

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

ATEP 300 Section 003 - Functional Anatomy

3 Credits, Fall 2016

Monday and Wednesday 10:30am-11:45am Colgan Hall 318- Science &
Technology Campus

Faculty

Name: Heather Worthy, MEd, ATC, LAT, CES, PES, CPT

Office hours: By appointment

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Prerequisites/Corequisites

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

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

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 Overview

Not Applicable.

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.

Learner Outcomes or Objectives

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

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

Floyd, R.T. (2015). Manual of Structural Kinesiology, 19th edition. McGraw Hill.

2) Biel, A. (2014). Trail Guide to the Body, 5th Edition. Books of Discovery.

3) Biel, A. (2014). Trail Guide to the Body Student Workbook, 5th Edition. Books of Discovery.

4) Biel, A. (2010). Trail Guide to the Body Flashcards, 5th Edition. Books of Discovery. 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.

- **In-Class Activities**

Students will turn in class activities for attendance and participation points. Each class activity is worth 2 points each. Students are only able to complete the activities if they are present in class.

- **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. 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 says to color, label, etc you must complete for credit. Colored pencils or markers are needed. **NO late assignments will be accepted!**

- **Course Performance Evaluation Weighting**

| Evaluation Type | Number | Points each | Total points |
|-------------------------------|--------|-------------|--------------|
| In-class Activities | 15 | 2 | 30 |
| Student Work Book Assignments | 10/11 | 5 | 50 |
| Quizzes | 12 | 10 | 120 |
| Written exams | 3 | 50 | 150 |
| Palpation exams | 3 | 50 | 150 |
| TOTAL POINTS | | | 500 |

- **Grading Policies**

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

A: 465 – 500 pts. (93%)
 A-: 450 – 464 pts. (90%)
 B+: 435 – 449 pts. (87%)
 B: 415 – 434 pts. (83%)

B-: 400 – 414 pts. (80%)
 C+: 385 – 399 pts. (77%)
 C: 365 – 384 pts. (73%)
 C-: 350 – 364 pts. (70%)
 D: 315 – 349 pts. (63%)
 F: < 315

Professional Dispositions

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

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/api/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursesupport.gmu.edu/>.
- The George Mason University Writing Center staff 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 George Mason University 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 George Mason University Office of Student Support staff helps students negotiate life situations by connecting them with appropriate campus and off-campus resources. Students in need of these services may contact the office by phone (703-993-5376). 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://studentsupport.gmu.edu/>, and the OSS staff will follow up with the student.

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

| DATE | TENTATIVE TOPIC | READING ASSIGNMENT | QUIZ | ASSIGNMENT |
|-------|---|--|------|------------|
| 8-29 | Introduction to course and the Study of Kinesiology, (Review) | | | #1 |
| 8-31 | Anatomical direction terminology, Body regions, Planes, Axes, Skeletal system, Bone type/features/markings | F: Chapter 1, pg1-15 TG:pg 20-22, 32-34 SWB#1: 6, 7, 8, 14, 15 | #1 | #2 |
| 9-5 | NO CLASS- Labor Day | | | |
| 9-7 | Types of Joints, Joint motion , movements & terminology, movement icons, physiological movements vs accessory | F: Chapter 1, pg 15-27 TG:pg 23-31 SWB#2: 9, 10, 11, 12, 13 | #2 | #3 |
| 9-12 | Muscle names, contractions, roles, determination of muscle action | F: Chapter 2, pg 35-48 TG:pg 35-37 | #3 | #4 |
| 9-14 | Neuromuscular system, dermatome/myotome | F: Chapter 2, pg 48-62 TG:pg 42 SWB#3: 4, 16, 17, 18, 23 | #4 | #5 |
| 9-19 | Written Examination #1 | | | |
| 9-21 | Shoulder girdle; Palpation Intro Lecture | F:pg Chapter 4, 89-104 TG: 1-18, 46-50, 61-62, 65-66 | #5 | #6 |
| 9-23 | Shoulder Girdle Palpation | TG:pg 46-59, 68-70, 82-88, 102 SWB#4:pg 1-2, 5, 25-26, 28-30, 32 | | |
| 9-26 | Shoulder Joint Lecture | F:pg Chapter 5, 111-135 TG:pg 46, 48-50, 61-65, 100, 102-103 | #6 | #7 |
| 9-28 | Shoulder Joint Palpation | TG:pg 46-51, 59-60, 67-81, 89-94, 99, 104-106, 274 SWB#5:pg 27, 31, 33-50 | | |
| 10-3 | Elbow: Radioulnar Joint Lecture | F: Chapter 6, 143-162 TG:pg 108, 110-112 | #7 | #8 |
| 10-5 | Wrist and Hand Joint lecture | F: Chapter 7, pg 169-201 TG:pg 116-119, 108, 110-112, 119-120, 127-131, 149 | #8 | #9 |
| 10-11 | Elbow, Wrist and Hand Palpation <i>(Class meets this day due to Columbus Day Recess on 10/10)</i> | TG:pg 95-98, 106, 108, 113-118, 127-130, 132-133, 147-148, 160-162 TG:pg 109, 116, 118-126, 134-166 SWB#6:pg 52-55 SWB#7:pg 56-82 | | |

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|-------|---|--|-----|-----|
| 10-12 | Review For Test | | | #10 |
| 10-17 | Written Exam #2 | | | |
| 10-19 | Palpation Exam #1 | | | |
| 10-24 | Pelvis and Hip Joint Lecture | F: Chapter 9, pg 229-266 TG:pg 276-283 | #9 | #11 |
| 10-26 | Thigh and Knee Lecture | F: Chapter 10, pg 273-287 TG:pg 305, 344-345, 347-348, 392-392 | #10 | #12 |
| 10-31 | Pelvis and Hip Joint Palpation Knee and Thigh Palpation | TG:pg 284-295, 315-342 SWB#8: 143-159 TG:pg 306-314, 350-353, 394-397 SWB#9: pg 160-177 | | |
| 11-2 | Lower Leg, Ankle and Foot Lecture | F: Chapter 11, pg 293-323 TG:pg 246 | #11 | #13 |
| 11-7 | Lower Leg, Ankle and Foot Palpation | TG:pg 356-365, 371-391, 398-405 SWB#10: pg 179-208 | | |
| 11-9 | Trunk & Spinal Column Lecture | F: Chapter 12, pg 329-356 TG:pg 168, 170-174, 188-195, 240-243 | #12 | #14 |
| 11-14 | Trunk & Spinal Column Palpation | TG:pg 169, 175-187, 196-223, 244-249 SWB#11: pg 85-117 | | |
| 11-16 | In Class Activity and Review | | | #15 |
| 11-28 | Review for Exam | | | |
| 11-30 | Written Exam #3 | | | |
| 12-5 | Palpation Exam #2 | | | |
| 12-7 | Final Exam Review | | | |
| 12-14 | Final Exam – Comprehensive Palpation Exam #3 7:30-10:15am | | | |
| | F: Floyd. Manual of Structural Kinesiology TG: Trail Guide to the Body SWB: Trail Guide to the Body Student Workbook (due at the beginning of class) | | | |

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

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.***

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.

Technology Use during Class

As per GMU policy, all sound emitting technology is required to be turned off during the class meeting time. Additionally, ***NO laptop computers, iPads, E-Tablets, Pagers, etc*** will be permitted for use during class time; the exceptions are for use during presentations/projects, and technology deemed as necessary by the Office of Disability Services. Students utilizing various technology devices during class will be asked to leave class and will not be permitted to complete course work or receive any points for assignments that day.

E-mail Correspondence

Only messages that originate from a George Mason University address will be accepted.

The following is an appropriate professional format:

Dear Ms. Worthy, (*Beginning salutation*)

I am looking forward to your class. (*Text body*)

Regards, (*Ending Salutation*)

Heather Worthy (*Your name*)

Academic Load

Although many students must work to meet living expenses, employment and personal responsibilities are not a consideration for missed classes, late or incomplete assignments, the course content, or the course schedule (see <http://catalog.gmu.edu>). Student employment does not take priority over academic obligations. It is recognized that many students need to work in order to meet living expenses, however, there are distinct guidelines for students in terms of the number of credit hours which should be attempted based on how many hours per week a student has outside employment. For additional information on the subject, please see the GMU Academic Catalog (<http://catalog.gmu.edu/content.php?catoid=17&navoid=1274#academicload>). Students who fail to observe these guidelines may expect no special consideration for academic problems arising from the pressure of employment.