

Anatomy of the Peripheral Nervous System

Course Syllabus

Course Number: GMS 6610

Credit Hours: Three (3) credit hours

Course Format: This online course is tailored for asynchronous distance learners.

Course Description:

The **Anatomy of the Peripheral Nervous System Course** will be presented by a combination of online lectures and online laboratory sessions. The anatomy and function of spinal nerves and cranial nerves of the human body will be discussed and observed in 3D human model, as well as by anatomical imaging will be correlated to transverse, sagittal, and coronal human sections. Medical-based scenarios, e.g., nerve lesions, will be used to promote retention and recall.

Prerequisites:

This advanced medical anatomy course will require a strong science foundation of five (5) full-semester science courses related to Biology, Chemistry, and/or Physics. Students are expected to have already taken GMS5605 Online Medical Human Anatomy; GMS5606 Medical Human Anatomy Laboratory.

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 semester, including the summer.

Time Commitment: This course will require about 90 hours of time, or about 6 hours per week, allocated between different course activities (i.e., lectures, quizzes, and overviews).

Course Goals:

The goals of this course are threefold: (1) to further enhance a foundation of the fundamental concepts and terminology of the anatomy of the human body. (2) to discuss anatomical organization into functional systems related to medical correlations; and (3) to promote critical thinking of the clinical consequences of the anatomical injuries, musculoskeletal disorders, pulmonary diseases, gastrointestinal abnormalities, and renal pathophysiology.

Student Learning Outcomes:

Upon completion of this online lecture Laboratory course, students will be able to:

SLO1: Knowledge - Identify and explain basic anatomical terminology as it relates to its organization to form the functional system or the peripheral nervous system of the human body. The anatomy of the somatic nervous system and the autonomic nervous system will be discussed with emphasis on spinal nerves and cranial nerves.

Assessment - Within the course, students will be assessed through assignments to create multiple

choice questions, including rationales for correct and incorrect answers, and then posting the questions and rationales for the discussion assignment within each module. Additionally, students will be assessed through multiple choice exams.

SLO2: Critical Thinking Skills - Apply critical thinking skills to evaluate selected medical conditions with alterations in the somatic and autonomic divisions of the peripheral nervous system.

Assessment - Critical thinking will be assessed via students submitting questions that include second-level questions that address effects of injuries or lesions related to the anatomy assigned. Multiple choice examinations will also be utilized.

Learning Resources:

1. Unit overviews, recorded lectures with PowerPoint presentations, and other multimedia resources will be provided on the course web site.

2. Required software:

Visible Human Dissector Program, Touch of Life Technologies. Purchase available at <http://www.toltech.net/schools/ufl>. Price is \$79.

3. Recommended Text:

Principles of Human Anatomy, 14th, or 15th Edition. Tortora, G.J. and Nielsen, M., John Wiley & Sons, 2014 that you used for GMS5605 or equivalent text.

4. Practice on-line quizzes that consist of multiple-choice questions will be available for each module of study.
5. Clinical exercises in anatomical injuries, musculoskeletal disorders, pulmonary diseases, gastrointestinal abnormalities, and renal pathophysiology will be used to promote critical thinking.

Course Participation:

Students are required to post 3 multiple choice questions (MCQs) every week at the assignment site. **Each MCQ must have the rationales for the correct answers and rationales for the incorrect choices in order to receive points.** Each question will count as 1 point. One of the three submitted questions must be at least be a second order question. Questions should be published before the weekly due date. Late submissions will be valued less. Total possible participation points = 48** (3MCQs × 1pts × 16wks**)

48 points available for 16wks during Fall and Spring semesters. Only 39 points will be available for 13wks during Summer semesters

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 must take all examinations at a

computer with a web camera. Exams will be secured and proctored using HonorLock. More about HonorLock: [Getting Started with HonorLock](#); [HonorLock Student Prep](#); [HonorLock Student Privacy](#)

Module examinations = 400 possible points (~90%)
 MCQ submissions = 48 or 39 possible (~10%)

448 or 439 Total grade points

Grading Scale

| Grade | Point Range | Percentage |
|-------|-------------|------------|
| A | 417 - 448 | 93-100% |
| A- | 402 - 416 | 90-92% |
| B+ | 389 - 401 | 87-89% |
| B | 371 - 388 | 83-86% |
| B- | 357 - 370 | 80-82% |
| C+ | 343 - 356 | 77-79% |
| C | 326 - 342 | 73-76% |
| C- | 312 - 325 | 70-72% |
| D+ | 298 - 311 | 67-69% |
| D | 280 - 297 | 63-66% |
| D- | 263 - 279 | 59-62% |
| E | < 263 | < 59% |

I = An incomplete grade will be given if a student fails to complete the course as scheduled. For more information about UF grading policies see: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Make-Up Exam Policy:

Students are required to take all four modular examinations. Make-up 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>.

Course Outline

| Module | Learning Activities | Reading Assignment |
|--------|---|---------------------|
| 1-1 | 1. Online Lecture: Anatomy of the Nervous System | Tortora, Chapter 16 |

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|--------------------------------------|--|---|
| | <p>2. Online Lab session</p> <p>3. Online Overview Session</p> | <p>Visible Human Dissector, Anatomy Pathways,4-1. Spinal Cord & Spinal Nerves</p> <p>Online Dissector, Chapter 2.</p> |
| 1-2 | <p>1. Online Lecture: <u>Anatomy of the Peripheral Nervous System</u></p> <p>2. Online Lab Session</p> <p>3. Online Overview Session</p> | <p>Tortora, Chapter 16</p> <p>Visible Human Dissector, Anatomy Pathways,4-1. Spinal Cord & Spinal Nerves</p> |
| 1-3 | <p>1. Online Lecture: <u>Anatomy of the Spinal Cord</u></p> <p>2. Online Lab Session</p> <p>3. Online Overview Session</p> | <p>Tortora, Chapter 17</p> <p>Visible Human Dissector, Virtual Edge, Exercise 1. Spinal Cord</p> |
| 1-4 | <p>1. Online Lecture: <u>Anatomy of Spinal Nerves</u></p> <p>2. Online Lab Session</p> <p>3. Online Overview Session</p> | <p>Tortora, Chapter 17</p> <p>Visible Human Dissector, Anatomy Pathways,4-1. Spinal Cord & Spinal Nerves</p> |
| 1-5 | <p>1. Online Lecture: <u>Sensory & Motor Organization in Spinal Nerves</u></p> <p>2. Online Lab Session</p> <p>3. Online Overview Session</p> | <p>Tortora, Chapter 17</p> <p>Visible Human Dissector, Anatomy Pathways,4-1. Spinal Cord & Spinal Nerves</p> |
| Module 1 Examination (online) | | |

| Module | Learning Activities | Reading Assignment |
|--------|--|--|
| 2-1 | <p>1. Online Lecture: <u>Anatomy of Spinal Nerves of Upper Extremities</u></p> <p>2. Online Lab Session</p> <p>3. Online Overview Session</p> | <p>Tortora, Chapter 20</p> <p>Visible Human Dissector, Anatomy Pathways,4-1. Spinal Cord & Spinal Nerves</p> <p>Online Dissector, Chapter 5.</p> |
| 2-2 | <p>1. Online lecture: <u>Lesions of the Brachial Plexuses.</u></p> | <p>Tortora, Chapter 20</p> |

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| | <p>2. Online Lab Session.</p> <p>3. Online Overview Session</p> | <p>Visible Human Dissector, Virtual Edge, Exercise 11. Axilla, Brachial Plexus, and Arm.</p> |
| 2-3 | <p>1. Online Lecture: <u>Anatomy of Spinal Nerves of Lower Extremities</u></p> <p>2. Online Lab Session</p> <p>3. Online Overview Session</p> | <p>Tortora, Chapter 20</p> <p>Visible Human Dissector, Anatomy Pathways,4-1. Spinal Cord & Spinal Nerves</p> |
| 2-4 | <p>1. Online Lecture: <u>Lesions of the Lumbo-Sacral Plexuses</u></p> <p>2. Online Lab Session</p> <p>3. Online Overview Session</p> | <p>Tortora, Chapter 20</p> <p>Visible Human Dissector, Virtual Edge, Exercise 14. Gluteal Region and Lumbosacral Plexus.</p> <p>Online Dissector, Chapter 13.</p> |
| Module 2 Examination (online) | | |

| Module | Learning Activities | Reading Assignment |
|--------|---|--|
| 3-1 | <p>1. Online Lecture: <u>Anatomy of Cranial Nerves I, II, VIII and V, VII</u></p> <p>2. Online Lab Session</p> <p>3. Online Overview Session</p> | <p>Tortora, Chapter 18</p> <p>Visible Human Dissector, Anatomy Pathways, 4-3. Cranial Nerves</p> |
| 3-2 | <p>1. Online Lecture: <u>Anatomy of Cranial Nerves III, IV, VI</u></p> <p>2. Online Lab Session</p> <p>3. Online Overview Session</p> | <p>Tortora, Chapter 18</p> <p>Visible Human Dissector, Virtual Edge, Exercise 6.</p> |
| 3-3 | <p>1.. Online Lecture: <u>Anatomy of Cranial Nerves IX, X, XI and XII</u></p> <p>2. Online Lab Session</p> <p>3. Online Overview Session</p> | <p>Tortora, Chapter 18</p> <p>Visible Human Dissector, Virtual Edge, Exercise 6.</p> |
| 3-4 | <p>1. Online Lecture: <u>Effects of Lesions of Cranial Nerves</u></p> | <p>Tortora, Chapter 18</p> |

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|--------------------------------------|---|---|
| | 2. Online Lab Session 3. Online Overview Session | Visible Human Dissector, Anatomy Pathways, 4-3. Cranial Nerves |
| Module 3 Examination (online) | | |

| Module | Learning Activities | Reading Assignment |
|--------------------------------------|--|--|
| 4-1 | 1. Online Lecture: <u>Anatomy of the Sympathetic Nervous System.</u> 2. Online Lab Session 3. Online Overview Session | Tortora, Chapter 19 Online Dissector, Chapter 21. |
| 4-2 | 1. Online Lecture: <u>Anatomy of the Parasympathetic Nervous System</u> 2. Online Lab Session. 3. Online Overview Session | Tortora, Chapter 19 Online Dissector, Chapter 21. |
| 4-3 | 1. Online Lecture: <u>Anatomy of the Enteric Nervous System</u> 2. Online Lab Session. 3. Online Overview Session | Tortora, Chapter 19 Online Dissector, Chapter 21. |
| Module 4 Examination (online) | | |

Assignments:

The course is divided into 4 modules. Each module consists of selected chapters with specific reading assignments and laboratory 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; (4) take online practice examinations; and (5) take the scheduled, online module examination.

Attendance:

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. 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.

Academic Integrity:

Please review the University's complete policy regarding academic dishonesty, found online in the student handbook: <https://regulations.ufl.edu/wp-content/uploads/2018/06/4.040-1.pdf>

Students are expected to abide by the University's Academic Honesty Policy, and to adhere to the following pledge:

"We, the member of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."

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."

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: <http://guides.uflib.ufl.edu/copyright>

Accommodation Policy:

Students requesting classroom accommodation must first register with the Dean of Students' office, 202 Peabody Hall, 352-392-1261. The DSO will provide documentation to the student who must then provide this documentation to the instructor.

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>

Special Accommodations

Students requesting disability-related academic accommodations must first register with the Disability Resource Center. <https://disability.ufl.edu/>

The Disability Resource Center will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

Complaints

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

Online Course Evaluation Process:

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://ufl.bluera.com/ufl/>. 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.