

GEORGE MASON UNIVERSITY
School of Recreation, Health and Tourism

ATEP 300- 003 Functional Anatomy- (3cr)
Spring 2016

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|------------------|---------------------------|----------------|----------------|
| DAY/TIME: | M/W 9:00-10:15 am | LOCATION: | BRH 148 |
| INSTRUCTOR: | Ms. Marcie Fyock, MS, ATC | EMAIL ADDRESS: | mfyock@gmu.edu |
| OFFICE LOCATION: | 210 Bull Run Hall | PHONE NUMBER: | 703-993-7118 |
| OFFICE HOURS: | M/W 10:30-12:00 PM | FAX NUMBER: | 703-993-2025 |

PREREQUISITES

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

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

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 OBJECTIVES

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.

Nature of Course Delivery

This course will be delivered in a face to face type of environment. This class will consist of both lecture and laboratory instruction with the use of live model situations.

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.

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>). Student who fail to observe these guidelines may expect no special consideration for academic problems arising from the pressure of employment.

EMAIL CORRESPONDENCE

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

Dear Ms. Fyock (*Beginning salutation*)

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

Regards, (*Ending Salutation*)

Marcie Fyock (*Your name*)

REQUIRED READINGS

- 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

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. ***You are required to bring a Scantron 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. ***You are required to bring a Scantron to each examination.***

Palpation Examinations

Three assessments 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 work book 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!**

| Evaluation Type | Number | Points each | Total points |
|-------------------------------|---------------|--------------------|---------------------|
| In-class Activities | 15 | 2 | 30 |
| Student Work Book Assignments | 8 | 5 | 40 |
| Quizzes | 13 | 10 | 130 |
| Written exams | 3 | 50 | 150 |
| Palpation exams | 3 | 50 | 150 |
| TOTAL POINTS | | | 500 |

Grading Scale

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

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| A: 465 – 500 pts. (93%) | C+: 385 – 399 pts. (77%) |
| A-: 450 – 464 pts. (90%) | C: 365 – 384 pts. (73%) |
| B+: 435 – 449 pts. (87%) | C-: 350 – 364 pts. (70%) |
| B: 415 – 434 pts. (83%) | D: 315 – 349 pts. (63%) |
| B-: 400 – 414 pts. (80%) | F: < 315 |

Extra Credit- You may choose 1 option for extra credit-

- 1) Prince William Health Expo, Date TBA: **2 points for each hour of volunteering for a total of 10 points/5 hours**
-You must sign in and out with the event leader to receive credit. Report involvement to the course instructor.
- 2) Kyle Wilson Walk for Fitness, Date TBA: **2 points for each hour of volunteering for a total of 10 points/5 hours**
-Sign up in class for opportunities. On the day of the event, sign in with Dr. Mrs. Caswell or Ms. Parham for proof of participation

Tentative Course Schedule

| DATE | TENTATIVE TOPIC | READING ASSIGNMENT | QUIZ |
|------|--|---|------|
| 1-20 | Introduction to course and the Study of Kinesiology, (Review) | | |
| 1-25 | Anatomical direction terminology, Body regions, Planes, Axes | F:pg1-7 TG:pg 20-22 SWB: Bring To Class | |
| 1-27 | Skeletal system, Bone type/features/markings, Joint Types | F:pg 7-18 TG: pg 32-34 | #1 |
| 2-1 | Joint motion, movements & terminology | F:pg 19-26 TG:pg 23-31 SWB: Bring To Class | #2 |
| 2-3 | Muscle names, contractions, roles | F:pg 35-47 TG:pg 35-37 | #3 |
| 2-8 | Neuromuscular system, dermatome/myotome | F:pg 47-62 TG:pg 42 SWB: Bring To Class | #4 |
| 2-10 | Basic Biomechanics: Levers/Wheels/Axles Friction/balance/loading/ Laws of motion | F:pg 69-84 | #5 |
| 2-15 | <i>Written Examination #1</i> | | |
| 2-17 | Shoulder girdle; Palpation Intro | F:pg 87-102 TG: 1-18, 46-50, 61-62, 65-66 | #6 |
| 2-22 | Shoulder Girdle Palpation | TG:pg 46-59, 68-70, 82-88, 102 SWB:pg 1-2, 5, 25-26, 28-30, 32 | |
| 2-24 | Shoulder Joint | F:pg 109-133 TG:pg 46, 48-50, 61-65, 100, 102-103 | #7 |
| 2-29 | Shoulder Joint Palpation | TG:pg 46-51, 59-60, 67-68, 71-81, 89-94, 99, 104-106, 274 SWB:pg 27, 31, 33-50 | |

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| 3-2 | Elbow: Radioulnar joint | F: pg 141-160 TG: pg 108, 110-112 | #8 |
| <i>SPRING BREAK March 7-13</i> | | | |
| 3-14 | Elbow: Radioulnar joint Palpation | TG: pg 95-98, 106, 108, 113-118, 127-130, 132-133, 147-148, 160-162 SWB: pg 52-55 | |
| 3-16 | Wrist, and Hand | F: pg 167-199 TG: pg 116-119, 108, 110-112, 119-120, 127-131, 149 | #9 |
| 3-21 | Wrist, and Hand Palpation | TG: pg 109, 116, 118-126, 134-166 SWB: pg 56-82 | |
| 3-23 | <i>Written Exam #2</i> | | |
| 3-28 | <i>Palpation Exam #1</i> | | |
| 3-30 | Pelvis and Hip Joint | F: pg 227-264 TG: pg 276-283 | #10 |
| 4-4 | Pelvis and Hip Joint Palpation | TG: pg 284-295, 315-342 SWB: 143-159 | |
| 4-6 | Thigh and Knee | F: pg 271-285 TG: pg 305, 344-345, 347-348, 392-392 | #11 |
| 4-11 | Thigh and Knee Palpation | TG: pg 306-314, 350-353, 394-397 SWB: pg 160-177 | |
| 4-13 | Lower Leg, Ankle and Foot | F: pg 291-321 TG: pg 246 | #12 |
| 4-18 | Lower Leg, Ankle and Foot Palpation Lab | TG: pg 356-365, 371-391, 398-405 SWB: pg 179-208 | |
| 4-20 | Trunk & Spinal Column Lecture | F: pg 327-354 TG: pg 168, 170-174, 188-195, 240-243 | #13 |
| 4-25 | Trunk & Spinal Column Palpation | TG: pg 169, 175-187, 196-223, 244-249 SWB: pg 85-117 | |
| 4-27 | <i>Written Exam #3</i> | | |
| 5-2 | <i>Palpation Exam #2</i> | | |
| 5-9 | <i>Final Exam - Comprehensive Palpation Exam #3 7:30-10:15 am</i> | | |
| | | F: Floyd. Manual of Structural Kinesiology TG: Trail Guide to the Body SWB: Trail Guide to the Body Student Workbook <i>(due at the beginning of class)</i> | |

Note: Faculty reserves the right to alter the schedule as necessary.

Student Expectations

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://academicintegrity.gmu.edu/honorcode/>].
- Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html>].
- 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 must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times.

Campus Resources

- 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 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/>].
- For additional information on the College of Education and Human Development, School of Recreation, Health, and Tourism, please visit our website [See <http://rht.gmu.edu/>].

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.



Student Acknowledgement of Syllabus