

OST 580 – Respiratory

Spring Semester 6 - 2020

Updated: 3.2.20 sg

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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 6 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.

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, their physiological and pathological functions and interactions with other body systems
 3. be able to identify the anatomic structures of the ears, nose, oropharynx, salivary glands and neck, their physiological and pathological functions and their interactions with other body systems
 4. know the vocabulary and abbreviations used to describe the structure and function of the respiratory system as well as disorders of the system
 5. know 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
 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 suture a simple laceration
 22. be able to perform a needle decompression to treat a tension pneumothorax in the appropriate patient scenario
 23. be able to start a peripheral IV on a mannequin with proper technique

24. be able to identify microbiologic specimens that cause disease in the respiratory, dermatologic or genitourinary systems.
25. be able to obtain M Mode imaging of lung sliding with ultrasound
26. 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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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 questions will be answered after 5pm on the evening before the weekly integration session.

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, Mary Hughes, 909 Wilson Road, B311E West Fee Hall, East Lansing, MI 48824, 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 Dr. Hughes 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)
- Mary Hughes, DO, OST580 Course Pack SS20
- Moore KL/Dalley AF/Agur AMR, [Clinically Oriented Anatomy](#), 8th ed., 2018, 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](#), 7th ed., 2016, Lippincott Williams & Wilkins, ISBN: 9781451187427
- Robins & Cotran, [Pathologic Basis of Disease](#), 9th ed., 2015, Elsevier Science/WB Saunders Co., ISBN: 9781455726134
- Sadler, [Langman's medical Embryology](#), 13th ed., 2015, Lippincott Williams & Wilkins, ISBN: 9781451191646
- Marcante, K., Kliegman, R.M, [Nelson Essentials of Pediatrics](#), 7th Edition, 2015, Elsevier/Saunders, ISBN: 9781455759804 ([Link to 8th ed.](#))
- Weinberger SE, Cockril BA, et al., [Principles of Pulmonary Medicine](#), 7th ed., 2018, ISBN: 9780323523714
- Levitzky, [Pulmonary Physiology](#), 9th ed., 2018, McGraw-Hill Medical, ISBN: 9781260019339
- Sklar Products, Suture Tray Sklar Sterile, # 017065158
- Sklar Products, Single suture, #017031815

Required Article Readings - links available on the D2L site

- [Pre-oxygenation and Prevention of Desaturation During Emergency Airway Management](#) (Reading is **REQUIRED** if bonus quiz is to be taken) Keep this article for years 3 and 4. - Link on D2L
- [Head & Neck Lymphatic Article](#) (Reading is **REQUIRED**) -Link on D2L

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](#), 20th ed., 2016, Elsevier Health Sciences, ISBN: 9781455775668
- 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
- Broadus, V. Courtney, MD; Mason, Robert J. et al., [Murray and Nadel's Textbook of Respiratory Medicine](#) 6th ed, 2016, Saunders, ISBN: 978-1-4557-3383-5
- 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
- Shanthi Paramothayan, [Essential Respiratory Medicine](#), 2019, Wiley-Blackwell, ISBN: 9781118618349

- John Thornburg, Ph.D, D.O.
Clinical Pharmacology & Therapeutics, [Advances in Inhaled Technologies: Understanding the Therapeutic Challenge, Predicting Clinical Performance, and Designing the Optimal Inhaled Product.](#), Vol. 95. No. 5, May 2014. pp.509-520

- 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
- John Gobel, DO - Smith, JA, Woodcock, A., [Chronic Cough](#), NEJM. 2016; 375:1544-1551
Additional supplemental readings from Dr. Gobel are posted in D2L in the supplemental folders.

Radiology teaching resources_for practicing your thought process

<http://education.rad.msu.edu/hss/> will need to create an account for the teaching files.

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

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

If you go to the radiology tutorials on the left side of the screen you will see their entire library – truly an amazing set of works by some very organized physicians. We owe them a debt of gratitude.

[Wayne State's Teaching file](#)

Note: All Pediatric Content is listed in red to show the flow and integration, but content belongs to OST558 Pediatrics III.

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 1/13/20 and ends on 3/25/20. See addendum for detailed daily course schedule.

Histology Laboratory

Specific Procedures for the Histology Laboratory

Access - Locations of histology teaching labs

EL – Room E200 Fee Hall

DMC – Room G031

MUC – Room 211 of the UC-4 Building

At all campus sites, the lab is computer-based; it uses virtual slides (digitized microscope slides) as well as images from other designated web sites. Students will team up (in groups of 2-3) to share the laboratory workstations. At each lab session, you will need your lab manual (contained within the coursepack), your required histology text (Ross and Pawlina) and your i>Clicker REEF Polling device.

Assigned lab times

For each lab topic in this course, you have been assigned to a specific 2-hour histology lab session (lab section assignments will be posted on the OST 580 D2L website). Space and instructional support are limited in the histology lab, so it is essential that you attend only the 2-hour lab section to which you have been assigned. Also, answers that you submit during lab i>Clicker REEF Polling quizzes will earn course credit only if you are attending the lab session to which you are assigned.

Pre-lab preparation

To make your time in histology lab productive, it is essential that you prepare beforehand. For each lab session your Study Guide (coursepack) includes detailed, step-by-step instructions, objectives, and study questions. To prepare for a lab session, carefully read the “Introduction” to the session in your Study Guide, and work through the instructions that are entitled “**Be sure to review and understand the following.**” You should also skim through the detailed directions for the lab session (lab objectives) in order to get an idea of what you will be expected to accomplish during the lab session.

Resources to bring to each laboratory session

- **REEF Polling (iClicker Cloud)** – 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 electronic device associated with that subscription to class regularly, **which you have web-registered in accordance with directions provided by MSUCOM.** IRQ answers submitted in another way (e.g. written on paper) will not be accepted. Having your personal electronic device registered in your name and in good working order is your responsibility!
- **Study Guide** (coursepack) – This is an essential guide to the structural features you are looking for during lab and to their significance.
- **Histology textbook** – Both the Study Guide (coursepack) and online lab material will refer frequently to pertinent figures in the required histology textbook (Ross and Pawlina), **so bring your histology textbook with you to lab!**

Histology Lab Individual Readiness Quizzes (IRQs)

As further reinforcement for advanced lab preparation, we will begin each histology lab session with a brief **Individual Readiness Quiz (IRQ)**, to be administered via the **i>Clicker2 REEF Polling** system (the i>Clicker2 system is described under the “College and Course Policies” section of this syllabus). Course credit will be awarded for answering IRQ questions correctly (see Exams/Assessments sections of this syllabus). The IRQ questions should not be difficult for students who have completed the pre-lab preparation, as described above. No make-ups are offered for missed IRQs.

Below are troubleshooting tips to help you successfully connect to the Reef polling quizzes on your electronic devices:

- Ensure that you are connected to the “MSUnet 3.0” wireless network, not “MSUnet Guest 3.0.”
- If using a mobile device, verify that you are using the most up-to-date version of the application.
- Turn your Wi-Fi off and back on again.
- Log out and restart the Reef application.
- Restart your device.

For more connectivity tips, please see the iclicker best practices document posted on D2L. We will be enforcing the Reef Polling Policy in the syllabus which states that no make-up experiences will be provided, and no points will be given, should you forget your device or if it does not work, for whatever reason. It is recommended that you have your device ready before class begins to ensure that you have enough time to access the poll and submit your responses. Once you successfully join the course’s Reef

polling quiz, do not navigate away from that screen on your device, otherwise your connection may time out, causing issues with Reef.

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 of the opportunity that each lab provides to work collaboratively with your classmates. Lab sessions provide students with excellent opportunities for face-to-face conversations with faculty about lab material, other course content, or ancillary matters of interest. Furthermore, participating in the interactive review of questions (carried out in the last half hour of each lab session) will provide valuable preparation for the integrative questions on course exams.

Protecting the laboratory work stations

- Do not consume food or drink while seated at a computer station.
- Do not touch the computer monitor screens with anything other than the pointers that are supplied. No finger prints! No ball-point pens!
- During histology lab sessions, do not use the lab computers for activities unrelated to lab work (i.e., no personal e-mail, downloads, or web surfing)."

Missed Mandatory Laboratory Sessions

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. If you cannot make a Mandatory Session it is expected that you will be missing both the exam and all experiences. **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.

Anatomy Lab Experiences

Attendance during the faculty proctored anatomy labs is *expected*. This is the only time in OST 580 Respiratory System you will have with the anatomy faculty before Session 4 and the Anatomy Practical Exam. There are a number of objectives for you to review, most of which you saw in your prior anatomy

course. While many of these may readily return from the deep recesses of your brain, many may not. Remember that objectives can be demonstrated on the exam on a donor, bucket specimen, bone, and radiograph or as a landmark within a clinical scenario. The Anatomy Gross Lab will be available for independent review as the lab schedule permits. **Please note that the lab schedule for these dates and times will be posted on D2L and or the lab doors at your specific sites.** All anatomy lecture material, all anatomy lab material as well as the anatomy covered during Session 4 will be tested on the clinical practical exam.

Definitions for anatomy lab are as follows:

Open lab= times when the lab is open to students (no faculty present)

Staffed Laboratories = times when faculty and or bluecoats will be the lab and any students can drop in to study *any* time during those hours

Scheduled Laboratories = times when faculty are present but only the students assigned to the specific time slot may study in lab with the faculty.

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
Exam soft quiz 1 Open: Mon., Feb. 10, 6:30am-8:30am Open for 2 hours. Once open you have (TBD) minutes to complete.	10	Includes content from: Physiology, ABG, PFT, Immunology and physical exam. (Counts only for the grade composition using total points method) (NO MAKE UP AVAILABLE)
Histology Quiz (iClicker Reef Polling) Weds., Feb. 12, 2020	4	Histology Content Assigned for Pre-Lab Preparation (Counts for both methods of grade calculation) (NO MAKE UP AVAILABLE)
Exam soft quiz 2 Open: Fri., Feb. 14, 6:30am-8:30am Open for 2 hours. Once open you have (TBD) minutes to complete.	7-10	Session 2 lectures (Counts only for the grade composition using total points method) (NO MAKE UP AVAILABLE)
S6UE2 (OST580 & OST558) Mon., Feb. 17, 2020	90-92 + 20 for OST558	Lectures for Session 1 and Session 2
Exam soft quiz 3 Open: Mon., Feb. 24, 6:30am-8:30am Open for 2 hours. Once open you have (TBD) minutes to complete.	10	Session 3 lectures (Counts only for the grade composition using total points method) (NO MAKE UP AVAILABLE)
Exam soft quiz 4 Open: Mon., Mar. 16, 5:00pm-7:00pm Open for 2 hours. Once open you have (TBD) minutes to complete.	10	Session 4 lectures (Counts only for the grade composition using total points method) (NO MAKE UP AVAILABLE)
S6UE4 (OST580) Thurs., Mar. 19, 2020	79-81 +28 for OST558	Lectures for Session 3 and Session 4
S6UE5 (OST580) Comprehensive Anatomy Practical FINAL Tues., Mar. 24, 2020	62	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.

Assessments	Projected Points	Material to be Covered
S6UE6 (OST580) Comprehensive Written FINAL Weds., Mar. 25, 2020	120	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, Fri., Feb. 28, 2020, OPEN: 5:00PM-7:00PM	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.
Anatomy Lab Quiz during Scheduled Laboratory at each site (iClicker REEF Polling)	4	(Counts for both methods of grade calculation) (NO MAKE UP AVAILABLE)

Content from Anatomy will be tested on written exams during the week of presentation. In addition, there will be an Anatomy quiz during the scheduled labs only.

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 may 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.**

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

Each Histology Laboratory session will begin with a brief **Individual Readiness Quiz (IRQ)**, which will be administered via the **i>Clicker REEF Polling** system. **No make-ups are offered for lab quizzes (IRQs) or bonus quiz(zes).**

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 Friday, 3/27/20 (Anatomy portion in EL only)

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; weekly quizzes, Anatomy iClicker Reef Polling, Histology iClicker Reef Polling 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, Anatomy iClicker Reef Polling quiz, Histology iClicker Reef polling quiz, 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 for Thurs., May 7 and/or Fri., May 8, 2020.

- **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 May 7, 2020 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

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.

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.

Absences from Mandatory Class Sessions and Examinations/Assessments

It is the responsibility of each student to know 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.

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.

Reef Polling (iClicker Cloud) Policy

It is the responsibility of each student to know and comply with the Reef Polling (iClicker Cloud) 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 attendance is taken, you will be expected to arrive in class on time and to stay for the duration of the assigned activity.

Remediation

The MSUCOM Policy for Retention, Promotion and Graduation states that a student must complete each required course to progress in the curriculum. A student who completes a course and receives an “N” grade will have that grade recorded on their official transcript and must meet the course requirement by successfully remediating or repeating the course.

A student will be eligible to attempt remediation of the course if they meet the criteria described in the “Course Grades” section of this syllabus. A student who is not eligible to attempt remediation or fails the remediation must retake the course. This policy and the process by which an eligible student may remediate a course may be found in the MSUCOM Student Handbook on the MSUCOM website.

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 at 517-884-RCPD or on the web at <https://rcpd.msu.edu>. Once eligibility for an accommodation has been determined, you may be issued a Verified Individualized Services and Accommodation (VISA) form. Please present the VISA to Nancy Thoma, thoman@msu.edu, A333 East Fee Hall at the start of the term and/or two weeks prior to the assessment event (test, project, labs, etc.). Requests received after this date will be honored whenever possible.

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, students 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 will be posted as a separate document on the same web page as this syllabus.