

IM 665
Emergency Medicine
Advanced Clerkship

CLERKSHIP ELECTIVE ROTATION SYLLABUS
(For the first three audition or elective rotations after CORE)

Osteopathic Medical Specialties
Mary Hughes, D.O.
CHAIRPERSON, INSTRUCTOR OF RECORD

Mary Hughes, D.O. and Nickolai Butki
CO-COURSE DIRECTORS
hughesm@msu.edu and butkinik@msu.edu

EFFECTIVE AUGUST 1, 2022 TO JULY 31, 2023

For questions about content or administrative aspects of this course, please contact:

Katie Gibon-Stofflet and Stephen Stone
CO-COURSE ASSISTANTS (CA)
katiegs@msu.edu and stonest@msu.edu

At Michigan State University College of Osteopathic Medicine (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 rotations.

TABLE OF CONTENTS

INTRODUCTION AND OVERVIEW	1
ELECTIVE COURSE SCHEDULING	1
REQUIRED PREREQUISITES.....	1
Course Confirmation and Enrollment.....	1
ROTATION FORMAT	2
GOALS AND OBJECTIVES	3
GOALS.....	3
OBJECTIVES	3
COLLEGE PROGRAM OBJECTIVES	4
SPECIAL CONSIDERATIONS	4
REFERENCES	5
REQUIRED STUDY RESOURCES	5
STUDENT RESPONSIBILITIES	5
LEARNING ACTIVITIES	6
ROTATION REQUIREMENTS	7
WEEKLY READINGS/OBJECTIVES/ASSIGNMENTS	9
EXAM	19
ROTATION EVALUATIONS	20
Attending Evaluation of Student.....	20
Student Evaluation of Clerkship Rotation	20
Unsatisfactory Clinical Performance	20
CORRECTIVE ACTION	21
BASE HOSPITAL REQUIREMENTS	21
MSU COLLEGE OF OSTEOPATHIC MEDICINE STANDARD POLICIES	22
CLERKSHIP ATTENDANCE POLICY.....	22
Excused Absences.....	22
POLICY FOR MEDICAL STUDENT SUPERVISION	25
Supervisors of the Medical Students in the Clinical Setting.....	25
Level of Supervision/Responsibilities.....	25
MSUCOM STUDENT HANDBOOK	26
COMMON GROUND FRAMEWORK FOR PROFESSIONAL CONDUCT	26
MEDICAL STUDENT RIGHTS AND RESPONSIBILITIES	27

MSU EMAIL	27
COURSE GRADES	28
N Grade Policy	28
STUDENT EXPOSURE PROCEDURE.....	28
STUDENT VISA	28
SUMMARY OF GRADING REQUIREMENTS	29
PATIENT TYPES AND PROCEDURE LOGS	31

Before you start to read the syllabus, please make a note of this important information below from Dr. Mary Hughes pertaining to the ER end-of-rotation exam (please see page 3 and 11 for more exam information):

Due to the vast knowledge and possibilities for learning in EM, the faculty for elective rotations has chosen the following format to further your education and allow you an advanced understanding of EM as a specialty. To that end, modules have been created for your learning enhancement. These modules will all be placed online and during your second or subsequent EM rotation(s) you will need to complete different modules than the original CORE IM 657 rotation. Each elective EM rotation will have a different set of modules, so make sure you are logging into the correct D2L site. Each module will have around 12-item quizzes of which you must obtain 75% correct to successfully complete the module. There are four modules per elective rotation. Make sure you complete the proper one. The syllabus is very self-explanatory if you read it carefully paying particular attention to the elective # of EM that you are completing.

Regarding the logs: There are several procedures and patient types that are expected to be completed on patients while on this rotation. It is your duty to seek them out, and then log them. For example, let the nurses know that you need to start two IV's, and then, even if it is not your primary patient they will come and get you to complete this task, and then you can log it. These are mandatory to ensure your breadth of exposure. You do not have to be the primary provider on the patient to log them but do need to do the things requested in order to log the patient. Being proactive about these requirements will assure their completion but waiting until the last week to read the syllabus will almost assure that you will need to go back for additional shifts to meet the minimum requirements.

INTRODUCTION AND OVERVIEW

Welcome to the Emergency Medicine Service. We think you will find your experience with us a valuable one. Our physicians strive to treat patients with quality and compassionate care. We ask that you treat all patients with the same care that you would expect for those close to you.

This rotation is a balance of clinical encounters, didactic sessions and reading assignments. This blend will provide you with a strong foundation in your approach to urgent and critical emergency conditions. There will be much one-to-one teaching on this rotation. You will find our emergency department physicians to be easily approachable and readily available, but you ultimately will determine what your experience will be. The more interest you demonstrate in learning, the more teaching you will receive.

This syllabus lists the **minimum** didactic requirements that are due at the end of your rotation. Emergency Medicine conferences are mandatory, and you must check with your local emergency department rotation office for time and date schedules that will be in effect for your rotation dates. **As far as scheduling goes, you must meet as per the syllabus of the department where you will be rotating to set up your initial assigned schedule. However, you may not work more than 5 shifts in a row, nor do 'double shifts' or be scheduled for more than 4 consecutive days off in a row. Additionally, you may not work more than one shift in a 24-hour period.** Failure to comply with this will result in further time at the emergency department or a letter to your student file stating that you were unable to follow syllabus directions.

Regarding EMS: You only need to complete this requirement once, typically while on your IM 657 CORE rotation, **UNLESS** the hospital where you are rotating requires it in addition to your shifts. If the hospital where you are completing an elective requires an EMS experience you are required to do it. They will be responsible for collecting and verifying your completion, which will affect whether you pass based on their criteria. You will not need to submit to MSUCOM as it is not a requirement for every student on IM 665.

ELECTIVE COURSE SCHEDULING

PREAPPROVAL

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

REQUIRED PREREQUISITES

- This course requires that you must first take the CORE IM 657 Emergency Medicine Course.

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** 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.

ROTATION FORMAT

To successfully complete this rotation, you must do **ALL** of the following:

- A. Meet with the department where you will be rotating prior to the rotation and set your schedule, pick up your rotation book, obtain the conference schedule, and any other mandatory requirements as per the department. Complete all assigned shifts. All EM Rotations are 4 weeks in length whether your core or elective; absences due to vacations, interviewing, or other such activities are not acceptable. **You may not work more than 5 shifts in a row or be scheduled for more than 4 consecutive days off in a row. Additionally, you may not work more than one shift in a 24-hour period. There must be shifts scheduled in each week of the four-week rotation. Conference lectures do not count as shifts worked. Because different hospitals have different lengths of shifts, the total number of shifts will vary by site, but may be no less than 14 of 28 days, excluding conference time.** Rotation schedules **are not** to be submitted until the last Friday-Sunday of the rotation. You must document your actual schedule worked. You are required to document any time off for illness, boards, etc. that caused a deviation from the schedule you were provided. **All rotation days must be accounted for.**
- B. **You will need to send in your electronic version of your shift schedule, please post it to the drop box in D2L by 11pm the last Sunday of the rotation.**
- C. You must complete and return the required Patient types and Procedure's checklist, and evaluations to the proper D2L course drop boxes for each EM Elective Rotation. All materials are to be posted in the D2L course site for IM 665 no later 11pm the last Sunday of the rotation.
- D. Log onto the D2L website for this course and complete four modules with their quizzes as described above. A 75% is needed to pass. All students who fail to complete four modules while on rotation will receive an "N" grade.
- E. Return all rotation books to the hospital emergency department office within one week of the end of the rotation.
- F. Attend all scheduled conferences as assigned.
- G. Complete any additional didactic work as required by your local emergency department and return to their office by their deadlines. **This MAY include an EMS option.**
- H. If illness precludes you from completing a shift, you must make it up.
- I. Vacation may not be scheduled during this rotation.
- J. Interviewing time must occur on days that you are scheduled off. Any missed shifts must be made up.
- K. Maintain professional appearance and behavior at all times. You must achieve a satisfactory level on the direct observation rating form. Ratings of unsatisfactory in any category will be reviewed with you by a member of the MSU/COM Emergency Medicine faculty with a specific plan for remediation to be decided on a case-by-case basis.
- L. All written work must be original and completed on an individual basis.

- M. Board exams may be scheduled during this time, but most students should be able to schedule their shifts around their board schedule. If not, please email Katie Gibson-Stofflet (katiegs@msu.edu) as soon as you are aware that there will be a problem ahead of the conflict so alternatives may be arranged.

All students who fail to take four module exams and achieve a 75% on each, complete patient logs of required/observed patient types and procedures and procedure logs by 11pm on the last Sunday of the rotation may receive an N grade. It is the duty of the student to assure their arrival, so therefore it is always a good idea to keep a copy of everything you send in. An N grade will result in a meeting with the Committee on Student Evaluation.

Although it is recognized that rotation evaluations are not under the complete control of the student, it is still the responsibility of the student to assure their timely completion. Any rotation evaluation not received by the end of the semester in which the rotation was completed will result in an ET grade for the student. The evaluation must be completed and submitted within the two-week deadline and preferably sent in during that time period. Any student who does not complete 4 weeks of Emergency Medicine will receive an N grade unless excused. This is an elective 4-week rotation, and therefore, vacation and interviewing time may not be taken during this month if it compromises the total number of shifts you are required to complete.

GOALS AND OBJECTIVES

The clerkship consists of four weeks of more advanced emergency department experiences. This service should expose the student to various aspects of management of patients in an emergency department. These experiences should include reading, lectures, seminars, and patient care management.

Emergency medicine has enjoyed increasing popularity and stature in osteopathic medical schools throughout the United States. It occupies a unique niche in medical education in that it provides students with the opportunity to see an undifferentiated patient population with varying modes of presentation. This experience will stress diagnostic skills, ability to prioritize patient care and exposure to new diagnostic skills, i.e., toxicology and environmental injuries, and different views of problems that you may have only seen in the hospital or other practical settings

GOALS

1. Provide the student with more advanced knowledge of specific topics in emergency medicine.
2. Introduce the student to basic procedures relevant to the practice of emergency medicine.
3. Facilitate an understanding of the approach to acute care clinical problem solving.
4. Continue to promote the acquisition of basic skills for the diagnosis and management of common emergencies.
5. Encourage the continued development of the student's professional attitude and behavior.

OBJECTIVES

1. Learning objectives for the emergency medicine clerkship relate to the following areas: a) cognitive knowledge; b) psychomotor skills; c) problem solving; and d) professional development. By the end of the four-week emergency medicine elective clerkship, the student is expected to have achieved, at a minimum, the following objectives through reading, conference attendance, observation, discussion, and hands-on clinical experience

2. 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.

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.

SPECIAL CONSIDERATIONS

- A. Medicare Cases Per HCFA regulations, medical students may not perform the primary documentation on the chart of a patient with Medicare Insurance if the department wishes to obtain reimbursement for this care. Medical students may participate in the care of these patients but may not be the primary caregiver. There may be other special types of insurance that has the same rules in the area where you are performing your emergency department rotation and you must follow the department rules regarding who you may and may not see.

- B. Special Cases

Due to the delicate nature and legal issues, alleged criminal sexual conduct, assault and child abuse cases are not to be seen by students rotating in the emergency department. If during a patient encounter you suspect such is the case, notify the attending physician immediately and remove yourself from the care of this patient. Do not write on this patient's chart.

- C. Attire

First impressions are very important. **You must wear a clean lab jacket and professional attire at all times. Name tags must be worn at all times, and above the waist.** Clean scrubs are generally acceptable, but **blue jeans are never acceptable**. Due to occupational safety and health administration regulations, socks must be worn at all times, even with sandals. No open toed sandals may be worn.

- D. Sharps

After using suture trays, all sharps must be disposed of in the appropriate manner and the tray brought to the dirty utility room. This is a responsibility of the person performing the procedure and you must take care to remove all sharp instruments to avoid injury to your coworkers.

- E. Keys to Good Care

See a limited number of patients and give them exceptional care. At all times know the status and results of all labs and x-rays. Constantly reassess your patients and update them of their status in the process. Your attending physician should be able to easily access information through you. In short, take full responsibility for all aspects of the patient's care.

REFERENCES

REQUIRED STUDY RESOURCES

Desire 2 Learn (D2L): Please find online content for this course in D2L (<https://d2l.msu.edu/>). Once logged in, your specific course section may appear on the D2L landing page. Or you may find and pin the course to your homepage by typing the following text into *Search for a course*: **Emergency Medicine Advanced**.

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

For the didactic portion from MSU/COM Department of Osteopathic Medical Specialties all readings and answers are to be referenced from the following sources, which should be available in every emergency department in which you rotate and are available through MSU Libraries Access Emergency Medicine or Access Medicine with your login.

Tintinalli's Emergency Medicine – A Comprehensive Study Guide, 9th edition, by Judith E. Tintinalli, M.D., et al.

<https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/book.aspx?bookID=2353>

Academic Emergency Medicine; The 3-Minute Emergency Medicine Medical Student Presentation: A Variation on a Theme. Davenport C., Honigman B., Druck J. 2008 Jul; 15(7):683-7

<https://onlinelibrary-wiley-com.proxy1.cl.msu.edu/doi/abs/10.1111/j.1553-2712.2008.00145.x>

Available through MSU Libraries. On the website homepage select “Resources” then select “E-resources” Under “Find Electronic Journals” type in “Academic Emergency Medicine” then click “Search” select “From 1997 to Present”. Under “Find Issues” select “All issues” Select “2008” then select “Volume 15, Issue 7” Article is listed under heading “Special Contributions”.

<https://onlinelibrary-wiley-com.proxy1.cl.msu.edu/doi/abs/10.1111/j.1553-2712.2008.00145.x>

Create an account in Access Emergency Medicine if you have not done so yet and use for this rotation.

- Access EM directions
- On the MSU Libraries main page: *Quick Links*, click on *Electronic Resources*
- Under *E-resources*, click on *Texts and Links*
- Under *Texts and Links*, you can search for Access Emergency Medicine.
- Clicking on that will then take you to the MSU NetID login site and then you can get access.
- Other readings as per each module.

In addition, your hospital may require additional articles, videos, or other forms of information to be obtained and utilized by you to further answer didactic questions that they may assign. The chief of the emergency department at your hospital will be responsible for assigning a grade to their specific material.

STUDENT RESPONSIBILITIES

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

- **The student will meet the following clinical responsibilities during this rotation:**
 - Students are expected to function collaboratively on health care teams that include health professionals from other disciplines in the provision of quality, patient-centered care.

- *The student will meet the following **academic responsibilities** during this rotation:*
 - 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.

Meeting or not meeting the above responsibilities will be used by the instructor of record in the determination of the final grade in the course.

LEARNING ACTIVITIES

Learning activities will vary among hospital emergency departments, however, certain activities should be completed in each emergency medicine clerkship. The following are examples of learning activities each student should accomplish when on an emergency medicine clerkship:

1. **READING:** See modules' individual lists.
2. **HISTORY AND PHYSICAL REVIEW:** An important portion of your learning will be in the evaluation of patients while obtaining historical data and performing physical examinations. For each patient this information will be reviewed with an intern, resident, or attending physician.
3. **LECTURES:** Lectures on various topics are usually given at least once a week. They are intended to provide up-to-date information on clinical and research findings and techniques in various fields. They may be given by a guest speaker who is an expert on the topic. If your hospital has a mid-day or other regular lecture program, you are expected to attend.

IM 665 is the course number given to any general emergency medicine elective following your core IM 657 rotation, and therefore you must follow the directions carefully so as to be completing the correct items to receive your grade. Each subsequent rotation will have the same IM 665 course number, but the materials required to be completed for a passing grade will be different for each. You may not do more than three elective rotations in any one specialty.

Each week's material will have a quiz that you will take in D2L. A score of 75% is required to successfully complete the module. If you do not achieve a 75% you may request one time only to have the test reset. It would be recommended that you restudy the content before attempting the quiz a second time. If you do not complete successfully (75%) on the second attempt, then you must complete a two-page paper with references on a question given to you by the instructor of record. You will have 2 weeks to complete it and submit it to the instructor of record for review. Each quiz has a question bank associated with it so you will receive similar but not identical questions on each quiz as they are randomly generated by the computer.

ROTATION REQUIREMENTS

REQUIREMENT	SUBMISSION METHOD	DUE DATE Please refer to D2L for actual (month/day) due dates
Module Quizzes	Taken in D2L – grade must be 75% or higher on all four modules	11:59 pm Last day of the Rotation (normally a Sunday)
EM Shift Schedule	Online in D2L Drop Box	Not to be submitted until the last Friday – Sunday of the rotation, and must be the schedule you worked, not what you were scheduled to work.
Logs of required/observed patient types and procedures. Make sure to use the one for EM elective rotations.	Online in D2L Drop Box	11:59 pm Last day of the Rotation (normally a Sunday)
Attending Evaluation of Clerkship Student (Class of 2023)	Can be accessed via the “Attending Evaluation” link in Kobiljak online schedule. Email completed evaluation to COM.Clerkship@msu.edu	Last Day of Rotation
Attending Evaluation of Clerkship Student (Class of 2024)	A student must verify that his/her attending physician is accurately reflected on his/her rotation schedule in Medtrics. At the rotation midpoint, students’ attendings will receive an automated email link connecting them to their assigned Attending Evaluation within Medtrics, where they may electronically access and submit the forms on behalf of their students	Last Day of Rotation
Student Evaluation of Clerkship Rotation (Class of 2023)	Can be accessed and submitted via the “Student Evaluation” link in Kobiljak online schedule	Last Day of Rotation

<p>Student Evaluation of Clerkship Rotation (Class of 2024)</p>	<p>Students will submit their rotation evaluations electronically at the conclusion of every rotation by accessing the Medtrics system: https://msucom.medtricslab.com/users/login/. By the last week of each rotation, students will receive an automated email link connecting them to their assigned evaluation. Students can also access pending evaluations on the 'Home' or 'Evaluations' tabs within their Medtrics accounts.</p>	<p>Last Day of Rotation</p>
--	--	-----------------------------

WEEKLY READINGS/OBJECTIVES/ASSIGNMENTS

Elective #1 The following four modules are to be completed on your first IM 665 elective rotation, whenever that occurs.

IM 665: Elective #1: Module #1: Introduction to Ultrasound (NB)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. Differentiate between B-mode and M-mode ultrasound modalities.
2. Identify the purposes of the FAST Exam.
3. Identify the 4 positions of the FAST exam.
4. Describe the appearance of free intraperitoneal fluid on an ultrasound image.
5. Identify sufficient ultrasound image findings that can exclude an ectopic pregnancy in a low risk, non-fertility treatment pregnant female presenting with abdominal pain and bleeding.
6. Identify ultrasound findings suggestive of an ectopic pregnancy.

Reading List:

- Hecht C, Manson W. Chapter 3. Physics and Image Artifacts. In: Ma O, Mateer JR, Reardon RF, Joing SA. eds. *Ma and Mateer's Emergency Ultrasound, 4e* New York, NY: McGraw-Hill; 2014. <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2966§ionid=249997612#1175890995> Accessed May 5, 2022.
- Ma O, Mateer JR, Kirkpatrick AW. Chapter 9. Trauma. In: Ma O, Mateer JR, Reardon RF, Joing SA. eds. *Ma and Mateer's Emergency Ultrasound, 4e* New York, NY: McGraw-Hill; 2014. <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2966§ionid=249992603> . Accessed May 5, 2022.
- Reardon RF, Hess-Keenan J, Roline CE, Caroon LV, Joing SA. Chapter 16. First Trimester Pregnancy. In: Ma O, Mateer JR, Reardon RF, Joing SA. eds. *Ma and Mateer's Emergency Ultrasound, 4e* New York, NY: McGraw-Hill; 2014. <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2966§ionid=249988928> Accessed May 5, 2022

Questions to Ponder:

- Access Emergency Medicine: Ma and Master's Emergency Ultrasound. Chapter 5: Trauma: Introduction-CASE STUDIES at the end of the Chapter <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2966§ionid=249992603#1175885742>

IM 665: Elective #1: Module #2: Toxicology: Introduction to the Poisoned Patient (MH)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. State the basic principles of drug absorption, metabolism, and excretion
2. State the components of the COMA cocktail
3. Discuss the use of activated charcoal, including single and multiple dose, and its contraindications
4. Discuss the use of sorbitol as a laxative and its contraindications
5. Discuss the use of whole bowel irrigation and its indications
6. Discuss the concept of half-life and what it means in terms of antidote treatment and monitoring
7. Discuss the concept of fat soluble, water soluble and first pass effect in the context of an overdose

Reading list - syllabus material provided in D2L

- **PowerPoint slide presentation** - found on D2L

IM 665: Elective #1: Module #3: Trauma: Introduction to the Traumatized Patient (MH)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. Organize the evaluation of a trauma patient by primary survey, resuscitative phase, secondary survey and definitive care.
2. List the components of primary survey, resuscitative phase, secondary survey, and definitive care.
3. List the components of the AMPLE history.
4. Be able to identify the clinical scenario of tension pneumothorax, cardiac tamponade, sucking chest wound, and flail chest.
5. Be able to identify the clinical scenario of a patient likely to have a splenic or hepatic injury with blood loss.
6. Be able to recognize the patient who has hypovolemic shock.
7. Be able to identify the differences in presentations between adults, children, and the elderly as it relates to traumatic conditions.
8. Be able to identify the differences between the adult female who is pregnant in various trimesters from the non-pregnant adult female who suffers a traumatic injury.

Reading list

- **Access Emergency Medicine:** Tintinalli's Emergency Medicine Manual, A Comprehensive Study Guide, 9th edition Judith E. Tintinalli, et. al. <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/book.aspx?bookID=2353>

Section 21: Trauma

- **Trauma in Adults**
- **Pulmonary Trauma**
- **Cardiac Trauma**
- **Abdominal Trauma**
- **Trauma in Children**
- **Trauma in the Elderly**
- **Trauma in Pregnancy**

Questions to ponder:

- Does blood pressure alone define hypovolemic shock in the patient with a traumatic injury?
- Be able to identify different activities that are appropriate to be conducted during the primary survey, resuscitative phase, secondary survey, and definitive care.
- Differentiate the typical presentations for pediatric and geriatric trauma patients and why they might be different from the typical adult patient.
- Why is it important to resuscitate the mother before the baby?
- What are the normal respiratory changes in pregnancy?
- Which procedures need to be performed differently in the pregnant patient?

IM 665: Elective #1: Module #4. Pediatrics: Approach to the Febrile Child (NB)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. Define the neonatal period.
2. Define a fever in terms of temperature and method of obtaining.
3. Recognize hypothermia as a sign of sepsis in the neonatal period.
4. State the appropriate evaluation for a febrile neonate.
5. Identify characteristics that characterize febrile children >3mo old to have low risk for SBI
6. Explain the mechanisms humans use to maintain thermoregulation
7. Identify signs and symptoms that indicate toxicity in children
8. State the appropriate emergent management for children who are exhibiting signs or symptoms of toxicity
9. Identify risk factors in otherwise well appearing children that place them at risk for serious bacterial infection

Reading list

- <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/book.aspx?bookid=2464>
- Fein DM, Avner JR. The Febrile or Septic-Appearing Neonate. In: Tenenbein M, Macias CG, Sharieff GQ, Yamamoto LG, Schafermeyer R. eds. *Strange and Schafermeyer's Pediatric Emergency Medicine, 5e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2464§ionid=194747528> . Accessed May 5, 2022.
- Avner JR. The Febrile- or Septic-Appearing Infant or Child. In: Tenenbein M, Macias CG, Sharieff GQ, Yamamoto LG, Schafermeyer R. eds. *Strange and Schafermeyer's Pediatric Emergency Medicine, 5e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2464§ionid=194747553> Accessed May 5, 2022

Questions to ponder:

- Access Emergency Medicine: Case Files: Emergency Medicine, 4e. Fever without a source in a 1–3-month-old infant.
<https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/CaseContent.aspx?qbosID=380855&qbosContainerID=154&viewByNumber=false#168613791>

Elective #2 The following four modules are to be completed on your second IM 665 Elective rotation, whenever that occurs.

IM 665: Elective #2: Module #1: Review of anticoagulant medications: Their indications, contraindications, and antidotes (NB)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. Identify the location of action of warfarin, Xa Inhibitors, heparin, low molecular weight heparins, and fibrinolytics on the coagulation cascade.
2. Describe the mechanism of action of antiplatelet medications.
3. Determine the pharmaceutical management for a patient with an elevated INR in the presence and absence of bleeding.
4. Identify the indications for vitamin K, platelets, fresh frozen plasma, and Prothrombin complex concentrate (PCC).

Reading List:

- Cico S. Hemostasis. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=215042278> . Accessed May 5, 2022.
- Slattery DE, Pollack, Jr CV. Thrombotics and Antithrombotics. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=221179142> Accessed May 5, 2022.

Questions to Ponder:

- For a more context-oriented overview: Sivilotti MA. Hematologic Principles. In: Nelson LS, Howland M, Lewin NA, Smith SW, Goldfrank LR, Hoffman RS. eds. *Goldfrank's Toxicologic Emergencies, 11e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2569§ionid=210268769> . Accessed May 5, 2022.
- Chen BC, Su MK. Antithrombotics. In: Nelson LS, Howland M, Lewin NA, Smith SW, Goldfrank LR, Hoffman RS. eds. *Goldfrank's Toxicologic Emergencies, 11e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2569§ionid=210273520> . Accessed May 5, 2022.

IM 665: Elective #2: Module #2: Toxicology: Acetaminophen, aspirin, alcohols (MH)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. State the different rates of absorption of various salicylate containing products, and sources of salicylate besides aspirin.
2. Discuss the various stages of salicylate intoxication, and the assorted biochemical derangements that occur with each, including the various acid base disturbances.
3. Know the signs and symptoms of mild, moderate, and severe poisoning with salicylates.

4. Discuss the various modalities used to treat mild, moderate, and severe salicylate poisoning.
5. Know the recommended doses and potentially toxic doses of acetaminophen in adults and children.
6. Recognize the stages of acetaminophen poisoning.
7. Understand the use and limitations of the Rumack - Matthew nomogram in acetaminophen poisoning.
8. List the metabolic pathways of acetaminophen poisoning.
9. Select appropriate therapy for a patient with an acetaminophen overdose.
10. Diagram and understand the metabolism of ethanol, isopropyl alcohol, methanol, and ethylene glycol.
11. Know the signs and symptoms and timeline for consequences of ingestion of ethanol, isopropyl alcohol, methanol, and ethylene glycol.
12. Know the appropriate use of antidotes and treatment guidelines for ingestion of ethanol, isopropyl alcohol, methanol, and ethylene glycol.

Reading list

<https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/book.aspx?bookID=2353>

- Cohen JP, Quan D. Alcohols. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; <http://accessemergencymedicine.mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=220744565> Accessed May 5, 2022.
- Levitan R, LoVecchio F. Salicylates. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; <http://accessemergencymedicine.mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=220744992> . Accessed May 5, 2022.
- Wightman RS, Nelson LS. Acetaminophen. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; <http://accessemergencymedicine.mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=220745053> . Accessed May 5, 2022.
- Sivilotti MA. Acetaminophen. In: Tenenbein M, Macias CG, Sharieff GQ, Yamamoto LG, Schafermeyer R. eds. *Strange and Schafermeyer's Pediatric Emergency Medicine, 5e* New York, NY: McGraw-Hill; <http://accessemergencymedicine.mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=2464§ionid=196391273> . Accessed May 5, 2022.
- Zhong (, Stolbach A. Salicylate Overdose. In: Farcy DA, Chiu WC, Marshall JP, Osborn TM. eds. *Critical Care Emergency Medicine, 2e*, New York, NY: McGraw-Hill; <http://accessemergencymedicine.mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=1934§ionid=142837864> . Accessed May 5, 2022.
- Mycyk MB. Toxic Alcohols. In: Sherman SC, Weber JM, Schindlbeck MA, Rahul G. P. eds. *Clinical Emergency Medicine, 1e* New York, NY: McGraw-Hill; 2014. <http://accessemergencymedicine.mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=991§ionid=55139169> . Accessed May 5, 2022.

Questions to ponder

- Why does the nomogram not work for extended-release products or overdoses taken over a period of several hours for acetaminophen?
- Why do you need to alkalinize the urine on a patient with an aspirin overdose?
- Why do you need to do a complete physical exam on every intoxicated person, every time?
- What are household sources of methanol, ethylene glycol, and isopropyl alcohol?
- Not really an alcohol, but what compound is given off when methylene chloride (Chemical in paint stripper) is metabolized?

IM 665: Elective #2: Module #3: Pediatrics: Pediatric Rehydration and Calculation of Fluids and Electrolytes. (NB)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. Identify the gold standard for determining and quantifying dehydration in children.
2. Differentiate between minimal, moderate, and severe dehydration in children.
3. Differentiate between patients that are suitable for oral rehydration therapy (ORT) vs patients suitable for IV hydration.
4. Calculate the volume of fluids required for fluid resuscitation in acutely dehydrated children based on body weight.
5. Identify the common additives to rehydration fluids.
6. Calculate weight-based administration of maintenance intravenous fluids using the 4-2-1 rule.
7. Describe the rationale for administration of glucose for dehydration due to gastroenteritis.
8. Determine which children need admission and which can be discharged safely after initial treatment for dehydration.

Reading List:

- Chan M, Enarson P. Fluid and Electrolyte Therapy in Infants and Children. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide*, 9e New York, NY: McGraw-Hill; <http://accessemergencymedicine.mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=211003069> . Accessed May 5, 2022.
- Access Emergency Medicine: Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9th ed. <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/book.aspx?bookID=2353>

Questions to Ponder:

- Should children less than age 18 be given a phenothiazine to stop their nausea and vomiting? These are commonly used medications in adults and come in suppository form. Why or why not?

IM 665: Elective #2: Module #4: Trauma: Mild Traumatic Brain Injury and Management: Concussion Management and PECARN head CT rules (MH)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. Apply the PECARN head CT rules in children.
2. Define concussion.
3. List common sequelae of concussion.
4. Apply return to activity guidelines for patients recovering from a concussion.
5. Discuss the process of reading a head CT for trauma.

6. Know the components and classifications of the Glasgow Coma Scale.
7. Discuss the classification of head injury into mild, moderate, severe, primary, and secondary.
8. Know the relationship between mean arterial pressure, systolic and diastolic blood pressure, intracranial pressure and cerebral perfusion pressure.
9. Identify patterns of head injury based on clinical examination.

Reading list

<https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/book.aspx?bookID=2353>

- Wright DW, Merck LH. Head Trauma. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=221181086>. Accessed May 5, 2022.
- Kuppermann N, Holmes JF, Dayan PS, Hoyle JD Jr, Atabaki SM, Holubkov R, Nadel FM, Monroe D, Stanley RM, Borgianni DA, Badawy MK, Schunk JE, Quayle KS, Mahajan P, Lichenstein R, Lillis KA, Tunik MG, Jacobs ES, Callahan JM, Gorelick MH, Glass TF, Lee LK, Bachman MC, Cooper A, Powell EC, Gerardi MJ, Melville KA, Muizelaar JP, Wisner DH, Zuspan SJ, Dean JM, Wootton-Gorges SL; **Pediatric Emergency Care Applied Research Network (PECARN)**. Identification of children at very low risk of clinically-important brain injuries after head trauma: a prospective cohort study. *Lancet*. 2009 Oct 3;374(9696):1160-70. Epub 2009 Sep 14. PubMed PMID: 19758692. PECARN Head Injury Guidelines for CT <https://www.proquest.com/docview/199050845?parentSessionId=v6MFRIarBBmh4QutjoGJyPAZg6QFp52Wxy1kHBARAa8%3D&pg-origsite=summon&accountid=12598>
- Tataris KL. Head Injuries. In: Sherman SC, Weber JM, Schindlbeck MA, Rahul G. P. eds. *Clinical Emergency Medicine, 1e* New York, NY: McGraw-Hill; 2014 <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=991§ionid=55139205> . Accessed May 5, 2022.
- Chapter VI-3. How to Read a Head CT in a Patient with Head Trauma. In: Schwartz DT. eds. *Emergency Radiology: Case Studies* New York, NY: McGraw-Hill; 2008. <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=434§ionid=41825465> . Accessed May 5, 2022.
- **JAMA**. 2011 Jul 6;306(1):79-86. doi: 10.1001/jama.2011.819. Epub 2011 May 31. Harmon KG, Drezner JA, Gammons M, Guskiewicz KM, Halstead M, Herring SA, Kutcher JS, Pana A, Putukian M, Roberts WO. *Br J Sports Med*. 2013 Jan; 47(1):15-26. **Diagnosis and management of sports-related concussion: a 15-year-old athlete with a concussion.** <https://pubmed.ncbi.nlm.nih.gov/21632470/> American Medical Society for Sports Medicine position statement: concussion in sport.

Questions to ponder

- Why does elevation of the head of the bed decrease ICP?
- What is the effect of maintaining the head in the midline versus turned to one side on ICP?
- Regarding clinical decision rules, understand that they never supersede the clinician at the bedside's exam and/or gestalt and are only guidelines.

Elective #3 The following four modules are to be completed on your third IM 665 Elective rotation, whenever that occurs.

Module #1: Metabolic Derangements: Diabetic Ketoacidosis, Hyperosmolar Non-ketotic coma, electrolyte disturbances including hyponatremia, hyponatremia, hyperkalemia, hypokalemia (NB)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. Differentiate between DKA, HONK.
2. Compare venous and arterial pH testing in patients with DKA.
3. Discuss critical electrolyte abnormalities seen in both DKA and HONK.
4. Describe the purpose of Kussmaul breathing.
5. Define appropriate treatment of DKA once hyperglycemia has resolved.

Reading list

- Nyce A, Byrne R, Lubkin CL, Chansky ME. Diabetic Ketoacidosis. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=190079125> . Accessed May 5, 2022.

Questions to ponder

- Access Emergency Medicine: Case Files: Emergency Medicine 4e. Case 5. <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/CaseContent.aspx?gbosID=380828&gbosContainerID=154&viewByNumber=false#168610900>

Module #2: Toxicology: CNS stimulants: cocaine, ecstasy, PCP, Crystal Meth, bath salts (MH)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. List the drugs that are considered stimulants.
2. Understand the use of benzodiazepines in the management of the acutely agitated patient.
3. List the medications and chemicals that lead to hallucinations.
4. Understand the mechanism of hyponatremia and possible seizures from ecstasy.
5. Discuss cocaine related chest pain.
5. Understand the diagnostic scenario of cannabinoid hyperemesis syndrome.
6. Use the eye signs to help differentiate the various stimulants, especially those causing hallucinations.

Reading list

<https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/book.aspx?bookID=2353#183421503>;
Section 15 on Toxicology

- Tobias AZ. Psychoses. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=190079424> . Accessed May 5, 2022.
- Shepherd SM. Injection Drug Users. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J,

Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/book.aspx?bookid=2353&isMissingChapter=true>. Accessed May 5, 2022.

- Mutter M, Huff J. Altered Mental Status and Coma. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=189594077>. Accessed May 5, 2022.
- Wilson M. Acute Agitation. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; . <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=222326340>. Accessed May 5, 2022.
- Khatri U, Jang DH. Hallucinogens. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; . <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=220744899>. Accessed May 5, 2022.
- Simonetto, Douglas A. et al. **Cannabinoid Hyperemesis: A Case Series of 98 Patients.** Mayo Clinic Proceedings , Volume 87 , Issue 2 , 114 – 119 [https://www.mayoclinicproceedings.org/article/S0025-6196\(11\)00026-7/pdf](https://www.mayoclinicproceedings.org/article/S0025-6196(11)00026-7/pdf)
- Burnett, LB, Tarabar A, et al. "Cocaine Toxicity." <https://emedicine.medscape.com/article/813959-overview>
- Wightman RS, Perrone J. Cocaine and Amphetamines. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; . <https://accessemergencymedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=220744818> . Accessed May 5, 2022.

Questions to ponder

- Which class of antibiotics is known to cause hallucinations in the elderly?
- What one question can you ask that may get at the cause of intractable nausea and vomiting being related to excess cannabinoid ingestion in any form?
- What is the responsibility of the clinician if a child presents with obvious exposure to drugs of abuse?

Module #3: Trauma: Environmental: Heat, Cold, Burns (MH)

Objectives: By the end of this module, a 4th year medical student will be able to:

1. Define trench foot, chilblains, hypothermia, and the stages of frostbite.
2. Discuss the management of trench foot, chilblains, hypothermia, and the stages of frostbite.
3. Discuss the common rhythm disturbances seen with hypothermia.
4. Recognize an Osborn J wave as a marker of hypothermia.
5. Calculate percent body surface area burned.
6. Calculate fluid requirements for the first 24 hours for a burn victim.
7. Differentiate prickly heat, heat exhaustion and heat stroke.
8. Understand the mechanisms by which the body dissipates excess heat.

Reading list

- Paddock MT. Cold Injuries. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; . <https://accessemergencymedicine-mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=220746407>. Accessed May 5, 2022.
- Brown DA. Hypothermia. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; . <https://accessemergencymedicine-mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=220746470>. Accessed May 5, 2022.
- LoVecchio F. Heat Emergencies. In: Tintinalli JE, Ma O, Yealy DM, Meckler GD, Stapczynski J, Cline DM, Thomas SH. eds. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 9e* New York, NY: McGraw-Hill; . <http://accessemergencymedicine.mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=2353§ionid=220746545> Accessed May 5, 2022.
- Stehman CR. Cold-Induced Tissue Injuries. In: Sherman SC, Weber JM, Schindlbeck MA, Rahul G. P. eds. *Clinical Emergency Medicine, 1e* New York, NY: McGraw-Hill; 2014. <http://accessemergencymedicine.mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=991§ionid=55139177>. Accessed May 5, 2022.
- Mann J, Neuman J. Hyperthermic Patient Management. In: Reichman EF. eds. *Reichman's Emergency Medicine Procedures, 3e* New York, NY: McGraw-Hill; . <http://accessemergencymedicine.mhmedical.com.proxy2.cl.msu.edu/content.aspx?bookid=2498§ionid=201303956>. Accessed May 5, 2022.
- Review Mediasite recording for dermatology on Heat and Cold Emergencies **Mediasite link found on D2L**
- Heat Related Illness Case on Access EM Cases: <https://accessemergencymedicine-mhmedical.com.proxy2.cl.msu.edu/CaseContent.aspx?gbosID=380875&gbosContainerID=154&viewByNumber=false#168616006>

Questions to ponder

- Think about the medications patients are on and which may make it difficult to thermoregulate

Module #4. Pediatrics: Pediatric Poisoning (NB)

Objectives: By the end of this module, a 4th year medical student will be able to:

Identify at least 10 (ten) toxins of which the ingestion of a single pill or a single swallow can be lethal to a pediatric patient less than 2 years of age.

Readings: Perform an independent internet search to identify at least 10 'One Pill Can Kill' toxins.

Complete and submit in D2L the completed table identifying at least 10 (more if possible) "One Pill Can Kill" toxins along with identifying the mechanism of action.

EXAM

Student Name:		Date:
One Pill can Kill Table: Identify at least 10 (ten) toxins		
Toxin:	Mechanism of Action:	
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
16.		

ROTATION EVALUATIONS

Attending Evaluation of Student

Class of 2023: Students are responsible for assuring that his/her clinical supervisor receives the appropriate evaluation form. Forms can be accessed via the “Attending Evaluation” link in the student’s Kobiljak online Clerkship schedule.

Class of 2024: Students are responsible for verifying that a clinical supervisor has been correctly identified on their rotation schedules within Medtrics so that an email can be generated and delivered to their attending physician’s preferred email address at the midpoint of their rotation. 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 access Attending Evaluations that were completed on their behalf by visiting the ‘Evaluations’ module (in the ‘About Me’ tab) of their Medtrics profiles.

Class of 2023 & Class of 2024:

Students should actively seek feedback on his/her performance throughout the course of the clinical rotation. Students should also sit down and discuss the formal evaluation with the clinical supervisor.

Any evidence of tampering or modification while in the possession of the student will be considered “unprofessional behavior” and will be referred to the MSUCOM Spartan Committee Clearinghouse for resolution, per MSUCOM’s Common Ground Framework for Professional Conduct or to the Committee on Student Evaluation (COSE).

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

Student Evaluation of Clerkship Rotation

Class of 2023: Students will submit their rotation evaluations electronically at the conclusion of every rotation by accessing their online evaluation system at: http://hit-filemakerwb.hc.msu.edu/Clerkship/login_student.html

Class of 2024: 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

If a student does not successfully complete the rotation requirements of the course, the student will receive an ET 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:

- Module Quizzes

The steps of the "Corrective Action" process for IM 665 Emergency Medicine Elective are as follows:

1. The student will be required to submit answers to the objectives for modules in which they did not achieve a passing score to the course assistant, who will then forward them to the faculty for review, with comment back to student if needed for clarification of content
2. The student will then be required to retake another quiz to demonstrate attainment of knowledge
3. Should the quiz not be successfully completed a second time the faculty will review the content missed on both quizzes and provide individualized feedback as to where student needs to focus, and a third quiz attempt will then be allowed to demonstrate knowledge.

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.

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 ET to Pass, pending the Attending Evaluation of Clerkship Student and, if applicable, score on his/her COMAT retake).

If the student does not complete the corrective action successfully, the student will receive an "N" grade for the course and will then proceed to the "Remediation Policy" process as determined by the Committee on Student Evaluation (COSE).

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 (with the exception of 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.

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 that are necessary for successful program completion. Students are expected to take minimal time off outside of vacation periods built into student schedules and should only request additional 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 those 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 the absence. An absence due to a sudden emergency is the exception to the 30-day advanced notice rule.
- **Class of 2023:** Once appropriate approval signatures are obtained on the *Clerkship Program Excused Absence Request Form*, the signed document should be maintained for your records in the event they are later requested or required.
- **Class of 2024:** 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 Assistant Dean for Clerkship Education via email (COM.Clerkship@msu.edu) 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 Assistant Dean for Clerkship Education via email (COM.Clerkship@msu.edu) prior to the absence.

Absence Type	Qualifications	Maximum Number of Days Off	Details	Required Approval from Assistant 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 (including personal days off) 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 Assistant Dean for Clerkship Education directly (enright4@msu.edu) to discuss time off rotations.	Yes

Clerkship Program Excused Absence Request Forms: **Class of 2024**: 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 for their records. **Class of 2023**: Once appropriate approval signatures are obtained, forms should be maintained for your records in the event they are later requested or required.

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 a student progresses 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 making a decision
- **Responsibility:** Supporting a shared culture of accountability
 - Effective Use of Time and Resources: Invest time, energy, and material resources efficiently in order 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.

ET/Extended Grade – means that a final grade ('Pass' or 'No Grade') cannot be determined due to one or more missing course requirements. The ET 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 'ET' 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 it 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 Assistant Dean for Clerkship Education, Dr. Susan Enright (enright4@msu.edu), if 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. 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) 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.

SUMMARY OF GRADING REQUIREMENTS

Requirement	Submission Method	Pass	Extended Grade	No Pass
Module Quizzes	Taken in D2L	75% or higher on all four of the modules. Submitted by the 11:59pm Last Day of the Rotation (Usually a Sunday)	Will be the conditional grade until all requirements of this rotation are met for a maximum of 2 weeks.	Not complete and/or pass each module quiz with a score of 75% or higher.
EM Shift Schedule	Online D2L Drop Box (Not to be submitted until the last Friday-Sunday of the rotation, and must be the schedule you worked, not what you were scheduled to work)	Submitted by the 11:59pm Last Day of the Rotation (Usually a Sunday)		Not complete or submit actual shift schedule worked into D2L.
Logs of required/observed patient types and procedures. Make sure to use the one for EM Elective rotations	Online D2L Drop Box See page 31 of syllabus	Submitted by the 11:59pm Last Day of the Rotation (Usually a Sunday)		Not complete or submit Patient Log form into D2L.
Attending Evaluation of Clerkship Student (Class of 2023)	Can be accessed via the "Attending Evaluation" link in Kobiljak online schedule. Email completed evaluation to COM.Clerkship@msu.edu	<ul style="list-style-type: none"> • Student may receive "Below Expectations" in up to one (1) subcategory • Overall categories must receive "Meets Expectations" or "Exceeds Expectations" 	Will be the conditional grade until all requirements of this rotation are met	<ul style="list-style-type: none"> • Receives two (2) or more "Below Expectations" within the subcategory sections. • Receives comments that indicate below expectations of performance • See Unsatisfactory Clinical Performance above
Attending Evaluation of Clerkship Student (Class of 2024)	Attendings receive an automated email link connecting them to their assigned evaluation(s) within Medtrics, where they may access and submit the electronic form(s) directly	<ul style="list-style-type: none"> • Student may receive "Below Expectations" in up to one (1) subcategory • Overall categories must receive "Meets Expectations" or "Exceeds Expectations" 	Will be the conditional grade until all requirements of this rotation are met	<ul style="list-style-type: none"> • Receives two (2) or more "Below Expectations" within the subcategory sections. • Receives comments that indicate below expectations of performance • See Unsatisfactory Clinical Performance above

Requirement	Submission Method	Pass	Extended Grade	No Pass
Student Evaluation of Clerkship Rotation (Class of 2023)	Can be accessed and submitted via the "Student Evaluation" link in Kobiljak online schedule.	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 (about 2 weeks) from the end of the rotation
Student Evaluation of Clerkship Rotation (Class of 2024)	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 (about 2 weeks) from the end of the rotation

The student who fails to turn in required paperwork, who has a verifiable reason why they failed to do so, will be allowed a 2-week grace period, or more depending on the circumstances, Failure to meet this two-week deadline will result in an N grade.

PATIENT TYPES AND PROCEDURE LOGS

Student Name _____ Student ID # _____

	#Required	Pt. Initials	Date	Supervisor Initials
Toxicology(alcohol is a toxin)	1. 2.			
Major trauma	1. 2.			
EKG	1. 2. 3. 4. 5.			
Head CT	1. 2. 3. 4. 5.			
Geriatric Pt. (age >65)	1. 2. 3. 4. 5.			
Pelvic exam	1. 2.			
FAST exam w/ultrasound	1. 2.			
Laceration repair	1. 2.			
Structural exam (musculoskeletal)	1. 2.			
Chest x-ray	1. 2. 3. 4. 5.			
Pediatric evaluation (Age <8)	1. 2.			
Abdominal CT scan interpretation	1. 2.			
Local anesthesia for laceration repair	1. 2.			
IV's	1. 2. 3. 4.			
Draw ABG	1.			
Evaluate pt. with COPD orCHF	1.			