Medical Anatomy Laboratory
Course Syllabus
Spring 2019

Course Number: GMS5606L
Credit Hours: Three (3) credit hours
Course Format: This online course is tailored for asynchronous distance learners.

Course Description:
The Medical Anatomy Laboratory is a study of human anatomy using regional and systemic approaches to examine the relationships and organization of the major structures within the body. There will be extensive use of images of human dissection combined with diagnostic imaging and pathophysiology.

The 4 modules of study available are:
Module 1: Back, Spinal Cord and Extremities (Musculoskeletal System)
Module 2: Skull, Face, Neck, Eye & Ear
Module 3: Respiratory System, Cardiovascular System, Digestive System
Module 4: Urinary System, and Male & Female Reproductive Systems

Prerequisites:
This post-graduate course is designed to meet the needs of those BA and BS graduates that want to pursue a medical career. This course will provide an essential foundation for students that wish to pursue a “change-in-career” to a health profession or have not met the admission requirements of medical school. This advance medical anatomy course will require a strong science foundation of five (5) full-semester science courses related to Biology, Chemistry, and/or Physics. It is recommended that a student take this laboratory course concurrent with the Medical Anatomy (GMS5605) or after completion of it.

Contacts:
If you have questions about the course or its content contact the Course Coordinator, Dr. Kyle E. Rarey (rarey@ufl.edu), Professor, Department of Anatomy & Cell Biology and Otolaryngology. For technical questions or concerns, contact Phi Nguyen (pnguyen8080@ufl.edu).

Schedule: The course is offered every term, including the summer.

Course Goals:
The goals of this online laboratory course are to: (1) provide a strong anatomical foundation about the human body; and (2) assist students in a better understanding of the anatomical organization and relationships in different regions of the body.

Learning Outcomes:
Upon completion of this online laboratory course, students will be able to:
1. understand anatomical terminology;
2. correlate routine clinical imaging with specific anatomical structures;
3. identify anatomical structures and understand their organization and relationships within different regions of the human body; and
4. demonstrate critical thinking skills to evaluate selected medical conditions with alterations in anatomical structures (e.g., fracture, aneurysm).

**Learning Resources:**

1. **Required Software Program:** Human Anatomy, Integrated Medical Curriculum from Dx R Development. Cost: $30.00 for a 6 month subscription.

   You may pay by credit card using the following link:  
   Password: oldhat7

   Contact Person: Diane Tennyson, Vice President/Administration & Sales, DxR Development Group, Inc., 1840 Innovation Drive, Suite 112, Carbondale, IL 62903, P: 618-453-1140, F: 618-453-5309, diane.tennyson@dxrgroup.com

2. Recommended text: *Principles of Human Anatomy*, 13th or 14th Edition. Tortora, G.J. and Nielsen, M., John Wiley & Sons, 2014. It is highly recommended that you have access to this text if you are not taking GMS5605.

3. Practice on-line quizzes that consist of identification of given anatomy structures.

4. Clinical exercises relating anatomical structures to diagnostic images (e.g., X-ray, MRI, and CT scan) and anatomical abnormalities will be used to promote critical thinking.

5. Other multimedia resources will be provided at the course web site.

**Syllabus**

Review the course Syllabus. You can download an Adobe PDF or a Microsoft Word version from the course homepage.

**Student Participation**

Each student is expected to actively create and post two multiple choice questions (MCQs) at the collaboration site AND the assignment site. Each MCQ must have the rationales for the correct answer. Each question with rationales will count as 2 points. One can submit a maximum of two questions per week. Questions should be published before the weekly due date. Late submissions will be valued less. Total possible participation points = 64 (2MCQs × 2pts × 16wks)

**Examinations and Grading:**

One examination consisting of 50 multiple-choice questions (each valued of 2 points) will be given for each module. Each exam will be worth 100 points and will be timed. Students will have to take
all examinations at a computer with a web camera. A proctor will remotely monitor each student during the exams. See the ProctorU Student FAQs for more information.

4 module examinations = Total 400 possible points
Participation points from MCQs = Total 64 possible points

The final grade will be calculated as follows:
Scores on 4 module examinations (a total of 400 points) + Scores on submitted multiple-choice questions (a total of 64 points) = Total points possible: 464 points.

In summary, the final grade will be the total number of points earned/464 (%). The final grade is broken down as follows:
• Module Exams: 86%
• Submitted Fill-in-the-blank Questions: 14%

**Grading Scale** (Correct out of a possible 464 points)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100%</td>
</tr>
<tr>
<td>A-</td>
<td>90-92%</td>
</tr>
<tr>
<td>B+</td>
<td>87-89%</td>
</tr>
<tr>
<td>B</td>
<td>83-86%</td>
</tr>
<tr>
<td>B-</td>
<td>80-82%&lt;</td>
</tr>
<tr>
<td>C+</td>
<td>77-79%</td>
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<tr>
<td>C</td>
<td>73-76%</td>
</tr>
<tr>
<td>C-</td>
<td>70-72%</td>
</tr>
<tr>
<td>D+</td>
<td>67-69%</td>
</tr>
<tr>
<td>D</td>
<td>63-66%</td>
</tr>
<tr>
<td>D-</td>
<td>59-62%</td>
</tr>
<tr>
<td>E</td>
<td>&lt; 59%</td>
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</table>

I = An incomplete grade will be given if a student fails to complete the course as scheduled.

Information on current UF grading policies for assigning grade points can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx.

**Make-Up Exam Policy:**
Students are required to take all four modular examinations. Makeup exams are given only under special circumstances. If the student is unable to take a scheduled modular examination, the course director must be notified before the examination. In addition, a written letter of explanation, requesting that the absence from the exam be excused, must be presented before the exam or immediately afterwards. An excused absence is allowable when: 1) the student is hospitalized and/or has been advised by a licensed medical practitioner or hospital not to attend the exam, 2) if there is a documented death of an immediate family member, or 3) the examination falls on a religious holiday. All excused absences will be considered on an individual basis by the course director. With the exception of highly extenuating circumstances, failure to follow the prescribed procedures will result in a grade of zero for that exam. Further information about the policies for attendance and religious holidays for The University of Florida can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.
Assignments:
The course is divided into 4 modules. Each module consists of selected chapters with specific reading assignments. For each module, students will: (1) review the learning objectives and corresponding lecture notes; (2) read and complete the assignments as given; (3) complete interactive exercises associated with each module (e.g., concept mapping and clinical scenarios); (4) take online practice examinations; and (5) take the scheduled, online module examination.

Course Schedule:

<table>
<thead>
<tr>
<th>Module</th>
<th>Date</th>
<th>Learning Activities (3 Recorded sessions per week)</th>
<th>Learning Resources</th>
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<tbody>
<tr>
<td>1-1</td>
<td>Jan 7 – Jan 11</td>
<td><strong>Back &amp; Spinal Cord</strong>&lt;br&gt;1. Online Anatomy of the back (Lab #1)&lt;br&gt;2. Online Anatomy of spinal cord (Lab #2)&lt;br&gt;3. Online Post-Laboratory Overview Session</td>
<td>Acland’s video demonstration&lt;br&gt;Text: Tortora, 13 Ed: Chapter 7, 17 Post-Lab Questions&lt;br&gt;MCQs due Friday 12pm EST</td>
</tr>
<tr>
<td>1-2</td>
<td>Jan 14 – Jan 18</td>
<td><strong>Upper Extremities</strong>&lt;br&gt;1. Online Anatomy of the scapular, pectoral, and axillary regions (Labs #1-#5)&lt;br&gt;2. Online Anatomy of the arm, forearm, and hand (Labs #6-#9)&lt;br&gt;3. Online Post-Laboratory Overview Session</td>
<td>Acland’s video demonstration&lt;br&gt;Text: Tortora, 13 Ed: Chapter 7, 17 Post-Lab Questions&lt;br&gt;MCQs due Friday 12pm EST</td>
</tr>
<tr>
<td>1-3</td>
<td>Jan 21 – Jan 26</td>
<td><strong>Lower Extremities</strong>&lt;br&gt;1. Online Anatomy of the thigh, hip, and knee (Labs #11-#14)&lt;br&gt;2. Online Anatomy of the leg and foot (Labs #15 &amp; #16)&lt;br&gt;3. Online Post-Laboratory Overview Session</td>
<td>Acland’s video demonstration&lt;br&gt;Text: Tortora, 13 Ed: Chapter 7, 17 Post-Lab Questions&lt;br&gt;MCQs due Friday 12pm EST</td>
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<tr>
<td>1-4</td>
<td>Jan 28 – Feb 1</td>
<td><strong>Joints of the Upper Extremities</strong>&lt;br&gt;1. Online Anatomy of the joints of the shoulder and elbow (Lab #10)&lt;br&gt;2. Online Anatomy of the joints of the wrist and hand (Lab #10)&lt;br&gt;3. Online Post-Laboratory Overview Session</td>
<td>Acland’s video demonstration&lt;br&gt;Text: Tortora, 13 Ed: Chapter 9 Post-Lab Questions&lt;br&gt;MCQs due Friday 12pm EST</td>
</tr>
<tr>
<td>1-5</td>
<td>Feb 4 – Feb 8</td>
<td><strong>Joints of the Lower Extremities</strong>&lt;br&gt;1. Online Anatomy of the joints of the hip and knee (Lab #17)&lt;br&gt;2. Online Anatomy of the joints of the ankle and foot (Lab #17)&lt;br&gt;3. Online Post-Laboratory Overview Session</td>
<td>Acland’s video demonstration&lt;br&gt;Text: Tortora, 13 Ed: Chapter 9 Post-Lab Questions&lt;br&gt;MCQs due Friday 12pm EST</td>
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Module 1 Examination (online) – Opens Friday, February 8

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<tr>
<th>Module</th>
<th>Date</th>
<th>Learning Activities (3 Recorded sessions per week)</th>
<th>Learning Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1</td>
<td>Feb 11 – Feb 15</td>
<td><strong>Face &amp; Skull</strong>&lt;br&gt;1. Online Anatomy of the back (Lab #1)&lt;br&gt;2. Online Anatomy of spinal cord (Lab #2)&lt;br&gt;3. Online Post-Laboratory Overview Session</td>
<td>Acland’s video demonstration&lt;br&gt;Text: Tortora, 13 Ed: Chapter 7, 18 Post-Lab Questions&lt;br&gt;MCQs due Friday 12pm EST</td>
</tr>
<tr>
<td>Module</td>
<td>Date</td>
<td>Learning Activities</td>
<td>Learning Resources</td>
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| 2-2    | Feb 18 – Feb 22 | 1. Online Anatomy of posterior triangle (Labs #24)  
2. Online Anatomy the anterior and cervical triangles (Labs #25, #26)  
3. Online Post-Laboratory Overview Session | Acland’s video demonstration  
Text: Tortora, 13 Ed: Chapter 11  
Post-Lab Questions  
MCQs due Friday 12pm EST |
| 2-3    | Feb 25 – Mar 1   | 1. Online Anatomy of pharynx (Lab #31), larynx (Lab #32)  
2. Online Anatomy of the nasal cavity (Lab #33)  
3. Online Post-Laboratory Overview Session | Acland’s video demonstration  
Text: Tortora, 13 Ed: Chapter 23  
Post-Lab Questions  
MCQs due Friday 12pm EST |
| 2-4    | Mar 4 – Mar 8    | 1. Online Anatomy of the eye (Lab #29)  
2. Online Anatomy of the ear (Lab #30)  
3. Online Post-Laboratory Overview Session | Acland’s video demonstration  
Text: Tortora, 13 Ed: Chapter 21  
Post-Lab Questions  
MCQs due Friday 12pm EST |

**Module 2 Examination (online) – Opens Friday, March 8**

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<tr>
<th>Module</th>
<th>Date</th>
<th>Learning Activities</th>
<th>Learning Resources</th>
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| 3-1    | Mar 11 – Mar 15 | 1. Online Anatomy of the thoracic wall (Lab #18)  
2. Online Anatomy of the lungs and pleural cavities (Lab #19)  
3. Online Post-Laboratory Overview Session | Acland’s video demonstration  
Text: Tortora, 13 Ed: Chapter 7, 23  
Post-Lab Questions  
MCQs due Friday 12pm EST |
| 3-2    | Mar 18 – Mar 22 | 1. Online Anatomy of the pericardial cavity and external anatomy of the heart (Lab #20)  
2. Online Anatomy of the internal anatomy of the heart (Lab #20)  
3. Online Post-Laboratory Overview Session | Acland’s video demonstration  
Text: Tortora, 13 Ed: Chapter 13, 14  
Post-Lab Questions  
MCQs due Friday 12pm EST |
| 3-3    | Mar 25 – Mar 29 | 1. Online Anatomy of the superior mediastinum (Lab #21)  
2. Online Anatomy of the posterior mediastinum (Lab #21)  
3. Online Post-Laboratory Overview Session | Acland’s video demonstration  
Text: Tortora, 13 Ed: Chapter 23  
Post-Lab Questions |
### Module 3 Examination (online) – Opens Friday, April 5

<table>
<thead>
<tr>
<th>Learning Activities</th>
<th>Learning Resources</th>
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| 1. Online Anatomy of the abdominal wall and abdominal cavity (Labs #35, #36, and #37) | Acland’s video demonstration  
Tortora, 13 Ed: Chapter 24  
Post-Lab Questions  
MCQs due Friday 12pm EST |
| 2. Online Anatomy of the abdominal organs (Labs #38 and #39) | Text:  Tortora, 13 Ed: Chapter 24  
Post-Lab Questions  
MCQs due Friday 12pm EST |
| 3. Online Post-Laboratory Overview Session | |

### Module 4 Examination (online) – Opens Friday, April 26

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<tr>
<th>Learning Activities</th>
<th>Learning Resources</th>
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| 1. Online Anatomy of the kidneys (Lab #40) | Acland’s video demonstration  
Tortora, 13 Ed: Chapter 25  
Post-Lab Questions  
MCQs due Friday 12pm EST |
| 2. Online Anatomy of the posterior abdominal wall (Lab #40) | |
| 3. Online Post-Laboratory Overview Session | |

### Male Pelvis & Perineum

<table>
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<tr>
<th>Learning Activities</th>
<th>Learning Resources</th>
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</table>
| 1. Online Anatomy of the male pelvis (Lab #44) | Acland’s video demonstration  
Tortora, 13 Ed: Chapter 26  
Post-Lab Questions  
MCQs due Friday 12pm EST |
| 2. Online Anatomy of the male perineum (Lab #42) | |
| 3. Online Post-Laboratory Overview Session | |

### Female Pelvis & Perineum

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<tr>
<th>Learning Activities</th>
<th>Learning Resources</th>
</tr>
</thead>
</table>
| 1. Online Anatomy of the female pelvis (Lab #43) | Acland’s video demonstration  
Tortora, 13 Ed: Chapter 26  
Post-Lab Questions  
MCQs due Friday 12pm EST |
| 2. Online Anatomy of the female perineum (Lab #41) | |
| 3. Online Post-Laboratory Overview Session | |

### Attendance:

Attendance will not be taken. A student’s overall success, however, is based upon following the course schedule for learning the assigned readings and practicing the recommended exercises. Students are strongly encouraged to develop self-discipline to complete all text readings and online exercises, including the practice examinations. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: [https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx](https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx).

### Academic Integrity:

Please review the University’s complete policy regarding academic dishonesty, found online in the student handbook: [http://www.dso.ufl.edu/judicial/pdffiles/handbook2003.pdf](http://www.dso.ufl.edu/judicial/pdffiles/handbook2003.pdf)
UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.”

According to the UF Student Guide, Academic dishonesty includes the following.
Cheating - copying another’s work for academic gain.
Plagiarism - representing another’s work as your own.
Bribery - offering, giving, soliciting, or receiving goods or services of value for academic gain.
Misrepresentation - altering facts (e.g., signing an absent classmate’s name to an attendance sheet).
Conspiracy - planning with others to commit academic dishonesty.
Fabrication - making up information to avoid punishment or other difficulty.

Copyright Information:
Please also review the use of copyrighted materials, which can be found on the Health Science Center Library’s web page: http://www.library.health.ufl.edu/services/copyright.htm

Accommodation Policy:
Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation.

Student Support Services
As a student in a distance learning course or program you have access to the same student support services that on campus students have. For course content questions contact your instructor. For any technical issues you encounter with your course please contact the UF computing Help Desk at 352-392-4357. For Help Desk hours visit: http://helpdesk.ufl.edu/.
For a list of additional student support services links and information please visit: http://www.distance.ufl.edu/student-services

Online Course Evaluation Process:
Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

Campus Resources:
Health and Wellness
U Matter, We Care:
If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department, 392-1111 (or 9-1-1 for emergencies).
http://www.police.ufl.edu/

Academic Resources
E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.https://lss.at.ufl.edu/help.shtml

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.
http://www.crc.ufl.edu/

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.