

**Western Kentucky University
Department of Allied Health
Doctor of Physical Therapy Program**

<u>Course Number:</u>	DPT 720
<u>Course Title:</u>	Gross Human Anatomy I
<u>Credit Hours:</u>	2
<u>Lecture Hours:</u>	6 hours/week (5 week session)
<u>Weekly Schedule:</u>	Tu, Th 1-4 PM
<u>Office Hours:</u>	M 10-12
<u>Location:</u>	MCHC, Room 3349
<u>Instructor:</u>	Beth Norris, PT, PhD, OCS

Course Description:

The study of gross human anatomy including muscle, tendon, ligament, innervation, and vascular supply of the upper and lower extremities. Prerequisites: Open only to DPT students in good standing. Co-requisites: DPT 721

Course Objectives:

At the completion of the course content, the student will be able to:

1. Demonstrate appropriate behavior and respect, with the use of anatomical models and structures, through compliance with all laboratory policies as set forth in the course syllabus. (7D4, 7D5))
2. Explain anatomical relationships using appropriate terminology during class, laboratory, and on exams.
3. Compare and contrast epithelial, connective, muscle, and nervous tissues.
4. Identify and explain the significance of the skeletal system including bone nomenclature, location, characteristic features, and relationships to each other. (7D19v)
5. Identify the muscles of the upper and lower extremities, including muscle origin, insertions, action, nerve and blood supply.
6. Identify and explain the relationships of the vascular systems supplying the upper and lower extremities.
7. Diagram and explain the significance of the brachial plexus and its terminal branches.
8. Combine the relationship of the terminal branches of the brachial plexus with muscle innervation and functional movement.
9. Identify and explain joint morphology, classification and supportive structures including ligament, cartilage, and bursa.
10. Identify and explain selected body organ systems structures, location, relationships and function.(7D18)

11. Integrate neurological, musculoskeletal, morphological and vascular systems for the production of movement and function. (7D19e,k,n,p,v)
12. Combine muscular action with neurological innervation to determine neuromuscular deficits when given specific case studies.
13. Compare and contrast straight plain muscular actions with actions of muscles found during functional mobility.
14. Compare and contrast histological characteristics for various anatomical structures.

Course Structure:

Lectures in this course will cover detailed description of gross human anatomy and function.

Evaluation Methods:

1. **Attendance.** Attendance and promptness to class will be monitored. Students must sign in at the beginning of each lecture/presentation and document the time of arrival. One percentage point will be deducted each occurrence of tardiness and 2 percentage points will be deducted for each unexcused absence.
2. **Testing**
 - a. **Quizzes (80 points):** There will be 13 quizzes given over the course of the session. **8 online quizzes each at 5 points** will be issued during the 5 weeks. **In class quizzes** will be issued to cover content previously taught in lecture/lab sessions. **6 in-class quizzes each at 10 points** will be administered.
 - b. **Written exams (100 points):** There will be one written **midterm exam (40 points)** and one **final exam (60 points)**. The final exam will consist of 40 points covering material since the midterm and 20 points comprehensive material. All exams will be over the total material of the course and all students must take all exams. If a student does not or cannot take the final due to an emergency, then plans must be made at the discretion of the professor to complete all course work within a specified time period.
3. **Micro-learning assessments:** (10 points)
 - a. Audience response systems (iClickers) will be used to assess comprehension of material covered during class sessions. Each question will be worth 1 point: .50 for a correct answer and .50 for participation.
 - b. Jeopardy team competition will be held multiple times during the semester to facilitate learning of material. ‘Credits’ will be issued to each team for correct responses. The team with the most credits will be eligible to replace one quiz grade with credits earned.
 - c. Periodically, students will be randomly asked to review material covered in prior classes such as providing the origin, insertion, innervation and function of a specific muscle. This will be graded on a rubric (1 pt = correctly provides all review information; .5 pt=partially completes all review information correctly; 0=information provided in <50% complete and/or correct.

4. Grading:

Course Grading

The final course grade is a letter grade. The course grade will be based on the following:

Assessment Method	Points	Weight
Quizzes-online	40 points	10%
Quizzes-in class	60 points	25%
Mid-Term Exam Written	40 points	25%
Final Exam Written	40 points	25%
Final Exam Comp	20 points	10%
Micro-Assessments	<u>10 points</u>	<u>5%</u>
	210 points	100%

b. Numeric and Letter Grade Translation

A	90-100
B	80-89
C	70-79
F	<70

Instructional Practices:

1. Teaching Methods

- a. Lecture
- b. Blackboard with Mediasite lectures
- c. Audience Response System
- d. Class sessions with examples and personal instruction
- e. Class discussion
- f. Student self-study

2. Teaching Aides

- a. White board
- b. Video
- c. PowerPoint
- d. Anatomical models
- e. Anatomage table
- f. SynDaver
- g. Dissection of the human cadaver

The course is divided into lecture (DPT 720) and laboratory sessions (DPT 721). Lecture materials will be presented based upon the course syllabus outline. Lecture will utilize multimedia visual and auditory learning tools, interactive learning and case applications. Laboratory will consist of cadaver prosection, anatomage table, anatomical models and 3-dimensional software.

Course Policies

1. Refer to WKU DPT Student Manual for the following items:

- a. Student Responsibilities
- b. Student Disability Services
- c. Copyright
- d. Academic Misconduct

- e. Religious Holidays Notification
- f. WKU Writing Center
- g. Missed Class(es)/Student
- h. Professional Behaviors

The instructor reserves the right to make changes in the course schedule as needed to accommodate guest lecturers or to alter course content.

Required Texts:

1. Drake RL, Vogel AW, Mitchell AWM. (2015). *Gray's Anatomy for Students*, (3rd Ed.). ISBN: 9780702051319. Churchill Livingstone/Elsevier

Recommended Text:

2. Netter, FH. (2014). *Atlas of Human Anatomy: Including Student Consult*. (6th Ed).

Participation, Preparation and Communication:

- a. **Expectations:** All students will be prepared for each class and participation is mandatory. Failure to participate (including non-clinical use of your phone during class) will result in an overall point loss of 1% of your grade, per occurrence. The professor reserves the right to ask you to leave class if you or your phone use becomes a disruption.
- b. **Classroom and Laboratory Housekeeping:** In accordance with the Student Manual you are responsible for maintaining and cleaning up the classroom and lab spaces. The Cadaver Lab has specific procedures posted in the lab and will be provided to you during initial lab orientation.
- c. **Communication with Professor.** If you have any questions regarding course goals, tasks, or activities, you should contact the professor to discuss them. You should be polite, professional, and courteous in all communications. Replies to your email will be within 24 hours Monday-Friday and within 48 hours over the weekend. As DPT students, you should maintain professionalism and politeness with all forms of communication. Failure to do so could trigger a Student Professionalism Concern Report (see below).

Professional Responsibilities and Relationships

As a doctor of physical (DPT) student and future physical therapist, you have chosen to pursue a profession which requires personal integrity, compassion, and a constant awareness of the commitment made. Exhibiting personal behaviors consistent with a respect for this profession and having pride in your work are central tenets of professionalism. You are expected to incorporate them into your daily life. To demonstrate commitment to these responsibilities while enrolled in this course, you will be held to the professional standards listed in the Student Manual and you are expected to:

- a. Seek and accept feedback and constructive instruction from teachers, peers, and faculty in order to continually improve your educational experience, knowledge, and clinical skills.
- b. Commit to the highest standards of competence.
- c. Be mindful of your demeanor, language, and appearance in the classroom.

- d. Be accountable to all members of the WKU community, including fellow students, faculty, and support staff.
- e. Admit and assume responsibility for mistakes in a mature and honest manner and develop productive strategies for correcting them.
- f. Be considerate and respectful of others' (teachers, peers, and faculty) time, rights, values, religious, ethnic and socioeconomic backgrounds, lifestyles, opinions, and choices, even when they differ from your own.
- g. Meet the expectations for participation and timeliness.
- h. Recognize limitations and seek help when expertise, knowledge, or level of experience is inadequate to handle a situation in the classroom, hospital, or research setting.
- i. Maintain appropriate relationships with peers and faculty.
- j. Treat all members of the WKU community with respect, compassion, and dignity.
- k. Be mindful to avoid intentionally embarrassing or disparaging others.
- l. Provide feedback to others (both colleagues and superiors) in a constructive manner, with the goal of helping them to improve.
- m. Treat those who participate in the education process (e.g., standardized patients) with dignity and respect.
- n. Actively work to create an atmosphere in classrooms, clinical settings, and in laboratories that is conducive to optimal, interactive learning.

1) **Professionalism Concern Process**

Violation of the classroom professionalism policy may simply result in providing the student with feedback on his or her behavior. However, if the breach is significant enough, the student will be asked to leave the classroom. This will result in an unexcused absence and a **2% reduction in the student's overall grade**. The professor will also complete the **Student Professionalism Concern Report Form**. Once the form is completed, the student will meet individually with the Professor to discuss the situation.

STUDENT PROFESSIONALISM CONCERN REPORT FORM

Student: _____

Professor: _____

Which of the following unprofessional behaviors has the student exhibited? Check all that apply.

- ☐ Professional Responsibilities
 - ☐ Fails to accept and internalize criticism and feedback
 - ☐ Has inappropriate demeanor or appearance in the classroom
- ☐ Professional Relationships
 - ☐ Acts disrespectfully toward others
 - ☐ Engages in disruptive behavior in class
- ☐ Professional Ethic
 - ☐ Behaves in a dishonest manner, including falsifying documentation
- ☐ Other: _____

1. Describe in detail the incident which prompted the completion of this form (attach additional pages if needed).

2. Describe previous feedback and remediation which took place prior to the completion of this form (attach additional pages if needed).

3. Student Signature: _____ Date: _____

I acknowledge that I have reviewed this evaluation with the course professor and have the following additional comments:

4. Professor Signature: _____ Date: _____

ADDITIONAL INFORMATION

USE OF CADAVERIC SPECIMENS POLICY

Periodically throughout the semester, we will be using cadaveric specimens provided to us from the Wright State University Body Donation Program. Cadavers are donated to Wright State University following specific state and national regulations. Individuals who bequeathed their bodies to that program do so without receiving any financial compensation. Therefore, the use of these specimens for educational purposes is a privilege and should be respectful and professional. Inappropriate or disrespectful behavior will not be tolerated and the student will be asked to leave the classroom.

Preservation

Low concentrations of formaldehyde and phenol (or other chemicals with similar properties) are typically used to preserve cadavers for dissection. Formaldehyde is classified as a carcinogen; therefore, the doors to the laboratory must remain closed during cadaveric examination so that the ventilation system can properly maintain air flow and reduce your exposure to chemical particulates. Cadaver specimens are also treated with a formaldehyde neutralizer to help reduce formaldehyde vapors. However, if you are pregnant or have a respiratory condition that may be exacerbated by exposure to such chemicals, you may wish to reconsider your participation in this course.

Regulations

Failure to comply with the following regulations will result in immediate dismissal from the class.

1. The cadaver lab is a restricted area. You may not take photographs or videos at any time when cadaver specimens are being used for educational purposes. Cell phones and other technological devices with cameras are not allowed in the laboratory at any time. No exceptions.
2. No body parts or tissues may be removed from the cadaver laboratory.
3. Only those students enrolled in this course are allowed to view cadaver specimens and participate in laboratory activities. Do not bring friends or other classmates into the cadaver area as this is strictly prohibited.
4. Cadaver specimens must be locked in a secure and restricted area at all times. During classroom cadaver activities, the doors to the lab must be closed and locked.
5. Any accidents or allergic reactions must be reported to the instructor immediately.
6. Cadaver specimens are stored in specific containers with specific identifiers. Do not remove any identifying tags or security monitoring devices from the specimens at any time. This ensures that the cadaver parts from a particular donor are kept together and returned to the correct family for cremation at the end of laboratory use.

Bio-Hazard Safety Level 2 Guidelines (BSL-2)

The following guidelines must be followed to ensure your safety and the safety of your classmates during dissection.

1. Absolutely no food or drinks are allowed in the lab during cadaveric exploration.
2. Gloves must be worn at all times when handling cadaver specimens. Wash hands thoroughly prior to leaving the lab.
3. Only closed-toed shoes may be worn in the lab. Because dissecting fluids can leak onto the floor during laboratory activities, it is suggested that you designate an old pair of tennis shoes to the lab that can be discarded at the end of the course. You can also purchase disposable shoe covers if you

wish to wear your regular closed-toed shoes.

4. You must wear long pants or scrubs to cover and protect your legs. Do not wear pants that drag the ground, for this is a hazard all on its own. It is recommended that you designate an old pair of pants/t-shirt to wear during this course that can be thrown away at the end of the semester. Lab coats can also be purchased at local scrub shops or online to help protect clothing. Long hair and/or long bangs should be secured in an elastic band or with hair pins, etc.
5. It is not recommended that contact lenses be worn during laboratories involving cadaver dissection. Formaldehyde and other chemical preservatives can produce vapors that may be absorbed by the lenses. Glasses, therefore, should be worn in the place of contacts. Safety goggles are recommended to prevent splashing fluids in the eyes.
6. Each student is responsible for keeping the work area clean. All specimens must be stored in their original container prior to the end of class and all desk tops must be cleaned using the cleaning solutions provided by the instructor.
7. Tissue desiccation is always a concern when working with cadaveric specimens. Please make sure that you spray the cadaver tissue thoroughly with the solution provided to prevent drying of the tissue.

Communicable Diseases

Although the cadaver has been tested and determined to be non-reactive for Hepatitis B antigen, Hepatitis C antibody, and HIV I and II, there is no guarantee that the specimens are completely free from communicable diseases. Take care when handling the cadaver.

Title IX Misconduct/Assault Statement

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at

<https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and

Discrimination and Harassment Policy (#0.2040) at

https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and **MUST** report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

ADA Accommodation Statement

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, Room 1074. The SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

DPT 720 Gross Human Anatomy I

Content Outline

Week 1	Introduction; superficial back; posterior scapula, shoulder, axilla, brachial plexus, and pectoral regions.
Week 2	Forearm, hand, upper limb joints
Week 3	Written Exam 1 Tuesday 6/18/19 8-10 Gluteal, posterior compartment of the thigh, anterior compartment of the thigh, medial compartment of the thigh
Week 4	Posterior compartment of the leg, lateral compartment of the leg, anterior compartment of the leg, dorsum of the foot; plantar surface of the foot, lower limb joints
Week 5	Review; Final Exam TBA