MECHANISMS of HUMAN DISEASE COURSE 2024-25

COURSE RATIONALE

The MECHANISMS OF HUMAN DISEASE COURSE is a learning experience for second year physicians-in-training that integrates concepts from various medical disciplines. The sciences of PATHOLOGY and PATHOPHYSIOLOGY form the core of the course, and they are offered in conjunction with relevant topics in INFECTIOUS DISEASES and CLINICAL MEDICINE CORRELATES.

The overall goal of the course is to establish a basic science/pathology foundation for the practice of medicine. A secondary goal of the course is to create an environment that fosters active learning and enables the students to acquire problem-solving and critical thinking skills. The Mechanisms of Human Disease (MHD) Course has been designed and content selected to facilitate students' success on the USMLE Step 1 exam.

Pathology, in the broadest sense, is the study of disease. The field of pathology is dedicated to understanding the causes of disease and the changes in cells, tissues, and organs associated with development of disease. As the foundation of clinical medicine, pathology bridges the gap between the basic sciences and the practice of medicine. Students must learn to apply their knowledge of anatomy, biochemistry, physiology and microbiology to begin to understand the course, processes and effects of disease, as well as the prevention and control of disease. To become a competent physician capable of making the correct diagnosis and prescribing the correct therapy, one must understand the nature of disease - pathology.

With this aim in mind, The Mechanisms of Human Disease Course helps students gain an understanding of the pathogenesis of disease and learn the structural and functional (pathophysiologic) changes which occur in cells and organs as a result of disease. A firm grasp of the concepts and facts of pathology and pathophysiology will lay the foundation for students to successfully begin the clinical clerkships.

MHD COURSE GOALS AND OBJECTIVES

Please refer to the separate document "MHD Goals and Objectives 2024-25

Course Organization

A. Mechanisms of Human Disease (MHD) content is delivered over the course of the entirety of the M2 year. It is divided into three separate courses (MHD I, MHD II, and MHD III), all of which must be passed in order to progress academically.

Mechanisms of Human Disease I (MHD I); August 5, 2024 – October 4, 2024

Mechanisms of Human Disease II (MHD II); October 14, 2024 - December 20, 2024

Mechanisms of Human Disease III (MHD III); January 6, 2025 - March 7, 2025

Students will receive an individual grade for each course: MHD I, MHD II, and MHD III.

B. Integration with other courses

The Mechanisms of Human Disease Course will run concurrently with the Pharmacology and Therapeutics Course and the Patient Centered Medicine 2 Course. Lecture topics in these courses have been coordinated so that as students learn about the pathology and pathophysiology of disease in MHD they will be learning correlated drug mechanisms and therapies in Pharmacology, and the key aspects of history taking and physical exams for the related organ system/s in PCM2. The topic areas are further integrated in the MHD case-based small group sessions.
Radiographic images being discussed in the TCM2 Radiology VIC will be integrated into MHD small group and lab sessions.

Course Design

The MHD course is designed to engage students in multiple learning situations: lectures, on-line didactic material, Histology for Pathology on-line modules, assigned readings, small group cased-based discussions, clinico-pathologic-correlation laboratory sessions, Q&A sessions/Review Sessions, and independent-study.

Students can access all course materials through the MHD Sakai site.

The Mechanisms of Human Disease Course begins with a two week period devoted to general principles and concepts of pathology. The remainder of the course focuses on systemic or organ pathology.

Each course educational session has a dedicated day/time on the course calendar.

LECTURES:
The purpose of lectures and didactic material is to present key concepts and facts relating to general and systemic pathology, pathophysiology and related topics in clinical medicine. Faculty members develop educational session objectives that serve as a guide to the key concepts. Small Group Case discussions, Laboratory Sessions and Review Sessions provide students the opportunity to meaningfully synthesize, apply and review concepts delivered through the lectures.

The majority of lectures will be pre-recorded by faculty and viewed asynchronously by students. A link to the recordings will be posted on the MHD LUMEN site and linked through Sakai. Students will also be provided the Powerpoint presentation slides.

There are a number of lectures which will be delivered in-person in the lecture hall. These lectures will be recorded and the recordings will be posted on the MHD LUMEN site and linked through Sakai. Please note that there may be a delay in posting of a lecture recording for up to several hours or more after the completion of the lecture.

HISTOLOGY FOR PATHOLOGY:
The key **normal** histology of tissues and organs is introduced via the "Histology for Pathology" modules on Sakai. Each organ-based Histology for Pathology module, and the Introduction to Histology module, include a list of objectives, a recorded didactic, a link to a virtual microscopy tissue section, and formative self-assessment quizzes and flash cards.

Students are STRONGLY ENCOURAGED to view the designated recorded didactics at the start of each organ block or section. Formative self-assessment quizzes help students gauge their understanding of the material. The pertinent histology of tissues and organs will be reinforced during lectures and laboratory sessions.

SMALL GROUP SESSIONS:
Small group case sessions afford students the opportunity for active learning and synthesis of concepts presented during lectures. Students must prepare for each session by reading each case and formulating their own answers to the case questions which then guide the session discussions. This format allows students to engage one another and the faculty facilitator in an in-depth analysis of the pathology, pathophysiology, and the clinico-pathologic correlations concerning each case. Additionally, students will begin to develop the essential skills of solving a clinical problem and critical thinking, and participate in the education of their peers.

For many small group sessions there will be "unknowns" (i.e. open-ended questions; tables; USMLE type questions) that students will not have until the session meets. Via these unknowns students will problem solve and learn to "think on your feet", akin to what they will be doing in their clerkships.

Small group sessions are often intentionally scheduled toward the end of an organ system block to allow students to SYNTHESIZE material delivered during the entire block.

Scheduling: Each MHD small group session is held in person in the medical school and has a designated time on the course calendar. Alternatively, small group sessions may meet at 7am on the day of the small group. The faculty member facilitating the session will determine the time for each session. Faculty facilitators will provide students a schedule of the time when their small groups will meet. Attendance via video conference (ie Zoom) is not permissible.

Small Group Assignments, meeting room for each group, the schedule for each small group, and the small group cases will be posted on Sakai. Small Group session unknowns will be posted on Sakai for students to view and discuss during their small group session.

Please note that small group sessions are NOT recorded.

Small group assignment: "Symptom Snapshot"

Each student will choose one symptom that is presented as part of a small group case, research the pathophysiology behind the symptom, and present their findings during an assigned small group session. Each student will fulfill the following objectives:

1. Identify a symptom that is presented as part of a case in the small group material
2. Identify and demonstrate the use of appropriate sources to clarify the pathophysiology of that symptom
3. Appraise the reliability of the source(s) of their choosing
4. Concisely present their symptom, its pathophysiology, and a description of their research strategy to their small group facilitator and peers (appx 5 minutes)
5. Receive feedback on their findings and search strategy from their facilitator and peers

This exercise will help learners to form connections between the physiology/anatomy they have learned thus far and the pathophysiology being discussed during each small group session, and begin to develop appropriate search strategies to answer clinically relevant questions.

Examples of appropriate questions:
-What causes bleeding in diverticular disease?
-Why can cirrhosis result in fluid accumulation in the abdominal cavity (ascites)?
-Why can jaundice occur in hemolytic anemia?

Student expectations:
-Students will present their findings at the start of MHD small group sessions. A schedule will be provided indicating each student's presentation date.

-Students will complete the following template by 5:00 P.M. on the day of their presentation and upload the file to Sakai:

Template:

1. What is your symptom? Which small group session featured your symptom in a case?
2. What strategy did you use to find appropriate resources to explain the pathophysiology behind your symptom? Please be as specific as possible.
3. Why did you use this search strategy?
4. Cite 1-3 sources you used to define the pathophysiology behind your symptom
    a. If you used a textbook or article, please provide a citation
    b. If you used a website or online database, please provide a citation
    c. If your search was assisted by online tools, such as an AI, please follow the guidelines provided in the SSOM Academic Policy Manual
        i. AI search tools are not a substitute for your own critical thinking and writing skills.
        ii. Suggestions provided by generative AI tools (e.g. ChatGPT, Google Bard, Microsoft Bing, DALL-E, LaMDA, etc.) should be used as a guide and not a replacement for your own ideas and writing.
        iii. It is important to carefully review and edit the text generated by AI tools and to ensure that all sources are properly cited – and are even real sources, as generative AI may create its own sources, leading to disinformation.
        iv. The Stritch School of Medicine (SSOM) will ask students to disclose if assignments were completed, in part or all, through generative AI tools. Failure to disclose the use of generative AI tools will be a Student Code of Conduct violation and result in review by that

course/clerkship/elective director and the SSOM Student Promotion Committee.

v. *There is no universally-agreed method for citing AI tools at this time. Please utilize the APA style guide to properly cite AI tools (https://apastyle.apa.org/blog/how-to-cite-chatgpt)*

5. Concisely summarize your findings
6. What feedback did you receive from your facilitator and small group peers?

LABORATORY SESSIONS:

The laboratory sessions facilitate correlation of the morphologic changes that occur in common or prototypic diseases. During the laboratory sessions, gross photographs of diseased organs and **histopathologic** images will be used as visual aids to enhance the student's understanding of a disease and to correlate clinical manifestations with structural changes.

Four students in each classroom will be assigned to each lab case and are expected to come prepared to describe the characteristic pathology of the disease(s) highlighted and correlate with clinical data provided via a case history, physical exam, laboratory results and radiographic images.

Communication of knowledge to groups of individuals and peer teaching is an essential skill in medicine. To this end, a secondary goal of your presentations in laboratory sessions is to help advance your public speaking skills in the safety and comfort of your fellow classmates. We expect students to leverage this, come well-prepared, and speak with confidence about your case. Students who are presenting their cases should expect to be asked questions by fellow students and faculty facilitators regarding the case content.

During each lab session, a "Jeopardy Case" will be included. Four students (not already assigned to present a case during the designated session) will be called upon to discuss key morphologic findings and clinical correlates of the case. Students are expected to have reviewed the jeopardy case prior to lab and to be prepared to discuss the morphologic findings and clinicopathologic correlations when called upon to present.

The room assignments for each lab session, case presentation assignments and Powerpoint slides with the lab cases will be posted on Sakai.
Laboratory Sessions are held in person in the medical school. Attendance via video conference (ie Zoom) is not permissible.
Please note that Laboratory Sessions are NOT recorded.

Point of Care Ultrasound (POCUS) Case-Based Discussions
The POCUS Vertically Integrated Curriculum has 3 application sessions in the MHD course. In the cardiac, pulmonary and GI blocks, students will have case-based discussions which will highlight the role of point of care ultrasound in the bedside assessment of a patient, diagnosis of common conditions, and correlation of ultrasound findings with associated pathophysiology.
The sessions are in-person on-campus. The room assignments for each POCUS session will be posted on Sakai. Attendance via video conference (ie Zoom) is not permissible. Please note that POCUS Sessions are NOT recorded.

Review/Q&A Sessions:
Many faculty lecturers will have scheduled in-person review session/s. The goals of these sessions are:

- to provide an opportunity for students to meet and engage with faculty;
- to provide an opportunity for students to pose questions to faculty to enhance understanding of lecture content;
- to provide an opportunity for students to apply material learned during lectures via short cases and/or multiple choice questions;
- to provide an opportunity for students to collaborate with fellow students in learning and applying course material.

In order to achieve the outlined goals, Review/Q&A sessions are not recorded.

PLEASE NOTE: Small Group Sessions, Laboratory Sessions, and Review Sessions are offered at different times during the week; therefore, you are responsible to check the schedule on the LUMEN calendar for date, time and location. **Variations in the schedule may occur due to multiple factors. Check the MHD Sakai Announcements regularly (ie daily). An email is generated via Sakai for Course Announcements as well.**

INDEPENDENT STUDY:
Independent study is critical for the professional success of all physicians. In the MHD Course, students are expected to complete the assignments and educational objectives cited for each course session**. Self-directed learning, independent study and problem solving are integral components for success in a career in medicine and for success in the Mechanisms of Human Disease Course.**

ATTENDANCE

Attendance at and active engagement during in person educational sessions, such as Review Sessions, is **strongly encouraged.** These sessions provide opportunities for students to interact with faculty and with their peers to enhance learning.

Attendance at EACH Small Group Session, Lab Session, and Point of Care Ultrasound Session is a Course Requirement

Small Group Attendance

Each student is responsible for attending the small group to which they have been assigned and for signing the designated attendance sheet for each session before the session ends.
Failure to sign the attendance sheet before the end of a session will be considered an **unexcused** absence from that small group session.

The MHD course coordinator will designate a student in each small group who will be responsible for submitting the attendance sheet to the coordinator after each small group session.

For any small group session that is not attended, in addition to following the SSOM policy, students must submit their answers to the small group cases (excluding the unknowns which are made available during the small group session) to the MHD course coordinator by 9:00 am on the day of the scheduled session if it is a planned absence. If it is an absence due to an urgent matter, case answers should be submitted within two days of the student's return to school. Failure to submit the completed materials by the designated deadline may result in a "Concern" for the MHD Professionalism Competency.

Because an important component of small group sessions is peer education, absence from small group discussion impacts a student's ability to participate in peer education (MHD Course Goal - Contribute to the education of peers by actively engaging in small group sessions)
Three or more absences from small group will result in a "Meets with Concerns" for the Interpersonal and Communication Skills Competency for the MHD I, II, or III Course.

Unexcused Absences

One unexcused absence from a small group session will result in a "Meets with Concerns" for the Professionalism Competency for the MHD I, II, or III Course.
Two or more unexcused absences will result in a "Does not Meet" for the Professionalism Competency for the MHD I, II, or III Course.

Laboratory Attendance

Each student is responsible for attending the lab session to which they have been assigned and for signing the designated attendance sheet for each session before the session ends. Lab room assignments are posted in Sakai in advance of each lab session.

Failure to sign the attendance sheet before the end of a lab session will be considered an **unexcused** absence from that lab session.

The laboratory facilitators will submit the attendance sheet to the course coordinator after each lab session.

For any lab session that is not attended, in addition to following the SSOM policy, students must submit their answers to the Jeopardy case* to the MHD course coordinator by 9:00 am on the day of the scheduled lab session if it is a planned absence. If it is an absence due to an urgent matter, it should be submitted within two days of the student's return to school. Failure to submit the completed materials by the designated deadline may result in a "Concern" for the Professionalism Competency.

> *If a student was assigned to present a case, and they are absent from lab, the student should submit the answers to their assigned case in lieu of the Jeopardy Case.

Because an important component of labs is peer education, absence from lab discussion impacts a student's ability to participate in peer education (MHD Course Goal - Contribute to the education of peers by actively engaging in laboratory sessions) **Three or more absences** from lab sessions will result in a "Meets with Concerns" for the Interpersonal and Communication Skills Competency for the MHD I, II, or III Course.

Unexcused Absences

One unexcused absence from a lab session will result in a "Meets with Concerns" for the Professionalism Competency for the MHD I, II, or III Course.
Two or more unexcused absences will result in a "Does not Meet" for the Professionalism Competency for the MHD I, II, or III Course.

POCUS Session Attendance

Each student is responsible for attending the POCUS session to which they have been assigned and for signing the designated attendance sheet for each session before the session ends. Room assignments are posted in Sakai in advance of each POCUS session.

Failure to sign the attendance sheet before the end of a POCUS session will be considered an **unexcused** absence from that lab session.

The POCUS facilitators will submit the attendance sheet to the course coordinator after each POCUS session.

Unexcused Absences
One unexcused absence from a POCUS session will result in a "Meets with Concerns" for the Professionalism Competency for the MHD I, II, or III Course.

Professionalism/Academic Dishonesty in Attendance (All Required Sessions) :
Signing in for any session and leaving before its completion OR having a student sign an attendance sheet for another student are considered forms of academic dishonesty and will result in a "Does Not Meet Expectations" for the MHD I, II, or III Professionalism Competency.

ABSENCE FROM REQUIRED COURSE ACTIVITIES

Physicians in Training have the professional responsibility to attend all required course activities and actively participate in the sessions. Students must follow the polices for absences as outlined in the SSOM Academic Policy Manual.

Non-Emergent Absences from Required Course Activities
As per the SSOM Academic Policy Manual: Petitions for approved absences for serious but non-emergent reasons from activities in which attendance is mandatory must be submitted in writing to the Office of Student Affairs at least thirty days prior to the start of the event for which the absence is requested.

If an absence from a required MHD course activity is approved by the Office of Student Affairs, it is the student's responsibility to forward documentation of the approval to the MHD Course Coordinator and the MHD Course Director.
If the absence is from an MHD small group session, it is the student's responsibility to inform their small group facilitator of the absence.

Unexpected/Emergency Absences
As per the SSOM Academic Policy Manual: Examinations or other required academic activities missed due to illness or other legitimate, serious, extenuating reasons may be made up only if the Assistant Director for Student Affairs, Course Director, and Course Coordinator have received notice of the absence, in advance if non-emergent or as soon as possible if emergent, and granted permission for an excused absence. Absence due to illness requires written documentation from the Wellness Center submitted to the Office of Student Affairs.

Failure to follow outlined policies for absences will result in a "Meets with Concerns" for the MHD Professionalism Competency.

Students are responsible for learning any course material they may have missed due to their absence.

MHD COURSE TEXTBOOKS AND RESOURCES FOR LEARNING

Required Textbook

Robbins and Kumar Basic Pathology, 11th Edition, 2022

Publisher: Elsevier Saunders

This updated edition thoroughly covers key pathologic processes and the time-honored tools of gross and microscopic analysis, while also retaining a strong emphasis on clinicopathologic correlations and the impact of molecular pathology on the practice of medicine. Outstanding artwork and schematic drawings, as well as a robust eBook experience with extensive additional features, make complex concepts easier to learn and retain. Contains a new Rapid Review section that uses bulleted summary boxes to deliver essential take-home messages and help you focus on the fundamentals. Includes tables of relevant laboratory tests for each chapter that link pathophysiology of disease and diagnostic testing. Highlights pathogenesis, morphology, and pathophysiologic content throughout .Features increased representation of diverse populations throughout the text, including clinical photographs of skin lesions in multiple skin types and a new section on the role of socially defined race in health disparities.

(Available on line through Loyola Health Science Library E-Books)

The following are recommended as valuable resources:

For the histology curriculum:

Atlas of Histology with Functional and Clinical Correlations, 2010

Editors: Cue, D., et al.

Publisher: Wiley Lippincott Williams & Wilkins

Digital Histology

https://digitalhistology.org/

Digital Histology provides an open educational resource that combines a digital atlas with extensive descriptive text. It is organized as a multi-hierarchy outline that reinforces broader histological concepts and parallels the content of most histology textbooks. Digital Histology, featuring on-demand labeling of structures and interactive quizzes with formative feedback, can be used by a diverse group of learners.

For small group discussion and clinical correlations:

Pathophysiology of Disease: An Introduction to Clinical Medicine, 8th Edition, 2019

Editors: Stephen J. McPhee, Gary D. Hammer

Publisher: Mc Graw Hill

(Available on line through Loyola Health Science Library E-Books)

> *The goal of Pathophysiology of Disease: An Introduction to Clinical Medicine is to introduce students to clinical medicine by reviewing the pathophysiologic basis of the symptoms and signs of various common diseases. The book has proved useful as a text for both Pathophysiology and Introduction to Clinical Medicine courses in medical schools…. It is valuable to students early in their medical school years by highlighting the clinical relevance of their basic science courses, and in preparation for their USMLE Step 1 examinations.*

Medical Microbiology, 9th Edition, 2021

Editors: Murray, Rosenthal, & Pfaller

Publisher: Elsevier

(Available on line through Loyola Health Science Library E-Books)

For the Psychopathology block

Diagnostic and Statistical Manual of Mental Disorders, 5th ed.

American Psychiatric Association, 2013

(Available on line through Loyola Health Science Library E-Books)

For ongoing review of histology, pathology, and pathophysiology

The Internet Pathology Laboratory for Medical Education

(Web Path)

https://webpath.med.utah.edu/

> *The WebPath® educational resource contains over 2700 images with text that illustrate gross and microscopic pathologic findings along with radiologic imaging associated with human disease conditions. For self-assessment and self-directed study there are over 1300 examination items. There are more than 20 tutorials in specific subject areas.* These computer-aided instructional materials support educational programs in the health sciences.

Robbins and Cotran Review of Pathology, 5th Edition 2022

> *Robbins & Cotran Review of Pathology, 5th Edition, covers all major topics in general pathology and organ system pathology, effectively preparing you for coursework and examinations. The review contains 2,000 multiple-choice questions and answers to help students master the most important principles and facts in pathology. Questions and answers have been written, reviewed, updated, and explained by experts in the field, ensuring that knowledge is up to date, thorough, and clinically relevant.*

Editors Edward C. Klatt, Vinnay Kumar

Publisher: Elsevier

Additional Resources

Students who have gone through the MHD Course have found a variety of other “”3rd party” resources to be useful for their learning. These may include pre-prepared ANKI decks, Pathoma, Sketchy series, First Aid for USMLE Step 1 and others. While MHD lectures are designed to be the foundation of the course, these additional resources can serve as useful memory aids and for review and reinforcement of content. Recognize that these resources are study aids and not primary source material for physicians-in-training. Ideally these resources are utilized for reviews after you have initially studied, understood and learned lecture content. We encourage you to use the resources that are most helpful to you.

MEDICAL KNOWLEDGE ASSESMENT EXAM FORMAT

A. There will be a total of eleven exams throughout the year that contain Mechanisms of Human Disease questions: MHD I: 4 exams; MHD II: 4 exams; MHD III: 3 exams

B. The total number of questions containing Mechanisms of Human Disease material will vary from exam to exam and will depend on the total number of MHD lectures, small group sessions, labs, and Histology for Pathology modules given during that block of the course.

C. The exams are not cumulative. Each exam will consist of three questions per lecture hour, two to three questions per lab session, and two to three questions per Histology for Pathology module that were delivered during the corresponding block of the course. Students will receive specific guidance regarding the number of questions from each small group session. Questions will be multiple choice format in the style of the United States Medical Licensing Exam (USMLE-Step 1). Total time allowed for each exam will vary depending on the number of exam questions. The average time allotted to answer each question will be 1 minute and 30 seconds.

D. After each exam you will receive a report including your exam score and a list of the learning objectives linked to the questions that you answered incorrectly. This list should serve as the basis for re-reviewing course content.

EXAM SCHEDULING AND MISSED EXAM POLICY

All students are expected to sit for each exam at the date and time indicated in the course schedule, as documented in the SSOM Academic Policy Manual. If circumstances arise that may prevent you from taking a scheduled examination (e.g. serious illness or an emergency situation) you should immediately contact the course directors AND the Office of Student Affairs as soon as possible, so that a timely determination can be made regarding a potential excused absence. Students who are unable to sit for an exam for a legitimate reason, as adjudicated by the Office of Student Affairs, will have their exam rescheduled for a later date. The rescheduling of any exams will be determined by mutual agreement of the Office of Student Affairs, the Office of Educational Affairs, and the Course Director, as outlined in the SSOM Academic Policy Manual.

COURSE COMPETENCY ASSESSMENT and GRADING

Students will receive an individual grade and competency assessments for MHD I, MHD II, and MHD III.

Mechanisms of Human Disease I (MHD I); August 5, 2024 – October 4, 2024

Mechanisms of Human Disease II (MHD II); October 14, 2024 - December 20, 2024

Mechanisms of Human Disease III (MHD III); January 6, 2025 - March 7, 2025

Competency 1 Medical Knowledge

Assessment of the Medical Knowledge Competency for MHD I, MHD II, and MHD III will be determined on the aggregate performance in the individual medical knowledge assessment exams delivered during the respective portion of the course.

The final grade will be based on the overall total percent of correctly answered questions on all exam assessments delivered during the course (i.e. total number of correctly answered questions on all exams/total number of asked questions on all course exams expressed as a percentage)

Grading will be on a Pass/Fail basis

Pass: an aggregate percentage score greater than or equal to 70%
Fail: an aggregate percentage score of less than 70%.

In addition, students will also receive an evaluation for the medical knowledge competency, which is a reflection of the extent to which they are meeting the expectations of the competency.

Medical knowledge competency evaluations are determined as follows:

> **"Meets expectations"** -students who achieve a pass and whose final aggregate percent score is > the class mean minus 1.65 SD.
>
> **"Meets with concerns"** - students who achieve a pass, but whose final aggregate percent score is less than 1.65 SD below the class mean (i.e. within the lower 5% of the class).
>
> **"Does not meet"** - students who receive a failing grade for the course

Interpersonal and Communication Skills; Professionalism; Patient Care; and Practice Based Learning and Improvement Competencies

MHD Small Group Sessions

The competencies of Interpersonal and Communication Skills; Professionalism; Patient Care; and Practice Based Learning and Improvement are assessed in the MHD Small Group Sessions.

"Meets Expectations" in all components of the Small Group Competencies for each MHD I, MHD II and MHD III is expected.

Competency 2 Patient Care

> The student demonstrates an ability to synthesize pertinent facts from the small group case histories, physical exam findings and diagnostic data

Competency 3 Interpersonal and Communication Skills

> The students actively participates in small group discussions.
> The students uses medical terminology effectively.
> The student contributes to the education of peers.

Competency 4 Practice Based Learning and Improvement

> The student demonstrates an analytic approach to small group case materials and discussions.

Competency 5 Professionalism

> The student punctually attends small group sessions.
> The student reviews topics prior to small group sessions and comes prepared for discussion.

The student interacts with peers and faculty in a respectful and courteous manner.

Faculty will complete a Small Group Sessions Competency Assessment and note whether a student “Meets Expectations”, “Meets Expectations with Concerns”, or “Does Not Meet Expectations” for the relevant competencies and will provide narrative comments. Students will individually meet with one of their small group facilitators in MHD II and MHD III to discuss feedback.

Laboratory Sessions

The competency of Professionalism is assessed via the MHD Laboratory Sessions.

Failure to come prepared and participate in the assigned presentations will result in a “Concern” being noted within the “Professionalism” Competency Assessment.

Repeated poor preparation for assigned cases will result in a “Does Not Meet Expectations” for the “Professionalism” Competency.

Similarly, failure to demonstrate preparation for the “Jeopardy Case” will result in a “Concern” being noted within the “Professionalism” Competency Assessment.

Assessment of the Small Group 'Symptom Snapshot' Presentation

This assignment will contribute to the assessment of Competency 4 – Practice Based Learning and Improvement.
Each student will be provided a specific small group session day during which they will present the symptom they researched, their search strategy, and findings to their small group facilitator and students, and will receive feedback on their search strategy and findings. Students are also expected to upload a template with their question, list of resources utilized to answer the question, and brief answer to their question into Sakai for tracking purposes (and to help them formulate their concise small group presentation) by 5:00pm on their assigned presentation date.

Meets Expectations The student presents on the assigned date, submits document to Sakai on the assigned date by 5:00pm and adequately addresses the components of the assignment.

Meets Expectations with Concerns - The student does not present on the assigned day and/or does not submit the document on Sakai on the assigned day by 5:00pm.

Does Not Meet Expectations – The Student does not present their clinical question/search strategy/answers to their small group by the end of the designated course (MHD I, MHD II or MHD III) and/or does not submit the document on Sakai by the end of the designated course (MHD I, MHD II or MHD III) and/or exhibits significant deficiencies that fall well below expectations. Note: Students who receive a "does not meet expectations" will be required to remediate by completing the assignment, presenting to the Course Director, and submitting a written report of their assignment.

For all competencies: A "Meets with Concerns" Competency assessment does not appear on the official transcript but does form part of a students' official academic record. "Meets with Concerns" Competency Assessments are reviewed, and potentially acted upon, by the Student Promotions Committee, as outlined in the SSOM Academic Policy Manual.

REMEDIATION

MEDICAL KNOWLEDGE REMEDIATION

Students who fail to achieve the minimum score required for a passing grade in MHD I, MHD II, or MHD III may be allowed the opportunity to remediate the respective course and sit for a remediation exam, as outlined in the SSOM Academic Policy Manual.
The purpose of the remediation exam is for the student to demonstrate competence of the material presented in the course. The make-up exam will be a rigorous, yet fair assessment, to ensure that the student has achieved sufficient mastery of the course content to be allowed to progress to the next academic level.
The composition of the exam will be determined by the course director, together with faculty input, and will consist of representative fair and validated questions that assess critical understanding of core course concepts and high yield course content that reflects the breadth of material presented throughout the course.
The expected time required to remediate the content of MHD I, MHD II, or MHD III is three to four weeks. At the conclusion of this study period, the student will sit for the remediation exam.
Remediation exams will be administered at the end of the academic year and will be scheduled by the Office of Student Affairs and the Academic Center for Excellence and Accessibility in consultation with the Course Director and the Office of Educational Affairs. Remediation exams are not offered mid-year due to their potential disruption of focus on courses in progress or during the next semester. All students requiring remediation should meet with the Course Director well in advance of the scheduled date of the exam to discuss both the exact format of the exam and their proposed study approach. Those students achieving a score of greater or equal to 70% on the remediation exam will have their initial F grade converted to a P* and the "Does not Meet" for their Medical Knowledge competency altered to "Meets with Concerns".

A failure to successfully achieve the minimum passing score for the course remediation will be addressed as per the Academic Policy Manual.

Students with a final aggregate course score of <60% may be denied the opportunity to remediate their course failure by an end-of-year remediation process and exam. In this situation the determination regarding the opportunity to remediate will be made by the Student Promotions Committee (SPC).

Remediation of Does Not Meet Competency Evaluation Outside of Medical Knowledge

A Does Not Meet assessment in any course competency other than medical knowledge will result in a U grade for that course. A plan to address these deficiencies is determined by the Academic Review and Intervention Committee (ARIC) and the Student Promotion Committee with input from the appropriate Course Director(s) to determine the form and format of the remediation.

PROFESSIONALISM

Personal responsibility and professionalism are two key areas in the development of a physician. It is expected that professionalism will be extended in all aspects of your conduct in this course.

Appropriate professional behavior includes:

- Adopting appropriate, professional, and respectful interactions with the course directors, lecturers, Medical Education Coordinators, and other students, including when communicating via email.
- Responding to direct communication from the Course Director and Course Coordinator in a timely fashion (within 48 hours), particularly in circumstances when a face-to face meeting is requested to discuss issues related to academic performance.
- Attendance at all required course sessions (unless an official excused absence has been granted by the Office of Student Affairs)
- Adopting appropriate and professional behavior during all course activities
- Completion and submission of any required course assignment by the designated submission date (including end-of-course-evaluations)
- Honestly completing course examinations without attempting to seek an advantage by unfair means and without attempting to compromise the integrity of the exam process in any way.

Any lack in professional conduct during the course will be noted in the online Professionalism reporting tool and an appropriate designation and narrative comment made to the Professionalism competency evaluation within the student grading system. In such cases, students will be subject to the review and subsequent actions of the

Student Promotions Committee (SPC), as outlined in the SSOM Academic Policy Manual.

ACADEMIC HONESTY

It is expected that all students will maintain personal integrity and honesty during the examination process.

Specifically, we do not expect you to participate in and/or enable any of the following:

- the unauthorized access and use of any materials, notes, sources of information, study aids or tools during the exam.
- the assistance of any individual to help answer a question.
- the use of any internet enabled device to search for answers during the exam.
- helping another student commit an act of academic dishonesty.
- engage in any activity aimed at compromising the integrity of course exams either in this or future academic years.

Any student who attempts to gain an unfair advantage over other students in an examination by any of these unauthorized means, passes on the details of exam questions to any other student, will be guilty of academic misconduct and will receive a “Does not meet” in their professionalism competency and be promptly reported to the Office of Student Affairs for subsequent action.

DATE		2024-25 MHD Course Outline		Block Exam Dates
8/5/2024	WEEK 1	General Principles and Concepts of Pathology		
	WEEK 2	General Principles and Concepts of Pathology		8/19/2024
	WEEK 3	Dermatopathology		
	WEEK 4	Dermatopathology		8/30/2024
	WEEK 5	Hemostasis and Thrombosis	**MHD I**	
	WEEK 6	Hemostasis and Thrombosis		9/13/2024
	WEEK 7	Cardiovascular Pathology		
	WEEK 8	Cardiovascular Pathology		
	WEEK 9	Cardiovascular Pathology		10/4/2024
10/5/2024		FALL BREAK		
10/14/2024	WEEK 1	Pulmonary Pathology		
	WEEK 2	Pulmonary Pathology		10/25/2024
	WEEK 3	Renal Pathology; RBC Disorders/Anemias		
	WEEK 4	Renal Pathology; RBC Disorders/Anemias		
	WEEK 5	Renal Pathology; RBC Disorders/Anemias	**MHD II**	11/15/2024
	WEEK 6	Neuropathology & Neurological Diseases		
	WEEK 7	Neuropathology & Neurological Diseases		
	WEEK 8	Neuropathology & Neurological Diseases		12/9/2024
	WEEK 9	Psychiatric Diseases		
	WEEK 10	Psychiatric Diseases		12/20/2024
12/21/2024		WINTER BREAK		
1/6/2025	WEEK 1	GI pathology		
	WEEK 2	GI pathology		
	WEEK 3	GI pathology		1/24/2025
	WEEK 4	Reproduction & Endocrine System Pathology		
	WEEK 5	Reproduction & Endocrine System Pathology	**MHD III**	
	WEEK 6	Reproduction & Endocrine System Pathology		2/14/2025
	WEEK 7	Hematopathology, Radiation Oncology		
	WEEK 8	Musculoskeletal Pathology; Multisystem Disorders		
	WEEK 9	Musculoskeletal Pathology, Multisystem Disoders		3/7/2025

MHD Sakai Site

The MHD Sakai site has been developed with the input of students in order to make it as user-friendly and informative as possible.
Some features we would like to point out:

- MHD Small Group Assignments and faculty schedules are posted under the "Small Group" tab
- **Each MHD block has its own tab.** Information included for each block includes: an overview of the block written by the course director

- a link to the LUMEN Course activities page on which lecture recordings
- and Powerpoint slides can be found
- a link to the Histology for Pathology module/s for the block
- the small group cases and unknowns for the block
- the lab session/s room assignments, case assignments and cases
- answers to review session cases, if provided by the faculty member

Course Announcements emailed to the class are also available on the Sakai site.

ADMINISTRATIVE COMMENTS

A goal of the **Mechanisms of Human Disease** course is to foster learning in an educationally stimulating, challenging, and collaborative environment. To this end, the faculty, course directors and course coordinator are here to support you.

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Course Coordinator
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Should you have questions or need for academic counseling we welcome the opportunity to assist you. If you have any questions concerning a particular topic in pathology, pathophysiology, infectious disease or clinical correlates, we suggest that you contact the faculty member who delivered the educational session. The course directors are available as well.

We wish you a successful M2 Year!