IM 653
ONCOLOGY and HEMATOLOGY CLERKSHIP

CLERKSHIP ELECTIVE ROTATION SYLLABUS

OSTEOPATHIC MEDICAL SPECIALTIES
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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.
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IM 653 Oncology and Hematology

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

ELECTIVE COURSE SCHEDULING

Preapproval
- Approvals from the facility where the rotation will occur and Clerkship Team (COM.Clerkship@msu.edu) is required for every selective/elective rotation.
- Confirmation of approval from the IOR is to be sent to COM.Clerkship@msu.edu for final clerkship approval and scheduling.

Required Prerequisites
- This course does not require any prerequisite courses.

Course Confirmation and Enrollment
- The student must be an active student at MSUCOM.
- Student must complete five core rotations prior to any elective rotation.
- The student must receive MSUCOM confirmation and enrollment prior to beginning any elective rotation.
  - Once the student receives rotation acceptance from the host site, students must provide the elective application and host site approval to COM.Clerkship@msu.edu for MSUCOM confirmation and scheduling.
  - MSUCOM confirmation and enrollment is complete when the rotation is visible on the student’s schedule.
  - MSUCOM confirmation must occur at least 30 days in advance of the rotation.
  - Once confirmed, the rotation may only be cancelled 30 days or more in advance of the start date.

ROTATION FORMAT
Rotations are typically two weeks, three credit hour, or four weeks, six credit hours in duration. Timeframes for each rotation are decided at least 30 days prior to the beginning of the rotation.

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.

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

GOALS
Course participants will:

1. Develop an appreciation of the practice of Hematology/Oncology as related to the specialty of the preceptor.
2. Assimilate what they learn and demonstrate their understanding of patient care through ongoing interaction and dialogue with, as well as formative feedback from, the preceptor.
3. Demonstrate an understanding of the (seven) osteopathic core competencies (as applicable).

EDUCATIONAL GOALS
The hematology/oncology rotation is intended to provide the student with hands on experience in the evaluation and treatment of various hematological and oncological conditions.

The clinical experience will emphasize the diagnosis and management of acute and chronic hematology/oncology diseases and the management of the risk factors associated with each disease.

Learning objectives highlight the complete and accurate patient history and physical exam, indications for appropriate diagnostic studies and the understanding of first line therapy for common hematological/oncological conditions.

1. The clinical experience will emphasize the diagnosis and management of acute and chronic Hematology/Oncology diseases.
2. The clinical experience will emphasize evaluation of risk factors, and management of risk factors to prevent disease advancement if possible.
3. The clinical experience will include learning to perform a complete and accurate patient history and physical exam.
4. The clinical experience will include identification and indications for appropriate diagnostic studies.
5. The clinical experience will help the student identify the first line therapy for common Hematology/Oncology disorders.

OBJECTIVES
1. Medical Knowledge: The student is expected to be able to describe the clinical presentation, pathophysiology, and management of the following hematologic/oncologic issues:

   Lab evaluation
   1. Describe the role of the peripheral smear in the diagnosis of various diseases.
   2. Identify and list the significance of the various red blood cell abnormalities including microcytosis, macrocytosis, schistocytes, target cells, Howell-Jolly bodies etc.
   3. Identify and list the significance of the various white blood cell abnormalities including hyper segmented neutrophils, blast cells, Auer rods, hairy cells, etc.
   4. Be familiar with the significance and indications of a bone marrow biopsy.
White blood cell disorders

1. Define and identify causes of the following white blood cell disorders:
   o Leukopenia
   o Neutropenia
   o Lymphopenia
   o Leukocytosis

Red blood cell disorders

1. Understand the definition of anemia for both men and women.
   o Be familiar with the clinical symptoms and signs of anemia.
   o Discuss the diagnostic approach to anemia with regard to the complete blood count, MCV, RDW, reticulocyte count, and peripheral smear findings.
   o Understand the approach, pathophysiology, and diagnosis of anemias associated with decreased production.
     ▪ Microcytic anemia
       • Iron deficiency anemia
       • Sideroblastic anemia
       • Anemia of chronic disease
       • Thalassemias
       • Lead poisoning
     ▪ Normocytic anemias
       • Anemia of chronic disease
       • Anemia of chronic renal failure
       • Endocrine disorders
     ▪ Macrocytic anemia
       • Vitamin B12 deficiency
       • Folate deficiency
       • Drug induced disorders.

2. Understand the approach, pathophysiology and diagnosis of anemias associated with increased destruction.
   o Hemolytic anemias
     ▪ Sickle Cell anemia
     ▪ Glucose-6-Phosphate Dehydrogenase deficiency
     ▪ Hereditary spherocytosis
     ▪ Acquired immune hemolytic anemia.
       • Warm antibody
       • Cold antibody
     ▪ Acquired nonimmune hemolytic anemia.
       • Microangiopathic hemolytic anemia
         - Thrombotic thrombocytopenic purpura (TTP)
         - Disseminated intravascular coagulation (DIC)
         - Hemolytic-uremic syndrome
         - Eclampsia
         - Malignant hypertension
       • Microangiopathic hemolytic anemia
         - Prosthetic valves
         - Severe aortic stenosis
     ▪ Physical and chemical trauma
     ▪ Infection
     ▪ Hypersplenism
     ▪ Paroxysmal nocturnal hemoglobinuria
3. Understand the approach, pathophysiology and diagnosis of **anemias associated with decreased production of red blood cells**.
   - Malignancies and other marrow infiltrative diseases
     - Leukemia and lymphoma
     - Plasma cell disorders
   - Stem cell disorders
     - Myelofibrosis
     - Aplastic anemia
     - Pure red cell aplasia
     - Myelodysplasia

**Platelet disorders**

1. **Thrombocytopenia**
   - Understand the definition of thrombocytopenia.
   - Discuss the differential diagnosis of thrombocytopenia with regard to decreased production and increased destruction.
   - Review TTP and HUS
   - Review DIC
   - Discuss the etiologies and pathophysiological mechanism of **Heparin induced thrombocytopenia (HIT)**
     - Distinguish between HIT I and HIT II
     - Discuss treatment goals of HIT.
   - Discuss the pathophysiology, presentation, and management of **idiopathic thrombocytopenic purpura**.

2. **Thrombocytosis**
   - Understand the etiology, diagnostic criteria, and treatment of **Essential Thrombocytosis**
   - Understand causes of reactive thrombocytosis

**Deep vein thrombosis and pulmonary embolism**

1. Be familiar with the risk factors associated with DVT and PE
2. Understand the etiology of DVT and PE
3. Review the clinical symptoms and signs of DVT/PE
4. Understand the diagnostic approach to DVT/PE
5. Be familiar with the management of DVT/PE
6. Review the importance of prevention of DVT/PE

**Thrombophilia**

1. Understand the clinical and laboratory manifestations of the various causes of thrombophilia.
   - **Activated Protein C Resistance /Factor V Leiden**
   - Prothrombin G20210A
   - Antithrombin deficiency
   - Protein C and S deficiency
2. Be familiar with the work up of the **hypercoagulable** state.
3. Discuss the clinical and laboratory features of **Antiphospholipid syndrome**.
Coagulopathy

1. Discuss the presentation, diagnosis, and treatment of Hemophilia A
2. Discuss the presentation, diagnosis, and treatment of Hemophilia B
3. Discuss the presentation, diagnosis, and treatment of Von Willebrand Disease

Pancytopenia

1. Understand the etiology and classification of pancytopenia.
2. Review the various causes of pancytopenia.
3. Be familiar with the proper workup for pancytopenia.

Bone marrow failure

1. Define Myelodysplasia
2. Review the epidemiology and pathogenesis of myelodysplasia.
3. Briefly discuss the classifications of myelodysplasia

Aplastic anemia

1. Define aplastic anemia.
2. Review the causes of aplastic anemia.
3. Understand the pathogenesis of acquired aplastic anemia.
4. Discuss the diagnosis and treatment of aplastic anemia.

Parosysmal nocturnal hemoglobinuria (PNH)

1. Explain the pathogenesis and presentation of PNH.
2. Discuss the diagnosis and treatment of PNH.

Myeloproliferative disorders

1. Be familiar with the background, epidemiology, and clinical presentation of Polycythemia Vera (PV)
2. Discuss the diagnostic criteria for PV.
3. Review the treatment options for PV.
4. Define and review the epidemiology of Essential Thrombocytosis (ET)
5. Discuss the diagnostic criteria of ET.
6. Discuss the treatment options of ET.

Transfusions

1. Discuss the indications, risks, and benefits of the following transfusions.
   o Red cell transfusions
   o Platelet transfusions
   o Plasma products
Sickle cell disease (scd)

1. Review the pathophysiology of SCD.
2. Discuss the clinical symptoms and signs of SCD.
3. Discuss the treatment options of SCD.
4. Review the important acute complications of SCD.

Plasma cell disorders

1. Discuss the pathophysiology and clinical presentation of Multiple Myeloma (MM)
2. Review the diagnosis and proper work up of MM.
3. Briefly review the treatment options of MM
4. Define Monoclonal Gammopathy of Undetermined Significance (MGUS)
5. Discuss the natural history, clinical presentation, and management of MGUS.
6. Be familiar with the diagnosis, presentation, and treatment of Waldenstrom Macroglobulinemia
7. Discuss the causes, presentation, and treatment of amyloidosis.

Breast cancer

1. Review the risk factors associated with breast cancer.
2. Discuss the recommended screening modalities for the early detection of breast cancer.
3. Explain the various pathologic subtypes of breast cancer.
   a. Types of Adenocarcinoma
   b. Ductal carcinoma in situ (DCIS)
   c. Lobular carcinoma in situ (LCIS)
   d. Paget disease of the nipple
4. Review the diagnosis and work up of a breast mass.
5. Discuss the prognosis of breast cancer with regard to estrogen, progesterone receptors and Her-2 overexpression.
6. Briefly review treatment options for the various forms of breast cancer

Lung cancer

1. Discuss the risk factors associated with lung cancer.
2. Review the epidemiology of lung cancer.
3. Discuss the various classifications, presentation, and management of Non-Small-Cell Lung Cancer
4. Review the presentation, associated syndromes, and management of Small-Cell Lung Cancer

Colorectal cancer

1. Discuss the epidemiology and pathophysiology of colorectal cancer.
2. List the risk factors associated with colorectal cancer.
3. Review the recommendations regarding screening for colorectal cancer.
4. Briefly discuss the work-up, diagnosis and treatment of colorectal cancer

Gastrointestinal cancers

1. Discuss the presentation, risk factors, diagnosis, and treatment of the following GI malignancies:
   a. Esophageal cancer
   b. Gastric cancer
   c. Pancreatic cancer
   d. Hepatocellular cancer
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- Gallbladder cancer
- Cholangiocarcinoma

**Malignant melanoma**

1. Review the incidence, epidemiology and risk factors associated with melanoma.
2. Discuss the clinical presentation, diagnosis, and treatment options for melanoma.

**Prostate cancer**

1. Review the epidemiology and risk factors associated with prostate cancer.
2. Discuss the current recommendations regarding screening for prostate cancer.
3. Explain the presentation, diagnosis, prognosis, and treatment options of prostate cancer.

**Leukemia**

1. Differentiate the various leukemias with regard to presentation, cytogenetics, diagnostic workup, treatment options and prognosis.
   - Acute Myelogenous Leukemia
   - Chronic Myelogenous Leukemia
   - Chronic Lymphocytic Leukemia
   - Acute Lymphocytic Leukemia
   - Hairy Cell Leukemia

**Lymphoma**

1. Differentiate **Hodgkin lymphoma** and **non-Hodgkin lymphoma** with regard to epidemiology, pathophysiology, presentation, diagnosis, staging, and treatment.

**Additional malignancies**

1. Discuss the epidemiology, pathophysiology, risk factors, screening, diagnosis, treatment, and prognosis for the following cancers.
   - Head and Neck Cancers
   - Sarcomas
   - Endocrine malignancies
   - Renal Cell Cancer
   - Bladder Cancer
   - Testicular Cancer
   - Gynecological Cancers
   - Intracranial Cancers

**Oncological emergencies**

1. Discuss the definition, pathophysiology, presentation, diagnosis, and treatment of the following emergencies.
   - Malignant pericardial effusion and tamponade
   - Superior Vena Cava Syndrome
   - Acute Tumor Lysis Syndrome
   - Hypercalcemia of Malignancy
   - Syndrome of Inappropriate Antidiuretic Hormone and Hyponatremia
   - Neutropenic Fever
   - Epidural Spinal Cord Compression
COMPETENCIES

1. The student should complete a thorough medical history including details of current symptoms, previous hematologic issues and management efforts, and risk factors that could impact on the diagnosis or management of their current problem.

2. Perform a complete physical exam with appropriate emphasis on the hematopoietic system exam.

3. Interpret common diagnostic tests utilized in the evaluation of the patient with a hematologic or oncologic disorder.

4. Interpret laboratory test with emphasis on the CBC, iron studies, Vitamin B12 and Folate disorders.

5. Socioeconomic: The student will:
   - Appreciate the psychosocial issues that potentially impact the patient’s hematologic problems (professionalism and sensitivity to disability issues).

6. Assessment of Clinical Competencies:
   - Patient Care: The student will be able to complete an accurate history and physical exam and accurately document the findings, write daily notes to accurately and concisely project the status of the patient’s condition, and recognize unstable patients in need of urgent evaluation and management.
   - Medical Knowledge: The student can demonstrate knowledge of the criteria for diagnosis of common clinical problems, know the first line therapies for common clinical problems, and demonstrate a knowledge of the interpretation of diagnostic tests.
   - Communication Skills: The student can effectively present the clinical evaluation of a new patient and/or the clinical progress of a continuing patient, and communicate effectively with patients, clinical support staff, and supervising residents and attending physicians.
   - Professionalism: The student will demonstrate respect for patients, families, co-workers, and work effectively with nurse coordinators, social services, and ancillary staff.
   - Practice Based Learning: The student will be able to identify and discuss appropriate, evidence-based approaches to assist in the diagnosis and management of clinical problems encountered in their patients.
   - Systems Based Practice: The student will be able to incorporate a team approach in the management of complicated patients.
   - Osteopathic Principles and Practices: The student should be able to integrate osteopathic principles and treatments in the management of the hematologic patient.

Teaching Methods: The student is expected to function as a viable member of the supervising physician health care team. Assigned student responsibilities can include supervised first patient contact in the office or clinic, the completion of admission history and physicals, the completion of pre-rounding progress notes on assigned patients, participation in conducting and the interpretation of diagnostic testing and clinical management.

Participation in Clinical Conferences and/or Structured Educational Programs: The student is expected to participate in clinical conferences and educational programs appropriate for the clerkship course including those generally associated with residency educational programs.

Evaluation: The student is encouraged to solicit feedback related to his/her clinical performance on a daily basis. The student should receive formative performance evaluations at the mid-point and end of the rotation that outlines faculty perceived strengths and weaknesses related to the student’s performance that includes recommendations for strengthening his/her performance as warranted.
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: Oncology and Hematology

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

Review of the Hematology Modules from the Heme course OST 578 course pack will be of value to the student. There is no assigned textbook. Reading assignments are under the purview of the preceptor.

ONCOLOGY - HEMATOLOGY REFERENCE TEXTS

Hematology: Basic Principles and Practice, 8th Ed. Leslie Silberstein MD; John Anastasi MD, Ronald Hoffman MD. (Very good discussion of clinical and diagnostic methods.)


Williams Hematology, 10th Ed. Kenneth Kaughansky, Marshall Lichtman. (Landmark text with great explanations of the various hematologic disorders and clinical presentations with diagnostic work up.)


Harrison’s Principles of Internal Medicine, 21st Ed. (Very good sections on hematology as well as oncology describing basic principles of the diseases as well as clinical presentation and diagnostic techniques. This text has particularly good discussions of the disease without getting into complicated details.)

## ROTATION REQUIREMENTS

<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>SUBMISSION METHOD</th>
<th>DUE DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Types and Procedure Log</td>
<td>See page at the end of syllabus and upload into D2L Drop Box for the course</td>
<td>11:59 pm Last Sunday of Rotation</td>
</tr>
<tr>
<td>Clinical Shift Schedule</td>
<td>Online D2L Drop Box</td>
<td>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.</td>
</tr>
<tr>
<td>Attending Evaluation of Clerkship Student</td>
<td>Students must select their attending physician as directed within the rotation description in Medtrics. At the start of the last week of the rotation, students will need to request an evaluation in Medtrics. By requesting an attending evaluation from their assigned attending physician, the attending physician will receive an automated email link connecting them to their assigned Attending Evaluation within Medtrics. Attendings will be able to electronically access and submit the forms on behalf of their students.</td>
<td>Last Day of Rotation</td>
</tr>
<tr>
<td>Student Evaluation of Clerkship Rotation</td>
<td>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.</td>
<td>Last Day of Rotation</td>
</tr>
</tbody>
</table>

The student who fails to turn in required paperwork, who has a verifiable reason 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.

## ROTATION EVALUATIONS

### Attending Evaluation of Student

Attending Evaluation of the Student is completed electronically via Medtrics by the supervisor designated within the Medtrics rotation description. To initiate this evaluation, each student must select their attending physician as directed within the rotation description in Medtrics. Students will receive an email from Medtrics to select the attending 7 days prior to the end of the rotation. Should your rotation lack a rotation description or if you have any questions, please contact com.msu.edu. Upon selecting the attending physician directed within the Medtrics rotation description, the attending physician will receive an automated email link connecting them to their assigned Attending Evaluation within Medtrics.
Attendings will be able to electronically access and submit the Attending Evaluation of the Student. Attendings will access the electronic form within Medtrics by selecting the email link on a smart device. No login (username/password) will be required for attendings to access their pending evaluation(s) assigned to them. After the electronic form has been submitted by their attending, students can review the Attending Evaluation of the Student that were completed by visiting the ‘Evaluations’ module (in the ‘About Me’ tab) of their Medtrics profiles.

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

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

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

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

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

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

CORRECTIVE ACTION
There is no Corrective Action offered on this course.

As determined by the Instructor of Record, the student will receive an N grade for the course if all assignments are not completed successfully by the last day of rotation at 11:59pm (with the exception of the Attending Evaluation). Additionally, a letter of unprofessional behavior for late submission of assignments 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.
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STUDENT RESPONSIBILITIES AND EXPECTATIONS

Course participants will meet the preceptor on the first day of the rotation at a predetermined location to be oriented to rotation hours, location(s), and expected duties and responsibilities while on-service.

- 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.
  - It is the student’s responsibility to notify the Clerkship Office (com.clerkship@msu.edu) immediately if they are placed on quarantine or contract COVID.

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.
- 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*

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

*Exception: A fourth-year student may be absent a total of 4 days on any 4-week rotation or 2 days on any 2-week rotation during the months of October-January for interview purposes only. If interview absences exceed these totals, the student must submit a Clerkship Program Excused Absence Request Form (with appropriate signatures obtained from the rotation attending and rotation site) to the Associate Dean for Clerkship Education via email (COM.Clerkship@msu.edu) prior to the absence.
<table>
<thead>
<tr>
<th>Absence Type</th>
<th>Qualifications</th>
<th>Maximum Number of Days Off</th>
<th>Details</th>
<th>Required Approval from Associate Dean for Clerkship Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Day</td>
<td>May be used at the discretion of the student (example: illness, physician apt., conference time, etc.). Total days off any one rotation (including personal days off) cannot exceed two on any one 4-week rotation.</td>
<td>Five total days per academic year (July-June)</td>
<td>While personal days may be used at the discretion of the student, the total days off any one rotation (including personal days off) cannot exceed two on any one 4-week rotation, i.e., students cannot use all 5 days on one rotation.</td>
<td>No</td>
</tr>
<tr>
<td>Jury Duty</td>
<td>Court documentation must accompany the Clerkship Program Absence Request Form</td>
<td>N/A</td>
<td>Jury duty, when obligated, is not considered a personal day absence.</td>
<td>Yes</td>
</tr>
<tr>
<td>Hospital-organized community events</td>
<td>Example: Special Olympic Physicals</td>
<td>N/A</td>
<td>These events would be considered part of the rotation and not a personal day absence.</td>
<td>No</td>
</tr>
<tr>
<td>Examination</td>
<td>COMLEX USA Level 2 CE/USMLE Step 2 CK/Canadian MCCEE</td>
<td>1 day</td>
<td>Students have the time off to take the examination only</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>COMAT/NBME shelf examinations</td>
<td></td>
<td>Students should be reporting to rotation before/after examination.</td>
<td>No</td>
</tr>
<tr>
<td>Prolonged Illness, Bereavement, Maternity Leave</td>
<td>Medical related absence or bereavement</td>
<td>Determined on a case-by-case basis</td>
<td>Students must contact the Associate Dean for Clerkship Education directly (<a href="mailto:enright4@msu.edu">enright4@msu.edu</a>) to discuss time off rotations.</td>
<td>Yes</td>
</tr>
</tbody>
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**Clerkship Program Excused Absence Request Forms:** Once appropriate approval signatures are obtained, forms must be uploaded to the ‘Excused Absences’ folder within each student's Medtrics profile. Students should maintain a copy for their records.
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.
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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
IM 653 Oncology and Hematology

- **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-msrr](http://splife.studentlife.msu.edu/medical-student-rights-and-responsibilities-msrr)

**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.
**IM 653 Oncology and Hematology**

**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 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).

Contact Associate 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](http://www.rcpd.msu.edu). Once a student’s eligibility for (clinical and/or testing) accommodation(s) are determined, the student may be issued a **Verified Individualized Services and Accommodations** (VISA) form.

Students must present their VISA forms to the Clerkship Team (COM.Clerkship@msu.edu) 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.
## PATIENT TYPE AND PROCEDURE LOG

**Student Name__________________________________________**

**Student ID#__________________________________________**

**Dates of Rotation:_______________________________________**

### PATIENT TYPES AND PROCEDURE LOG

<table>
<thead>
<tr>
<th>Procedure</th>
<th>#Required</th>
<th>Date</th>
<th>Supervisor Initials</th>
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<tbody>
<tr>
<td>Evaluate two patients with Cancer for 2-week rotation and four patients for a 4 week</td>
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<tr>
<td>Evaluate two patients with Anemia for 2-week rotation and four for a 4 week</td>
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<td>Interpret 10 CBCs for 2-week rotation and 20 CBCs for a 4 week</td>
<td>1. 2. 3. 4. 5. 6. 7. 8. 9. 10.</td>
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<td>Participate in five Hematology/Oncology consults in the hospital or office for a 2-week rotation and 10 for a 4 week</td>
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<td>Requirement</td>
<td>Submission Method</td>
<td>Pass</td>
<td>No Grade Reported</td>
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<tr>
<td>Patient Types and Procedure Log</td>
<td>See page above and upload into D2L Drop Box for the course</td>
<td>Must be completed and uploaded by 11:59 pm Last Sunday of Rotation</td>
<td>Will be the conditional grade until all requirements of this rotation are met</td>
</tr>
<tr>
<td>Clinical Shift Schedule</td>
<td>Online D2L Drop Box</td>
<td>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.</td>
<td>Will be the conditional grade until all requirements of this rotation are met</td>
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| 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 | • 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    | • Receives two (2) or more “Below Expectations” within the subcategory sections.  
• Receives comments that indicate below expectations of performance.  
• See Unsatisfactory Clinical Performance above |
| Student Evaluation of Clerkship Rotation | Can be accessed and submitted electronically by students within the dashboard of their Medtrics profiles | Completed 100% by 11:59 pm the last day of the rotation              | Will be the conditional grade until all requirements of this rotation are met    | Failure to complete and submit within 14 days from the end of the rotation |