

George Mason University
College of Education and Human Development
Athletic Training Educational Program
ATEP 300. 2A2– Functional Anatomy
3 Credits, Summer 2017
MTWR Colgan Hall 318 - Prince William

Faculty

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Prerequisites/Corequisites

Prerequisite(s): BIOL 124 - Human Anatomy and Physiology (4cr)

Corequisite(s): BIOL 125 - Human Anatomy and Physiology(4cr)

University Catalog Course Description

Increase student's knowledge and exposure to the structural and functional components of human anatomy including musculoskeletal origins, insertions, actions and innervations. On a live model, students will locate and identify anatomical landmarks, surface markings and soft tissue structures by palpation. Functional movements in various sport activities will be investigated to classify and identify musculature necessary to create the motions. Emphasis will be places on normal walking and running gait, posture, throwing, kicking and jumping.

Course Overview

At the completion of this course students should be able to:

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. Describe kinematic and kinetic variables of human movement.
10. Describe the stability of a body in relation to mechanical factors.
11. Identify anatomical landmarks, surface markings, and various soft tissue structures by palpating a live model.

Course Delivery Method

This course will be delivered online (50% or more) using a synchronous 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 19, 2017.

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: <https://get.adobe.com/reader/>
 - Windows Media Player:
<https://windows.microsoft.com/en-us/windows/downloads/windows-media-player/>
 - Apple Quick Time Player: www.apple.com/quicktime/download/

Expectations

- Course Week: Our course week will begin on the day that our synchronous meetings take place as indicated on the Schedule of Classes.
- 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 5 times per week. In addition, students must log-in for all scheduled online synchronous meetings.
- 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.

- 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 insure accessibility must be registered with George Mason University Disability Services.

Required Texts

- 1) Floyd, R.T. (2011). Manual of Structural Kinesiology, 18th edition. McGraw Hill.
- 2) Biel, A. (2010). Trail Guide to the Body, 4th Edition. Books of Discovery.
- 3) Biel, A. (2010). Trail Guide to the Body Student Workbook, 4th Edition. Books of Discovery.

Suggested Readings

- 1) Biel, A. (2010). Trail Guide to the Body Flashcards, 4th Edition. Books of Discovery.
OR Anatomymap app from www.BooksOfDiscovery.com

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, hard copy).

Evaluation Type	Number	Points each	Total points
In-class Activities	10	4	40
Student Work Book Assignments	8	10	80
Quizzes	8	10	80
Written exams	3	50	150
Palpation exams	1	50	50
TOTAL POINTS			400

Quizzes

- As indicated on the Course Calendar, 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. ***You are required to bring a blank paper to each examination.*** 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

- One assessment of palpation skills will be administered throughout the semester. The skills practiced in class will be assessed in a live practical examination format. This is a real time examination that will require the student to demonstrate various palpation locations. Students will be randomly scheduled for testing.

In Class Activities & Student Workbook Assignments

- In-class activities will be assigned during the class meeting and due at the end of the course meeting. Student workbook assignments are listed on the syllabus and will be submitted at the beginning of the corresponding class meeting time. **No late assignments will be accepted.**

Professional Dispositions

- Students are expected to exhibit professional behaviors and dispositions at all times.

Grading

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

A : 372 – 400 pts (93%)
A- : 360 – 371 pts (90%)
B+ : 348 – 359 pts (87%)
B: 332 – 347 pts (83%)
B- : 320 – 331 pts (80%)
C+ : 308 – 319 pts (77%)
C : 292 – 307 pts (73%)
C-: 280 – 291 pts (70%)
D: 252 – 279 pts (63%)
F: < 252

Class Schedule

DATE	TENTATIVE TOPIC	READING ASSIGNMENT	QUIZ
5-22	Introduction to course and the Study of Kinesiology, (Review)		
5-23	Anatomical direction terminology, Body regions, Planes, Axes Skeletal system, Bone type/features/markings, Joint Types Joint motion, movements & terminology Muscle names, contractions, roles	F: pg1-27, 35-47 TG: pg 20-37 SWB: Bring To Class	Q1
5-24	Neuromuscular system, dermatome/myotome	F: pg 35-62 TG: pg 42 SWB: Bring To Class	Q2
5-25	Shoulder Girdle Palpation Introduction	F: pg 87-102 TG: 1-18, 46-50, 61-62, 65-66 SWB: pg 1-2, 5, 25-26, 28-30, 32	
5-26	Online Class Shoulder joint	F: pg 109-133 TG: pg 46, 48-50, 61-65, 100, 102-103	
5-29	Memorial Day – No School Online Class Elbow: Radioulnar joint	F: pg 141-160 TG: pg 108, 110-112	
5-30	Palpation- Shoulder joint	TG: pg 46-51, 59-60, 67-68, 71-81, 89-94, 99, 104-106, 274 SWB: pg 27,31, 33-50	Q3
5-31	Palpation- Elbow: Radioulnar joint Palpation- Wrist, and Hand	TG: pg 95-98, 106, 108, 113-118, 127-130, 132-133, 147-148, 160-162 SWB: pg 52-55 TG: pg 109, 116, 118-126, 134-166 SWB: pg 56-82	Q4
	Written Examination #1 available online from 6/1 at 12pm to 6/4 at 12pm		
6-1	Online Class Wrist and hand	F: pg 167-199 TG: pg 116-119, 108, 110-112, 119-120, 127-131, 149	
6-2	Upper body Review		

6-5	Online Class Trunk & Spinal Column	F: pg 327-354 TG: pg 168, 170-174, 188-195, 240-243	
6-6	Online Class Pelvis and Hip Joint	F: pg 227-264 TG: pg 276-283	
6-7	Online Class Thigh and Knee	F: pg 271-285 TG: pg 305, 344-345, 347-348,	
6-8	Online Class Lower Leg, Ankle and Foot	TG: pg 169, 175-187, 196-223, 244- 249 SWB: pg 85-117	
	Written Examination #2 available online from 6-8 at 12pm to 6-11 at 11:59pm		
6-12	Palpation- Trunk & Spinal Column	TG: pg 169, 175-187, 196-223, 244- 249 SWB: pg 85-117	Q5
6-13	Palpation- Pelvis and Hip Joint	TG: pg 284-295, 315-342 SWB: 143-159	Q6
6-14	Palpation – Thigh and Knee	TG: pg 306-314, 350-353,394-397 SWB: pg 160-177	Q7
6-15	Palpation – Leg, Ankle, and Foot	TG: pg 356-365, 371-391, 398-405 SWB: pg 179-208	Q8
6-19	Lower body Review		
6-20	Gait Analysis		
6-21	Palpation Quiz		
6-22 6-23	No Class		
	Final Written Examination #3 available online from 6-22 at 12pm to 6-24 at 11:59pm		

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

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 <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 <http://ods.gmu.edu/>).
- Students must follow the university policy stating that all sound emitting devices shall be silenced 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/>.
- 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/>.