

OST 580 – Respiratory

Spring Semester 6 - 2022

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Notice to Students: Although course syllabi at MSUCOM have a consistent format, vitally 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

OST 580 – The Respiratory System is a 7 credit hour course.

Much thought and effort went into sequencing the actual lecture hours for the OST 580 Respiratory system – 6 credit course, so there would be a logical flow of material. Integration with the Pediatric content has also been made. The recommendations for successful performance in this course include mastery of all lectures before the session in which they will be covered, and additional reading from standard texts to supplement items that are still confusing and interaction with the faculty.

It is felt that if the student keeps up with material on a daily basis they will have no trouble passing the course with much higher than a 73% level.

Materials learned in preceding courses will be utilized to build upon. Examples include: chest radiography from OST 579, physiology, immunology, pharmacology, microbiology and anatomy from year one, and diseases that may present with chest pain, alteration in respiratory drive, or shortness of breath from any system.

The emphasis in this course is not only learning about respiratory tract diseases, but also to help the student put information learned across the curriculum together into a cohesive thought process.

Philosophy of Instruction: In this course, 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-solve for exams and assessments in this course.

Google images are a good source of multiple examples of a given disease. You should consult outside examples of each disease presented, where appropriate especially as it relates to images.

Self-Directed and Lifelong Learning in OST 580

It is a goal at MSUCOM to promote self-directed learning to help our students grow into strong, self-directed future clinicians. Self-directed learning is also required by medical school accreditation standards. It is a 4-step process that occurs within an encapsulated timeframe. OST 580 is organized into 4 sessions or units, which begin with presentation of flipped video content and end with a clinical integration session. Ultrasounds skills and lifesaving airway techniques are a focus of sessions to assure that learners are prepared to treat their first patient who says, "I can't breathe." Across these sessions, you will see the 4 steps of self-directed learning take shape as follows:

1. **Self-Assessment of Learning Needs** – Sessions begin with the presentation of flipped video content for guided self-study in preparation for a clinical integration session at the end of the session. In addition to the content, these videos contain learning objectives and often self-assessment questions and/or resources to guide further learning.
2. **Identification, Analysis, & Synthesis of Information** – By completing self-assessment activities and considering knowledge in relation to learning objectives, students gain a sense of their learning needs. They are encouraged to seek out clarifying information with the provided resources, through independent research, or through dialogue with faculty and peers during scheduled events or other communications.
3. **Appraisal of Information Credibility** – To formally synthesize and appraise their knowledge, students participate in a faculty-facilitated clinical integration session at the end of each of the four sessions or units. These often include multifaceted activities spanning such areas as practice with diagnostic and clinical skills, discussion of related cases or scenarios, and team- or problem-based activities.
4. **Feedback on Information-Seeking Skills** – Students receive formative feedback throughout the session through completion of self-assessment activities and while they participate in clinical integration sessions. Additionally, students receive summative feedback through the completion of internally developed unit exams.

Course Goals

Upon completion of OST 580, Respiratory System, the student must:

1. be able to identify/recognize:
 - a. Normal Adult CXR
 - b. Normal Pediatric CXR
 - c. Normal Sinuses- CT and plain films
 - d. Abnormal Sinuses – CT and plain films
 - e. Normal Mastoids
 - f. Abnormal Mastoids
 - g. Periorbital vs. Orbital cellulitis
 - h. Pneumonia in any location
 - i. Pleural Fluid
 - j. Mass in any location
 - k. Abscess in any location
 - l. Simple pneumothorax

- m. Tension pneumothorax
 - n. Flail Chest
 - o. Rib Fracture
 - p. Sternal Fracture
 - q. Foreign bodies in nose, mouth, pharynx, esophagus, airway, GI tract
 - r. Recognize a wide mediastinum in an adult patient
 - s. Hilar adenopathy
 - t. Radiograph suspicious for reactivation TB
 - u. Apical Mass – pancoast tumor or other apical disorder
 - v. Silhouette sign and what anatomic structure that pathology is located in
 - w. Normal and abnormal epiglottis
 - x. Normal and abnormal tracheal shadow
 - y. Normal and abnormal retropharyngeal space
2. be able to identify the anatomic structures of the respiratory system, state their physiological and be able to describe the interactions of these organs with other body systems
 3. be able to identify the anatomic structures of the ears, nose, oropharynx, salivary glands and neck, state their physiological and pathological..... and be able to describe the interactions of these organs with other body systems.
 4. know and be able to use correctly the vocabulary and abbreviations used to describe the structure and function of the respiratory system as well as disorders of the system
 5. know and be able to use correctly the vocabulary and abbreviations used to describe the structure and function of the ears, nose, salivary glands, and oropharynx as well as disorders of these systems
 6. be able to discuss pertinent history and physical findings in a patient with a respiratory complaint
 7. be able to describe pertinent history and physical findings in a patient with an ear, nose or oropharynx and neck complaint.
 8. be able to differentiate normal from abnormal findings in a patient with a respiratory complaint
 9. be able to differentiate normal from abnormal findings in a patient with an ear, nose, salivary gland, oropharynx or neck complaint
 10. be able to assess abnormal findings based on history, physical, laboratory and x-ray studies
 11. be able to develop a plan for diagnosis and management of a patient with a respiratory complaint noting that the primary problem may not be in the respiratory system, but rather only manifesting in the respiratory system
 12. be able to develop a plan for diagnosis and management for a patient with an ear, nose, salivary gland, oropharynx or neck complaint
 13. be able to describe the outcome of appropriate and inappropriate interventions in the management of respiratory diseases
 14. be able to integrate history, physical, lab, ekg and x-ray findings accurately to arrive at a logical differential diagnosis
 15. be able to draw upon materials learned in other courses and apply them to patient scenarios, which will include being able to accurately interpret a 12 lead ekg, cardiac rhythm strip, a complete blood count, basic and comprehensive metabolic panels, coagulation studies and arterial blood gasses to name a few
 16. understand the intersystem presentations of disease with primary respiratory manifestations, with the ability to develop a multisystem differential diagnosis
 17. know referred pain patterns for HEENT and thoracic cavity organs
 18. be able to identify appropriate HEENT and thoracic/pulmonary OMT techniques to restore homeostasis
 19. be able to intubate a pediatric and adult mannequin with proper technique
 20. be able to manage an airway using basic techniques

21. be able to perform a needle decompression to treat a tension pneumothorax in the appropriate patient scenario
22. be able to identify microbiologic specimens that cause disease in the respiratory, dermatologic or genitourinary systems.
23. be able to obtain M Mode imaging of lung sliding with ultrasound
24. be able to recognize abnormal lung findings on ultrasound given an appropriate image.

Miscellaneous objectives and points of understanding needed:

- Pulmonary edema in interstitium, pneumonia in parenchyma – both can give crackles, rales, rhonchi. Pleural effusion is in pleural space – therefore if significant should not see diaphragm on either AP or lateral and does not follow lobar distribution and does not create any airway sounds as it is not in the airway. Will have decreased breath sounds as fluid acts as a buffer. Must be able to differentiate on x-ray and physical examination between pleural effusion, pneumonia, atelectasis and pulmonary edema.
- Must have a detailed understanding of the oxyhemoglobin dissociation curve and the factors that affect it, such as changes in vitals, pH, and know that the 90/60 rule is only good under normal physiologic conditions, at sea level.
- Must be able to match physical exam to CXR and HEENT imaging findings and vice versa– ie if it says decreased breath sounds think buffer – air or water – ie pneumothorax or pleural effusion. If it says crackles think fluid – if diffuse think diffuse diseases, like pulmonary edema. If focal and crackles, rhonchi, rales think focal disease like pneumonia. If wheezing think airway narrowing – asthma, COPD, foreign body (especially if focal), reactive airways to infection, etc.
- Must know the different types of breath sounds, where found and characteristics of each by description.
- Must know cell types for pathologic diseases
- Must be able to define FiO₂ and know that it is always 1 when initiating a ventilator. Means 100% oxygen
- Be able to state the mechanism that causes digital clubbing.
- Pay attention to left and rights, be specific about disruptions – ie ipsilateral diaphragm, not just diaphragm

College Programs Objectives

In addition to the course-specific goals and learning objectives, this preclerkship course also facilitates student progress in attaining the College Program Level Educational Objectives, which are published in the MSUCOM Student Handbook.

Course Coordinator

(Note - Preferred method of contact is shown in italics)

Name: Mary Hughes, D.O.

Phone: 517-353-3211

Email: hughesm@msu.edu (preferred method)

Address: 909 Wilson Road, B311E West Fee Hall, East Lansing, MI 48824

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Curriculum Assistants

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DMC	Deb Smita	debsmita@msu.edu	517-884-9628

Lines of Communication

Content questions: The preferred way, at least in the beginning to obtain answers to questions is to email any question to the course director at hughesm@msu.edu.

If it is something that Dr. Hughes is comfortable answering she will reply, and copy the reply to the whole class, with the question (minus the name of the one submitting the question) through the course communication tool. If it is something that needs further discussion from the faculty that taught that particular topic, then it will be forwarded on for faculty review, and the student that sent the question will be notified that such has happened. Either Dr. Hughes or the faculty answering will reply to the email, and again send the answer on course communication tool as well.

Questions received before 9am will be answered by 5pm daily to the best of our abilities.

No content questions will be answered after 5pm on the evening before an exam as there will not be time to get a reply to the whole class.

Administrative/mechanical course questions:

Email Dr. Hughes directly with issues that are of an individual nature, and not content related.

Dr. Hughes will be checking email intermittently throughout the day and will answer as they come in – doubtful that questions that come in after 10pm will be answered before the next am however.

Dr. Hughes will be working clinically during the course as well, and does not have email access when working as the patients require her undivided attention.

In addition, if there is some valid reason that you will be missing a clinical integration session and/or exam you must contact Dr. Hughes directly. You have been given her office phone number, and also have her email address. This does not relieve you of the responsibility to complete a college excused absence form.

Email can be used for all times except 5pm the evening before exam through 0600am day of exam. After 0600am Dr. Hughes will be at MSU setting up for the day's experiences. Between 0600am and the end of the day she will be unavailable to receive phone calls, but any messages left during this time will be reviewed at the end of the day. It is also helpful for you to leave a phone # if it is something that we need to discuss verbally.

Office Hours

Questions concerning OST580 may be discussed individually by making an appointment with the Course Coordinator, Dr. Mary Hughes, by phone at 517 353-3211 or via e-mail: hughesm@msu.edu. The course coordinator is available by appointment.

Course Web Site

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

The course D2L site has these main sections:

- **News** - Course-related communication to the class will be made here. You should check for announcements on a daily basis. **It is the student's responsibility to assure that their mailbox at MSU is not full, and therefore not able to receive messages.** This will not constitute a valid reason to have missed a message. D2L notifies the sender (it might not always be Dr. Hughes, and I don't get notified if someone else sends the message) of reasons email was not received including mailbox full.
- **Content Tab** - Lecture recordings, tutorials (TT), self-study modules (SSM), and all other scientific material will be deposited here. There will be additional materials available for students (ie. Articles)

but the test will be based on the lecture materials with the exception of the head and neck lymphatic drainage article, which will be tested directly.

Textbooks and Reference Materials

Required

- iClicker Cloud subscription (aka REEF).
iphone users - <https://apps.apple.com/us/app/reef-polling-by-i-clicker/id899690067>
Android users – go to the Google playstore to download the iclicker Reef app.
*Free to all MSU students when the student indicates their institution is MSU the subscription cost is waived.
- Mary Hughes, DO, OST580 Course Pack SS22
- Moore KL/Dalley AF/Agur AMR, [Clinically Oriented Anatomy](#), 8th ed., 2019, Lippincott Williams & Wilkins, ISBN: 9781496347213
- Gilroy, et al, [Thieme Atlas of Anatomy](#), 3rd ed., 2016, Thieme Medical Publisher, ISBN: 9781626232525
- Ross MH, Pawlina W, [Histology: A Text and Atlas](#), 8th ed., 2020, Lippincott Williams & Wilkins, ISBN: 9781496383426
- Kumar, Abbas, and Astera, [Robins & Cotran Pathologic Basis of Disease](#), 10th ed., 2020, Elsevier Science/WB Saunders Co., ISBN: 9780323531139
- Sadler, [Langman's medical Embryology](#), 13th ed., 2015, Lippincott Williams & Wilkins, ISBN: 9781451191646
- Marcdante, K., Kliegman, R.M, [Nelson Essentials of Pediatrics](#), 8th Edition, 2019, Elsevier/Saunders, ISBN: 9780323511452
- Levitzky, [Pulmonary Physiology](#), 9th ed., 2018, McGraw-Hill Medical, ISBN: 9781260019339

Required Article Readings for S6UE3- links available on the D2L site and MSU library website.

- [Pre-oxygenation and Prevention of Desaturation During Emergency Airway Management](#), Scott D. Weingart, Richard M. Levitan, Vol 59 (3); March 2012, Annals of Emergency Medicine, p. 165
(Reading is **REQUIRED** if bonus quiz is to be taken) Keep this article for years 3 and 4.
- [Head & Neck Lymphatic Article](#), Eric Schwetschenau, Daniel J. Kelley, Temple University School of Medicine, Philadelphia, Pennsylvania. *Am Fam Physician*. 2002 Sep 1;66(5):831-839. (Reading is **REQUIRED and tested**)
- [An Emerging Crisis: Vaping-Associated Pulmonary Injury](#) by Randol W. Hooper II, MBBBS, MS and Jamie L. Garfield, M.D. in Annals of Internal Medicine Vol 172(1):57-59. January 2020 (Reading is **REQUIRED and tested**)

Optional Readings

- Goodman, L. R., [Felson's Principles of Chest Roentgenology A Programmed Text](#), 4th ed., 2015, Elsevier Saunders, ISBN: 978-1-4557-7483-8
- Behrman, [Nelson Textbook of Pediatrics](#), 21st ed., 2020, Elsevier Health Sciences, ISBN: 9780323529501
- West, [Pulmonary Pathophysiology](#), 9th ed., 2017, Lippincott Williams & Wilkins, ISBN: 9781496339447

- Bordow, Ries & Morris, [Manual of Clinical Problems in Pulmonary Medicine](#), 7th edition, 2014, Lippincott Williams & Wilkins, ISBN: 9781451116588
- Longo, Fanci, Kasper, [Harrison's Principles of Internal Medicine](#), 20th ed., 2018, McGraw-Hill Book Company, ISBN: 9781259644030
- Katzung, B.G, [Basic and Clinical Pharmacology](#), 14th ed., 2017, McGraw Hill Book Company, ISBN: 9781259641152
- Brunton, L.L., [The Pharmacological Basis of Therapeutics](#), 13th ed., 2018, McGraw Hill Book Company, ISBN: 9781259584732
- Albert, RK, Spiro, SG, Jett, JR, [Clinical Respiratory Medicine](#), 4th ed., 2012, Mosby, ISBN: 9781455707928
- Rhodes & Bell, [Medical Physiology: Principles for Clinical Medicine](#), 5th ed., 2017, Lippincott Williams & Wilkins, ISBN: 9781496310460
- Broaddus, V. Courtney, MD; Mason, Robert J. et al., [Murray and Nadel's Textbook of Respiratory Medicine](#) 7th ed, 2021, Saunders, ISBN: 9780323655873
- M. Cloutier, [Respiratory Physiology](#), 2nd ed., 2019, Elsevier, ISBN: 978-0-323-59578-0 ([Chapter 8-Oxygen and Carbon Dioxide Transport](#)) and ([Last chapter - Self study and examination questions](#)) - (Reading is strongly recommended)
- Hyatt, Robert E., [Interpretation of Pulmonary Function Test: a practical guide](#), 4th ed., 2014, Wolters Kluwer Health, ISBN: 978-1-4511-4380-5
- Peter Gulick, DO, - Nahid P, Mase SR, Migliori GB, et al; American Thoracic Society, U.S. Centers for Disease Control and Prevention, European Respiratory Society, and Infectious Diseases Society of America. [Treatment of drug-resistant tuberculosis. An official ATS/CDC/ERS/IDSA clinical practice guideline.](#) *Am J Respir Crit Care Med.* 2019;200(10):e93-e142. (<https://doi.org/10.1164/rccm.201909-1874ST>)
*Article that will be of interest if you are traveling to areas where Multi-drug resistant TB is prevalent. Will not be tested on this article in particular.
- [Carol Wilkins, Ph.D.](#) - Respiratory/Derm/GU Lab – materials in coursepack

Radiology teaching resources for practicing your thought process

Entire teaching series on Chest radiography with great examples and demonstrations.

<https://www.med-ed.virginia.edu/courses/rad/cxr/index.html>

<https://radiologyassistant.nl/chest/chest-x-ray/lung-disease>

Airway supplemental resources

- Mary Hughes, DO -
 - <https://youtu.be/IdmMR8JxmFo> Chest tube insertion
 - https://youtu.be/JBg_1xT3WVA How to set up a chest drain
 - <https://youtu.be/FDxZyR9abAs> Pigtail catheter insertion
 - <https://youtu.be/00-T8PcbStE> Transvenous pacer
 - <https://youtu.be/T6Z9DvPPmXg> Ultrasound guided Pericardiocentesis

Helpful respiratory web sites may be available on D2L under the “Content” tab – in the links folder.

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.

Courses begin and end dates

OST580 begins on 1/10/22 and ends on 3/4/22. See addendum for detailed daily course schedule.

Specific Procedures for the Histology Laboratory

The OST580 Histology Lab Session for Spring 2022 will be delivered via webinar. Information regarding access to the Histology Lab Webinar will be provided at the course D2L site. You will need your Histology Lab Manual (contained within the course pack) and your required histology textbook (Pawlina).

Histology Lab Schedule

Your College will assign you to a specific 1 hour, 50 minute lab section. Your lab section assignment will be posted on the course D2L site. It is essential that you attend only the lab section to which you have been assigned. Please consult the University and College Policies section of this Syllabus for information regarding missing a Lab Session due to illness or emergency. The Histology Lab website is available at any time via your personal computer. The Histology Lab website address is posted on the course D2L site.

Preparation for the Laboratory Session

To make your time during the Histology Lab Session productive, it is essential that you prepare beforehand. The Lab Manual, found in your coursepack, includes an Introduction to the Lab Session and a specific assignment for you to work through before the Lab Session (See "Preparation" section). You should also skim through the detailed directions for the Lab Session in order to obtain some idea of what will be covered during the Lab Session.

Resources to have available during the Laboratory Session

Your course pack contains a Histology Lab Manual, which is the essential guide to the structural features you will be looking for during the Lab Session, and to their significance. You may access the Histology Lab

website at any time from your personal computer. The address for accessing the Histology Lab is posted on the course D2L site. Both the Lab Manual and the Histology Lab Website will frequently refer to pertinent material in the required histology textbook (Pawlina); so you should have that textbook available during the Lab Session.

Missed Mandatory Laboratory Session

No students will be excused from a mandatory session without permission from the course coordinator **prior** to the administration of the session. Students who miss a mandatory session due to a certifiable health problem or for another reason satisfactory to the course coordinator; (i.e. death in the immediate family) must be able to document the reason for their absence.

There are some Mandatory Session items that are one time experiences and will not be able to be made up. The content but not the hands on may be able to be discussed. However these will require approval by the course director in advance, or on the day of the session. **It will be your responsibility to contact the course director by 7am on the day of the session if you are unable to attend. Contact numbers are provided in the syllabus.**

Makeup for missed mandatory/unexcused sessions will be at the discretion of the course coordinator. Generally they will be on a weekend day in EL in person with Dr. Hughes for as much of the session as can be reasonably done keeping in mind that some of the specialized equipment used for some of these lab experiences will not be available for the weekend makeup. It is possible that two weeks of mandatory sessions will be combined into one weekend makeup day. Attendance will be required to receive a P grade in the OST 580 course. Without an excused absence from the course coordinator, there will be no makeup session available resulting in an N grade. Attendance will be taken by Zoom logs.

Anatomy Lab Experiences

Along with in house created resources such as lab videos and a virtual lab guide, there will be several resources used to give you as close to a donor experience as is technologically possible.

- **VH Dissector (VHD) Pro 6:** MSUCOM is providing each member of the Class of 2024 with an extended license for the VH Dissector Pro 6.0 program (expiring May 2024). Each student will receive an email from TolTech (support@toltech.net) with their product key and download instructions.

Built on real anatomy from the National Library of Medicine's Visible Human Project®, the VH Dissector Pro software is a one-of-a-kind product that provides students the ability to interact with correlated 3D and cross-sectional views of over 2,000 anatomical structures. The platform is an excellent resource for learning the complex three-dimensional structure of the human body and is especially useful for learning the cross-sectional anatomy needed to interpret CT, MRI and Ultrasound images.

- **Anatomy & Physiology Revealed (APR) Student User License:** Available at a special discounted price for MSUCOM students. Use this link to purchase APR at the MSU discounted price of \$45. <https://www.mheducation.com/highered/custom/product/1264401906.html>. Use this first day of class registration video to log in: <https://video.mhhe.com/watch/4GGsJKnCghbtpXpH5xwzrk>. APR is one of several digital resources that will be used to illustrate real human gross anatomy.
- MSU Online Library Resources: All of these resources can be accessed in the MSU Library Medical Ebooks Collection using the following link: <http://libguides.lib.msu.edu/medicalebooks> .

- Select pages from the following textbooks are required reading for the course:
 - Clinically Oriented Anatomy, 8th ed., 2019, Moore, Dalley, & Agur, Lippincott, Williams & Wilkins
 - Gray's Anatomy for Students, 4th ed., 2020, Drake, Vogl, Elsevier
- Videos from the following resources are required viewing for the course:
 - Clinically Oriented Anatomy, 8th ed., 2019, Moore, Dalley, & Agur, Lippincott, Williams & Wilkins
 - Acland's Video Atlas of Anatomy, Wolters Kluwer

Recording of any presentations is expressly prohibited. Because we will use cadavers in some presentations, we cannot have any recording being done. Not even for personal use. Any recording of cadaveric content is a violation of the Willard Body Program agreement. There will also be real patient data, even if de-identified, and recording of this content is also prohibited. Any student discovered to have done so will be subject to disciplinary action up to and including dismissal from COM. There will be no testing materials taken from the cases directly, only from the lecture content. The cases are designed to help you work with the material you have just learned to see how you might use it in a real life scenario.

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.

In order 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.

All Points are approximate

Assessments	Projected Points	Material to be Covered
S6UE2 (OST580 & OST559) Mon., Feb. 7, 2022	120-130 <i>+ 20 for OST559</i>	Lectures for Session 1 and Session 2
S6UE4 (OST580 & OST559) Mon., Feb. 28, 2022	120-130 <i>+28 for OST559</i>	Lectures for Session 3 and Session 4
S6UE5 (OST580) Comprehensive Anatomy Practical FINAL Thurs., Mar. 3, 2022	~60-65	Information from the Anatomy, Ultrasound, Respiratory/Derm/GU/ and Intubation labs as well as lectures from all sessions, but with major emphasis on upper airway, trauma, infectious diseases, radiology, ENT and may be related to peds or adult patients in regards to upper airway.
S6UE6 (OST580) Comprehensive Written FINAL Fri., Mar. 4, 2022	~150-160	All Lecture and Lab Sessions and may include materials covered in other courses that relate to a pulmonary disorder presented in this course.
Article Reading-D2L on-line Pre-Oxy article, Weds., Feb. 23, 2022 OPEN: 7:00PM-9:00PM	BONUS POINTS 5	Will only be used if available for calculation of grade using the 'all points counted' model. If using the 'comprehensive exams' model these points will not be utilized.

Content from Anatomy will be tested on written exams during the week of presentation.

If you have concerns about a particular question on either of the final exams it needs to be brought to the attention of the course director within 24 hours; and for all other exams within 24 hours of the exam, or 24 hours of the exam display session.

Exam material will come from all labs, lectures, handouts, presentations, assigned readings and the self-study material presented from Anatomy. There will be slides and/or radiographs similar to those used in lecture on examinations. You are strongly encouraged to review radiology, especially as it pertains to the respiratory system. Approximately 20 films/photos from disorders discussed in class will be tested on the practical exam in Anatomy. **They will not be the exact films or photos used in class, but will be classic examples of the disorders, as no two patients look exactly alike on x-ray or in person. In addition, clinical photographs of certain disorders will be used on the practical exam. Pathology and histology content will have significant numbers of images as well.** This will help prepare you for your boards, both Parts 1 and 2.

The weekly assessments, comprehensive examination and anatomy practical will all be computer based.

Practice for the Practical Portion of the Final Exam

Sample practice stimuli will be posted. Of course the same items will not be used on the actual practical portion of the final exam, but it will give you an idea of what to expect. The actual anatomy portion will not be all simple identification; rather it will be part identification and part incorporation of clinical scenarios and interpretation of usual pulmonary lab tests & radiographic images much like you might see on the boards. In addition, the entire anatomy laboratory experience is designed to assist you in clinical integration which will be necessary for successful completion of the anatomy clinical practical exam.

All material from Anatomy, Ultrasound, Respiratory/Derm/GU, Intubation labs and radiology lectures may be tested on the practical exam at the end of the course, along with content taught in the course (i.e. everything is fair game).

Missed Exams

There will be a makeup exam for each exam given (if excused). No makeup exams will be provided to any student who does not receive an excused absence from the course director. If you miss the exam but not the session you will be required to only make up the exam. Again, all will need course director approval – see Section 2 on absence from required sessions and exams.

Please note that unexcused absences for exams results in a grade of 0 points for the exams missed.

Makeup exams 1 and 2 will be held on TBD

Makeup exam 3 and 4 will be held on TBD

Makeup Final Written Exam and Anatomy Practical will be held on TBD

All exams will be computer based this year 2021.

Course Grades

A student's course grade is determined by the following methods:

- **P-Pass**—means that credit is granted and that the student achieved a level of performance judged to be satisfactory by the instructor.

Option 1: To obtain a “P” grade for this course, a student must obtain 73% or greater of total points offered which includes all written exams; comprehensive written final; comprehensive anatomy clinical practical final; plus any supplemental points if given during the course, and attended all mandatory sessions when initially offered or completed makeup if had an excused absence.**

OR

Option 2: 73% of the total points available on a combination of the Comprehensive Written Final, Comprehensive Anatomy Clinical Practical, and attended all mandatory sessions when initially offered or completed makeup if had an excused absence.

****If bonus questions or other quizzes are available for points they will ONLY apply to the first option for passing. There is no guarantee that there will be bonus questions or other quizzes available during the course.**

- **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 instructor. A student who accumulates less than 73% by either means will receive an “N” grade. A student who does not attend all required sessions when initially scheduled and does not have an excused absence will receive an N grade.

All remediation exams for semester 6 are scheduled Tuesday, March 29 or Wednesday, March 30, 2022.

- You must have a minimum overall average (option 1) of 65% to be eligible to sit for the remediation exam.
- Remediation - Since all of the courses in the MSUCOM curriculum are required, any student receiving an “N” grade must remediate the course. Remediation is at the discretion of the course director and also requires meeting college eligibility requirements, and enrolling in the remediation class. It will be a computer based examination, will require the student to take both the written and clinical anatomy portions of the exam if the student did not pass the clinical anatomy portion in addition to failing the course by both options for completion. If the student scored above a 73% on the original anatomy clinical practical exam they completed, but did not pass the class, they will only be required to take the computer based written examination. The two examinations will be administered on the same day, in consecutive fashion if needed. To pass the remediation the student taking both exams will achieve 73% of the total points they sat for. The number of points in total remains to be determined but will be > 100-150 for the written portion and 40-50 for the anatomic portion. If the student is only taking the written exam, then only the written exam points from this administration will determine their grade. If the student failed due to failing to complete mandatory sessions these will be remediated by faculty as available before TBD if eligible, and if this is the only reason for the N grade a student will not be required to participate in written exams given for remediation. Please refer to the remediation policy information provided in Section 2 of this syllabus for information on College requirements and eligibility determination.

Philosophy of Instruction

In this course, 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.

Student Evaluation of the Course

We want your feedback on how to improve this course.

- Informal Feedback: Feel free to approach the Course Coordinator, Mary Hughes, DO, 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 formal on-line course evaluation upon conclusion of the course. Student feedback provides Course Coordinators 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 can access the evaluation system at: [MSUCOM Pre-clerkship Evaluation System](#).

Letters of Commendation

Those in the 85 – 99th percentile will automatically receive performance letters to their student file, provided by the course coordinator. Other students may receive letters of commendation if requested within 2 weeks of course completion.

Class Ranking

For purposes of class ranking only, the Grader System (student portal) will add the points earned for all point experiences. If a student passes via the Comprehensive total option know that the percent total of all possible points will be used for class rank purposes, not the comprehensive totals percent of points.

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 Class Sessions 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 this or 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 MSRR may be found in the MSUCOM Student Handbook and online at splife.studentlife.msu.edu.

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 gives 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 Special 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.

