

**George Mason University**  
**College of Education and Human Development**  
**School of Kinesiology**  
**Athletic Training Education Program**

ATEP 510 – 002 —Advanced Functional Anatomy  
 3 Credits, Summer 2024

5-13-24 → 8-3-24

F2F Dates: Wednesday 3:30-7:00 PM

5/22/24, 6/12/24, 6/19/24, 7/10/24, 7/17/24,  
 7/24/24, 7/31/24

148 Katherine Johnson Hall, Science &  
 Technology Campus

**Faculty**

Name	Dr. Devin Craig PT, DPT
Office Hours	By Appointment- Microsoft Teams
Office Location	Online
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**Prerequisites/Corequisites**

Recommended Prerequisite: Basic human anatomy and physiology and functional anatomy knowledge.

Recommended Corequisite: ATEP 520 and 525.

**University Catalog Course Description**

Investigates the musculoskeletal anatomy including innervation, vascular anatomy, and function of the neck, trunk and limbs. Synthesizes anatomy, physiology, and human movement as it relates to injury; case studies are used to enhance the understanding of human anatomy and interpret movement impairments.

**Course Overview**

N/A

**Course Delivery Method**

This course will be delivered in a hybrid method – combining on-campus face to face instruction and an asynchronous format via Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on **May 13, 2024 8.00 am Eastern Standard Time (EST) – Note: All times are EST**). There will be a practical laboratory portion on-campus.

**Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.**

#### *Technical Requirements*

To participate in this course, students will need to satisfy the following technical requirements:

- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox is required (note: Opera and Safari are not compatible with Blackboard).
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
  - Adobe Acrobat Reader: <http://get.adobe.com/reader/>
  - Windows Media Player: <http://windows.microsoft.com/en-US/windows/downloads/windows-media-player>

#### *Expectations*

- **Course Week:** Because asynchronous courses do not have a “fixed” meeting day, our week will **start on Tuesday and finish on Monday.**
- **Log-in Frequency:** Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least **4 times** per week.
- **Participation:** Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- **Technical Competence:** Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- **Technical Issues:** Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues. Do not wait until the weekend, there is no technical support on the weekend with reliable communication.
- **Workload:** Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student’s responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- **Instructor Support:** Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.
- **Netiquette:** The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always

re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words.* Remember that you are not competing with classmates but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.

- Accommodations: Online learners who require effective accommodations to ensure accessibility must be registered with George Mason University Disability Services.

## Learner Outcomes or Objectives

This course is designed to enable students to do the following:

1. Explain correct anatomical terminology to describe the structural features of the trunk, thorax, pelvis, and limbs, and positional terminology to relate them to the anatomical position and anatomical planes
2. Model the distribution pattern of the vascular system for the neck, trunk and limbs
3. Contrast the key components, organization, and function of the central, peripheral and autonomic nervous systems and name and locate major branches of the peripheral nervous system
4. Estimate potential for movement at selected joints based on joint shape, joint inclusions, and connective tissue attachments
5. Appraise how the architectural features of key muscles contribute to their role in movement
6. Select muscle location, attachments, innervations, blood supply, actions, and functions
7. Summarize key features of gross anatomical structures to normal human activity and function
8. Interpret the principles of clinical gait and posture analysis and apply theoretical knowledge to a clinical setting
9. Evaluate gait and posture including static and dynamic function, and
10. Integrate the essential anatomical components of frequently used orthopedic physical exam techniques

## Professional Standards

The course meets Commission on Accreditation of Athletic Training Education (CAATE) competencies and proficiencies in one or more of the following content areas: evidence-based practice, prevention and health promotion, clinical examination and diagnosis, acute care of injury and illness, therapeutic interventions, psychosocial strategies and referral, healthcare administration, professional development and responsibility.

## Required Texts

1. Biel, A. Trail Guide to the Body, 6<sup>th</sup> Edition. Pearson Books of Discovery. ISBN #: 978-0-9987850-6-6 \*
2. Biel, A. Trail Guide to the Body Student Workbook, 6<sup>th</sup> Edition. Pearson Books of Discovery. \*Comes as a package
3. [Body Mapp App Bundle](#) – included both Anatomy and Palpation App
3. Graduate Medical Terminology and Athletic Training Anatomy Foundations. Course e-text book access will be purchased at <https://gmu.cipcourses.com/registration>

## Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy). Students will be evaluated on content standards (knowledge gained) and psychomotor competency performance (demonstration of the skill content). Content standards and psychomotor skills will be assessed via practical skill demonstrations (Competency Evaluations) and a comprehensive practical examination.

## Attendance & Professional Participation

### Attendance

Attending, being on-time for class, active participation and respect for peers and instructor are important components of this course. Therefore, students will lose credit for not attending and contributing to the class. Attendance will be recorded at the beginning of class. If a student arrives more than 20 minutes after the beginning of class, it will be recorded as an unexcused absent even if the student attends the class. ***Each late arrival will result in 1-point reduction of the student's final grade.***

### Absences

**Excused absences** include the following: illness (must bring a receipt or note from a doctor), family death, athletic/academic event(contact instructor in advance), and others at the discretion of the instructor. It is the student's obligation to pursue any make-up work.

***Students will have one week from the excused absence to complete any missed assignments.***

In the case of illness or some other unforeseen absence, the student must contact the instructor before the course meeting via e-mail. Within 36 hours the student will discuss material that is to be completed.

***An unexcused absence will result in a 1- point reduction of the student's final grade.*** If laboratory class, any in-class exams, assignments or activities may not be available for make-up. This is at the discretion of the instructor.

For known upcoming absences, students must contact the instructor at least one week in advance of the missed class.

## Professionalism

***Any violation of professionalism will result in a 1-point deduction from the students overall grade.***

Students are expected to exhibit professional behaviors and dispositions at all times. It is critical that each student conduct himself/herself in an appropriate manner and decorum fitting of a health care provider. Making light of injuries, conditions, or illnesses or any action that is not respectful to the class, instructor, or patient study will not be tolerated. Submission of documents or assignments should not include personal information and should comply with Health Insurance Portability & Accountability Act (HIPAA) regulations. Interactions and behaviors in the classroom should be appropriate and respectful.

***Communication*** – When communicating with the instructor and classmates, either face-to-face or via email, students should address the other person appropriately, use appropriate language and maintain a civil demeanor.

***Responsibility/Accountability/ Honesty/Integrity***– Professionals take responsibility for their actions and are accountable. This can occur at multiple levels but generally consists of being on time, completing assignments on time, submitting work that is of the appropriate quality, honoring commitments and

owning up to mistakes. Students are expected to interact with the instructor and classmates in appropriate, respectful and civil behaviors. Professionals keep their word when committing to something and act in an ethical and respectful manner. See George Mason University policy for further guidance.

*Professionalism evaluation – Any professionalism violation will be documented by the instructor. Violations will result in a 1-point deduction per episode from the final point total.*

*Online Demeanor-* students are expected to utilize professional and civil language in writing and verbal discussion. Video must be ON during synchronous class meeting times. Professional background and surroundings as well as professional personal appearance is expected.

### **Professional Personal Presentation**

During the laboratory section of the course, students will be asked to wear appropriate clothing to expose various body parts for the purposes of practicing. Tank tops and sports bras/bathing suit tops will be required when topics focus on the upper body. Shorts will be required will be required when topics focus on the lower body.

For practical examinations, students are expected to wear professional attire and appearance.

For further description please refer to the MSAT Professional Disposition document:

If there is a concern, please speak with the instructor prior to class in order for accommodations to be made.

- **Examinations & Quizzes**

The format of the examinations and quizzes may include multiple choice, true/false, labeling, short answer, matching, and fill in the blank type questions. Quizzes will occur both online & face to face as outlined in course calendar. The exams will cover all chapter materials and assigned readings.

- **Caduceus Chapters**

Students will complete selected chapters over the entire course and submit it as per syllabus timeline. Students must successfully complete all required components and pass all testing modules at 80%. This assignment is pass/fail for the class. All chapters and components must be completed in entirety. Students are welcome to work ahead and complete prior to due date.

- **Palpation Examination**

Two assessments of palpation psychomotor skills will be administered. Palpation skills will be assessed in a live synchronous examination format. This is a real-time examination that will require the student to locate various anatomical structures on a live model.

- **Student Work Book**

Students will complete Student Work Book over the entire course and submit it as per syllabus. This assignment is pass/fail for the class. All assigned chapters must be completed in entirety.

## Grading

ASSESSMENT METHOD	NUMBER	POINTS EACH	POINTS TOTAL
Written Examinations	2	50	100
Quizzes	12	12	144
Caduceus Chapters			Pass/Fail
Palpation Examination	2	50	100
Student Workbook			Pass/Fail
Online HW Assignments	7	10	70
<b>TOTAL</b>	—	—	<b>414</b>

The student's final letter grade will be earned based on the following scale:

Grade	Percentage
A	94 – 100%
A-	90 – 93%
B+	88 – 89%
B	84 – 87%
B-	80 – 83%
C	70 – 79%
F	0 – 69%

Every attempt will be made to grade and return assignments in a timely manner to provide students with constructive feedback. To provide students the opportunity to fully assess the feedback provided on graded assignments, the professor will be happy to answer any questions at the next class period following the return of the assignments or during the professor's office hours. The professor acknowledges the passion with regards to grades, but unprofessional and uncivil behavior either in person or through other modes of communication will not be tolerated.

### **Name**

Your name **MUST** be on your papers when you turn them in. Failure to put your name will result in a 0 for the assignment.

### **Late Assignments**

All work is due at the assigned date and time as indicated on syllabi and Blackboard. **NO LATE WORK WILL BE ACCEPTED AND WILL RESULT IN A 0 GRADE!!!**

### E-MAIL CORRESPONDENCE

Only messages that originate from a George Mason University address will be accepted. The following is an appropriate professional format:

Dear Dr. Craig , (*Beginning salutation*)

I am looking forward to your class. (*Text body*) Regards, (*Ending Salutation*)  
First Name Last Name (*Your name*)

### **Core Values Commitment**

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: <http://cehd.gmu.edu/values/>.

### **GMU Policies and Resources for Students**

#### ***Policies***

- <https://cehd.gmu.edu/students/policies-procedures/>
- Students must adhere to the guidelines of the Mason Honor Code (see <http://oai.gmu.edu/the-mason-honor-code/>).
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- Students with disabilities who seek accommodations in a course must be registered with



George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <https://ds.gmu.edu/>).

- Students must silence all sound emitting devices during class unless otherwise authorized by instructor.

#### *Campus Resources*

- Questions or concerns regarding use of Blackboard should be directed to <https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

#### **Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking:**

As a faculty member, I am designated as a “Responsible Employee,” and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason’s Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason’s confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance from Mason’s Title IX Coordinator by calling 703-993-8730 or email [titleix@gmu.edu](mailto:titleix@gmu.edu).

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/>.

### Tentative Class Schedule

DATES	TOPIC	READING ASSIGNMENTS	ASSIGNMENTS DUE
5/14-/5/20	Introduction / Review Basic Functional Anatomy  Shoulder & Arm	TG: Introduction & Chapter 1  TG: Chapter 2	SWB: pg. 1-5  Quiz #1  Quiz #2
5/21-5/27	Continue Shoulder & Arm  <b>LAB #1- Palpation 101/ shoulder &amp; arm palpation</b>  <b>Mock Exam</b>	TG: Chapter 2	SWB: pg. 25-50  Quiz # 3  MT: Intro & Ch 1
5/28- 6/3	Forearm & Hand	TG: Chapter 3	Quiz # 4 Quiz # 5 SWB: pg. 52-82
6/4- 6/10	Spine & Trunk	TG: Chapter 4	Quiz #6 SWB: pg: 84-117
6/11-6/17	Spine & Trunk  <b>LAB #2- Forearm, Hand, Spine, Trunk palpation</b>  <b>Mock Exam</b>	TG: Chapter 4	Quiz # 7  MT: Ch 2
6/18- 6/24	Head, Face, Neck  <b>LAB #3- Palpation Exam</b>	TG: Chapter 5	<b>Palpation Exam #1- Shoulder/Arm/Forearm /Spine/Trunk</b>  <b>Written Exam #1- Chapters 1-5</b>  SWB: 119-142
6/25- 7/1	Pelvis Thigh	TG: Chapter 6	Quiz # 8 SWB: 143-177
7/2- 7/8	Pelvis thigh	TG: Chapter 6	Quiz # 9 SWB: 143-177 MT: Ch 3
7/9- 7/15	Knee Lower leg <b>LAB # 4- Pelvis, Thigh</b> <b>Mock Exam</b> <b>Begin Knee</b>	TG: Chapter 7	Quiz # 10 SWB: 179-182/187- 196/202-204

7/16- 7/22	Knee Lower Leg & Ankle <b>LAB #5- Knee, Lower Leg</b> <b>Mock Exam</b> <b>Begin Ankle</b>	<b>TG:</b> Chapter 7	<b>Quiz # 11</b>  <b>MT: Ch 4</b>
7/23-7/29	Ankle Foot <b>LAB #6- Ankle, Foot</b> <b>Mock Exam</b>	<b>TG:</b> Chapter 7	<b>Quiz # 12</b> <b>SWB:</b> pg: 183-186/198-200/205-208
7/31	<b>LAB #7 - Palpation Exam</b>		<b>Palpation Exam #2-</b> <b>Pelvis, Thigh, Knee,</b> <b>Lower leg, Ankle, Foot</b> <b>Final written exam-</b> <b>cumulative</b>
<p><b>TG:</b> Trail Guide, <b>MT:</b> Caduceus Book Medical Terminology <b>SWB:</b> Student Work Book, <b>Lab</b> = Hands on Laboratory in KJH 148 –<b>3:30 -7:00 pm,</b>  <b>*The page numbers for the reading assignments may differ based on edition, so refer to the topic</b>  <i>Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.</i></p>			