MICHIGAN STATE UNIVERSITY | College of Osteopathic Medicine

PSL539 – Principles of Cell Biology and Pathophysiology

Fall Semester 2 - 2022
(8/23/2022)

Table of Contents

Notice to Students: Although course syllabi at MSUCOM have a consistent format, important details differ by course. For this reason, you must read the syllabus thoroughly at the onset of each course to know what the course will provide and what is expected of you.

Section 1 – Course Information

Course Description

PSL539 is a 4-credit hour course.

Modern concepts of cell biology as a basis for understanding integration of structure (histology) and function (physiology) in health and disease (pathology). Introductions to adaptive growth response, cell injury, inflammation, hemodynamic disorders, and neoplasia.

Measurable Course Objectives

The American Osteopathic Association has identified osteopathic core competencies (OCC) essential for practice as a future osteopathic physician (reference). These are embedded throughout programmatic objectives and curriculum. The curricular structure also encourages proficiency in the Core Entrustable Professional Activities (EPAs) for Entering Residency as defined by the Association of American Medical Colleges to help build toward that future phase of the journey toward medical practice (reference). By the end of this specific course, learners should be able to achieve the following objectives within each competency domain indicated:

Medical Knowledge

1. Describe the microscopic structural, developmental, biochemical, and regulatory mechanisms of cells, tissues, and organs. *(Biomedical Science - Molecular/Biochemical)*
2. Summarize anatomical and physiological structure-function relationships involved in human cell biology. *(Biomedical Science - Anatomy/Physiology)*
3. Correlate the physiologic basis of health and the pathophysiologic basis of disease through selected clinical presentations related to human cell biology. *(Biomedical Science - Pathology/Pathophysiology)*
4. Describe at the cellular level the structural, functional, and pathologic basis for selected neurologic and related disorders. *(Biomedical Science - Neuroscience)*
5. Describe common presentations related to human cell biology that intersect with clinical disciplines. *(Clinical Science - Neuromusculoskeletal, Clinical Science - Neurology, Clinical Science - Pathology, Clinical Science - Radiology, Clinical Science - Emergency, and Clinical Science - Geriatrics)*

Patient Care and Procedural Skills

1. Recommend and interpret results of common laboratory tests related to human cell biology (CBC, basic metabolic panel, nutrient tests, EMG, etc.) using evidence-based and cost-effective principles. *(Diagnostic Testing - EPA 3)*

Professional Development and Reflection Skills

Additionally, the American Osteopathic Association indicates several other competencies on which professional development and reflection across time will foster effective medical practice. These include the ability to work collaboratively as part of an interprofessional team; the maintenance of an inquisitive and scientific approach to learning and medical practice; and the adoption of self-direction in lifelong learning and clinical decision-making. This course will contribute to the development of these longitudinal competencies or skills as indicated:

Self-Directed and Lifelong Learning

Self-directed learning is a 4-step process that occurs within an encapsulated timeframe. The goal of self-directed learning is to help foster self-direction in your lifelong learning and clinical decision-making. In this course, ways you will see the 4 steps of self-directed learning take shape are as follows:

1. **Self-Assessment of Learning Needs** – Students receive itemized instructional objectives and self-guided activities for each laboratory. Online pre-lab exercises allow students to identify their needs for further support or practice to enhance learning during lab sessions. The exercises allow 3 attempts per question, provide immediate feedback, and offer hints that can be used for further study before additional attempts to respond are made. These exercises, geared for student success, consider the widely varied skill levels of incoming first year medical students in microscopic anatomy.

2. **Identification, Analysis, & Synthesis of Information** – Following each lab session, students are provided with integrative questions which require synthesis and application of knowledge from various sources (lectures, laboratory manual text, textbook), while emphasizing how structures studied during the lab reflect function. The questions encourage small group study and discussion, interaction with course faculty, as well as exploration of related learning activities and materials from the course and beyond.

3. **Appraisal of Information Credibility** – Students receive self-study review exercises to serve as an appraisal and reinforcement of the knowledge and skills they have gained in identifying microscopic structures while completing lab activities. These review questions also allow students to reflect once more on their ability to meet the learning objectives.

4. **Feedback on Information-Seeking Skills** – Students receive feedback through their participation in a small group peer process as they discuss laboratory topics, as well as through faculty facilitated discussion of the correct responses to integrative and self-study review questions.

Course Director, Lab Director, and Lab Leaders

Key to Campus sites:

- EL = East Lansing
- DMC = Detroit Medical Center
- MUC = Macomb University Center

Course Director

Name: Joseph Beatty, Ph.D.
Phone: 517-884-5046
Email: *beattyj7@msu.edu* (preferred method, please include PSL 539 in subject line)
Office: 5007 Interdisciplinary Science and Technology Bldg., EL

Histology/Pathology Laboratory Director

Name: Frances Kennedy, D.V.M., M.S.
Phone: 517-432-0467
Email: *kennedyf@msu.edu*
Office: A514-C East Fee, EL

Histology/Pathology Lab Leaders

Site	Name	Email	Office	Phone
East Lansing	Frances Kennedy, D.V.M., M.S.	kennedyf@msu.edu	A514-C East Fee	517-432-0467
DMC	Janice Schwartz, Ph.D.	schwa317@msu.edu	CG-71 Basic Sciences	313-578-9671
MUC	Carrie Nazaroff, Ph.D.	tatarcar@msu.edu	Room 1173 Building 4	582-263-6743

Course Faculty

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Curriculum Assistants

Site	Name	Email	Phone
East Lansing	Stephanie Goodrich	goodrics@msu.edu	517-432-5637
DMC	TBD		
MUC	Beata Rodriguez	rodri583@msu.edu	586-263-6799

Lines of Communication

- For administrative aspects of the Course: contact the course coordinator Dr. Joseph Beatty (beattyj7@msu.edu).
- For content questions relating to a specific lecture or topic: contact the faculty presenter for that specific portion of the course or your SE MI on-site instructor.
    - At East Lansing – Dr. Joseph Beatty (beattyj7@msu.edu)
    - At DMC -- Dr. Janice Schwartz (schwa317@msu.edu)
    - At MUC -- Dr. Carrie Nazaroff (tatarcar@msu.edu)
- For absences/missed exams (see excused absence information below)
- Please set your notifications in D2L to immediate to receive posted News announcements. You may choose to receive notifications by email or SMS.

Office Hours

Questions concerning the course may be discussed individually by making an appointment with the Course Coordinator, Dr. Joseph Beatty, by phone at (517) 884- 5046 or via e-mail: beattyj7@msu.edu with "PSL 539" in the subject line.

Course Web Site

The URL for the Course website is: https://d2l.msu.edu.

LON-CAPA system – https://loncapa.msu.edu

LON-CAPA is the "Learning Online Network with Computer-Assisted Personalized Approach". In PSL 539, LON-CAPA will be used to administer:

- Basic Science Pretest -- This pretest is designed to familiarize you with the LON-CAPA interface and to stimulate your personal review of some basic concepts from chemistry, physics, math, and biology -- concepts that will be used but not taught in PSL 539 and your other Fall Semester courses. *Working through the Pretest is recommended, but not required. Your score on the Pretest does not contribute to your PSL 539 grade.*

- Pre-lab Problem Sets -- You are to complete a short, online problem set as part of your preparation for each of the 13 histology/pathology lab sessions in PSL 539. The first of these problem sets is for practice and will not contribute to your PSL 539 grade. The remaining 12 problem sets will be graded and will contribute to your Overall Course Score and grade in PSL 539 (see "Assessment" section of this Protocol). The Pre-lab Problem Set for each histology/pathology lab will become available at Noon on the Monday preceding the lab and will be due at Noon on Wednesday before the lab session.

- Homework Problem Sets -- These online problem sets are designed to help you integrate concepts from lecture, lab, and self-study, and to challenge you to apply those concepts to solve problems that have direct clinical relevance. The first of these homework problem sets is for

practice and will not contribute to your PSL 539 grade. The remaining 8 homework problem sets will contribute to your Overall Course Score and grade in PSL 539 (see "Assessment" section of this Protocol). The opening date and due date for each Homework Problem Set are included in the Course Event Calendar and will be announced on the PSL 539 web site on D2L (in the weekly Announcements).

- Clinical Application Post-Session Problem Set -- This online LON-CAPA problem set is to test your understanding of the content which is discussed and covered in the Immuno-path Clinical Application session. The Clinical Application session is held on Oct. 28, 2022. The opening date and due date for this problem set will be announced on the PSL539 web site on D2L (in the weekly Announcements).

Network access

To access the web-based D2L and LON-CAPA systems, you will need a reliable broadband internet connection and an up-to-date browser. From off-campus locations, a cable modem, DSL connection, or equivalent will generally provide adequate speed and reliability. If you are having trouble using your own computer to access D2L or LON-CAPA, ask for help from the HIT-ET (Health Information Technology - Educational Technology) staff at your campus. Note, however, that arranging for timely, reliable access to D2L and LON-CAPA is ultimately your responsibility.

Graded Problem Sets on LON-CAPA – Expected conduct

(https://loncapa.msu.edu)

The Pre-lab Problem Sets and the Homework Problem Sets on LON-CAPA are open-book exercises. Moreover, you are permitted to work collaboratively with your PSL 539 classmates in preparing answers to these problem sets. However, for each graded problem set, you are expected to log onto your account on the LON-CAPA system independently, and to enter your own answers for grading. Failure to enter your own answers, yourself, or entering another student's answers for him/her will be considered to be cheating, and a breach of professional behavior.

Textbooks and Reference Materials

Required

- PSL 539 Course Pack (Study Guide) for Fall Semester, 2022.
  The Course Pack (which we will call the "Study Guide") will be produced and distributed in two parts. An electronic version of the Study Guide (in pdf format) is also available via a link on the PSL 539 D2L web site. The Study Guide is basically a workbook, developed by the course faculty to facilitate your achievement of the course objectives. Have the relevant sections of the Study Guide available during each lecture and lab session!
- iClicker Student Account. Free to all MSU students when the student indicates their institution is MSU the subscription cost is waived.
  - *How to Create an iClicker Student Account*
  - *How Students Redeem an iClicker Student Access Code*
- Pawlina, Histology: A Text and Atlas, 8th ed., 2020. Lippincott, Williams & Wilkins
  [ISBN 978-1- 4963-8342-6]. *Note: It is essential that you have your own personal copy of this*

book. In particular, it is important that you have your own copy available during each histology/pathology lab session.

- Rhodes & Bell, Medical Physiology: Principles of Clinical Medicine, 5th ed., 2018. Lippincott, Williams & Wilkins [ISBN: 978-1-4963-1046-0]
- Robbins & Cotran, Pathologic Basis of Disease, 10th ed., 2021. Elsevier Saunders [ISBN: 978-0-323-53113-9]
- Ferrier, Lippincott's Illustrated Reviews: Biochemistry, 7th ed., 2017. Walters Kluwer/Lippincott, Williams & Wilkins [ISBN: 978-1-4963-4449-6]
- Sadler, Langman's Medical Embryology, 14th ed., 2019. Lippincott, Williams & Wilkins [ISBN: 978-1-4963-8390-7]

All of these textbooks will also be used in other courses in your curriculum, so you are advised to purchase and retain your own personal copies of these books.

iClicker Student Polling Use in Course

All students are required to have created an account and added the course in the iClicker student app. You are expected to bring the electronic device associated with that subscription to class. Learning events will proceed as planned, even if you have forgotten to bring your device.

In this course, iClicker Student Polling input may be used in the following ways: to provide practice with concepts and principles, to stimulate discussion and/or to give mini-quizzes. Questions may be posed at any time during the class hour. No make-up experiences will be provided should you forget your iClicker Student polling device. iClicker Student polling will be the only mechanism to record attendance during large group lectures.

- If the iClicker Student polling is used to take attendance, you will be expected to arrive in class on time and to stay for the duration of the assigned activity.
- If you bring your iClicker Student polling device and it fails during the lecture, please see the course representative immediately after the lecture to inform us of the problem. NO points for attendance will be given unless you notify us at the time of the lecture.

Please refer to additional iClicker Student polling policy information provided in Section 2 of this syllabus.

Specific Procedures for the PSL 539 Histology/Pathology Laboratory

Access - Locations of histology/pathology teaching labs:

- EL – Room E200 Fee Hall (across the hall from the Gross Anatomy Lab).
- DMC – Room G031.
- MUC – Room 211 of the UC-4 Building.

At all sites, the lab is computer-based; it uses virtual slides (digitized microscope slides), static images, as well as images from other designated web sites. For each lab session, you will need your lab manual (contained within the course Study Guide) and your required histology text (Pawlina), and your iClicker Student polling device.

Scheduled Labs: Your College will assign you to a specific 1 hour, 50 minute block for histology/pathology labs. This lab section assignment will also be posted on the PSL 539 D2L web site. It is essential that you attend only the lab section to which you have been assigned.

All laboratory materials, including the virtual microscope slides, are always available on the web via any computer that has broadband internet access. The web addresses for accessing histology/pathology lab material are posted on the PSL 539 D2L site.

Individual Readiness Quizzes (IRQ's) in Histology Lab – Expected conduct

IRQ's will be administered via the iClicker Student polling system, in accordance with the iClicker Student polling policy statement (see above).

An IRQ will be administered at the beginning of each lab session. It is your responsibility to be on time. You may be assigned to a specific seat for an IRQ, and you may be asked to change seats during an IRQ. All IRQ's are "closed book". You must not consult notes, books, electronic devices, or other reference material during an IRQ. During an IRQ, you must not communicate answers to IRQ questions to another student or attempt to copy answers from another student. Moreover, you are not to reveal the content of an IRQ to a student who is assigned to a subsequent lab section and therefore has not yet taken the IRQ. The expectations regarding professional behavior and academic honesty that apply to examinations are to be applied during IRQ's as well.

Preparation for each laboratory session -- Pre-lab problem sets

To make your time during histology/pathology lab sessions productive, it is essential that you prepare beforehand. For each lab session, the PSL 539 Study Guide includes an Introduction and a specific assignment for you to work through before each lab session ("Preparation"). You should also skim through the detailed directions for the lab session in order to get an idea of what you will be expected to accomplish during the lab session.

To reinforce the importance of preparing for lab, and to allow you to verify your readiness for lab, we will post a Pre-lab Problem Set online prior to each lab session. You will access the Pre-lab Problem Sets via the LON-CAPA system (*http://loncapa.msu.edu*). The problem sets will be available beginning Monday at Noon lab and will be "due" Wednesday at noon before the lab session. Successful completion of the pre-lab problem sets on LON-CAPA will contribute to your Overall Course Score and Course Grade (see "Assessment" section of this Syllabus).

Resources to have available during each laboratory session

- iClicker Student polling device – In order to receive Individual Readiness Quiz (IRQ) credit, you must personally attend the lab session to which you are assigned, and you must submit answers using your personal iClicker Student polling device, which you have obtained and web-registered in accordance with directions provided by the College. IRQ answers submitted in another way (e.g., written on paper or submitted using another student's iClicker Student polling device) will not be accepted.

- Study guide – Your Study Guide provides an essential guide to the structural features you are looking for during lab and to their significance.

- Histology textbook – Both the Study Guide and online lab material will frequently refer to pertinent figures in the required histology textbook (Pawlina), so have your histology textbook available during each lab session.

Making the most of your time in histology lab

Being well prepared for each histology lab session (as directed above) and staying for the full lab time will allow you to take full advantage the laboratory session content.

Course-based Academic Support

The course faculty are here to facilitate your learning. Please feel free to contact the Course Coordinator with any personal issues you may have involving this course. Additional academic support resources can be accessed through MSUCOM Academic and Career Guidance and MSUCOM Personal Counseling.

Course Topics

Overview:

Topic	Lecture	Lab Session
Fundamentals:		
Introduction to Histology		1
Basic cytology	2	2
Elaboration on Signaling	3-5	
Early embryology	6	
Developmental mechanisms	7	
Connective tissue: Connective tissue proper	8-9	3
More connective tissue: Cartilage and bone	10-11	4
Elaboration on major themes: Transmembrane transport	12-14	
Epithelium	15-16	5
More connective tissue: Blood	17-21	6
Eicosanoids and quick review of signaling	22	
Lymphatic System	23-24	7
Cardiovascular overview	25-26	
Cell Injury and cellular accumulations	27-29	8
Inflammation and Tissue repair	30-32	9
Nervous tissue	33-35	10
Skeletal muscle	36-39	
Cardiac and smooth muscle	40-41	11
Autonomic nervous system	42-43	
Hemodynamic disorders	44-46	12
Neoplasia	47-51	13

Specific Course Schedule: A listing of Course Activities is posted on the PSL 539 D2L site. ***However, the official Course Calendar is the Academic Calendar for COM Class of 2026.***

Course begin and end dates

PSL539 begins on August 30, 2022 and ends on December 13, 2022. See addendum for detailed daily course schedule.

Exams/Assessments

The successful achievement of learning objectives will require knowledge and skills acquired in other portions of the overall MSUCOM educational program. Students will be expected to apply concepts and vocabulary learned in other courses to problem-solving for exams/assessments in this course.

To maintain security of assessments, you may NOT post questions on the discussion board regarding exam questions or quiz questions. Kindly email your questions to the course coordinator.

There will be a total of seven exams given in PSL539. The assessment schedule is as follows:

Assessments	Projected Points	Material to be Covered	Relevant lecture sessions	Relevant lab sessions
Unit Exam #1 Monday, 9/12/22	**24**	Cytology, Signaling, Early Embryology, Developmental Dynamics	1-7	1-2
Unit Exam #2 Monday, 9/26/22	**27**	Connective Tissue Proper, Cartilage & Bone and Transport	8-14	3-4
Unit Exam #3 Monday, 10/10/22	**30**	Epithelium and Blood, Eicosanoids signaling	15-22	5-6
Unit Exam #4 Monday, 10/24/22	**27**	Lymphatic System, Cardiovascular Overview and Cell Injury	23-29	7-8
Unit Exam #5 Monday, 11/7/22	**24**	Inflammation, Tissue Repair and Nerve	30-35	9-10
Unit Exam #6 Monday, 11/21/22	**27**	Muscle and Autonomic nervous system	36-43	11
Unit Exam #7 Tuesday, 12/13/22	**30**	Hemodynamic disorders, and Neoplasia	44-51	12-13
TOTAL	**189**			

Summary: Components of your Overall Course Score

Component	Description	Maximum Points
Labs (best ten):	20 Lab Points maximum	20 points maximum
Homework problem sets:	12 Homework Points maximum	12 points maximum
Clinical Application post- session problem set	2 points maximum	2 points maximum
Exam questions:	189 questions @ 1 point each	189 points maximum
Total = Overall Course Score		223 points maximum

Missed PSL 539 lab quizzes

- If illness, emergency, or other compelling circumstance makes it impossible for you to attend two or more of your assigned lab sessions, you may request an excused absence from your Associate Dean, as directed, above. If an excused absence is granted for two or more lab sessions, your next step is to contact Course Coordinator: Dr. Beatty (*beattyj7@msu.edu*).

- NOTE: In no case will an excused absence be granted for a single, isolated absence from a lab. Such an excuse is unnecessary, since a student can miss one lab quiz without losing any course points.

- No make-ups are offered for lab quizzes (IRQ's). Allowing for illness or emergency is why only ten of your twelve graded Pre-lab scores count toward your Overall Course Score. Appeals for additional consideration for multiple missed quizzes must be accompanied by an excused absence from your Student Affairs Office (as explained above), which is presented to the Course Coordinator -- Dr. Beatty (*beattyj7@msu.edu*).

  Permanent changes in PSL 539 lab assignment: The College assigns you to a 1 hour 50 minute time block for your PSL 539 histology/pathology lab time. This lab assignment will also be posted on the PSL 539 D2L website. Space and instructional support are limited in the lab, so it is essential that you attend only the 1 hour 50 minute block to which you have been assigned by the College. Also, answers that you submit during lab quizzes will earn course credit only if you are attending the lab session to which you are assigned. Any permanent change in your lab time assignment must be based on compelling need and negotiated in advance with the College. If you must seek such a permanent lab reassignment, contact the Course Assistant for your campus (as listed on page 3 of this Syllabus).

Assessment

Your Overall Course Score in PSL 539 will be based on four components:

- Labs— To reinforce the importance of preparing for lab, and to allow you to verify your readiness for lab, we will post a Pre-lab Problem Set online (using the LON-CAPA system) prior to each lab session. In general, the problem sets will be available beginning Noon on the Monday preceding the lab and will be "due" at Noon on Wednesday before the lab session. The problem set for Lab #1 is for practice and will not contribute to your Overall Course Score. The problem sets for Labs #2 - #13 will be graded and will contribute to your Overall Course Score.

  As further reinforcement for lab preparation, we will begin each of the histology/pathology

lab sessions with a brief Individual Readiness Quiz (IRQ), which will be administered via iClicker Student polling system. The IRQ for Lab #1 is for practice and will not contribute to your Overall Course Score. The IRQ's for Labs #2 - #13 will be graded and will contribute to your Overall Course Score.

A total of 2 Lab Points will be assigned to each of the twelve graded labs (Labs #2-#13). Specifically, each Pre-lab Problem Set on LON-CAPA is worth 1 point, and each IRQ is worth 1 point. Your best ten Pre-lab LON-CAPA and best ten Lab IRQs (out of the twelve graded labs) will count toward your Overall Course Score. Achieving the maximum score of 2 on at least ten of the twelve graded labs (Labs #2-#13) would yield 20 Lab Points, which would contribute 20 points toward your Overall Course Score.

- Homework Problem Sets -- These online problem sets are designed to help you integrate concepts from lecture, lab, and self-study, and to challenge you to apply those concepts to solve problems that have direct clinical relevance. Additional information about each problem set (including opening and closing dates for each problem set) will be announced on the course D2L web site. The first Homework Problem Set is for practice and will not contribute to your Overall Course Score. The remaining eight Homework Problem Sets will be graded and will contribute to your Overall Course Score. A total of 1.5 Homework Points will be assigned to each of the eight graded problem sets. Achieving the maximum of 1.5 Homework Points on each of the eight graded problem sets would yield a total of 12 Homework Points, which would contribute 12 points toward your Overall Course Score.

- Clinical Application Post Session Problem Set -- This online LON-CAPA problem set tests your understanding of the content that is covered in the Immuno-path Clinical Application Session, which will be held on October 28, 2022. A total of 2.0 points will be assigned to this problem set. Achieving the maximum of 2.0 points on this problem set would contribute 2.0 points toward your Overall Course Score.

- Exams – There will be eight Unit Exams given during Semester 2. PSL 539 course material appears on seven of those exams. Specific questions in Unit Exams #1-7 will be assigned course credit in PSL 539, as indicated in the chart above. Altogether, 189 exam questions will count toward your Overall Course Score in PSL 539. These exam questions will be based on Learning Objectives (listed in the materials for each lecture and lab session in the Course Pack). Many of the questions will integrate material from lectures, labs, and the assigned self-study activities.

  Each of the 189 exam questions that count toward your Overall Course Score in PSL 539 will have the same weight. Each of these questions that you answer correctly will contribute 1 point toward your Overall Course Score (making a maximum of 189 points that can be earned on exam questions in PSL 539).

Course Grades

The course faculty determine the threshold for satisfactory performance in each preclerkship course. Your course grade will be determined by the following formula:

(Exam 1 + Exam 2 + Exam 3 + Exam 4 + Exam 5 + Exam 6 + Exam 7 + Labs + Homework problem sets + Clinical application post session problems) / (total points possible) x 100%
= Final percent score

- **P-Pass**—means that you have achieved a satisfactory level of performance and will receive credit for this course. To obtain a "P" grade for this course, you must earn a final percent score of 70.0% or greater.
- **N-No Grade**—means that you have not achieved a satisfactory level of performance and no credit will be granted for this course. If you earn a final percent score below 70.0%, you will receive an "N" grade.
- **Remediation** – If you receive an "N" grade and meet the criteria below, you will be eligible to attempt remediation:

    - Earn a final percent score in the course of 60.0% or greater.
    - The remediation opportunity for this course will be by examination. Passing is 70.0% or greater.
    - All remediation exams for semester 2 are scheduled for Tuesday, Jan. 3, 2023 and Wednesday, Jan. 4, 2023. Refer to the remediation policy information provided in Section 2 of this syllabus for more information.

* Notes:

- No "rounding up" will be done in calculating your Overall Course Score.
- Your Course Grade depends on the percentage of the maximum score that you earned.

The bottom line on professional behavior

Based on many years' experience, we expect that almost all students, through their own, honest efforts, will earn passing grades in PSL 539. However, failing PSL 539 (and then having to remediate) is not the worst thing that could happen to you in this course.

The worst thing would be to attempt to raise your own course score, or a classmate's score, by engaging in some form of cheating. Engaging in dishonest behavior erodes your self-respect, tarnishes the image of your class and your college, jeopardizes your medical career, and demeans the medical profession. Just don't do it!

If you have any questions or concerns about appropriate/inappropriate behavior in this course, please contact the Course Coordinator and/or your college's academic or student affairs administrators. Your communication may be anonymous if you wish.

Achievement, not competition

The sole goal of the faculty is to facilitate your learning of cell biology and physiology. In all respects, the evaluation scheme for the course is set up to recognize and reward your best, honest efforts to achieve the learning objectives. No "curves" are used in grading, so there is no limit to the number of students who can earn high scores. As a result, a poor performance by another student will not benefit you in any way, whatsoever. Therefore, we expect you to cooperate with and encourage your classmates to the greatest extent possible (within the boundaries of professional integrity, of course).

We will be delighted if everyone does well in the course. However, we will not lower standards in order to "inflate" student performance. Easing standards is unfair to all concerned. It would give a false sense of accomplishment to marginal students, who would then be likely to have trouble in future courses and on Board exams. It would diminish the academic reputation of this medical school and erode the

standards of the profession. It would also be an abrogation of our responsibility to the public at large, which expects expert medical care from thoroughly competent physicians. Although we will not lower standards to make things "easier", we will work with you in every other way possible to help you achieve success. Just tell us what you need.

Student Evaluation of the Course

We want your feedback on how to improve this course.

- Informal Feedback: Feel free to approach the Course director, Dr. Joseph Beatty (beattyj7@msu.edu), or any of the other course faculty with your reactions and suggestions.

- Formal Evaluation: In addition to the above, we ask every student in the class to complete a formal on-line course evaluation upon conclusion of the course. Student feedback provides Course Directors with valuable information regarding their performance, the performance of their colleagues, and the quality of the course. The information gained from these evaluations is used to continuously improve future offerings of this course. Students in the Class of 2026 can access the evaluation system at: https://msucom.medtricslab.com/users/login/

Section 2 – Policies

Please refer to the Student Handbook at https://com.msu.edu/current-students/student-handbook-course-catalog for these and other policies.

Academic Honesty and Professionalism

Every student is responsible for their behavior and is expected to adhere to all MSU and MSUCOM policies of academic honesty and professionalism, as outlined in the MSUCOM Student Handbook and the MSU Medical Student Rights and Responsibilities. These documents may be found on the MSUCOM website. Additional guidance on academic integrity may be found on the MSU Ombudsperson's website at https://ombud.msu.edu/sites/default/files/content/Academic-Integrity-at-MSU-updated-August-2017.pdf

Incidents of academic dishonesty or professional misconduct will be addressed by the faculty, administration, or staff; such action may include, but is not limited to: giving a failing grade, referring a student for judicial review, directing the student to the Associate Dean of Medical Education, evaluation by the Committee on Student Evaluation, and other actions outlined in the Medical Student Rights and Responsibilities document.

Types of Class Sessions

MSUCOM designates lectures and other class sessions by their delivery method. While additional terms may be used in a specific course, the following will provide general guidance to the type of session:

- Live or livestream lecture: broadcast at a designated time; intended to be viewed synchronously
- Online Lecture: recorded content, may be viewed asynchronously
- Webinar: more interactive session where student participation is expected
- Lab: may refer to on-site clinical skills training or online lab session; see details

Changes to Course Schedule or Requirements

Due to external circumstances, the course requirements published in the course syllabus and/or course schedule may be subject to change. Timely notification Communication regarding changes will be provided to enrolled students via the course D2L site and/or email. Any changes made will consider the MSU Code of Teaching Responsibility and the MSU Medical Students Rights and Responsibilities.

Mandatory and Optional Class Sessions

All lectures and other class sessions are considered to be integral to the course, and students are expected to attend, view, or participate in each session. Some sessions are designated as "mandatory" in that attendance at the session on the scheduled date and time is required. Depending on the course, a student may earn points for attending or participating in a mandatory session or may lose points for failing to attend or participate. Availability of make-up points for missed sessions is at the discretion of the course coordinator. Optional class sessions are offered by faculty to assist students in learning or reviewing course content.

Absences from Mandatory and Examinations/Assessments

It is the responsibility of the student to know which class sessions are deemed as mandatory and comply with the MSUCOM policy regarding absences from mandatory sessions and examinations. This policy may be found in the MSUCOM Student Handbook on the MSUCOM website. Requests for an excused absence must be submitted via the student portal.

Computer-Based Testing

It is the responsibility of each student to know and comply with the MSUCOM policy on computer-based testing. This policy may be found in the MSUCOM Student Handbook on the MSUCOM website.

Administration of quizzes, examinations, and other assessments may be self-proctored, virtual proctored, or classroom proctored. Regardless of the proctoring method, you are expected to take the exam in a quiet, private setting. Just like in a proctored exam, you are not to access notes, textbooks, references, your phone, or other materials, and you are not to interact with fellow students or others. Remember that integrity is defined as what you do when no one is looking.

You are also expected to not record, photograph, take screen shots, make notes of, or otherwise attempt to make a copy of any exam item for any purpose, including your personal use. A student who is discovered to have cheated or breached exam security will be subject to formal disciplinary action, up to and including dismissal from MSUCOM.

If you have concerns or evidence of an exam security breach on any exam, you may report that to an MSUCOM administrator or through the online concern form.

Medical Student Rights and Responsibilities

If problems arise between instructor and student, both should attempt to resolve them by informal, direct discussions. If the problems remain unsolved, the Associate Dean for Medical Education and/or the MSU Ombudsperson may be consulted. The MSU Medical Student Rights and Responsibilities (MSRR) document defines processes for additional steps, including submission of a formal grievance. The MSSR may be found in the MSUCOM Student Handbook and online at https://studentlife.msu.edu/about/handbook/medical-student-rights-responsibilities/index.html.

iClicker Student Policy

It is your responsibility to know and comply with the iClicker Student Policy. This policy may be found in the MSUCOM Student Handbook. If you forget your device or if it does not work, for whatever reason, no make-up experiences will be provided, and no points will be given.

If iClicker Student is used to take attendance for an on-campus event, you will be expected to arrive to the physical location on time and to stay for the duration of the assigned activity. If iClicker Student is used to take attendance for an online event, you will be expected to start the session at the scheduled time and participate for the duration of the assigned activity.

As a matter of professionalism, please note that under no circumstances should you provide access to your iClicker Student account to another student by sharing your device and/or account login, nor should you accept another student's device or login credentials to access iClicker Student on their behalf. Answering questions or checking in for attendance on behalf of another student by using their device or account is considered to be academic dishonesty and may result in disciplinary action up to and including dismissal from the college.

Remediation

The MSUCOM Policy for Retention, Promotion and Graduation requires successful completion of each required course to progress in the curriculum. If you receive an "N" grade in a course, that grade will be

recorded on your official transcript; you must meet the course requirement by successfully remediating or repeating the course.

Eligibility to attempt remediation of the course is determined by criteria described in the "Course Grades" section of the syllabus. If you are not eligible to attempt remediation, or if you fail the remediation, you must retake the course, provided you are eligible to continue in the program as determined by the Committee on Student Evaluation.

Student Safety and Well-being

The MSUCOM website and Student Handbook provide information on student safety, campus security, access to medical care and counseling services, and to policies on injuries and exposures. If you have an injury or acute illness on campus, an incident report should be completed. The form is available on the MSUCOM intranet or from Academic Programs.

Academic Support Resources at MSUCOM

As a way to acclimate you to the curriculum at MSUCOM, we have created a program called On Target: https://michiganstate.sharepoint.com/sites/OnTargetforAcademicSuccess

On this site you will find semester roadmaps which give a general overview of each semester, tools needed to be successful in the curriculum and targeted resources for your unique learning situation. In each semester's road map, you will also find course expectations, tips for success, potential trouble spots, longitudinal course integration, and specific course study guides.

Requests for Accommodations

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 517-884-7273 or online at rcpd.msu.edu. Once eligibility for an accommodation has been determined, you may be issued a Verified Individualized Services and Accommodation (VISA) form. Each VISA includes an expiration date; to request an accommodation, you must have an active VISA. You may work with RCPD to renew a VISA.

During the preclerkship curriculum, the college will help to coordinate accommodations for additional testing time. Provide your VISA to Nancy Thoma, thoman@msu.edu, A333 East Fee Hall at the start of the term and/or at least two weeks prior to the assessment event (test, project, labs, etc.). Requests for accommodations received with less notice will be honored whenever possible. You may choose whether or not you wish to use accommodations for a particular event. For other accommodations, you may also review your VISA with the course coordinator and curriculum assistant assigned to that course.

Title IX Notifications

Michigan State University is committed to fostering a culture of caring and respect that is free of relationship violence and sexual misconduct, and to ensuring that all affected individuals have access to services. For information on reporting options, confidential advocacy and support resources, university policies and procedures, or how to make a difference on campus, visit the Title IX website at titleix.msu.edu.

Limits to confidentiality. Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, you should be aware that University employees, including instructors, may not be able to maintain confidentiality

when it conflicts with their responsibility to report certain issues to protect the health and safety of MSU community members and others. Instructors must report the following information to other University offices (including the Department of Police and Public Safety):

- Suspected child abuse/neglect, even if this maltreatment happened when you were a child;
- Allegations of sexual assault, relationship violence, stalking, or sexual harassment; and
- Credible threats of harm to oneself or to others.

These reports may trigger contact from a campus official who will want to talk with you about the incident that you have shared. In almost all cases, it will be your decision whether you wish to speak with that individual. If you would like to talk about these events in a more confidential setting, you are encouraged to make an appointment with the MSU Counseling and Psychiatric Services.

Addendum: Course Schedule

Course schedule for the current semester will be posted to D2L. Changes to the course schedule will be noted on the class academic calendar ("Google calendar") and communicated to students via D2L and/or email. The schedule for the most recent offering of this course will be posted on the MSUCOM website under Current Students/Preclerkship Curriculum.