that the student did not achieve a level of performance judged to be satisfactory by the department according to the student's didactic and clinical performance.

N Grade Policy

Students who fail this rotation will have to repeat the entire rotation and fulfill all (clinical and academic) requirements.

STUDENT RESPONSIBILITIES AND EXPECTATIONS

During the 2-4 weeks of the rotation, the student is required to meet clinical and academic responsibilities:

- The student **will** meet the following **clinical responsibilities** during this rotation:
 - Arrive on time for any patient-related activity (or alert site coordinator to any delay)
 - Attend all activities as discussed with pathologists, pathology residents, pathology assistants, medical technologists, or site coordinator(s)
 - Dress as expected in any out-patient setting (Note: scrubs may be allowed depending upon site norms or site activities, but err on the side of professional attire initially)
 - Students are expected to function collaboratively on health care teams that include health professionals from other disciplines in the provision of quality, patient-centered care.
- The student **will** meet the following **academic responsibilities** during this rotation:
 - Correlate clinical and pathologic findings in patient cases, in order to best understand the clinical application and biologic basis of pathology.
 - Students are expected to identify, access, interpret and apply medical evidence contained in the scientific literature related to patient's health problems.

MSU COLLEGE OF OSTEOPATHIC MEDICINE STANDARD POLICIES

The following are standard MSUCOM policies across all Clerkship rotations.

CLERKSHIP ATTENDANCE POLICY

MSUCOM requires student participation in clerkship rotations and clinical activities with consistent attendance to acquire the skills and knowledge necessary for successful program completion. This policy will define the policy and procedures regarding absences for clerkship activities. [Policy - Clerkship Absence 2025.pdf](#)

POLICY FOR MEDICAL STUDENT SUPERVISION

The MSUCOM curriculum includes required clinical experiences in a variety of clinical learning environments. The Medical Student Supervision Policy outlines all supervision agreements and expectations. [Clerkship Medical Student Supervision Policy.pdf](#)

MSUCOM STUDENT HANDBOOK

The Student Handbook is published electronically by MSUCOM for students in the Doctor of Osteopathic Medicine program. This handbook does not supersede other Michigan State University or College of Osteopathic Medicine policies, regulations, agreements, or guidelines. <https://osteopathicmedicine.msu.edu/current-students/student-handbook>.

COMMON GROUND FRAMEWORK FOR PROFESSIONAL CONDUCT

The Common Ground Framework provides the MSUCOM community with a reminder of the unity of mind, body, and spirit that underlines the field of osteopathic medicine. The framework is a set of guiding, foundational principles that underpin professional conduct and integrity and applies to all professionals at work within the shared college community, independent of their specific roles or responsibilities.

<https://osteopathicmedicine.msu.edu/about-us/common-ground-professionalism-initiative>

MEDICAL STUDENT RIGHTS AND RESPONSIBILITIES

The rights and responsibilities of students enrolled in MSUCOM are defined by the medical colleges of Michigan State University, including the College of Osteopathic Medicine, the College of Human Medicine, and the College of Veterinary Medicine. Students enrolled in the professional curricula of these colleges are identified as “medical students.” These colleges collectively define “Medical Student Rights and Responsibilities” (MSRR). This document addresses academic rights and responsibilities, governance, procedures for complaints, due process, and other topics. The current version is available on the MSU Spartan Life website at the address below: <http://splife.studentlife.msu.edu/medical-student-rights-and-responsibilities-mssr>

MSU EMAIL

MSU email is the official communication from faculty and staff to students and students are responsible for checking it daily and maintaining their MSU email accounts so that messages can be received. Students are responsible for responding to email in a timely manner or as otherwise outlined in course communication.

Forwarding MSU email to another email account or failure to check email are not valid excuses for missing a deadline or other requirements of the DO program.

Please Note: Student D2L email addresses must be forwarded to your MSU email account.

Further, students must use secure email when working in a hospital, clinic, or other health care setting if discussion of patient information is involved. MSUNet (msu.edu) email is secure; many web-based email systems including Hotmail, Gmail, and Yahoo are not. <https://osteopathicmedicine.msu.edu/current-students/student-handbook>.

DUTY HOURS AND FATIGUE MITIGATION

The accreditation standards for graduate medical education programs include restrictions on the duty hours of residents. Additionally, institutions are expected to promote a clinical learning environment in which duty hours are monitored and strategies exist to mitigate the effects of fatigue. [Clerkship Duty Hours and Fatigue Mitigation Policy.pdf](#)

STUDENT EXPOSURE PROCEDURE

A protocol has been developed by the University Physician to report incidents of exposure, e.g., needle sticks, mucous membrane exposure, tuberculosis exposure, etc., and it may be found here:

<https://osteopathicmedicine.msu.edu/current-students/clerkship-medical-education/injury-and-property-damage-reports>

Contact Associate Dean for Clerkship Education, Dr. Susan Enright (enright4@msu.edu), if exposure incident occurs.

STUDENT ACCOMMODATION LETTERS

Michigan State University is committed to providing equal opportunity for participation in all programs, services, and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities (RCPD) at 517-884-RCPD, or on the web at www.rcpd.msu.edu. Once a student's eligibility for (clinical and/or testing) accommodation(s) are determined, the student may be issued an Accommodation Letter. Students must present their letter to the Clerkship Team (COM.Clerkship@msu.edu) at the start of the semester in which they intend to use their accommodations (for tests, projects, labs, etc.). Accommodation requests received after the semester onset will be honored whenever possible.

If modifications, updates, or extensions to an existing letter are made after the semester begins, it is the responsibility of the student to submit the newest version to the Clerkship Team if he/she intends to utilize the accommodation going forward.

SUMMARY OF GRADING REQUIREMENTS

*For any below information requiring an item be uploaded to D2L, students must ensure it is put into the correct folder within the correct section for their course.

Requirement	Submission Method	Pass	No Grade Reported	No Pass
Attending Evaluation of Clerkship Student	Attendings receive an automated email link connecting them to their assigned evaluation(s) within Medtrics, where they may access and submit the electronic form(s) directly	<ul style="list-style-type: none"> • Student may receive “Below Expectations” in up to one (1) subcategory. • Overall categories must receive “Meets Expectations” or “Exceeds Expectations” 	Will be the conditional grade until all requirements of this rotation are met	<ul style="list-style-type: none"> • Receives two (2) or more “Below Expectations” within the subcategory sections. • Receives comments that indicate below expectations of performance. • See Unsatisfactory Clinical Performance above
Student Evaluation of Clerkship Rotation	Can be accessed and submitted electronically by students within the dashboard of their Medtrics profiles	Completed 100% by 11:59 pm the last day of the rotation	Will be the conditional grade until all requirements of this rotation are met.	Failure to complete and submit within 14 days from the last day of the rotation
Mid Rotation Feedback Form	Submit via D2L	<ul style="list-style-type: none"> • Completed, scanned, and uploaded to D2L. • Must be 100% complete and needing no revisions by: <ul style="list-style-type: none"> • Four-week rotations- 11:59 pm on the 3rd Sunday of the rotation. • Two-week rotations- 11:59pm on the 1st Friday of the rotation. 	Will be the conditional grade until all requirements of this rotation are met.	Failure to complete 100% and upload by 14 days after the last day of the rotation at 11:59 pm



College of Osteopathic Medicine
MICHIGAN STATE UNIVERSITY

MID-ROTATION FEEDBACK FORM

Rotation Name: _____

Student Name: _____

Evaluator Name _____

Evaluator Signature: _____

Date of review with Student: _____

1. This assessment is based on:

- ☐ My own observations and interactions with the student.
☐ Feedback received from other faculty and/or resident supervisors.

2. The student is progressing satisfactorily for their level of training:

☐ YES ☐ NO

If NO, please summarize areas needing improvement below:

3. Overall comments on student performance

Strengths:	Areas of Improvement:

4. Please check only areas of student **DIFFICULTY**:

<input type="checkbox"/>	On time for all activities of the rotation	<input type="checkbox"/>	Present/Prepared for all activities of rotation
<input type="checkbox"/>	Respectful/courteous to patients, staff, peers, attending's	<input type="checkbox"/>	Student is aware of limitations and appropriately seeks assistance when needed
<input type="checkbox"/>	A great team player (helpful, reliable, proactive)	<input type="checkbox"/>	Accepting of feedback and made necessary changes because of the feedback
<input type="checkbox"/>	Engaged in learning	<input type="checkbox"/>	Honest and trustworthy
<input type="checkbox"/>	A good patient advocate	<input type="checkbox"/>	Work ethic