Carroll University—MSPAS Program
PHA 500: Human Gross Anatomy
Summer 2017

Course Number: PHA 500
Course Title: Human Gross Anatomy
Number of Credits: 6 credit hours
Prerequisites: Admission to the Physician Assistant Program

Days/Times: Lecture: Monday 12:30–2:20 (CGS 118) and Tuesday 11:00–12:50 (CGS 118)
Lab: Friday 9:00-1:00 (SCI 017)
*additional sessions per syllabus and Google Calendar

Faculty:

Dr. Monika Baldridge
(Course Director)
Office: Charles House 204 and CGS 103
Phone: 262-524-7627
Cell: 414-238-3346
Email: mbaldrid@carrollu.edu
Office Hours: Mon. 11:30-12:30; Tues.1:00-2:00;
and Thurs. 12:30-1:30; by appointment; or just stop by

Dr. Lori Brock
(Cadaver Lab Instructor)
Cell: 262-825-3166
Email: lori.brock@uwc.edu

Course Description:

This course presents a comprehensive consideration of the human anatomy including both
neuromusculoskeletal components and internal organ systems. Systems include musculoskeletal,
neurological, genitourinary, gastrointestinal, skeletal, and cardiopulmonary. Biomechanical function,
topographic and radiographic correlations, and clinical applications are emphasized. An in-depth
understanding of the gross anatomy of the human body is obtained through lecture, audiovisual,
computer, and gross cadaver dissection. Introductory mapping and palpation exercises will also be
integrated into this course.
Course Content:

This course is designed to provide the learner with a strong foundational knowledge in Human Gross Anatomy. Several teaching techniques will be employed in this course with hands on learning emphasized and expected. The student will actively engage in applying information within classroom and laboratory settings. Lecture/powerpoint, laboratory, dissection, computer-aided dissection, case studies, and independent learning activities will be employed throughout the course. The specific learning objectives for this course are to be used as a guide for reading, studying, and preparing for the course examinations. Students are expected to be independent, self-directed learners.

Student Expectations:

- demonstrates a positive attitude toward learning
- is on time for all scheduled classes, including timely return from breaks
- completes readings and assignments prior to class
- asks relevant and understandable questions
- takes full responsibility for learning and self-directed learning activities
- shows respect for self, other students, and faculty
- refrains from revealing negative feelings through tone of voice or body language
- refrains from disruptive activities during class including eating, talking, getting up and down, use of cell phone, etc.
- relies on personal resources before approaching others for help
- demonstrates cooperation with and mutual respect for peers
- responds to faculty, staff and peers readily and appropriately

Instructor Expectations:

- demonstrates a positive attitude towards the facilitation of learning
- is on time for all scheduled classes
- should the need arise, reschedules class time with appropriate and timely notification to students, faculty, and staff
- provides appropriate course materials for class preparation prior to class
- is available for office hours or appointments to assist with questions; responds to faculty, staff, and students readily and appropriately
- listens attentively and initiates communication which is appropriate and timely
- identifies limitations in knowledge and provides appropriate resources for student learning
- provides timely and constructive feedback for assignments and assessments
- shows respect for self, students, and other faculty
- refrains from revealing negative feelings through tone of voice or body language
- demonstrates cooperation with and mutual respect for students, faculty, and staff
Required Texts and Materials:


Scrubs (mandatory) and lab coat (optional)

Clipboard → for laboratory practical exams

Grading:

Grading for this course will be based on a total possible accumulation of 900 points, with letter grades assigned according to the following scale:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>93 – 100</td>
<td>A</td>
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<td>90 – 92.99</td>
<td>A/B</td>
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<td>83 – 89.99</td>
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<td>60 – 69.99</td>
<td>D</td>
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<td>&lt; 60</td>
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Attendance and Professionalism:

Attendance at all class periods, laboratories, and practical experiences are mandatory unless otherwise indicated. Poor attendance (unexcused absences, tardiness, and unauthorized early departures), lack of preparation, and unprofessional behavior may result in a lower or failing grade and/or be reported to the program progression committee. If you will be absent, tardy, or need to be excused early you must notify the course director via e-mail or phone prior to the scheduled meeting time. Tardiness and unauthorized early departures will be considered unexcused absences unless prior notification is submitted. Unexcused absences of more than 10% of class time may result in a failing grade. Absences are excused only at the discretion of the course director and/or the PA Program Director. Students may be required to make up missed laboratory time (excused or unexcused) at the discretion of the course director.
EVALUATION POINTS DATE Linked Goals
Exam I 200 June 21 1,2,3,4,5,6,7
Exam II 200 July 7 1,2,3,4,5,6,7
Exam III 200 July 28 1,2,3,4,5,6,7
Exam IV 200 Aug 15 1,2,3,4,5,6,7
Quizzes (4) 100 as announced 1,2,6,7
Total 900

*Linkages between these course student learning goals, and objectives and the Master of Physician Assistant Program goals are in alignment.

Examinations I–IV: Will cover material presented in both discussion and laboratory - i.e., will require both identification and thought processes - as well as that included in assigned readings or other activities. The general exam format will be derived from a “traditional” lab practical, from licensure/board-like objective questions and possibly from short answer/essay questions where you will be asked to apply your anatomical knowledge to the solving of clinical problems. Challenges to examination questions will be accepted for 1 week after the return of scores. Challenges must be submitted in writing via email with two written sources, at least one from recommended course readings. No books, papers, notebooks, cellphones, smartphones, I-pods, I-pads, blackberry, etc. or backpacks/bookbags will be allowed on/near your desk during an examination. Recommend keeping personal belongings in the back of the room or in lockers. Hats are prohibited during an exam. Cellphones, smartphones, I-pods, I-pads, blackberry, etc must be turned off during an examination.

Quizzes: There will be four 25 point announced quizzes during the course of the semester. These may include one or more quizzes designed to test mastery of material presented in assigned readings that is crucial to your success in future course work. The material covered on all quizzes will be outlined during the class period prior to the announced date of the quiz. Quiz formats may include written or oral questioning, computerized versions and/or “mini-practicals”. Quiz results will provide feedback to you, as well as to the Instructor, regarding your comprehension of the subject matter covered and will help you to “keep up” in class.

Cadaver Lab Dissection and Participation: Students are required to: (1) Fully participate in group dissection; (2) utilize appropriate dissection techniques to visualize required anatomical structures; and (3) Clean up and appropriately maintain cadavers and workspaces. This is a mandatory expectation to maintain a safe and collaborative work environment. Students unwilling to participate may lose 1% on their exam score.

Assignments and assigned readings are designed to strengthen your understanding of a subject and/or to provide for coverage of material which, because of time constraints, we are unable to discuss in class. These topics are, however, important due to the nature of the Health Professions. These assignments may involve group discussion and problem solving activities (eg. clinical problems at end of units), and may or may not be collected for grading.
Statement on Academic Integrity:

The Carroll University Academic Integrity Policy is located in the Carroll University Student Handbook. Students are encouraged to familiarize themselves with it. If a student violates this policy in any way, the instructor(s) reserve the right to impose a sanction of failure on the assignment/assessment or even failure in the course. If you have questions about appropriate citations, please ask your instructor. Some examples of violations include:

1. Plagiarism
2. Failure to return or removal of an exam or quiz
3. Submitting work completed by another individual
4. Any form of cheating during a quiz, lecture exam, or lab practical
5. Discussion of grades or sharing of answers to assessment materials

Accommodations for Disabilities:

Any requests for accommodation for physical or cognitive disability must be made through the Walter Young Disability Services Coordinator at Carroll University. Appropriate accommodations will be evaluated based on the program technical standards once notification has been received from the Walter Young coordinator. If an individual student has special needs or concerns about course requirements related to religious beliefs, cultural issues, or other issues, the student must contact the Program Director with a request for accommodation.

Remediation:

Students who receive a D or an F in this or any physician assistant year 1 course will be placed on academic probation. During the course, a student who scores more than 2 SD below the mean on an exam/assessment may be required to complete additional work. The student will be contacted by the course instructor and asked to meet to discuss the remediation requirements for that particular assessment. Remediation requirements will be determined by the course instructor. When an instructor requires remediation of a student it does not affect the exam/assessment grade, nor does it improve the semester or course grade. Remediation is required to ensure that course objectives are met. It is expected that assigned work for the purpose of remediation be completed in a thorough, professional and timely manner. Satisfactory completion of remediated work will be determined by the course instructor. Students may be required to complete additional work if the original remediation is deemed unsatisfactory.

Students should make every effort to resolve remediation issues with the course director. If a student is unable to resolve such issues s/he may request a review by the Didactic Subcommittee. All decisions made by the subcommittee are final. If remediation is not successfully completed by the end of the course/semester a grade of “Incomplete” will be given until the work is successfully completed. Please note that an incomplete course grade may delay program progression and/or graduation. Information regarding incomplete grades is available in the Graduate Catalog.

Appropriate Attire:

It is also expected that students will come to class and cadaver lab dressed in an appropriate manner. This is in reference to the class periods where time is specifically allotted for palpation exercises as this will allow observation and study of important anatomical landmarks. Layering of clothes is strongly advised. Please bring/wear scrubs and old shoes (no sandals/flops) for cadaver dissection.
Course Goals:

Upon completion of Human Gross Anatomy lecture and cadaver dissection, the student will have a strong foundational knowledge of normal human anatomy. The student will actively engage in applying information within classroom and laboratory settings. Students will gain the ability to master anatomical concepts through the use of hands-on dissection, computer-aided dissection, case studies, anatomical mapping, anatomical palpation, and independent learning activities.

Learning Outcomes:

Upon successful completion of the course, the student should be able to:

1. Demonstrate a comprehensive understanding of human anatomy (as outlined in lecture introductions, participatory handouts, and laboratory materials) that can be applied during subsequent didactic work, as well as in future clinical screening for the evaluation of and decision making regarding the treatment of disease processes
2. Describe the general structural plan of the body and the relationship of the layers, partitions, and compartments from superficial to deep in any anatomical region
3. Correlate the structure of cells, tissues, organs, and organ systems with their function
4. Identify, access, and utilize sources of information for the study of the human body
5. Respectfully perform cadaveric dissection and disseminate anatomical knowledge to one’s peers
6. Demonstrate the application of critical thinking and problem solving skills to explain clinical signs and symptoms in anatomical terms
7. Integrate knowledge of surface anatomy into the clinical practice of patient examination

Student Learning Objectives:

UNIT 1: BACK and UPPER EXTREMITY

General Terminology and Body Organization
1. Describe anatomical position
2. Apply directional terms to describe relative positions of body structures
3. Apply anatomical terms to structural features, planes, and sections
4. Describe the surface mapping of the abdominopelvic cavities
5. Apply proper terminology to the movement at joints

Integument
1. Distinguish among the functions of the integumentary system and relate them to specific features
2. Describe the structural and functional components of the epidermis, dermis, and hypodermis
3. Describe the source, function, and importance of the skin pigments
4. Distinguish between sebaceous, sudoriferous, ceruminous glands based on structure, location, and types of secretion
5. Identify the difference between first-, second-, and third-degree burns
6. Distinguish major forms of skin cancer and where in the integument they originate
**Back**
1. Understand the classification of back muscles by layer
2. Describe the function and innervation of the back muscles by layer
3. Locate and briefly describe the points of attachment for each muscle group
   - Pay particular attention to the arrangement of fibers (inferior → superior)
4. Differentiate between bilateral and unilateral muscle actions and be apply to apply to injury cases

**Upper Extremity**
1. Identify the bony, cartilagenous, and ligamentous components of the pectoral girdle, shoulder, elbow, and wrist joints
2. Identify the prominent features of the bones of the upper extremity
3. Identify the rotator cuff muscles and describe their points of attachment, general functions, and nerve supply
4. Understand the 3 most common rotator cuff problems and propose common repair options
5. Describe the brachial plexus, including its major divisions and nerve branches, their origin and distribution in the upper extremity
6. Identify the brachial and antebrachial muscles and describe their points of attachment, general functions, blood and nerve supply
7. Describe the lymphatic drainage of the upper limb and the major lymph nodes of the axilla
8. Identify the contents of the flexor and extensor compartments and their functional significance
9. Correlate joint movements with the muscles producing these actions at each joint
10. Identify and define the thenar, hypothenar, central, adductor, and interosseous compartments of the hand. Describe their points of attachment, general functions, blood and nerve supply
11. Map the major arteries and veins of the upper extremity
12. Identify the areas of distribution of the major cutaneous nerves and dermatomes
13. Predict the functional loss that may result given an injury to a specific site in the brachial plexus or nerve branch

**UNIT 2: VERTEBRAL COLUMN, NERVOUS SYSTEM, HEAD, & NECK**

**Vertebral Column**
1. Identify the normal curvatures of the spine & their developmental significance
2. Describe & identify typical vertebrae & their components and appreciate regional differences of the vertebral column
3. Identify & describe the arthrology & ligamentous anatomy of the column
4. Explain the clinical significance of select structures or relationships
5. Describe the anatomy of the vertebrae as related to fractures, dislocations, and cord injury

**Neuroanatomy**
1. Understand the embryologic development of the CNS
2. Identify the major parts of the brain and describe their functions
3. Identify the major blood vessels of the brain, the cranial meninges, and special features of the dura
4. Identify the cranial nerve origins on the brain
5. Identify the parts of the ventricular system
6. Understand the functions of CSF and trace the flow through the CNS
7. Pathophysiology—describe the types of meningitis and the forms of aphasia
8. Identify the coverings and the supporting structures of the spinal cord, and their clinical significance in local anesthesia
9. Define the point of termination of the spinal cord, and its clinical significance in spinal tap
10. Describe the anatomy of the cord and vertebrae as related to fractures, dislocations, and cord injury
11. Describe the location, function, and clinical significance of major motor and sensory spinal cord tracts, as well as the arrangement of white and gray matter in the spinal cord
12. Describe a typical spinal nerve, and the somatic motor and sensory components found in any portion, and their distribution
13. Identify and describe the function of the corticospinal, dorsal columns, and ventrolateral (lateral spinothalamic) tracts in the spinal cord and associated pathophysiology due to injury

**Cranial Nerves and Head (Special Senses)**

1. Identify the cranial nerves by name, number, brainstem exit/entry, bony passage and target of innervation in the head, neck or body. Describe the specific functions of the sensory and/or motor components of each nerve
2. Describe the distribution of the branches of the trigeminal and facial nerves
3. Understand sensory and motor testing of the cranial nerves
4. Synthesize cranial nerve functions and apply to deficits in certain sensory and motor functions
5. Apply cranial nerve injury to specific pathophysiologic examples → Bell’s Palsy, Trigeminal neuralgia and sinus infection
6. Describe the structure of the temporomandibular joint and apply different jaw movements to muscles acting and nerve innervation
7. Apply lesions in several nerves to deficits in facial expression
8. Identify the major extrinsic muscles of the tongue; describe their innervation and clinical consequence of cranial nerve lesion
9. Understand the highly vascular nature of the nasal cavity and apply to the spread of infection
10. Describe the location and innervation of the salivary glands
11. Identify the extraocular muscles, their function and innervation; and apply to the clinical consequences of their associated cranial nerve lesions
12. Understand eye anatomy and identify the anatomical landmarks of the retina, including the optic disc, macula, fovea, arterioles and venules
13. Describe the internal anatomy of the ear (including innervation) and understand the function of each component

**Neck**

1. Identify the layers of the scalp and the contents of each layer
2. Identify the boundaries of the anterior and posterior cervical triangles and their subdivisions
3. Recognize and describe the contents of the carotid sheath and their relationships with surrounding structures
4. Identify the major vessels in the neck and their branches
5. Locate the major neck muscles and understand bilateral and unilateral actions
6. Identify the scalene muscles and the first rib and relate them to the neurovascular structures at the root of the neck
7. Neck muscle pathophysiology → apply muscle anatomy to the types of torticollis
8. Locate and describe the features of the thyroid gland, as well as its vascular supply
9. Identify the position of the parathyroid glands and consider its surgical relevance
10. Describe the innervation and vascular supply of the larynx, and the clinical consequences of a lesion to branches of the vagus nerve
11. Apply the variations in shape of the rima glottidis to respiration, phonation and whispering

UNIT 3: BREAST, THORACIC and ABDOMINAL CAVITIES

Thoracic Wall and Breast
1. Identify the superior and inferior thoracic openings and describe the structures that pass through
2. Identify the 3 structures piercing the diaphragm
3. Identify and describe the bony framework of typical and atypical ribs and apply to their articulation with the vertebrae
4. Understand costal arthrology and apply to its significance in respiration
5. Describe a typical intercostal space including the arrangement of the muscles, nerves and vessels
6. Apply intercostal nerve arrangement to nerve blocks
7. Identify the muscles of the thoracic wall region, their regional blood supply, innervations, attachments and functions
8. Describe the general features of the breast, its blood supply, lymphatic drainage, and apply to the path of metastasis
9. Identify surgical considerations of the breast and apply to possible nerve injury

Thoracic Cavity

Heart and Great Vessels
1. Identify the layers of the pericardium and heart wall
2. Identify the major heart landmarks and its position in the thoracic cavity
3. Locate the components of the electrical conduction system of the heart
4. Describe the valves of the heart and apply to their auscultation points
5. Identify the internal structures found in each of the four chambers and describe their anatomic and physiologic significance
6. Understand and trace the sequence of blood flow into, through, and out of the heart
7. Identify the coronary arterial supply and venous drainage of the heart as their major branches and tributaries
8. Understand coronary dominance and how it is determined
9. Identify the great vessels and their relationship to each other as well as to the cardiac chambers

Lungs
1. Define the boundaries and subdivisions of the superior and inferior mediastinal compartments, describe its contents, and their relationships to each other
2. Identify and understand the lymphatic drainage of the thorax
3. Identify the major nerves of the thorax and the significance of their branches
4. Identify the various divisions of the parietal pleura and apply innervation to pleural pain
5. Describe the anatomy of the lungs including lobes, bronchopulmonary segments and the bronchial tree from the major bronchi to the alveolus
6. Identify the relations of the pulmonary artery, pulmonary veins and bronchi at the hilum of each lung
7. Identify the laryngeal cartilages and note their significance
8. Trace the path of air into and out of the respiratory tract

Abdomen

Abdominal Wall
1. Apply the terminology used to define the surface representations of the regions of the abdomen
2. Identify the major skeletal landmarks of the abdominal region, and define the relationships between surface landmarks and underlying abdominal contents
3. Identify the muscles of the abdominal wall, their points of attachment, innervation and apply to torsional movements
4. Define the innervation, blood supply, and lymphatic drainage of the anterior abdominal wall
5. Describe and fully understand the structure of the rectus sheath, paying particular attention to structures passing through each layer
6. Understand the anatomy of the inguinal canal
7. Describe the anatomy of the abdominal wall hernias and apply to indirect, direct, and umbilical

Abdominal Cavity
1. Outline the innervation of the abdominal cavity
2. Compare and contrast the differential innervation of the peritoneum
3. Outline and diagram the blood supply of the abdominal foregut via branches of the celiac trunk, superior and inferior mesenteric arteries
4. Outline and diagram the venous drainage of the abdominal foregut via branches of the hepatic veins, superior and inferior mesenteric veins
5. Summarize the abdominal vascular system in terms of paired versus unpaired vessels
6. Outline and summarize the purpose of collateral circulatory routes
7. Compare and contrast portal and caval circulation
8. Identify the cisterna chyli and describe the general pattern of lymphatic drainage to the thoracic duct
9. Outline the vascular supply, venous drainage, and innervation of the spleen
10. Demonstrate the relationship of the kidneys and suprarenal glands to other abdominal organs
11. Describe the internal gross anatomy of the kidney
12. Trace and illustrate the blood supply and venous drainage of the kidneys
13. Diagram the general organization of the urinary system
14. Illustrate the components of the oral cavity and pharynx
15. Identify the parts of the stomach and describe its spatial relationships to surrounding organs and mesenteries
16. Describe the anatomy of the small and large intestines, including blood supply, innervation and internal structure
17. Relate internal intestinal structures to their functions
18. Differentiate between the parts of the small intestine based on internal anatomy
19. Describe the anatomy of the omenta
20. Understand the organization of the peritoneum and peritoneal cavity, including mesenteries
21. Identify the parts of the liver and describe the relationships of its portal venous, hepatic arterial, and hepatic venous circulation
22. Identify the structures passing into and out of the porta hepatis
23. Trace the pathway of the common entry of the bile ducts and pancreatic ducts into the second part of the duodenum
24. Apply the components of the triangle of Calot to its surgical significance
25. Diagram and trace a "bite of food" through the GI tract
26. Identify major anatomical landmarks

UNIT 4: GLUTEAL REGION, REPRODUCTIVE, AND LOWER EXTREMITY

Pelvic Wall and Perineum
1. Compare and contrast the anatomical differences between the greater (false) and lesser (true) pelves
2. Compare and contrast the major differences between the pelvis of the male and female and their clinical significances
3. Diagram the 4 types of pelves and apply to their significance in obstetrics
4. Diagram the muscular components of the pelvic diaphragm
5. Identify the perineum, and diagram the anal and urogenital triangles within it
6. Summarize the role of the pudendal nerve in regional anesthesia
7. Differentiate between male and female perineal anatomy

Pelvic Cavity (Reproductive Viscera)
1. Outline the contents of the posterior pelvic including innervation and vascular supply
2. Identify the trigone region of the bladder
3. Diagram the relationships of the bladder to other pelvic organs in both sexes
4. Describe the formation of the sacral plexus, its relationship to the piriformis muscle, and its pelvic splanchnic and pudendal nerve branches
5. Diagram and outline the flow of sperm and semen through the male reproductive tract
6. Identify the male accessory glands and understand the significance of their secretions and contractile order
7. Apply the relative position of the prostate gland to its clinical significance during hypertrophy
8. Understand the normal position and relationships of all organs of the reproductive tracts in both sexes
9. Identify the ovary and differentiate among its mesenteries and ligaments
10. Describe the fallopian tube and the significance of its subdivisions
11. Identify the uterus and its subdivisions, and outline the continuity of its lumen with the uterine tubes and vagina
12. Describe the structures comprising the vulva
13. Compare and contrast male and female embryonic development of external genitalia

Lower Extremity
1. Identify the bony, cartilagenous, and ligamentous components of the pelvic girdle, hip, knee, and ankle joints
2. Identify the prominent features of the bones of the lower extremity
3. Diagram how the sacrotuberous and sacrospinous ligaments create two sciatic foramina; and list the muscles and nerves that pass through them
4. Outline the anatomy of the hip region, including gluteal muscles, their attachments, nerve supply, and actions
5. Describe the structure of the hip and its functional capabilities
6. Apply the 4 weak areas of the pelvis to common fractures
7. Compare and contrast spondylolysis and spondylolisthesis
8. Diagram the blood supply of the hip joint, and the effect of interruption of the blood to the head and neck of the femur
9. Outline the possible orientations of the sciatic nerve to the piriformis muscle
10. Identify the sites used for intramuscular injection in the gluteal region
11. Describe the fascial layers of the thigh and diagram its sandwiched contents
12. Summarize the specializations of the deep fascia
13. Locate the saphenous opening and summarize its significance
14. Diagram the muscles of the anterior, medial, and posterior compartments of the thigh, including their attachments and innervation
15. Diagram the ligaments and menisci of the knee joint
16. Compare and contrast the location and functions of the intra-articular ligaments
17. Summarize the movements allowed at the knee and the ligaments and muscles stabilizing the joint
18. Outline the bursae of the knee joint
19. Understand the significance of the unhappy triad
20. Compare and contrast leg alignment during various stages of development
21. Describe the fascial layer of the lower leg and apply to its specializations
22. Diagram the muscles of the 3 crural compartments, including their attachments and innervation
23. Summarize the movements allowed and the stability of the proximal and distal tibiofibular joints
24. Diagram the ligaments of the ankle joint
25. Summarize the movements allowed at the ankle and the ligaments and muscles stabilizing the joint
26. Apply ankle movements to resulting sprains
27. Map the major arteries and veins of the lower extremity
28. Describe the subcutaneous venous drainage of the lower extremity, its relationship to the deep veins and the significance of perforating veins
29. Trace the lymphatic drainage of the lower extremity
30. Identify the areas of distribution of the major cutaneous nerves and dermatomes
31. Map the nerves of the lower extremity
32. Predict and summarize the functional loss that may result given an injury to a specific site in the lumbar and sacral plexus or nerve branch
33. Illustrate the femoral triangle and adductor canal and the spatial relationships of the structures passing through them
34. Diagram the popliteal fossa, and describe the spatial relationships of its contents
35. Apply osseous foot anatomy to common foot fractures
36. Identify the intrinsic and extrinsic muscles of the foot, their attachments, actions, and innervation
37. Summarize the relationship among the structures in the 4 layers of the sole and apply to their functional significance
38. Correlate joint movements with various foot deformities
39. Illustrate the ligamentous anatomy of the foot and apply to the integrity of the arches
Course Schedule: The instructor and the University reserve the right to modify, amend, or change the syllabus (schedule, course requirements, grading policy, etc.) as the curriculum and/or program require(s). M = Moore text. *The Netter atlas should be utilized/consulted with every topic of study.

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<th>DAY</th>
<th>DATE</th>
<th>TOPIC</th>
<th>ASSIGNED READINGS*</th>
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<tbody>
<tr>
<td>UNIT I</td>
<td></td>
<td>Skin, Back and Upper Extremity</td>
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<tr>
<td>Wednesday</td>
<td>5/31</td>
<td>Course Overview &amp; Introduction</td>
<td>M: Introduction:</td>
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<td>Anatomical Vocabulary</td>
<td>(12-17 &amp; 843-844)</td>
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<td>Integument</td>
<td>Integument Packet</td>
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<td>M: Chapter 4</td>
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<td>Monday</td>
<td>6/5</td>
<td>Finish Integument</td>
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<td>Back (Superficial → Deep)</td>
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<td>Tuesday</td>
<td>6/6</td>
<td>Upper Extremity (UE): Osseous Anatomy</td>
<td>M: Chapter 6</td>
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<td>Shoulder (including arthrology)</td>
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<td>Brachial Plexus</td>
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<td>Monday</td>
<td>6/12</td>
<td>Upper Extremity (UE): Arm &amp; Forearm</td>
<td>M: Chapter 6</td>
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<td>Tuesday</td>
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<td>Upper Extremity (UE): Wrist &amp; Hand</td>
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<td>UE: Associated Structures</td>
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<td>UNIT II</td>
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<td>NS, Head, Neck &amp; Vertebral Column</td>
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<td>Monday</td>
<td>6/19</td>
<td>Vertebral Column</td>
<td>M: Chapter 4</td>
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<td>Nervous System Embryology</td>
<td>M: 46-65</td>
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<td>Tuesday</td>
<td>6/20</td>
<td>Complete Nervous System and Brain Anatomy</td>
<td>M: 46-65</td>
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<td></td>
<td></td>
<td>Spinal Cord &amp; PNS</td>
<td>M: 496-507</td>
</tr>
<tr>
<td>WED</td>
<td>6/21</td>
<td>UNIT I LECTURE &amp; LAB EXAM</td>
<td>THRU 6/13</td>
</tr>
<tr>
<td>Monday</td>
<td>6/26</td>
<td>Skull (Do Participatory Exercises in Lab)</td>
<td>M: Chapter 7</td>
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<td></td>
<td></td>
<td>Head Structures &amp; Cranial Nerves</td>
<td>M: Chapter 9</td>
</tr>
<tr>
<td>Tuesday</td>
<td>6/27</td>
<td>Neck Anatomy</td>
<td>M: Chapters 7-9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neck Mapping</td>
<td>*Bring washable markers</td>
</tr>
<tr>
<td>UNIT III</td>
<td></td>
<td>Thorax and Abdomen</td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td>7/3</td>
<td>Heart &amp; Great Vessels</td>
<td>M: Chapter 1 [128-174]</td>
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<td></td>
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<td>M: Chapter 8 [989-1012]</td>
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<tr>
<td>Tuesday</td>
<td>7/4</td>
<td>JULY 4th HOLIDAY</td>
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<tr>
<td>FRIDAY</td>
<td>7/7</td>
<td>UNIT II LECTURE &amp; LAB EXAM</td>
<td>THRU 6/27</td>
</tr>
<tr>
<td>Monday</td>
<td>7/10</td>
<td>The Thoracic Wall and Breast</td>
<td>M: Chapter 1 [98-106]</td>
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<td>M: 306-309</td>
</tr>
<tr>
<td>Tuesday</td>
<td>7/11</td>
<td>Respiratory System</td>
<td>M: Chapter 1 [106-127]</td>
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<td></td>
<td></td>
<td>(Thoracic Cavity &amp; Lungs)</td>
<td>M: 960-965; 1021-1032</td>
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<tr>
<td>DAY</td>
<td>DATE</td>
<td>TOPIC</td>
<td>ASSIGNED READINGS*</td>
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</tbody>
</table>
| Monday   | 7/17 | Abdominal Wall Structures  
Abdominal Viscera (Part 1)                                            | M: Chapter 2  
M: 1032-1039      |
| Tuesday  | 7/18 | Abdominal Viscera (Part 2)                                            | M: Chapter 2  
M: 1032-1039      |
| **UNIT IV** |     | **Gluteal Region, Reproductive and Lower Extremity**                    |                   |
| Monday   | 7/24 | Lower Extremity (LE): Osseous Anatomy  
Pelvic Wall & Perineum                                                 | M: Chapter 3  
M: Chapter 5 [510-538] |
| Tuesday  | 7/25 | Perineum  
Pelvic Viscera (Reproductive System)                                | M: Chapter 2 [202-226]  
M: Chapter 3       |
| **FRIDAY** |  7/28 | **UNIT III LECTURE & LAB EXAM** THRU 7/18                             |                   |
| Monday   | 7/31 | Lower Extremity (LE): Hip & Gluteal Area                              | M: Chapter 2 [309-312] |
| Tuesday  | 8/1  | Lower Extremity (LE): Thigh & Knee                                     | M: Chapter 5      |
| Monday   | 8/7  | Lower Extremity (LE): Leg & Ankle  
LE: Associated Structures                                                | M: Chapter 5      |
| Tuesday  | 8/8  | Complete Lower Extremity: Foot  
LE: Mapping                                                                | M: Chapter 5  
*Bring washable markers    |
| **TUESDAY** | 8/15 | **UNIT IV LECTURE & LAB EXAM** THRU 8/8                                |                   |

**EXAM DATES** (Lecture Exam and Lab Practical Combined)

UNIT I → June 21 (Wednesday 4:30 pm)  
UNIT II → July 7 (Friday 9:00 am)  
UNIT III → July 28 (Friday 9:00 am)  
UNIT IV → August 15 (Friday 9:00 am)

**Please Note:** All Exams will be administered in the Cadaver Lab (SCI 017). Rotations for the Lab Practical portion will be determined during the exam.
<table>
<thead>
<tr>
<th>DATE</th>
<th>REGION</th>
<th>REFERENCE</th>
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</thead>
<tbody>
<tr>
<td><strong>UNIT I</strong></td>
<td><strong>Skin, Back and Upper Extremity</strong></td>
<td></td>
</tr>
<tr>
<td>Jun 2</td>
<td>Orientation → Introduction to Cadaver Lab (anatomical gift, dissection video, etc.) Integument &amp; Superficial and Deep Back</td>
<td>Chapters 1, 13</td>
</tr>
<tr>
<td>Jun 9</td>
<td>Shoulder, Axilla, and Pectoral regions Brachial Plexus</td>
<td>Chapters 3-4, 10 Handouts</td>
</tr>
<tr>
<td>Jun 16</td>
<td>Arm, Forearm, and Hand (Joints) UE: Mapping &amp; Palpation</td>
<td>Chapters 4-9, 11 *Bring markers</td>
</tr>
<tr>
<td>Jun 19 (MON)</td>
<td>3:00 – 5:00 Open Lab Study</td>
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<tr>
<td>Jun 21 (WED)</td>
<td>4:30 – 7:30 UNIT I EXAM</td>
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<tr>
<td><strong>UNIT II</strong></td>
<td><strong>Head, Neck, and Vertebral Column</strong></td>
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<tr>
<td>Jun 23</td>
<td>Vertebral Column and Spinal Cord Superficial Brain, Scalp, and Face Independent study of skull</td>
<td>Chapters 26-29 Handouts</td>
</tr>
<tr>
<td>Jun 30</td>
<td>Independent study of skull (continued) Cranial Cavity → Craniotomy &amp; Cranial nerves Cervical Region → Posterior Anterior Neck Region → pharynx and larynx</td>
<td>Chapter 26 Chapters 14, 30-32 Handouts</td>
</tr>
<tr>
<td>Jul 5 (WED)</td>
<td>4:30 – 6:30 Open Lab Study</td>
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<tr>
<td>Jul 7</td>
<td>UNIT II EXAM</td>
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<tr>
<td><strong>UNIT III</strong></td>
<td><strong>Thorax and Abdomen</strong></td>
<td></td>
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<tr>
<td>Jul 14</td>
<td>Anterior Chest Wall → Pectoral Region and Breast Lungs and Heart Thorax, Heart and Great Vessels Inguinal Region</td>
<td>Chapters 2, 34-36</td>
</tr>
<tr>
<td>Jul 21</td>
<td>Peritoneum, Abdominal Organs &amp; Portal Circulation</td>
<td>Chapters 12, 36</td>
</tr>
<tr>
<td>Jul 26 (WED)</td>
<td>4:30 – 6:30 Open Lab Study</td>
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<tr>
<td>Jul 28</td>
<td>UNIT III EXAM</td>
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<tr>
<td><strong>UNIT IV</strong></td>
<td><strong>Gluteal Region, Reproductive, and Lower Extremity</strong></td>
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<tr>
<td>Aug 4</td>
<td>Gluteal Region Urogenital Diaphragm Female and Male Pelvis &amp; Perineum</td>
<td>Chapters 16, 18, 37-38 Handouts</td>
</tr>
<tr>
<td>Aug 11</td>
<td>Thigh, Leg, and Foot (Joints)</td>
<td>Chapters 17, 19-25</td>
</tr>
<tr>
<td>Aug 14 (MON)</td>
<td>10:00 – 1:00 Open Lab Study</td>
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<tr>
<td>Aug 15 (TUE)</td>
<td>UNIT IV—FINAL EXAM</td>
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