

GEORGE MASON UNIVERSITY
College of Education and Human Development
Athletic Training Education Program

ATEP 300-003 – Functional Anatomy
3 Credits, Spring 2019
Monday and Wednesday 1:30-2:45pm
Colgan Hall 318 – Science and Technology Campus

Faculty

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Prerequisites/Corequisites

Prerequisite: BIOL 124 – Human Anatomy and Physiology (4 credits)

Corequisite: BIOL 125 – Human Anatomy and Physiology (4 credits)

University Catalog Course Description

Increase students' knowledge and exposure to the structural and functional components of human anatomy including musculoskeletal origins, insertions, actions and innervations.

Course Delivery Method

This course will be delivered using a face to face type of environment. This class will consist of both lecture and laboratory instruction with the use of live model situations. All instructional materials will be posted online to the course in Blackboard.

Learner Outcomes or Objectives

This course is designed to enable students to do the following items.

1. Identify terminology related to biomechanics.
2. Describe linear, angular, and other forms of motion used in sports.
3. Describe types of mechanical loads that act on the human body
4. Describe the effects of mechanical loads on bones.
5. Describe human skeletal articulations in relation to their movement capabilities.
6. Describe the relationship of the musculotendinous unit to muscle function.
7. Identify muscle function in producing upper and lower extremity movements.
8. Identify muscle function in producing movements of the spine.
9. Identify anatomical landmarks, surface markings, and various soft tissue structures by palpating a live model.

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. Floyd RT. *Manual of Structural Kinesiology*. 20th ed. New York, NY: McGraw-Hill Education; 2018.
2. Biel A. *Trail Guide to the Body*. Revised 5th ed. Boulder, CO: Books of Discovery; 2014.
3. Biel A. *Trail Guide to the Body Student Workbook*. 5th ed. Boulder, CO: Books of Discovery; 2014.
4. Biel A. *Trail Guide to the Body Flashcards*. 5th ed. Boulder, CO: Books of Discovery; 2014. OR AnatomyMapp app from www.booksofdiscovery.com

Course Performance Evaluation

Students will be evaluated on content standards (knowledge gained) and performance (demonstration of the content). Content standards will be assessed via written assignments, quizzes, and exams. Performance will be assessed through completion of class participation activities and competency testing.

Assignments and Examinations

In-Class Activities

Students will turn in class activities for attendance and participation points. Each activity is worth 5 points each. Students are only able to complete the activities if they are present in class.

Quizzes

As indicated in the schedule, a quiz will be given at the beginning of class for the required reading. This will be a brief multiple choice and true-false assessment of your knowledge from the reading. If you are late to class, you **cannot** make up the quiz at the end of class.

Written Examinations

Three written examinations will be administered. The format of the examinations will be multiple choice, true/false, short answer, matching, and fill in the blank type questions. Each of the examinations will test material covered during the prior class meetings and previous reading assignments. Exams will also cover material in the textbook and activities completed during class sessions.

Palpation Examinations

Three assessments based on the palpation labs. There will be origins, insertions, muscle bellies and bony landmarks are covered. This is a timed assessment that is completed in real time on a live model.

In-Class Activities & Student Work Book Assignments

In-class activities will be assigned during the class meeting and due at the end of the course meeting. Student work book assignments are listed on the syllabus and will be submitted at the beginning of the corresponding class meeting time. You **MUST** follow the directions and complete all student workbook requirements: it is says to color, label, etc. you must complete for credit. Colored pencils, highlighters, and/or markers are needed. **NO late assignments will be accepted!**

Other Requirements

Attendance

Students are expected to be on time, attend all class meetings and be prepared for in class assignments, activities, laboratories and projects. Excused absences include the following: illness (must bring a receipt or note from a doctor), family death, athletic/academic event, and others at the discretion of the instructor. For known upcoming absences, students must contact the instructor at least one week in advance to the missed class to make up work. In the case of excused illness or some other unforeseen excused absence, the student must contact the instructor via e-mail or telephone. At the next attended class meeting the student will discuss material that is to be completed. ***Students will have one week from the excused absence to complete any missed assignments.*** It is the student's obligation to pursue any make-up work.

Class Participation

If you do not attend class you cannot complete activities. Just being present in class does not mean you are an active and engaged participant in activities taking place that day. Be an active participant in all activities. ***You can only make up an in-class activity if you have pre-approved absence or proof of illness.***

<u>Evaluation Type</u>	<u>Number</u>	<u>Points</u>	<u>Total Points</u>
In-Class Activities	5	5	25
Student Work Book Assignments	11	5	55
Quizzes	12	10	120
Written Exams 1 & 2	2	50	100
Written Exam 3	1	65	65
Palpation Exams 1 & 2	2	50	100
Palpation Exam 3	1	65	65
TOTAL			530

Grading Policies

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

A = 93 – 100%	B+ = 87 – 89.9%	C+ = 77 – 79.9%	D = 63 – 69.9%
A- = 90 – 92.9%	B = 83 – 86.9%	C = 73 – 76.9%	F = 0 – 62.9%
	B- = 80 – 82.9%	C- = 70 – 72.9%	

Professional Dispositions

Behavior

Students are expected to exhibit professional behaviors and dispositions at all times. It is critical

each student conduct themselves in an appropriate manner and decorum fitting of a health care provider within and outside class. Making light of injuries, conditions, or illnesses that is not respectful to the class, instructor, or patient study will not be tolerated. Submission of documents or assignments should not include personal identifiable information and comply with Health Insurance Portability & Accountability Act (HIPPA) regulations.

Dress

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 the application of various palpation skills. 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.

Academic Integrity

GMU is an Honor Code University; please see the University Catalog for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously and violations are treated gravely. What does academic integrity mean in this course? First, it means that when you are responsible for a task, you will be the one to perform that task. When you rely on someone else's work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives and traditions. When in doubt, please ask for guidance and clarification.

Technology Use During Class

As per GMU policy, all sound emitting technology is required to be turned off during the class meeting time. No sound emitting technology (e.g., cell phones, smart phones, iPads, Tablets, pagers, etc.) is allowed at any time during the class period. Students who are observed using any form of technology inappropriately (e.g., sending text messages from cell phones, visiting social networking sites from laptops, etc.) will be dismissed from class for the day, counted as an absence, and not permitted to make up missed assignments. Students may be asked to bring computers to class for a particular purpose and they are only to be used in this capacity.

Correspondence

The preferred method of communication outside of class is email. Emails should originate from a George Mason email account and be in a professional format (i.e., emails should not look like a text message!). If email does not originate from a George Mason University account, the instructor will not reply to the email. Emails should be written in proper format. If the suggested proper format is not followed, the instructor reserves the right to not reply to the email. The suggested format is as follows:

Dear Professor Coogan, (*Beginning salutation*)

I look forward to your class. (*Text body*)

Regards, (*Ending Salutation*)

(*Your name*)

F: Floyd text
TG: Trail Guide to the Body text
SWB: Student Workbook (due at beginning of class)

Class Schedule

CLASS NO.	DAY	DATE	TOPIC	READINGS TO COMPLETE BEFORE CLASS	QUIZ	ASSIGNMENT
Martin Luther King Day – NO CLASSES ON MONDAY, January 21st						
1	W	Jan 23	Introduction to Functional Anatomy and Kinesiology	F: Chapter 1, pg. 1-14		1
2	M	Jan 28	Anatomical and Biomechanical Terminology	F: Chapter 3, pg. 69-86 TG: pg. 20-22, 32-34 SWB #1: 6-8, 14, 15	1	2
3	W	Jan 30	Joint and Joint Motion Terminology	F: Chapter 1, pg. 14-27 TG: pg. 23-31 SWB #2: 9-13	2	3
4	M	Feb 4	Muscle and Muscle Movement Terminology	F: Chapter 2, pg. 35-47 TG: pg. 35-37	3	4
5	W	Feb 6	Neuromuscular System; Dermatomes and Myotomes	F: Chapter 2, pg. 48-63 TG: pg. 42 SWB #3: 4, 16-18, 23	4	5
6	M	Feb 11	Written Examination #1			
7	W	Feb 13	Shoulder Girdle Lecture	F: Chapter 4, pg. 89-108 TG: pg. 1-18, 46-50, 61-62, 65-66	5	
8	M	Feb 18	Shoulder Girdle Palpation	TG: pg. 46-59, 68-70, 82-88, 102 SWB #4: 1-2, 5, 25-32		
9	W	Feb 20	Shoulder Joint Lecture	F: Chapter 5, pg. 111-139 TG: pg. 46, 48-50, 61-65, 100, 102-103	6	
10	M	Feb 25	Shoulder Joint Palpation	TG: pg. 46-51, 59-60, 67-81, 89-94, 99, 104-106, 274 SWB #5: pg. 27, 34-50		
11	W	Feb 27	Elbow Joint Lecture	F: Chapter 6, pg. 143-165 TG: pg. 108, 110-112	7	
12	M	Mar 4	Wrist and Hand Lecture	F: Chapter 7, pg. 169-203 TG: pg. 108, 110-112, 116-120, 127-131, 149	8	
13	W	Mar 6	Elbow Palpation Wrist and Hand Palpation	TG: pg. 95-98, 106, 108, 113-118, 127-130, 132-133, 147-148, 160-162 SWB #6: pg. 52-55 TG: pg. 109, 116, 118-126, 134-166 SWB #7: 56-82		
Spring Break – NO CLASSES MARCH 11th-17th!!!						
14	M	Mar 18	Review for Exam			
15	W	Mar 20	Written Examination #2			
16	M	Mar 25	Palpation Examination #1			

17	W	Mar 27	Pelvis and Hip Joint Lecture	F: Chapter 9, pg. 229-266 TG: pg. 276-283	9		
18	M	Apr 1	Pelvis and Hip Joint Palpation	TG: pg. 284-295, 315-342 SWB #8: pg. 143-159			
19	M	Apr 8	Thigh and Knee Lecture	F: Chapter 10, pg. 273-289 TG: pg. 305, 344-345, 347-348, 392	10		
20	W	Apr 3	Thigh and Knee Palpation	TG: pg. 306-314, 350-353, 394-397 SWB #9: pg. 160-177			
21	W	Apr 10	Lower Leg, Ankle, and Foot Lecture	F: Chapter 11, pg. 293-324 TG: pg. 246	11		
22	M	Apr 15	Lower Leg, Ankle, and Foot Palpation	TG: pg. 356-365, 371-391, 398-405 SWB #10: pg. 179-208			
23	W	Apr 17	Trunk and Spinal Column Lecture	F: Chapter 12, pg. 329-357 TG: pg. 168, 170-174, 188-195, 240-43	12		
24	M	Apr 22	Trunk & Spinal Column Palpation	TG: pg. 169, 175-187, 196-223, 244-249 SWB #11: pg. 84-117			
25	W	Apr 24	Review for Exam				
26	M	Apr 29	Written Examination #3				
27	W	May 1	Palpation Examination #2				
28	M	May 6	Final Exam Review				
FINAL	W	May 8	Final Exam – Comprehensive Palpation Exam #3			1:30-4:00 PM	

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.
Updated: 12/26/2018

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

- Students must adhere to the guidelines of the Mason Honor Code [see <https://catalog.gmu.edu/policies/honor-code-system/>].
- 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 George Mason University 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 and inform their instructor, in writing, as soon as possible. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor [See <http://ods.gmu.edu/>].
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

Campus Resources:

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursessupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>.
- The Writing Center provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].
- The Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
- The Student Support & Advocacy Center staff helps students develop and maintain healthy lifestyles through confidential one-on-one support as well as through interactive programs and resources. Some of the topics they address are healthy relationships, stress management, nutrition, sexual assault, drug and alcohol use, and sexual health (see <http://ssac.gmu.edu/>). Students in need of these services may contact the office by phone at 703-993-3686. Concerned students, faculty, and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to <http://ssac.gmu.edu/make-a-referral/>.

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