

# **OSS 654**

# **Anesthesiology**

## **CLERKSHIP ELECTIVE ROTATION SYLLABUS**

**OSTEOPATHIC SURGICAL SPECIALTIES**  
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**EFFECTIVE AUGUST 1, 2023 TO JULY 31, 2024**

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*At MSUCOM, we are constantly working to improve our curriculum and to meet new AOA 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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## **INTRODUCTION AND OVERVIEW**

This course is designed to provide the student with an opportunity to actively engage in patient-based learning experiences under the guidance of a faculty member in collaboration, as appropriate, with residents and/or fellows. The purpose of this Anesthesiology clerkship is to provide the student with an overview of the clinical specialty.

Rotations are typically two weeks, 3 credit hours or four weeks, 6 credit hours in duration. Timeframes for each rotation are decided at least 30-days prior to the beginning of the rotation.

The overall performance of course participants will be evaluated through customary assessment instruments normally employed by the department for core rotations, at the discretion of the instructor of record.

Please note that we have included links to the reading materials. Should the links not work for you, please cut, and paste the link into a browser window and the material should load for you.

This syllabus provides an overview of rotation goals and objectives designed to help you gain an understanding of the breadth and scope of this subject. As you progress through the rotation, you will perform certain activities intended to help you meet the identified goals and objectives. Please make sure to review this syllabus in its entirety to ensure understanding of the rotation format, syllabus content, and MSUCOM expectations.

## **ELECTIVE COURSE SCHEDULING**

### Preapproval

- This course does not require preapproval from the IOR. The student should follow the directions below 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.
- The student must receive MSUCOM confirmation and enrollment prior to beginning any elective rotation.
  - Once the student receives rotation acceptance from the host site, students must provide the elective application and host site approval to [COM.Clerkship@msu.edu](mailto:COM.Clerkship@msu.edu) for MSUCOM confirmation and scheduling.
  - MSUCOM confirmation and enrollment is complete when the rotation is visible on the student's schedule.
  - 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

This course is designed to provide the student with an opportunity to actively engage in patient-based learning experiences under the guidance of a faculty member in collaboration, as appropriate, with residents and/or fellows. This Elective rotation is a two (2) or four (4) week experience. The purpose of this Anesthesiology clerkship is to provide the student with an overview of the clinical specialty. Anesthesiology should include exposure to a variety of surgical topics and experiences. Exposure to the topics will be through reading, lectures, seminars, and hands-on experiences.

The service should be organized to provide the maximum degree of practical clinical exposure and learning in the areas of diagnosis, management, and therapy in anesthesiology, which is consistent with a fourth-year osteopathic medical student's level of knowledge. Opportunities for learning such as lectures, reading, consults and history and physical examination (H&P) review will be available.

Please note that we have included links to the reading materials. Should the links not work for you, please cut, and paste the link into a browser window and the material should load for you.

You can find additional resources at: <http://libguides.lib.msu.edu/medicalebooks>

**Virtual Rotation:** If a student has been given the approval from Drs. Enright or Pfotenhauer to complete all or a portion of their rotation on-line, please contact me for details via email or a telephone call (517) 353-8470. Only with approval should you use the Syllabus Addendum found on the Welcome D2L page as a guide. The details of what you will be responsible for completing will come from the Instructor of Record, via an email from the Course Assistant, Shawn Olds, [oldss@msu.edu](mailto:oldss@msu.edu)

**Zoom:** If the IOR would like to set up a zoom, you will be notified via a class list email. If you have questions regarding this, please email: Shawn Olds, CA [oldss@msu.edu](mailto:oldss@msu.edu)

## **GOALS AND OBJECTIVES**

### GOALS

1. Observe and participate in the evaluation, intra-operative, pre - operative and post - operative management of patients requiring surgery.
2. Demonstrate the ability to appropriately evaluate post-operative care management of patients.
3. Demonstrate the ability to perform and record an osteopathic structural examination on a surgical patient and document such using acceptable osteopathic terminology
4. Interact with patients and their families in a respectful, sensitive, and ethical manner.
5. Interact with members of the team, patient care units and ambulatory clinic personnel in a respectful, responsible, and professional manner.

### OBJECTIVES

#### A. Pre-Anesthesia History and Physical Examination.

Be able to perform a history and physical examination, including musculoskeletal status, on a scheduled preoperative patient. At a minimum, pertinent information will include preoperative data (laboratory, x-ray/ECG findings), informed consent, anesthetic plan, and determination of ASA status and appropriate pre-anesthetic medication.

### **SPECIFIC LEARNING OBJECTIVES**

1. Perform a pre-anesthetic history and physical examination
2. Interpret pre-operative data, including laboratory, ECG and X-ray findings
3. Explain the need for and how to obtain an informed consent
4. Patient health and co-morbidities for planned surgical procedure
5. Determine ASA physical status and what it means
6. Determine proper preanesthetic medication(s), including need and route
7. Start an intravenous line utilizing proper technique

### **LABS/OTHER ACTIVITIES**

1. Know if the patient is stable and, if not, why not.
2. Interpret all applicable labs, ECGs, radiographs
3. Discuss the basic uses of various intravenous solutions and why/when they are used.
4. Discuss the uses of intravenous cannulas and how to insert them using proper technique
5. VIDEO: Peripheral Venous Cannulation  
(<https://www.youtube.com/watch?v=qRWb9CJU0Yk>)

### **OPC SKILLS REVIEW**

1. Vital signs
2. Cardiac physical examination
3. Pulmonary physical examination
4. Examination of affective operative area/site (as applicable)
5. Proper interviewing technique
6. Proper use of empathy

### **EQUIPMENT NEEDED**

1. Intravenous start equipment as per institution

#### B. Basics of Anesthesiology/Machine/Monitoring

Complete an anesthesia machine preoperative check. Critical elements of this check include knowledge of the proper utilization of nitrous oxide, oxygen, gas metering and flow, use of a semi-closed circle absorber system, vaporizer function, and the basics of intraoperative ventilator use. Discuss the safety features of the anesthesia machine and all applicable monitors.

### **SPECIFIC LEARNING OBJECTIVES**

1. Observe an anesthetic machine preoperative safety check and have basic knowledge of:
2. Proper utilization of anesthetic gases/agents,
3. Metering and flow,
4. Vaporizer function,
5. Absorber system, and

6. Intraoperative ventilator use
7. Discuss the basic uses of all applicable intraoperative monitoring devices

### **BASIC SCIENCE LINKS**

1. Basic physiology of the cardiopulmonary system
2. Basic pharmacology of anesthetic agents (gas and liquid)

### **LABS/OTHER ACTIVITIES**

1. VIDEO: Monitoring Ventilation with Capnography  
(<https://www.youtube.com/watch?v=Mxz-drVdS58>)
2. VIDEO: Pulse Oximetry (<https://www.youtube.com/watch?v=2v3rae-73jc>)
3. VIDEO: Capnography (<https://www.youtube.com/watch?v=BbQlIsit6eo>)

### **EQUIPMENT NEEDED**

As supplied by institution

#### C. Anesthetic Agents/Medications

Define and describe pharmacodynamics, pharmacokinetic, physiological, and postoperative effects of the commonly used anesthetic agents as well as appropriate drug interactions.

### **SPECIFIC LEARNING OBJECTIVES**

1. Define/describe
  - a. Pharmacodynamics / Pharmacokinetic / Physiological/ Post-operative effects
  - b. List of anesthetic drug classes: Opioids/Local Anesthetic Gasses/Induction Agents i.e., Propofol, Pentothal, Etomidate

### **BASIC SCIENCE LINKS**

1. Pharmacology of anesthetic agents and premedicates.

### **LABS/OTHER ACTIVITIES**

1. VIDEO: Conscious Sedation for Minor Procedures in Adults  
(<https://www.youtube.com/watch?v=BSYYq01Y9xQ>)

#### D. Airway Management

Identify and/or describe anatomic considerations of the airway, conditions that may compromise that airway, and airway management under mask, oral pharyngeal, nasal pharyngeal, and endotracheal tube placement. Demonstrate familiarity with common complications and treatment of aspiration as well as indications for postoperative extubation.

### **SPECIFIC LEARNING OBJECTIVES**

1. Identify/describe all anatomical and physiological considerations of the airway

- including classification i.e., Mallampati score
- 2. Conditions that may compromise that airway
- 3. Demonstrate appropriate airway management techniques utilizing:
  - a. mask and bag
  - b. oropharyngeal airway
  - c. nasopharyngeal airway
  - d. endotracheal tube
- 4. Demonstrate familiarity with common airway complications as well as treatment for pulmonary aspiration/pulmonary aspiration pneumonitis
- 5. Know the indications for post-operative extubation

### **BASIC SCIENCE LINKS**

- 1. Become familiar with the anatomical structures of the nose, pharynx, and pulmonary tree

### **LABS/OTHER ACTIVITIES**

- 1. VIDEO: Orotracheal Intubation  
(<https://www.youtube.com/watch?v=c0v5hpLQXZU&list=PL5v3YzNPkiRNbTuPrIAPrA3cvWRgTMKzB>)
- 2. VIDEO: Positive Pressure Ventilation with Face Mask and Bag Valve Device  
<https://www.youtube.com/watch?v=GDVz-WepIlg>
- 3. VIDEO: Fiber optic Intubation (<https://www.youtube.com/watch?v=UG4n7AwRRBU>)
- 4. VIDEO: Endotracheal Intubation iSIM2  
([https://www.youtube.com/watch?v=LpPEDvd\\_RDg](https://www.youtube.com/watch?v=LpPEDvd_RDg))
- 5. VIDEO: Fiber optic Endotracheal Intubation  
(<https://www.youtube.com/watch?v=T277QD2PUXI>)

### **OPC SKILLS REVIEW**

- 1. Examination of the mouth and posterior pharynx
- 2. Examination of the respiratory tree

### **EQUIPMENT NEEDED**

As supplied by institution

#### E. Spinal, Epidural, and Regional Anesthesia

Describe appropriate patterns of regional anesthesia usage, including indications, contraindications, principles of use, physiological effects, medications, basic techniques, proper dosage, as well as recognition of the manifestations of toxicity.

### **SPECIFIC LEARNING OBJECTIVES**

Describe the appropriate patterns of regional anesthesia usage, including:

- 1. differences/ effects of peripheral regional anesthesia
- 2. indications
- 3. contraindications



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4. principles of use
5. physiological effects
6. local anesthetic
7. basic techniques
8. proper dosage
9. recognition and treatment of the manifestations of toxicity

#### **BASIC SCIENCE LINKS**

1. Anatomy of the central and peripheral nervous system
2. Dermatome recognition
3. Pharmacology of agents utilized in conduction and regional anesthetic techniques
4. Physiological manifestations of toxicity of all applicable agents and treatment indicated

#### **OPC SKILLS REVIEW**

1. Neurological examination (central and peripheral)
2. Dermatome recognition and application

#### **LABS/OTHER ACTIVITIES**

1. VIDEO: Lumbar Puncture [https://www.youtube.com/watch?v=weoY\\_9tOcJQ](https://www.youtube.com/watch?v=weoY_9tOcJQ)
2. VIDEO: Epidural Anesthesia [https://www.youtube.com/watch?v=ndYzw\\_ISfJA](https://www.youtube.com/watch?v=ndYzw_ISfJA)
3. WEB: New York School of Regional Anesthesia <https://www.nysora.com/>

#### **EQUIPMENT NEEDED**

As supplied by institution

#### F. Pain Management (Intraoperative / Post-Operative)

Demonstrate familiarity with the various analgesic agents, their modes of administration, physiological effect, and potential complications. If appropriate to your service, you should also be able to define and describe various nerve blocks and their use in intraoperative as well as postoperative acute pain management.

#### **SPECIFIC LEARNING OBJECTIVES**

1. Demonstrate familiarity with the various analgesic agents, and,
2. Their modes of administration, and,
3. Their physiological effect/affect, and,
4. Potential complications.
5. Describe/define various nerve blocks and their use in intraoperative as well as postoperative acute pain management

#### **BASIC SCIENCE LINKS**

1. Physiological/pharmacological properties and effects of analgesic agents
2. Impact upon and the neurological response to analgesic agents

### G. Post-Anesthesia Care Unit

List factors related to anesthetic emergence, recall its effect upon hemodynamics and physiological status, and explain the use of reversal agents and all monitoring modalities, and scoring techniques utilized in the post-anesthesia care unit.

### **SPECIFIC LEARNING OBJECTIVES**

1. List factors related to anesthetic emergence, and,
2. Its effect upon the patient's hemodynamic and physiological status, and,
3. Explain the use of reversal agents and all monitoring modalities, and,
4. Know the scoring techniques utilized in the PACU.

### **BASIC SCIENCE LINKS**

1. Know the pharmacological and physiological response to anesthetic emergence.
2. Know the pharmacological properties of reversal agents utilized in the operating room and within the PACU.

### **LABS/OTHER ACTIVITIES**

1. VIDEO: Arterial Puncture for Blood Gas Analysis (<https://www.youtube.com/watch?v=YuFK22n-tvI>)
2. VIDEO: Monitoring Ventilation with Capnography (<https://www.youtube.com/watch?v=Mxz-drVdS58>)
3. VIDEO: Nasogastric Intubation (<https://www.youtube.com/watch?v=ARHfqRB3t4M>)
4. VIDEO: Pulse Oximetry (<https://www.youtube.com/watch?v=2v3rae-73jc>)
5. VIDEO: Post-Anesthesia Care Unit ([https://www.youtube.com/watch?v=8PgCyzJDV\\_4](https://www.youtube.com/watch?v=8PgCyzJDV_4))

### **OPC SKILLS REVIEW**

1. Vital signs in the emergent patient (BP, P, R, Temperature)

### **EQUIPMENT NEEDED**

As supplied by institution

### H. Shock: Fluid and Electrolyte Management/Blood Therapy

Distinguish between appropriate uses of fluids intraoperatively, replacement of intravenous volume during the operative procedure, use of blood products, as well as identify complications and side effects associated with volume replacement.

### **SPECIFIC LEARNING OBJECTIVES**

1. Distinguish between the appropriate use of fluids intraoperative, and,
2. The replacement of intravenous volume during the operative procedure, and,
3. The administration of blood replacement products and when you would use them, and,

4. Identify the complications associated with fluid volume replacement, and,
5. The complications and side effects associated with blood replacement therapy.
6. Know the different types of shock and the treatment for each.

### **BASIC SCIENCE LINKS**

1. Know the physiological effect of volume overloading upon the cardiovascular, pulmonary, renal, and hepatic systems
2. Know the physiological impact/effect of volume depletion, including blood loss, upon the cardiovascular, pulmonary, renal, and hepatic systems.

### **LABS/OTHER ACTIVITIES**

1. VIDEO: Fluids and Electrolytes, Part I (<https://www.youtube.com/watch?v=K3VRehFOZUw>)
2. VIDEO: Fluid Overload ([https://www.youtube.com/watch?v=uFggEqh\\_OS8](https://www.youtube.com/watch?v=uFggEqh_OS8))
3. VIDEO: What is Shock ? (<https://www.youtube.com/watch?v=9a7N9AU1GiQ>)
4. VIDEO: Shock Explained Clearly (<https://www.youtube.com/watch?v=PrkNmVPI9sc>)

### **OPC SKILLS REVIEW**

1. Know vital signs, both normal and pathological
2. Be able to perform a cardiac and pulmonary examination
3. Be able to perform an abdominal examination including the examination for hepatomegaly
4. Be able to perform a lower extremity examination for ankle and pretibial edema

### **EQUIPMENT NEEDED**

As supplied by institution

#### I. Specific Types of Anesthesia Care

Recognize different physiological and psychological parameters encountered in the administration of Pediatric, Cardiac, Neurosurgical, Obstetrical, Ophthalmic, Thoracic, Vascular and Trauma Anesthesia.

### **AREAS TO CONSIDER**

Recognize the different physiological and psychological parameters encountered in the administration of:

1. Pediatric
2. Cardiac
3. Neurological
4. Obstetrical
5. Ophthalmic
6. Thoracic
7. Vascular
8. Trauma anesthesia

### **BASIC SCIENCE LINKS**

1. As applicable to the various systems noted under Specific Learning Objectives

### **OPC SKILLS REVIEW**

1. As applicable to the various systems noted under Specific Learning Objectives

### **EQUIPMENT NEEDED**

As supplied by institution

## **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: **Anesthesiology**.

If you encounter any issues accessing this D2L course, please email the CA (on the title page of this syllabus).

### SUGGESTED STUDY RESOURCES

While there are many fine anesthesiology texts available, much of the information contained in this protocol and study guide may be found in the Handbook of Clinical Anesthesia, Barash, Cullen and Stoelting, Lippincott Williams & Wilkins, Fifth Edition on the MSU Libraries Medical Library site. <https://ezproxy.msu.edu/login?url=https://ebookcentral.proquest.com/lib/michstate-ebooks/detail.action?docID=3417861>

**ROTATION REQUIREMENTS**

REQUIREMENT	SUBMISSION METHOD	DUE DATE Please refer to D2L for actual (month/day) due dates
Short Answer Questions	Submit via D2L	Completed 100% by 11:59 pm the Friday after your rotation ends
End of Rotation Exam	Submit via D2L	Receive an 80% or above the first time the exam is taken. If you receive less than 80% you will need to retake the exam and receive a 90% or higher. It will open at 6 pm, the last Friday of the rotation and will close 7 days later at 11:59 pm.
Anesthesia Procedure Log	Submit via D2L	Completed 100% and uploaded by 11:59 pm the last day (Sunday) of the rotation
Interprofessional Education Form	Submit via D2L	Completed 100% and uploaded by 11:59 pm the last day (Sunday) of the rotation
Mid Rotation Feedback Form  Not needed for two-week rotations	Submit via Procedure Log in D2L	Must be Submitted by 11:59 pm the last day of the clerkship, should be completed by end of week 2 and dated no later than Wednesday of Week 3
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	Last Day of Rotation
Student Evaluation of Clerkship Rotation	Students will submit their rotation evaluations electronically at the conclusion of every rotation by accessing the Medtrics system: <a href="https://msucom.medtricslab.com/users/login/">https://msucom.medtricslab.com/users/login/</a> . 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	Last Day of Rotation

	'Evaluations' tabs within their Medtrics accounts.	
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## ASSIGNMENTS/QUIZZES

Short Answer Questions: You will have up to the Friday after your rotation ends at 11:59pm post rotation to complete and submit your Short Answer Questions in D2L. Completion of these will assist you in taking the end of rotation examination.

End of the Rotation Final Examination: You will take the post-service examination in D2L. It will open at 6 pm, the last Friday of the rotation and close 7 days later at 11:59 pm.

Interprofessional Education: The form is available at the end of the syllabus. It needs to be uploaded to D2L by the last day of the rotation.

### A. Pre-Anesthesia History and Physical Examination.

#### **LABS/OTHER ACTIVITIES**

1. Know if the patient is stable and, if not, why not.
2. Interpret all applicable labs, ECGs, radiographs
3. Discuss the basic uses of various intravenous solutions and why/when they are used.
4. Discuss the uses of intravenous cannulas and how to insert them using proper technique
5. VIDEO: Peripheral Venous Cannulation (<https://www.youtube.com/watch?v=qRWb9CJU0Yk>)

### B. Basics of Anesthesiology/Machine/Monitoring

#### **LABS/OTHER ACTIVITIES**

1. VIDEO: Monitoring Ventilation with Capnography (<https://www.youtube.com/watch?v=Mxz-drVdS58>)
2. VIDEO: Pulse Oximetry (<https://www.youtube.com/watch?v=2v3rae-73jc>)
3. VIDEO: Capnography (<https://www.youtube.com/watch?v=BbQlIsit6eo>)

### C. Anesthetic Agents/Medications

#### **LABS/OTHER ACTIVITIES**

1. VIDEO: Conscious Sedation for Minor Procedures in Adults (<https://www.youtube.com/watch?v=BSYYq01Y9xQ>)

### D. Airway Management

#### **LABS/OTHER ACTIVITIES**

1. VIDEO: Orotracheal Intubation

- <https://www.youtube.com/watch?v=c0v5hpLQXZU&list=PL5v3YzNPkiRNbTuPrIAPrA3cvWRgTMKzB>)
2. VIDEO: Positive Pressure Ventilation with Face Mask and Bag Valve Device  
<https://www.youtube.com/watch?v=GDVz-WepIlg>
3. VIDEO: Fiber optic Intubation  
<https://www.youtube.com/watch?v=UG4n7AwRRBU>)
4. VIDEO: Endotracheal Intubation iSIM2  
[https://www.youtube.com/watch?v=LpPEDvd\\_RDg](https://www.youtube.com/watch?v=LpPEDvd_RDg))
5. VIDEO: Fiber optic Endotracheal Intubation  
<https://www.youtube.com/watch?v=T277QD2PUXI>)

#### E. Spinal, Epidural, and Regional Anesthesia

##### **LABS/OTHER ACTIVITIES**

1. VIDEO: Lumbar Puncture [https://www.youtube.com/watch?v=weoY\\_9tOcJQ](https://www.youtube.com/watch?v=weoY_9tOcJQ)
2. VIDEO: Epidural Anesthesia [https://www.youtube.com/watch?v=ndYzw\\_ISfJA](https://www.youtube.com/watch?v=ndYzw_ISfJA)
3. WEB: New York School of Regional Anesthesia <https://www.nysora.com/>

#### G. Post-Anesthesia Care Unit

##### **LABS/OTHER ACTIVITIES**

1. VIDEO: Arterial Puncture for Blood Gas Analysis  
<https://www.youtube.com/watch?v=YuFK22n-tvI>)
2. VIDEO: Monitoring Ventilation with Capnography  
<https://www.youtube.com/watch?v=Mxz-drVdS58>)
3. VIDEO: Nasogastric Intubation  
<https://www.youtube.com/watch?v=ARHfqRB3t4M>)
4. VIDEO: Pulse Oximetry <https://www.youtube.com/watch?v=2v3rae-73jc>)
5. VIDEO: Post-Anesthesia Care Unit  
[https://www.youtube.com/watch?v=8PgCyzJDV\\_4](https://www.youtube.com/watch?v=8PgCyzJDV_4))

#### H. Shock: Fluid and Electrolyte Management/Blood Therapy

##### **LABS/OTHER ACTIVITIES**

1. VIDEO: Fluids and Electrolytes, Part I  
<https://www.youtube.com/watch?v=K3VRehFOZUw>)
2. VIDEO: Fluid Overload [https://www.youtube.com/watch?v=uFggEqh\\_OS8](https://www.youtube.com/watch?v=uFggEqh_OS8))
3. VIDEO: What is Shock? <https://www.youtube.com/watch?v=9a7N9AU1GiQ>)
4. VIDEO: Shock Explained Clearly  
<https://www.youtube.com/watch?v=PrkNmVPI9sc>)

#### 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.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).

Grades are held until all rotation requirements are received. Students are required to ensure their rotation requirements are completed correctly.

#### 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. 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 PROCESS

There is no Corrective Action offered on this course. As determined by the Instructor of Record, the student may receive an N grade for the course if all assignments are **not completed** successfully by the last day of rotation at 11:59pm (with the exception of the Attending Evaluation). Additionally, a letter of unprofessional behavior for late submission of assignments may 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.

## **STUDENT RESPONSIBILITIES AND EXPECTATIONS**

Each individual student is responsible for their behavior and is expected to maintain standards of academic honesty. Students share the responsibility with faculty for creating an environment that supports academic honesty and principles of professionalism. Proper relationships between faculty and students are fundamental to the college's function and this should be built on mutual respect and understanding together with shared dedication to the education process. It is a fundamental belief that each student is worthy of trust and that each student has the right to live in an academic environment that is free of injustice caused by dishonesty. While students have an obligation to assist their fellow students in meeting the common goals of their education, students have an equal obligation to maintain the highest standards of personal integrity.

## **MSU COLLEGE OF OSTEOPATHIC MEDICINE STANDARD POLICIES**

The following are standard MSUCOM policies across all Clerkship rotations.

### CLERKSHIP ATTENDANCE POLICY

Michigan State University College of Osteopathic Medicine (MSUCOM) requires student participation in clerkship rotations and clinical activities with consistent attendance to acquire the skills and knowledge that are necessary for successful program completion. Students are expected to take minimal time off outside of vacations already appearing in schedules and should only request time off in the rare events and circumstances outlined below.

Specific courses may have additional absence requirements from this general clerkship policy, and it is the student's responsibility to adhere to these requirements according to the respective course syllabus.

### Excused Absences

Students must obtain documented approval for any full- or partial-day absence on a rotation. **Excused absences** require the completion of the *Clerkship Program Excused Absence Request Form* by taking the following steps:

- Obtain appropriate signatures on the *Clerkship Program Excused Absence Request Form* at least 30-days prior to the date of absence. An absence due to a sudden emergency is the exception to the 30-day advanced notice rule.
- Upload the completed *Clerkship Program Excused Absence Request Form* to the 'Excused Absences' folder (within the 'My Personal Documents' section) of a student's Medtrics profile.

**Unexcused absences** are full- or partial-day absences taken without the proper completion of the *Clerkship Program Excused Absence Request Form*, or any absences not covered in the Clerkship Attendance Policy. Unexcused absences are considered unprofessional and will result in a report to the Spartan Community Clearing House and/or the MSUCOM Committee on Student Evaluation (COSE). Unexcused absences may also have a negative impact on a student's rotation grade or evaluation.

**Students are not allowed to be absent from the first day of any rotation.**

- Due to the onboarding plans at most rotation sites, students must attend the first day of every rotation. Students must plan accordingly for personal days, interview days, COMLEX, etc.

**Maximum time off any rotation\***

Length of Rotation	Maximum Number of Days Off	
4 weeks	2 days	Should an absence exceed these limits, the student is responsible for requesting additional days off from the Associate Dean for Clerkship Education via email ( <a href="mailto:COM.Clerkship@msu.edu">COM.Clerkship@msu.edu</a> ) prior to the absence.
2 weeks	0 days	

*\*Exception: A fourth-year student may be absent a total of 4 days on any 4-week rotation or 2 days on any 2-week rotation during the months of October-January for interview purposes only. If interview absences exceed these totals, the student must submit a Clerkship Program Excused Absence Request Form (with appropriate signatures obtained from the rotation attending and rotation site) to the Associate Dean for Clerkship Education via email ([COM.Clerkship@msu.edu](mailto:COM.Clerkship@msu.edu)) prior to the absence.*

Absence Type	Qualifications	Maximum Number of Days Off	Details	Required Approval from Associate Dean for Clerkship Education
Personal Day	May be used at the discretion of the student (example: illness, physician appt., conference time, etc.). <u>Total</u> days off any one rotation ( <u>including personal days off</u> ) cannot exceed 2 on any one 4-week rotation.	5 total days per academic year (July-June)	While personal days may be used at the discretion of the student, the <u>total</u> days off any one rotation (including personal days off) cannot exceed 2 on any one 4-week rotation, i.e., students cannot use all 5 days on one rotation.	No
Jury Duty	Court documentation must accompany the <i>Clerkship Program Absence Request Form</i>	N/A	Jury duty, when obligated, is not considered a personal day absence.	Yes
Hospital-organized community events	Example: Special Olympic Physicals	N/A	These events would be considered part of the rotation and not a personal day absence.	No
Examination	COMLEX USA Level 2 CE/USMLE Step 2 CK/Canadian MCCEE	1 day		No
	COMAT/NBME shelf examinations	Students have the time off to take the examination only	Students should be reporting to rotation before/after examination.	No
Prolonged Illness, Bereavement, Maternity Leave	Medical related absence or bereavement	Determined on a case-by-case basis	Students must contact the Associate Dean for Clerkship Education directly ( <a href="mailto:enright4@msu.edu">enright4@msu.edu</a> ) to discuss time off rotations.	Yes

**Clerkship Program Excused Absence Request Forms:** Once appropriate approval signatures are obtained, forms must be uploaded to the 'Excused Absences' folder within each student's Medtrics profile. Students should maintain a copy of their records.

## POLICY FOR MEDICAL STUDENT SUPERVISION

### Supervisors of the Medical Students in the Clinical Setting

The MSUCOM curriculum includes required clinical experiences in a variety of clinical learning environments. The role of the student is to participate in patient care in ways that are appropriate for the student's level of training and experience and to the clinical situation. The student's clinical activities will be under the supervision of licensed physicians. This supervising physician may delegate the supervision of the medical student to a resident, fellow, or other qualified healthcare provider; however, the supervising physician retains full responsibility for the supervision of the medical students assigned to the clinical rotation and must ensure his/her designee(s) are prepared for their roles for supervision of medical students.

The physician supervisor and his/her designee(s) must be members in good standing in their facilities. They must have a license appropriate to his/her specialty of practice and be supervising the medical student within that scope of practice as delineated by the credentialing body of the facility.

### Level of Supervision/Responsibilities

Clinical supervision is designed to foster progressive responsibility as students' progress through the curriculum, with the supervising physicians providing the medical student opportunity to demonstrate progressive involvement in patient care. MSUCOM students will be expected to follow clinical policies of the facility regarding medical records and clinical care. Medical student participation in patient history/physical exam, critical data analysis, management, and procedures will include, but are not limited to, factors such as:

- The student's demonstrated ability
- The student's level of education and experience
- The learning objectives of the clinical experience

First- and second-year medical students will be directly supervised at all times (supervising physician or designee present or immediately available).

Third- and fourth-year medical students will be supervised at a level appropriate to the clinical situation and that student's level of experience. For some tasks, indirect supervision may be appropriate for some students. Direct supervision would be appropriate for advanced procedures.

Supervising physicians will provide medical students with timely and specific feedback on performance. The supervising physician will complete a mid-rotation evaluative discussion with the medical student. Supervising physicians will complete a summative evaluation and are encouraged to contact the course/clerkship director with any gaps in student performance.

Medical students with any concern regarding clinical, administrative, and educational or safety issues during his/her rotation will be encouraged to contact the supervising physician or clerkship/course director.

## 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. The Handbook is updated annually during the summer semester, with changes effective when posted. Any subsequent changes are effective as of the date of issuance.

Students shall adhere to Michigan State University and College of Osteopathic Medicine policies, procedures, agreements, and guidelines. Violations of any regulation are subject to disciplinary action, up to and including program dismissal.

## 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.

This framework is built around the acronym CORE, representing Collaboration, Opportunity, Responsibility, and Expertise. Each domain encompasses values and examples of how they are demonstrated.

- **Collaboration:** Working together with others
  - Interactive: Interact effectively and respectfully with people you encounter; demonstrate honesty, genuineness, humility, and compassion
  - Dynamics and Communication: Demonstrate respect, civility, and courtesy in communication; communicate effectively with diverse individuals and groups for a variety of purposes using available technologies; employ active listening
  - Use of Feedback: Identify sources of feedback; deliver and receive effective feedback for initiatives, evaluations and assessments, quality improvements, conflict resolution, and peer review
- **Opportunity:** Encouraging an environment of mutual support
  - Shared Leadership: Exhibit advocacy for self and others; accept situational leadership as needed; establish mutual support and respect; participate as a support for others regardless of title or position
  - Problem-solving: Recognize and define problems; analyze data; implement solutions; evaluate outcomes; include the perspectives of others
  - Decision-making: Fulfill commitments; be accountable for actions and outcomes; discuss and contribute your perspective in group settings; listen to multiple viewpoints prior to a decision.
- **Responsibility:** Supporting a shared culture of accountability
  - Effective Use of Time and Resources: Invest time, energy, and material resources efficiently to provide effective services; demonstrate integrity and stewardship of resources

- Critical Thinking Skills: Recognize and differentiate facts, illusions, and assumptions; question logically; identify gaps in information and knowledge
- Mindfulness and Self-Care: Actively engage in surrounding circumstances and activities; self-assess, self-correct, and self-direct; identify sources of stress and develop effective coping behaviors
- **Expertise:** Having relevant skills or knowledge
  - Core of Knowledge: Develop core professional knowledge; apply the knowledge in clinical, academic, and administrative settings
  - Technical Skills: Show competency and proficiency in performing tasks that are integral to the scope and practice of your profession; identify needs and resources for learning; continually see new knowledge and understanding in your profession

## 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

To facilitate communication from faculty and staff to students, students are required to have a functioning MSU email address. Students are responsible for checking their MSU email accounts daily and maintaining their MSU mailboxes so that messages can be received.

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 clinical education program.

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.

## COURSE GRADES

**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 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 EXPOSURE PROCEDURE

A form has been developed by the University Physician to report incidents of exposure, e.g. needle sticks, mucous membrane exposure, tuberculosis exposure, etc., and may be found on the Clerkship Medical Education page of the MSUCOM website [here \(https://com.msu.edu/current-students/clerkship-medical-education\)](https://com.msu.edu/current-students/clerkship-medical-education).

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

STUDENT VISA

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](http://www.rcpd.msu.edu). Once a student's eligibility for (clinical and/or testing) accommodation(s) are determined, the student may be issued a **Verified Individualized Services and Accommodations** (VISA) form. Students must present their VISA forms to the Clerkship Team ([COM.Clerkship@msu.edu](mailto: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 VISA form 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.

## INTER PROFESSIONAL EDUCATION

Inter professional education (also known as inter-professional education or “IPE”) refers to occasions when students from two or more professions in health and social care learn together during all or part of their professional training with the object of cultivating collaborative practice for providing client- or patient-centered health care.

Please complete the following worksheet based on one (1) Time out you observed on your rotation. Circle the Core Rotation and your answers on this form. Please upload it to the drop box on D2L.

Obstetrics/Gynecology

Surgery

Anesthesiology

Name:

MSUCOM Rotation:

Dates of Rotation:

Base Hospital:

1. Did the time outs occur?    Yes    No
2. Who was in attendance for the time out:  
Doctor  
Medical Students  
Others  
Nurse (Circulation)  
Residents  
Scrub Tech  
Anesthesia (Dr/CRNA)  
Did everyone in attendance participate in the timeout ?                      Yes    No
3. Did any issues/concerns arise ?    Yes    No  
How were they addressed?
4. Please take a moment to explain your reflections on the time outs you observed in surgery. Were they helpful? How could they have been improved?



## SUMMARY OF GRADING REQUIREMENTS

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"> <li>Student may receive "Below Expectations" in up to one (1) subcategory</li> <li>Overall categories must receive "Meets Expectations" or "Exceeds Expectations"</li> </ul>	Will be the conditional grade until all requirements of this rotation are met	<ul style="list-style-type: none"> <li>Receives two (2) or more "Below Expectations" within the subcategory sections.</li> <li>Receives comments that indicate below expectations of performance</li> <li>See Unsatisfactory Clinical Performance above</li> </ul>
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 end of the rotation
Short Answer Questions	D2L	Completed 100% by 11:59 pm the Friday after your rotation ends	Will be the conditional grade until all requirements of this rotation are met	Missed either the completion deadline or failed to complete the corrective action
End of Rotation Examination	D2L	<ul style="list-style-type: none"> <li>Receive an 80% or above the first time the exam is taken. If you receive less than 80% you will need to retake the exam and receive a 90% or higher.</li> <li>It will open at 6 pm the last Friday of the rotation and will close 7 days later at 11:59 pm.</li> </ul>	Will be the conditional grade until all requirements of this rotation are met	Missed either the completion deadline or failed to complete the corrective action

Anesthesia Procedure Log	D2L	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 end of the rotation
Interprofessional Education	D2L	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 end of the rotation
Mid Rotation Feedback Form (4 week rotations only)	D2L	Completed 100% and uploaded by 11:59 pm the last day of the rotation and uploaded to the D2L Dropbox	Will be the conditional grade until all requirements of this rotation are met	Failure to complete and submit within 14 days from the end of the rotation

## MID ROTATION FEEDBACK FORM (654)



College of Osteopathic Medicine  
MICHIGAN STATE UNIVERSITY

### MID-ROTATION FEEDBACK FORM

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. Professionalism expectations are listed below. 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