

**IM 650**  
**CORE INTERNAL MEDICINE**  
**INPATIENT CLERKSHIP**

**CLERKSHIP REQUIRED ROTATION (R2) SYLLABUS**  
Honors/High Pass Option Available

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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.*

# TABLE OF CONTENTS

<b>INTRODUCTION AND OVERVIEW</b> .....	<b>1</b>
COURSE SCHEDULING .....	1
Course Enrollment .....	1
ROTATION FORMAT .....	1
<b>GOALS AND OBJECTIVES</b> .....	<b>2</b>
GOALS .....	2
OBJECTIVES .....	4
COMPETENCIES.....	4
<b>COLLEGE PROGRAM OBJECTIVES</b> .....	<b>5</b>
<b>REFERENCES</b> .....	<b>5</b>
REQUIRED STUDY RESOURCES .....	5
SUGGESTED STUDY RESOURCES .....	5
Recommended Texts .....	5
Recommended Websites .....	7
<b>ROTATION REQUIREMENTS</b> .....	<b>7</b>
<b>HIGH PASS REQUIREMENTS*</b> .....	<b>9</b>
<b>HONORS REQUIREMENTS</b> .....	<b>9</b>
WEEKLY READINGS/OBJECTIVES/ASSIGNMENTS .....	10
Week 1 .....	10
Week 2 .....	12
Week 3 .....	13
Week 4 .....	14
QUIZZES .....	16
MID-ROTATION FEEDBACK FORM .....	17
COMAT EXAM INFORMATION .....	17
ROTATION EVALUATIONS .....	18
Attending Evaluation of Student.....	18
Student Evaluation of Clerkship Rotation .....	19
Unsatisfactory Clinical Performance .....	19
CORRECTIVE ACTION.....	19
BASE HOSPITAL REQUIREMENTS .....	20
<b>STUDENT RESPONSIBILITIES AND EXPECTATIONS</b> .....	<b>20</b>
<b>MSU COLLEGE OF OSTEOPATHIC MEDICINE STANDARD POLICIES</b> .....	<b>22</b>
CLERKSHIP ATTENDANCE POLICY.....	22
POLICY FOR MEDICAL STUDENT SUPERVISION .....	22
MSUCOM STUDENT HANDBOOK .....	22
COMMON GROUND FRAMEWORK FOR PROFESSIONAL CONDUCT .....	22
MEDICAL STUDENT RIGHTS AND RESPONSIBILITIES .....	22
MSU EMAIL .....	23

STUDENT EXPOSURE PROCEDURE.....	23
COURSE GRADES .....	23
N Grade Policy .....	24
STUDENT ACCOMMODATION LETTERS.....	24
<b>SUMMARY OF GRADING REQUIREMENTS .....</b>	<b>25</b>
<b>MID-ROTATION FEEDBACK FORM .....</b>	<b>27</b>

## **INTRODUCTION AND OVERVIEW**

Welcome to IM 650, Core Internal Medicine In-Patient Clerkship, which is one of two or three Core Internal Medicine (IM) rotations you will complete successfully during the course of your clerkship years. Our internal medicine team has collaborated to offer selected topics in IM for your study through a series of three required clerkship rotations - IM 650 (inpatient IM rotation #1), IM 658 or FCM 622 (Out-patient IM #1 or 2<sup>nd</sup> Out-Patient FCM) and IM 660 (sub-internship inpatient IM #2). IM 650 must occur before IM 660 and is highly recommended, but not essential that IM 658 or FCM 622 occur before IM 660. IM 660 should ideally be completed after IM 650 and 658 (or FCM 622), and it should ideally NOT occur prior to the 4th month of the third year to allow adequate exposure to inpatient medicine for the medical student. It is intended to be an advanced rotation with higher expectations of the student for performance. Preferably, it should be scheduled after C3 and all R2 core rotations are completed. Students may take FCM 622 in place of IM 658.

We believe these topics are the most common ailments affecting our U.S. population. If you put the time and effort into studying these modules you will be well prepared for internship, residency, and national tests you will take such as COMAT and COMLEX. It is also our hope that you will recognize the integral role of Internal Medicine, for it is a cognitively rewarding discipline for which there will always be a need. Students may take FCM 622 in place of IM 658.

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## **COURSE SCHEDULING**

### Course Enrollment

- The student must be an active student at MSUCOM.
- Core rotations are scheduled by MSUCOM and may not be moved.
- It is the responsibility of the student to ensure MSUCOM confirmation and enrollment prior to starting any course/rotation:
  - MSUCOM clerkship confirmation is complete when the rotation is visible on the students Medtrics schedule.
  - 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

## **ROTATION FORMAT**

The instructional modules for the inpatient IM rotation are created to showcase a typical day for an Internist in the hospital. You will be assigned eight **required** modules during your four-week IM rotation. Each module is under 60 minutes. They will be assessed using four quizzes total. Additional modules and quizzes will be available to allow you to earn High Pass or Honors grades. It is recommended that you complete an initial review of the required modules the weekend before your rotation starts with further study and assessment weekly. Quizzes must be taken by the deadline listed.

## GOALS AND OBJECTIVES

### GOALS

The general goal of clerkship is to provide the environment needed for students to develop into knowledgeable, sympathetic, and sophisticated physicians. Additionally, it seeks to ensure that each student can work up a patient, to develop a differential diagnosis, to formulate a treatment plan, and to consider an approach to managing the patient. Further, our aim is to teach students to apply the background in pathophysiology acquired in the pre-clinical years to the diagnosis and management of patients. Lastly, it is expected that students will continue to expand their knowledge base and clinical judgment.

The following is an outline of the knowledge, skills, and behavior students should possess upon completion of the clerkship:

- 1. HISTORY TAKING: Obtain an accurate, efficient, appropriate, and thorough history.**  
This clerkship will emphasize the development of intermediate level history taking skills. It will emphasize strategies and skills for the efficient elicitation of histories appropriate to the care of adult patients presenting with medical problems in the inpatient settings. Particular attention will be given to the identification and elicitation of key historical data pertinent to immediate clinical decision-making.
- 2. PHYSICAL EXAM: Perform and interpret findings of a complete and organ-specific exam.**  
This clerkship will focus on development of intermediate-to-advanced physical examination skills (especially in the areas of cardiovascular, pulmonary, musculoskeletal, nephrology and gastrointestinal diseases) pertinent to the clinical evaluation of adults presenting with medical problems in the inpatient settings. It will emphasize elicitation of physical findings pertinent to differential diagnosis and immediate clinical decision-making.
- 3. DIAGNOSTIC EVALUATION: Interpret data from laboratories and radiology demonstrating knowledge of pathophysiology and evidence from literature.**  
This clerkship will emphasize interpretation of basic tests used in the evaluation of adult medical patients presenting with medical problems in an inpatient setting. Principles of clinical epidemiology will be used to facilitate test interpretation, especially as they relate to determination of post-test probabilities and contribution of test results to differential diagnosis.
- 4. DIAGNOSIS: Articulate a cogent, prioritized differential diagnosis based on initial history and exam.**  
A prime learning objective of this clerkship will be the formulation of a prioritized initial differential diagnosis based on the history and physical examination for common medical problems of adult patients presenting in inpatient settings. Differential diagnosis of common systemic, cardiac, pulmonary, gastrointestinal, renal, endocrine, metabolic, rheumatologic, neoplastic, and infectious disease problems will receive particular emphasis.
- 5. DIAGNOSIS II: Students are expected to design a diagnostic strategy to narrow an initial differential diagnosis demonstrating knowledge of pathophysiology and evidence from literature.**  
Another priority learning objective for this clerkship will be formulation of a diagnostic strategy, emphasizing use of the principles of clinical epidemiology (test sensitivity, specificity, pretest probability, predictive value) and cost effectiveness data to guide test selection and interpretation.

6. **MANAGEMENT: Design a management strategy for life-threatening, acute, and chronic conditions demonstrating knowledge of pathophysiology and evidence from literature.**

This IM rotation will focus on basic management of the common medical problems of adults presenting to inpatient settings, with reference to the relevant pathophysiology and best scientific evidence.

7. **PROCEDURES: Perform routine technical procedures.**

Students will be taught the basic procedures used in inpatient care of adult medical patients, including procedure indications, contraindications, techniques, complications, and interpretation of any findings that result. Examples of procedures include: Evaluate one patient with in-hospital fall, and be able to discuss the relevant evaluation, review for anticoagulant use and discuss the necessity of brain imaging with your supervising physician; assist with the insertion of one arterial line or central line; arterial blood gas results interpretation and suggested management of results to restore homeostasis; and attendance at one Rapid Response Team event or Code Blue (cardiac arrest in house event) with performance of CPR if allowed.

8. **COMMUNICATION: Present patient information concisely, accurately and in timely fashion to members of a health care team in a variety of settings and formats including verbally and in writing.**

This course will emphasize effective written and oral presentation of pertinent clinical information (including differential diagnosis, assessment, and plan) for the care of adult patients. Particular attention will be given to adapting the presentation to the issue at hand.

9. **CULTURAL COMPETENCE: Understand the disease with respect to the cultural, socioeconomic, gender and age-related context of the patient.**

This IM rotation will stress how doctor-patient relationship is influenced by a variety of factors. Special emphasis will be placed on conducting patient interviews with sensitivity towards cultural differences as well as the impact these may have on disease evaluation and management.

10. **PROFESSIONALISM:**

This rotation will emphasize aspects of professionalism related to interaction with patients, colleagues, and staff. Examples of professional behavior include being on time and prepared for rounds and didactic sessions, putting patients' needs first and willingness to assist your colleagues and staff, ability to self-assess, responsiveness to constructive criticism and time management skills.

This clerkship will also stress skills relevant to taking initiative and responsibility for learning, achieving personal growth, and supporting learning objectives of your colleagues. Students are expected to learn how to perform appropriate literature searches as well as understand the limitations of the literature base.

Demonstrate knowledge and affirmation of ethical standards.

11. **CAREERS IN MEDICINE: Is medicine your cup of tea?**

This clerkship will highlight available career paths in internal medicine including primary care versus subspecialty training. It will also encourage students to find mentors as they prepare for future choices.

## OBJECTIVES

1. Provide the student with the fundamental knowledge base in internal medicine.
2. Introduce the student to basic procedures relevant to the practice of internal medicine.
3. Facilitate an understanding of the approach to acute care clinical problem solving.
4. Promote the acquisition of simple basic skills for the diagnosis and management of common internal medicine cases.
5. Encourage the continued development of the student's professional attitude and behavior.

## COMPETENCIES

The Core Competencies were developed by the AOA to represent seven defined areas. In 2012, the American Association of Colleges of Osteopathic Medicine developed a document to assist colleges in integrating these same core competencies into medical education at the medical student level. The following core competencies are addressed during the month of In-Patient Internal Medicine:

- **Osteopathic Principles and Practice**

- o Approach the patient with recognition of the entire clinical context, including mind body and psychosocial interrelationships
- o Diagnose clinical conditions and plan patient care
- o Perform or recommend OMT as part of a treatment plan
- o Communicate and document treatment details

- **Medical Knowledge**

- o Articulate basic biomedical science and epidemiological and clinical science principles related to patient presentation.

- **Patient Care**

- o Gather accurate data related to the patient encounter
- o Develop a differential diagnosis appropriate to the context of the patient setting and findings
- o Form a patient-centered, inter-professional, evidence-based management plan
- o Health promotion and disease prevention (HPDP)
- o Documentation, case presentation, and team communication

- **Interpersonal and Communication Skills**

- o Establish and maintain the physician-patient relationship
- o Demonstrate effective written and electronic communication in dealing with patients and other health care professionals

- o Work effectively with other health professionals as a member or leader of a health care team

- **Professionalism**

- o Demonstrate humanistic behavior, including respect, compassion, honesty, and trustworthiness
- o Demonstrate accountability to patients, society, and the profession, including the duty to act in response to the knowledge of professional behavior of others
- o Attain milestones that indicate a commitment to excellence, as, for example, through ongoing professional development as evidence of a commitment to continuous learning

- **Practice-Based Learning and Improvement**

- o Describe the clinical significance of and apply strategies for integrating research evidence into clinical practice
- o Critically evaluate medical information and its sources, and apply such information appropriately to decisions relating to patient care

- **Systems-Based Practice**

- o Demonstrate understanding of how patient care and professional practices affect other health care professionals, health care organizations, and society
- o Identify and utilize effective strategies for assessing patients.

## 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:

**Core Internal Medicine In-Patient Clerkship**

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

### SUGGESTED STUDY RESOURCES

#### Recommended Texts

1. **Access Medicine**

Compendium of various medical books, questions, images, videos that apply to internal medicine. Infinitely helpful resources that allows you to search a topic over multiple different texts.

Available at: <https://accessmedicine-mhmedical-com.proxy1.cl.msu.edu/>



2. **Harrison's Principles of Internal Medicine 21st edition**

The bible of internal medicine. Long running book providing complex overview of topics that are applicable to every level of education. Can be overly complex when trying to quickly review a topic or answer clinical questions for a medical student.

Available online at: <https://accessmedicine-mhmedical-com.proxy1.cl.msu.edu/book.aspx?bookID=3095>

3. **Goldman's Cecil Medicine 26th edition**

Complete overview of Internal medicine. May be a bit easier to follow than Harrison's.

Available at: <https://www-clinicalkey-com.proxy1.cl.msu.edu/#!/browse/book/3-s2.0-C20161036684>

4. **Current Medical Diagnosis & Treatment 2023**

Concise overviews of topics as well as approach to patient's organized by system. The text focuses on practical application of knowledge and contains mixed media (videos, sound clips, etc.)

Available at: <https://accessmedicine-mhmedical-com.proxy1.cl.msu.edu/book.aspx?bookID=3212>

5. **Symptom to Diagnosis: An Evidence-Based Guide, 4e**

Case based topics that walk a resident or medical student through the basic approach, differential diagnosis, and work up of various symptoms or clinical conditions.

Available at: <https://accessmedicine-mhmedical-com.proxy1.cl.msu.edu/>

6. **Differential Diagnosis of Common Complaints, 7th Edition**

Enhances differential diagnosis and approach to complaints.

Available at: <https://www-clinicalkey-com.proxy1.cl.msu.edu/#!/browse/book/3-s2.0-C20150022286>

7. **Medical Secrets, 6th Edition**

Bullet point and fact-based review by organ system.

Available at: <https://www-clinicalkey-com.proxy1.cl.msu.edu/#!/browse/book/3-s2.0-C20150066990>

8. **Textbook of Physical Diagnosis, 8th Edition**

Review of physical exam skills

Available at: <https://www-clinicalkey-com.proxy1.cl.msu.edu/#!/browse/book/3-s2.0-C20180009366>

9. **Dynamed Plus**

Online bullet point review of assorted topics

Available at: <https://lib.msu.edu/health/medicine/>

10. **The 5-minute clinical consult 2022**

Alphabetized, quick bullet point review of topics focused on application of medical knowledge.

Available at: [https://ovidsp-ovid-com.proxy1.cl.msu.edu/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=booktext&D=books1&AN=02250010/30th\\_Edition/5&XPATH=/OVIDBOOK%5b1%5d/TXTBKBD%5b1%5d/CHAPTER%5b5%5d](https://ovidsp-ovid-com.proxy1.cl.msu.edu/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=booktext&D=books1&AN=02250010/30th_Edition/5&XPATH=/OVIDBOOK%5b1%5d/TXTBKBD%5b1%5d/CHAPTER%5b5%5d)

11. **BMJ Best Practices**

Helpful resource with concise overviews of topics as well as various procedural videos

Available at: <https://bestpractice-bmj-com.proxy1.cl.msu.edu/>

12. **Board Vitals**

Board question practice – **Free through the MSU Libraries**

Available at: <https://libguides.lib.msu.edu/medicalboardexamprep/comlex>

Recommended Websites

1. Stat Pearls – **Content is free – Question banks have a fee.**  
<https://www.statpearls.com/>  
 Quick overviews of topics with associated medical questions
2. Online Med Ed – **there is a monthly fee for this service.**  
<https://onlinemeded.org/>  
 Lecture-based videos that are geared to improving board scores.
3. Merck Manuals  
<https://www.merckmanuals.com/professional>  
 Contains quick concise overviews of topics as well as a large catalog of procedural videos.
4. Helpful Review Journals (Available through Clinical Key database)
  - American Journal of Medicine
  - American Family Physician
  - Critical Care Clinics
  - Emergency Medicine Clinics of North America
  - Hospital Medicine
  - Lancet, The
  - Medical Clinics of North America
  - Medicine

**ROTATION REQUIREMENTS**

REQUIREMENT	SUBMISSION METHOD	DUE DATE Please refer to D2L for actual (month/day) due dates
Required Module 1: Acute Coronary Syndrome with Quiz	Evaluated on Quiz 1 Taken in D2L	11:59 pm last Sunday of the rotation.
Required Module 2: Congestive Heart Failure with Quiz	Evaluated on Quiz 1 Taken in D2L	11:59 pm last Sunday of the rotation.

IM 650 Core Internal Medicine Inpatient Clerkship

REQUIREMENT	SUBMISSION METHOD	DUE DATE Please refer to D2L for actual (month/day) due dates
Required Module 3: Acute Kidney Injury with Quiz	Evaluated on Quiz 2 Taken in D2L	11:59 pm last Sunday of the rotation.
Required Module 4: Electrolyte Disorders (K, Ca, Mg, Phos with Quiz	Evaluated on Quiz 2 Taken in D2L	11:59 pm last Sunday of the rotation.
Required Module 5: Community Acquired Pneumonia with Quiz	Evaluated on Quiz 3 Taken in D2L	11:59 pm last Sunday of the rotation.
Required Module 6: COPD with Quiz	Evaluated on Quiz 3 Taken in D2L	11:59 pm last Sunday of the rotation.
Required Module 7: Venous Thromboembolism with Quiz	Evaluated on Quiz 3 Taken in D2L	11:59 pm last Sunday of the rotation.
Required Module 8: Pancreatitis with Quiz	Evaluated on Quiz 4 Taken in D2L	11:59 pm last Sunday of the rotation.
Transitions of Care Quiz	Completed in D2L	11:59pm the <b>second</b> Sunday of the rotation
Student <b>Actual</b> Daily Shift Schedule	Submitted into Dropbox in D2L	Last Sunday of the rotation at 11:59pm
Mid Rotation Evaluation	Submitted into Dropbox in D2L	Completed 100% and uploaded by the third Sunday of the rotation at 11:59 pm. <b>Dated by the 3<sup>rd</sup> Wednesday of the rotation.</b>
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	Last Day of Rotation

REQUIREMENT	SUBMISSION METHOD	DUE DATE Please refer to D2L for actual (month/day) due dates
	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: <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 'Evaluations' tabs within their Medtrics accounts.	Last Sunday of Rotation

### HIGH PASS REQUIREMENTS\*

\* NOTE these are in addition to other requirements as listed, including the COMAT score

OPTIONAL	SUBMISSION METHOD	DUE DATE Please refer to D2L for actual (month/day) due dates
<p>Complete <b>two additional module quizzes</b> of your choosing with an 80% grade on two attempts. These are not averaged with the four required quiz attempts but will be averaged together.</p> <p><b>Optional Modules covering the following topics:</b>                      Approach to Anemia                      Sodium Disorder                      Urinary Tract Infections                      Asthma                      Approach to Elevated Liver Function Tests                      Cholestatic Disease                      Hepatocellular Disease                      Inflammatory Bowel Disease</p>	Quizzes on individual modules taken in D2L	11:59 pm last Sunday of the rotation.

### HONORS REQUIREMENTS

\* NOTE these are in addition to other requirements as listed, including the COMAT score

OPTIONAL	SUBMISSION METHOD	DUE DATE Please refer to D2L for actual (month/day) due dates
<p>Complete <b>four additional module quizzes</b> of your choosing with an 80% grade on two attempts. These are not averaged with the four required quiz attempts.</p> <p><b>Optional Modules covering the following topics:</b></p> <p><b>Optional Modules:</b>                      Approach to Anemia                      Sodium Disorder                      Urinary Tract Infections                      Asthma                      Approach to Elevated Liver Function Tests                      Cholestatic Disease                      Hepatocellular Disease                      Inflammatory Bowel Disease</p>	<p>Quizzes on individual modules taken in D2L</p>	<p>11:59 pm last Sunday of the rotation.</p>

**WEEKLY READINGS/OBJECTIVES/ASSIGNMENTS**

During each of the 4 weeks of the internal medicine rotation the student will be responsible for reviewing all content pertaining to that week’s topics and completing the corresponding quizzes. The content is meant to be a complete overview of a topic, with up-to-date medical information, which would prepare a PGYI to present on that topic to an attending; while also providing a framework for patient evaluation, work up, and treatment. Overall, the activities are meant to sharpen the student’s understanding of that topic, how it is approached, and application of that knowledge in a hospital setting.

**NOTE: quizzes are intended to be taken weekly. If the student chooses to wait until the end of the rotation and then has computer problems, internet problems, MSU IT is down, etc. it will not be accepted as an excuse to be allowed extra time. Scores on quizzes not completed will be graded as “0.” If you completed one attempt but not a second attempt for a higher score your first attempt will be your grade for that quiz. This may necessitate a corrective action plan.**

Week 1

**Topics**

1. Acute Coronary Syndrome (ACS) – REQUIRED evaluated on Quiz 1
2. Congestive Heart Failure (CHF) - REQUIRED evaluated on Quiz 1
3. Approach to Anemia - OPTIONAL Evaluated on individual Quiz for topic.

### **Specific Learning Objectives**

#### **Acute Coronary Syndrome (ACS) - REQUIRED** evaluated on Quiz 1

- Consistently explain pathophysiology of Coronary disease
- Recite the risk factors for coronary disease.
- Provide basic work up with laboratory and imaging for a patient with chest pain.
- Combine history, physical exam, EKG, and laboratory findings when meeting a new patient to decide if they are having an acute coronary syndrome.
- Quickly identify a STEMI on EKG. STEMI= ST Elevated Myocardial Infarction
- Identify EKG changes of ischemia and apply these to risk stratification of a patient for coronary disease.
- Reproduce the various branches of treatment for NSTEMI/UA into a treatment plan given various medications indications and contraindication. NSTEMI= Non-ST Elevated Myocardial Infarction; UA=Unstable Angina
- Memorize and recite the timing and indication of reperfusion therapy for STEMI as well as being familiar with various contraindications.
- List the differential and basic management of the most serious disorders that can be mistaken for ACS.

#### **Congestive Heart Failure (CHF) - REQUIRED** evaluated on Quiz 1

- Recite the three main causes of CHF and three exotic causes.
- Consistently diagnose an exacerbation of CHF on physical exam while being aided by lab work and imaging.
- Use a focused history to tease out factors that lead to the exacerbation.
- Pick out structural factors on an echocardiogram report that has led to CHF.
- Classify CHF for a patient based on an echocardiogram report and patient history.
- Quickly recite the acute treatment for pulmonary edema in CHF
- Provide basic long-term treatment aimed at reducing vicious cycle in CHF under various clinical scenarios as it relates to medical indications and contraindications.
- Differentiate acute onset or acute exacerbation CHF from Chronic CHF or Stable CHF and recite medications used for each.
- Counsel a patient on lifestyle changes that will help decrease exacerbations and slow progression of disease.

#### **Approach to Anemia - OPTIONAL** Evaluated on individual quiz for topic.

- Recite a differential diagnosis  $\geq 5$  possibilities for anemia based on the size the red blood cell.
- Systematically approach a workup for anemia based on a basic complete blood count, patient history, and demographics
- Identify peripheral smear findings to refine differential diagnosis of anemia.
- Provide a workup for a patient to prove hemolysis.
- Consistently decide if a patient needs a transfusion of red blood cells.

Week 2

**Topics**

1. Acute Kidney Injury (AKI) - REQUIRED evaluated on Quiz 2
2. Electrolyte disorders (K, Ca, Mg, Phos) - REQUIRED evaluated on Quiz 2
3. Sodium Disorder – OPTIONAL Evaluated on individual quiz for topic.
4. Urinary Tract Infection – OPTIONAL Evaluated on individual quiz for topic.

**Specific Learning Objectives**

**Acute Kidney Injury (AKI) - REQUIRED** evaluated on Quiz 2

- Include AKI in a differential diagnosis based on various signs and symptoms.
- Recognize AKI quickly and efficiently based on lab work and urine output.
- Stage the degree of AKI based on established baseline creatinine.
- Recite the etiology of AKI (prerenal, post renal, intrinsic) from most common to least common.
- Formulate a differential using initial lab work as well as physical exam and history to assist in patient care on rounds.
- Provide a stepwise approach to work up and diagnose to avoid unnecessary/costly workups.
- Recognize warning signs of “zebras” when considering the etiology of AKI.
- Recommend treatment for AKI based on etiology.
- Recognize and recite the indications for dialysis emergently.
- Recommend strategies to help prevent AKI.
- Identify the role of benign prostatic hypertrophy in the development of AKI in older males.
- Recognize the signs and symptoms of a distended bladder on physical exam and identify confirmatory testing and treatment for same

**Electrolyte disorders (K, Ca, Mg, Phos) - REQUIRED** evaluated on Quiz 2

- Identify the signs and symptoms of potassium disorders.
- Recite the major components of the differential diagnosis of hypokalemia and hyperkalemia as it relates to the mechanism.
- Provide treatment for hypokalemia by the most appropriate route.
- Provide treatment for hyperkalemia under various clinical conditions in an immediate manner.
- Recite and identify the electrocardiographic changes of hypo and hyperkalemia consistently.
- Quickly correct serum calcium levels based on albumin in your head.
- Explain hormonal regulation of calcium and connect this to forming a differential diagnosis for hyper and hypocalcemia.
- Provide a workup to narrow down your differential diagnosis of hypercalcemia and hypocalcemia.
- Recite the treatment for hypercalcemia while factoring in the severity of disease.
- Apply the signs and symptoms of electrolyte disturbances to the differential diagnosis of common presentations.
- Identify EKG changes as they relate to electrolyte disturbances.
- Consistently suggest quantity and route of replacement in routine electrolyte deficiencies

**Sodium Disorders – OPTIONAL** Evaluated on individual quiz for topic.

- Formulate a differential diagnosis for hyponatremia/hyponatremia.

- Recite at least three major disorders that lead to hyponatremia based on a patient's fluid status.
- Pose a theory as to etiology of hyponatremia/ hypernatremia based on clinical presentation and basic labs.
- Order and interpret labs to confirm etiology.
- Provide basic treatment for hyponatremia/ hypernatremia.
- Name five causes of SIADH.
- Formulate a differential diagnosis for hypernatremia based on fluid status.
- Pose a theory as to etiology of hypernatremia based on clinical presentation and basic labs.
- Provide basic treatment of hypernatremia.

**Urinary Tract Infection** – OPTIONAL Evaluated on individual quiz for topic.

- Consistently list the causative organisms responsible for UTI
- Accurately diagnosis a urinary tract infection given a urinalysis and a patient presentation.
- Formulate an appropriate work up for a patient with UTI knowing the indications for different labs and imaging.
- Identify situations that call for the need for a specialist.
- Provide basic antimicrobial selection under various clinical scenarios.
- Disposition a patient based on clinical indicators and presentation.
- Identify the role of benign prostatic hypertrophy in the development of urinary retention and risk for UTI in older males.
- Recognize the signs and symptoms of a distended bladder on physical exam and identify confirmatory testing and treatment for same

Week 3

**Topics**

1. Chronic Obstructive Pulmonary Disease (COPD) - REQUIRED evaluated on Quiz 3
2. Community Acquired Pneumonia (CAP) - REQUIRED evaluated on Quiz 3
3. Venous Thromboembolism (VTE) - REQUIRED evaluated on Quiz 3
4. Asthma – OPTIONAL Evaluated on individual quiz for topic.

**Specific Learning Objectives**

**Chronic Obstructive Pulmonary Disease (COPD)** - REQUIRED evaluated on Quiz 3

- Apply the GOLD classification for COPD.
- Suggest additional treatment for patients that are not controlled on an outpatient treatment regimen.
- Quickly and consistently diagnose a patient with an exacerbation of COPD.
- Recite differential diagnosis for wheezing as it relates to adults and children.
- Consistently take a history as it relates to COPD, teasing out triggers for exacerbation
- Suggest an initial work up for an exacerbation of COPD knowing why each test is ordered.
- Be able to quickly disposition a patient with an exacerbation of COPD based on various clinical indicators.
- Identify and suggest patients that are appropriate for discharge.



**Community Acquired Pneumonia (CAP) - REQUIRED** evaluated on Quiz 3

- Review the IDSA/ATS guidelines for CAP.
- Review bacterial etiology under various clinical conditions.
- When seeing a patient with pneumonia, apply guidelines to site of care decisions when deciding on treatment.
- Review the utility of testing and applying to different circumstances.
- Select appropriate antibiotics for CAP.
- Have a 5-item differential diagnosis and have a basic workup in mind to “non-responders” of pneumonia.

**Venous Thromboembolism (VTE)v- REQUIRED** evaluated on Quiz 3

- If asked, be able to explain the pathophysiology that leads to Venous Thromboembolism (VTE) to a layperson –
- Quickly recite the differential diagnosis for DVT and apply it to the initial work up for leg edema – DVT= Deep Vein Thrombosis
- Consistently rank the likelihood of VTE on a differential diagnosis by being able to recite the risk factors for VTE.
- Deciding what the risk/likelihood a patient has of VTE diseases by utilizing different systems (Wells, PERC)
- Be able to order testing to confirm diagnosis of VTE based on likelihood of disease under various clinical conditions.
- Suggest different treatment options for VTE under various clinical circumstances by applying contraindications of different anticoagulants.
- Identify patients with VTE where advanced treatment options (IVC filter, thrombolysis, thrombectomy) may be needed.
- Be able to provide a duration of therapy for VTE under various clinical circumstances.
- Explain to a patient complication of VTE.

**Asthma – OPTIONAL** Evaluated on individual quiz for topic.

- Consistently take a focused history about asthma when interviewing a patient
- Make a clinical diagnosis of asthma based on signs and symptoms.
- Make a definitive diagnosis of asthma based on pulmonary function testing.
- Grade severity of asthma based on symptoms as well as pulmonary function testing.
- Quickly provide a treatment plan for status asthmaticus
- Provide a treatment plan for chronic asthma depending on severity.
- Identify various asthma syndromes based on symptoms as well as provide treatment.
- Consistently instruct patients on proper meter does inhaler use.

Week 4

**Topics**

1. Pancreatitis - - REQUIRED evaluated on Quiz 4
2. Cholestatic Liver Disease - OPTIONAL Evaluated on individual quiz for topic.
3. Hepatocellular Disease – OPTIONAL Evaluated on individual quiz for topic.
4. Inflammatory Bowel Disease - OPTIONAL Evaluated on individual quiz for topic.

5. Approach to Elevated Liver Function Testing – OPTIONAL Evaluated on individual quiz for topic.

**Specific Learning Objectives**

**Pancreatitis** - REQUIRED evaluated on Quiz 4

- Recite ten causes of pancreatitis; knowing which two are the most common.
- Quickly provide a basic work up when pancreatitis is suspected.
- Provide an advanced work up using labs and imaging when the etiology of pancreatitis is unclear.
- Consistently diagnose pancreatitis based on signs and symptoms of disease in combination with laboratory and imaging findings.
- Familiarize yourself with factors that indicate a worse prognosis in pancreatitis.
- Construct a basic treatment plan for pancreatitis.
- Familiarize yourself with complications of pancreatitis and how this might change management.
- Provide a workup when chronic pancreatitis is suspected.
- List five complications and causes of chronic pancreatitis when asked.

**Approach to Elevated Liver Function Testing “LFTs”** – OPTIONAL Evaluated on individual quiz for topic.

- Create a better differential diagnosis for a patient with elevated liver function testing based on the pattern of elevation.
- When approaching a patient with elevated LFTs consistently decide if the pattern present is hepatocellular or cholestatic in nature
- Recite at least five conditions that result in hepatocellular damage.
- Recite at least five conditions that result in cholestatic damage.
- Identify what lab tests truly evaluate the synthetic function of the liver.
- Explain how imaging can be used to assist in the differential of jaundice.

**Cholestatic Liver Disease** – OPTIONAL Evaluated on individual quiz for topic.

- Consistently identify a cholestatic pattern within elevated liver function testing
- Recite a differential diagnosis for cholestatic pattern of elevated “LFTs.”
- Use imaging efficiently to refine differential diagnosis.
- Identify patients that require acute surgical management with cholestatic disease.
- Review a patient’s medication list and identify medications that may potentially cause biliary stasis.
- Identify patients that potentially have various cholestatic diseases based on signs and symptoms, demographics, and provide a workup to make a definitive diagnosis.
- Provide additional or confirmatory testing to refine differential.
- Provide basic treatment for various cholestatic diseases.

**Hepatocellular Disease** – OPTIONAL Evaluated on individual quiz for topic.

- Recite five etiologies of elevated LFT from hepatocellular damage.
- Provide a workup as to the etiology of hepatocellular injury under various clinical scenarios.
- Be familiar with the treatment of each hepatocellular disease.
- Identify the different disease states of viral hepatitis based on serology.

**Inflammatory Bowel Disease (IBD)** UC=Ulcerative Colitis, CD=Crohn's Disease – OPTIONAL  
Evaluated on individual quiz for topic

- Recite the pathological differences in distribution and appearance of IBD.
- Know the signs and symptoms of IBD so it may be kept in your differential diagnosis of common GI complaints.
- Identify extraintestinal manifestations of IBD.
- Recite the initial work up for IBD knowing what you are looking for with each test.
- Understand and decide on imaging/endoscopy to make diagnosis of IBD.
- Familiarize yourself with treatment of UC and CD based on severity.
- Recite the in-patient management of IBD quickly/consistently.
- Monitor side effects and potential complications of immunomodulators.

## QUIZZES

### **Transitions of Care Modules**

Must be completed by the end of week two (second Sunday) at 11:59 pm (Day 14) during this rotation. The purpose of this set of modules is to help you understand how to transfer care to another provider. By completing at the end of week two you will have 2 weeks to practice implementing these techniques, which have been shown to decrease errors in medicine, thus improving patient outcomes.

There is a quiz in D2I based on the content in this set Transitions of Care online modules. You must obtain an 80% score on two attempts. This score is not averaged into the other module scores but will be scored independently. The in-module quizzes and content, created by the faculty, are available in D2L and will help you achieve success on the overall transitions of care quiz. You must achieve this 80% score on the first two attempts to qualify for Honors or High Pass. Needing and successfully completing a corrective action plan will disqualify you from Honors or High Pass but will be necessary to pass the class.

### **Transitions of Care Modules:**

<https://accessmedicine-mhmedical-com.proxy2.cl.msu.edu/cases.aspx?gboscontainerid=209&groupid=850>

Log in using your NET ID and go to the bottom of the page to the Transitions of Care Modules and you can access each one of the below modules:

### **Discharge Planning and Documentation**

#### **Discharge Transition**

#### **Hand-Off Communication**

#### **Hand-Off Standardization**

#### **Medication Reconciliation**

#### **Psychosocial Assessment**

Instructions for accessing the Access Medicine Transitions of Care Modules and completing them. Please Read carefully.

1. You must create an account in your name first.

To create account:

Go to <https://lib.msu.edu/health/medicine/> then click on AccessMedicine.

You can then create an account or log in if you already have an account. You will need an account because there will be times that you will need to email the Instructor of Record documentation.

Make sure you are logging into your account with your MSUNETID **before** you work on the case, so it records it as you.

## 2. In Access Medicine

Once in Access Medicine click on Cases, then select Internal Medicine Cases, and it will take you to a page that has links to all the inpatient IM cases, the outpatient IM case list, and the Transitions of Care list. Scroll down to the bottom of the page and you will see Transitions of Care and six topics.

## MID-ROTATION FEEDBACK FORM

Students are required to complete the MSUCOM Mid-Rotation Feedback Form. This will need to be completed by an 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 11:59 pm on the third Sunday of the rotation to be eligible to receive Honors or obtain a High Pass in the rotation.

A grade cannot be entered for the course until all requirements of the course have been met. If you are unable to complete the Mid-Rotation Feedback, it will be your responsibility to reach out to the Course Coordinator for the assigned Corrective Action.

## COMAT EXAM INFORMATION

**DUE DATE:** The last Friday of the rotation in IM 660

All students are required to take the NBOME COMAT examination in Internal Medicine on the last Friday of IM 660 rotation. The score for the exam will be considered part of the IM 660 rotation grade and for honors designations in all IM core rotations.

It is your responsibility to take the exam on the last Friday of the rotation at the time and location you have registered for. If this deadline is not met, you will receive a zero for that attempt of the exam and will only be given one (1) time to take and pass the COMAT the next time the exam is offered or will receive an "N" grade for the rotation.

**Students must score 83 or above on the exam that you take to receive a passing grade. Honors and High Pass Scores are set annually and will be posted in the syllabus.** Each student will be allowed to take the exam two times before receiving an "N" grade for the rotation. When a student must sit for a re-take of the exam, they will be contacted by the Course Assistant, who will provide the student with a deadline by which they must sit for the re-take, as well as the consequence for failure to do so. If a student receives an "N" grade for the rotation, they will be notified of the failure by the department.

For information on exam registration and administration, please visit the COM (College of Osteopathic Medicine) Clerkship Student Portal: <https://michiganstate.sharepoint.com/sites/StudentClerkship>

The COMAT exam for the related subject/course will be taken by the student on the last Friday of the rotation.

- a. Absence due to emergent need

- i. The student will need to communicate emergent need of absence to the Associate Dean for Clerkship Education for approval ([enright4@msu.edu](mailto:enright4@msu.edu)). Documentation may be requested.
  1. The clerkship team will schedule a make-up examination that may occur on an open Friday COMAT test date, or another date chosen by the Clerkship team following the missed exam.
- b. Personal need to delay examination.
  - i. On rare occasion, the student may request to delay the COMAT examination. The Associate Dean for Clerkship Education will review and approve/deny such requests. The student must request a delay to [com.clerkship@msu.edu](mailto:com.clerkship@msu.edu) by the end of the first week of the rotation.
- c. Failure to show for the scheduled examination, or failure to show up on time as described in the COMAT Policy, will result in a '0' score for the scheduled examination attempt.

If a student requires accommodation, a valid Student Accommodation Form from the Resource Center for Persons with Disabilities (RCPD) must be presented to the COM Clerkship Team at least seven days in advance of the COMAT examination date.

## 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](mailto: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).

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.

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

If a student does not successfully complete the rotation requirements of the course, the student will receive an NGR grade and be permitted to go through a 'corrective action' process.

The following assignments are eligible for corrective action and will be due no later than 14 days after the last day of the rotation at 11:59pm:

### **1. Quizzes**

The student who fails to achieve an 75% overall average on the four required quizzes with two attempts will either be allowed to have a third attempt on the lowest quiz, or if multiple quizzes were below 75% on two attempts the student will be required to take a comprehensive final examination that will be a random selection of similar questions, worth 50 points, with a necessary score of 75% to pass. It will be a cumulative examination and will be offered within the first two weeks following the completion of the rotation in which the student failed to achieve the necessary average score. The Instructor of Record will advise what option you will be given based on their review of your attempts. The need to complete a corrective action plan for low performance on the two attempts will preclude the award of Honors or High Pass grades.

**Transitions of Care Quiz** – You will have two attempts to meet the passing score of 80%. The need to complete a corrective action plan for low performance on the two attempts will preclude the award of Honors or High Pass grades. The Instructor of Record will advise what option you will be given based on their review of your attempts.

### **2. Mid Rotation Evaluation**

This will need to be completed by an Attending or Resident at the end of week two of the rotation. It should be dated between Friday of the second week and **no later** than the 3<sup>rd</sup> Wednesday of the rotation.

Students must upload the form to the correct drop box (100% completed and needing no revisions) on D2L by 11:59 pm the third Sunday of the rotation to be eligible to receive Honors or obtain a

High Pass in the rotation. Students must upload the form to the correct drop box (completed 100% and needing no revisions) on D2L by 11:59 pm the last day of the rotation to be eligible to receive a Pass in this rotation. A grade cannot be entered for the course until all requirements are met. Students that do not successfully complete and upload their mid rotation evaluation will be required to email the Course Coordinator with an explanation why this was missed.

The Course Assistant will contact the Instructor of Record and they will assign the required Corrective Action. Corrective Action may take one of a variety of different formats, and the instructions will be outlined in the email from the Course Assistant with details and deadlines.

The student is responsible for contacting the Course Assistant (on the title page of this syllabus) if they believe missing assignments were reported in error, or if they are unclear about the corrective action process.

While it is the responsibility of the student to ensure that the Attending Evaluation of Clerkship Student is completed, this requirement may extend beyond the corrective action deadline. Additionally, in the event of a failing score earned on the student's first attempt of a COMAT subject exam, the corrective action for the COMAT retake may extend beyond 14 days.

If a student **successfully completes** the corrective action process, as determined by the IOR, the student will receive credit for the deficient academic grading requirement(s) and be eligible for a change in rotation grade (from NGR to Pass, pending the Attending Evaluation of Clerkship Student and, if applicable, score on his/her COMAT retake).

As determined by the IOR, the student will receive an N grade for the course if all assignments and the corrective action process 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.

## **STUDENT RESPONSIBILITIES AND EXPECTATIONS**

The Internal Medicine clerkship is divided into three four-week rotations that include an IM or FM-Ambulatory, IM-Hospital and IM-Sub-I clerkship. This will provide the mechanism to achieve the objectives that will be covered in internal medicine.

During the third-year inpatient IM rotation, students will rotate as a part of the medical team at their designated hospital. The students will collaborate primarily with the preceptor and with intern/resident physicians when applicable as part of the team caring for patients. Students will be expected to write history and physicals on new admits and daily progress notes.

Medical students are expected to participate in direct patient care on the hospital floors, although final responsibility and decision-making rests with the attending physician. As a third-year student, more emphasis will be placed on student responsibility and your ability to manage basic internal medicine patients. Students are required to attend daily didactics that may include morning reports, noon

conferences, faculty grand rounds, resident grand rounds, hematology rounds, cardiology rounds and faculty lectures.

During your clinical rotation you will be part of many different learning environments and will be given a great deal of responsibility. Importantly, most of your patients will consider you a critical member of the medical team and see you as a physician. Given this, it is vital that a high-level professional behavior is maintained. Outward appearance is particularly important in this regard and is critical for initial impressions and for gaining the respect of your patients.

Scrubs are provided for situations where extended periods of patient care necessitate more comfortable clothing or a change in clothing. Therefore, scrubs are allowed for on-call days only.

At ALL times when patient contact is expected or anticipated, your waist-length WHITE COAT will be worn, with your ID badge worn above the waist.

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.

Students are expected to identify, access, interpret and apply medical evidence contained in the scientific literature related to patients' health problems.

Students are expected to: assess their personal learning needs specific to this clinical rotation, engage in deliberate, independent learning activities to address their gaps in knowledge, skills, or attitudes; and solicit feedback and use it on a daily basis to continuously improve their clinical practice.

- Show up early.
- Demonstrate genuine interest.
- Record daily clinical questions for nightly study.
- Reading at least one hour per day will elevate you to the top of your class and will make Board preparation much easier.

### ATTIRE AND ETIQUETTE

During your clinical rotation, you will be a part of many different learning environments and will be given a great deal of responsibility. Importantly, most of your patients will consider you a critical member of the medical team and see you as a physician. Given this, it is vital that a high level of professional behavior is maintained. Outward appearance is particularly important in this regard and is critical for initial impressions and for gaining the respect of your patients. For this reason, please adhere to the following dress code during your clerkship:

- Men should routinely dress in slacks, as well as a shirt and tie. No blue jeans are allowed during any rotation.
- Women should wear skirt or slacks. Skirts should be of a length that reaches the knees or longer.
- Tennis shoes should not be worn, except with scrubs.
- No open toe shoes, flip-flops, or sandals are allowed at any time. Socks are always a public health code requirement.
- Scrubs are provided for situations where extended periods of patient care necessitate more comfortable clothing or a change in clothing. Therefore, scrubs are allowed for 'on- call days' only.
- At ALL times when patient contact is expected or anticipated, your waist-length WHITE COAT will be worn, with your ID badge worn above the waist.



- As this policy simply represents general guidelines, we encourage anyone with uncertainties or questions regarding the dress code to reach out to the student director for confirmation.
- Wear a waterproof gown when blood or body fluid may soak a cloth gown.

## **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. [Clerkship-Absence-Policy.pdf \(msu.edu\)](#)

### 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.

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.

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](mailto:enright4@msu.edu)), if exposure incident occurs.

### COURSE GRADES

**H/Honors** – A grade of honors will be designated to students demonstrating outstanding clinical, professional, and academic performance in certain core rotations. Criteria for achieving honors in a core rotation will be determined by the Instructor of Record and will be listed in the course syllabus. While Honors designation will be awarded to students meeting the criteria in the syllabi of the above courses, Honors is not an official MSU grade. The official MSUCOM transcript will reflect a grade as Pass with an additional notation that the student achieved Honors in the course. The students Medical Student Performance Evaluation will reflect each Honors grade.

**HP/High Pass** – The grade of High Pass will be designated to students who have above average clinical, professional, and academic performance in certain core rotations but do not meet the criteria for Honors. Criteria for High Pass in a core rotation will be determined by the Instructor of Record and will be listed in the course syllabus. While

High Pass designation will be awarded to students meeting the criteria in the syllabi of the above courses, High Pass is not an official MSU grade. The official MSUCOM transcript will reflect a grade as Pass with an additional notation that the student achieved High Pass in the course. The student's Medical Student Performance Evaluation will reflect each High Pass grade.

**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 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](http://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](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 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

Requirement	Submission Method	Honors Designation	High Pass	Pass	No Grade Reported	No Pass
View the required 8 modules online. Take the required four Quizzes by end of the rotation	Completed in D2L.	All required quizzes have been completed by 11:59 pm the last Sunday of the Rotation with an 80% overall average score within two attempts <b>PLUS four additional optional modules with their quizzes (80% avg 2 attempts) besides the eight required modules.</b>	All required quizzes have been completed by 11:59 pm the last Sunday of the Rotation with an 80% overall average score within two attempts <b>PLUS two additional optional modules with their quizzes (80% avg 2 attempts) besides the eight required modules.</b>	All required quizzes have been completed by 11:59 pm the last Sunday of the Rotation with an 75% overall average score within two attempts	Will be the conditional grade until all requirements of this rotation are met.	Failure to meet the quiz and or the corrective action.
Transitions of Care	Completed in D2L	80% on two attempts by 11:59 pm on the <b>second Sunday of the Rotation</b> (quiz in D2I)	80% on two attempts by 11:59 pm on the <b>second Sunday of the Rotation</b> (quiz in D2I)	80% on two attempts by 11:59 pm on the <b>second Sunday of the Rotation</b> (quiz in D2I)	Will be the conditional grade until all requirements of this rotation are met.	Failure to take the quiz and meet the requirements within 14 days from the end of the rotation.
Mid Rotation Evaluation Form	Completed in D2L	Completed 100% per instruction above and uploaded by 11:59 pm <b>the third Sunday of the rotation.</b>	Completed 100% per instruction above and uploaded by 11:59 pm <b>the third Sunday of the rotation.</b>	Completed 100% per instruction above and uploaded by 11:59 pm <b>the third Sunday of the rotation.</b>	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.
Shift Schedule	Submitted into Dropbox in D2L.	Completed 100% and uploaded by 11:59pm the last Sunday of the rotation. You must upload the schedule you worked. There is no standard form,	Completed 100% and uploaded by 11:59 pm the last Sunday of the rotation. You must upload the schedule you worked. There is no standard form, and you can just upload	Completed 100% and uploaded by 11:59 pm the last Sunday of the rotation. You must upload the schedule you worked. There is no standard form, and you can just upload the four-week	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

IM 650 Core Internal Medicine Inpatient Clerkship

Requirement	Submission Method	Honors Designation	High Pass	Pass	No Grade Reported	No Pass
		and you can just upload the four-week calendar marking the shifts you worked.	the four-week calendar marking the shifts you worked	calendar marking the shifts you worked.		
COMAT Exam (scored under course 660)	NBOME	In order to receive Honor's in IM 650, you must achieve an Honor's score on the COMAT.	In order to receive High Pass in IM 650, you must achieve a High Pass score on the COMAT.	No requirement to pass IM 650 (graded with IM 660)	Will be the conditional grade until all requirements of this rotation are met.	No requirement to pass IM 650 (graded with IM 660)
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>Receives no "Below Expectations."</li> <li>Receives no comments indicating below expectations of performance</li> </ul>	<ul style="list-style-type: none"> <li>Receives no "Below Expectations."</li> <li>Receives no comments indicating below expectations of performance</li> </ul>	<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 Sunday of the rotation	Completed 100% by 11:59 pm the last Sunday of the rotation	Completed 100% by 11:59 pm the last Sunday 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



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

<b>Strengths:</b>	<b>Areas of Improvement:</b>

4. Professionalism expectations are listed below. Please check only areas of student **DIFFICULTY**:

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