

GEORGE MASON UNIVERSITY  
School of Recreation, Health and Tourism  
ATEP 300 A01 - Functional Anatomy (3)  
Summer 2013

<b>DAY/TIME:</b>	M-TH 9:30-11:45AM	<b>LOCATION:</b>	BRH 148
<b>PROFESSOR:</b>	Benjamin Goerger, PhD, ATC	<b>EMAIL ADDRESS:</b>	bgoerger@gmu.edu
<b>OFFICE LOCATION:</b>	BRH 210A	<b>PHONE NUMBER:</b>	703-993-7118
<b>OFFICE HOURS:</b>	<i>Times by appointment.</i>	<b>FAX NUMBER:</b>	703-993-2025
<b>DEPT. WEBSITE:</b>	rht.gmu.edu	<b>CLASS WEBSITE:</b>	mymason.gmu.edu

### **PRE/CO-REQUISITES**

Pre-requisite: BIOL 124

Co-requisite: BIOL 125

### **COURSE DESCRIPTION**

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

### **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.

### **COURSE OVERVIEW**

This course will be taught in the Athletic Training Laboratory and will include lecture and laboratory instruction.

### **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 don't attend class you can't complete activities. Just being present in class doesn't 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 a 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 necessary by the Office of Disability Services. Students utilizing various technology 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>). Students who fail to observe these guidelines may expect no special consideration for academic problems arising from the pressure of employment.

### **E-mail Correspondence**

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

Please note that e-mail is a wonderful tool for brief communication of ancillary matters, but is a poor substitute for in-person discussion of detailed matters. Therefore, to make communication more effective, e-mail correspondence from students should be limited to brief clarification of matters related to the class schedule, to receive confirmation of receipt of an assignment, to schedule a meeting, to notify the instructor of problems accessing materials on the course website, or to notify the instructor of an anticipated or unanticipated absence (to be followed by in-person discussion prior to or following the class meeting time). All other communication including clarification of information presented in lecture, questions regarding assignments, questions regarding grades, and all other matters should be addressed with the instructor in-person during office hours or during a scheduled meeting.

As a future health care practitioner, the ability to present yourself and communicate in a professional manner is essential, including the use of e-mail. The following is an appropriate professional format that should be followed for this class, as well as any others:

*(Beginning salutation)* Dear Dr./Mr./Mrs. *Last Name*

*(Text body)* I have a question regarding...

*(Ending Salutation)* Regards/Respectfully/Sincerely,

*(Your name)* *First and Last Name*

## **REQUIRED READINGS**

- 1) Floyd, R.T. (2011). Manual of Structural Kinesiology, 18<sup>th</sup> edition. McGraw Hill.
- 2) Biel, A. (2010). Trail Guide to the Body, 4<sup>th</sup> Edition. Books of Discovery.
- 3) Biel, A. (2010). Trail Guide to the Body Student Workbook, 4<sup>th</sup> Edition. Books of Discovery.
- 4) Biel, A. (2010). Trail Guide to the Body Flashcards, 4<sup>th</sup> Edition. Books of Discovery. OR AnatomyMapp app from [www.BooksOfDiscovery.com](http://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.

### **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, labeling, 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**

Two assessments of palpation psychomotor skills will be administered throughout the semester. These 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 locate various anatomical structures on a live model. Student will be randomly scheduled for testing.

### **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 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.**

**Notes:**

***\*You can only make up an in-class activity if you have pre-approved absence or proof of illness.***

***\*\*NO LATE WORK WILL BE ACCEPTED!***

<b>Evaluation type</b>	<b>Number</b>	<b>Points each</b>	<b>Total points</b>
Participation/In-Class Activities	15	2	30
Quizzes	12	5	60
Written exams	3	50	150
Palpation exams	2	50	100
<b>TOTAL POINTS</b>			<b>340</b>

**Grading Scale**

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

A: 340 – 316.20 pts. (93%)

C+: 271.99 – 261.80 pts. (77%)

A-: 316.19 – 306.00 pts. (90%)

C: 261.79 – 248.20 pts. (73%)

B+: 305.99 – 295.80 pts. (87%)

C-: 248.19 – 238.00 pts. (70%)

B: 295.79 – 282.20 pts. (83%)

D: 237.99 – 214.20 pts. (63%)

B-: 282.19 – 272.00 pts. (80%)

F: < 214.19

**TENTATIVE COURSE SCHEDULE** *Note: Faculty reserves the right to alter the schedule as necessary*

DAY	DATE	TENTATIVE TOPIC	ASSIGNMENTS
1	5-20	Introduction to course and the Study of Kinesiology, (Review)	
		Anatomical direction terminology, Body regions, Planes, Axes	
2	5-21	Skeletal system, Bone type/features/markings	<b>F:</b> p1-26; <b>TG:</b> p20-34; <b>QUIZ</b>
		Joint types/movement/terminology	
3	5-22	Muscle names, contractions, roles	<b>F:</b> p35-61; <b>TG:</b> p35-37, 42; <b>QUIZ</b>
		Neuromuscular system, dermatome/myotome	
4	5-23	Basic Biomechanics: Levers/Laws of motion	<b>F:</b> p69-84; <b>QUIZ</b>
	5-27	No Class – Memorial Day Observed	
5	5-28	Basic Biomechanics: Friction/balance/loading	<b>QUIZ</b>
		Review	
6	5-29	Shoulder girdle/ Intro to palpations	<b>F:</b> p87-102; <b>TG:</b> p1-18, 46-50, 61-62, 65-66
7	5-30	Written Examination #1	
8	6-3	Shoulder girdle/Intro to palpations	<b>F:</b> p87-102; <b>TG:</b> p1-18, 46-50, 61-62, 65-66 <b>QUIZ</b>
		Palpation Lab: Shoulder Girdle	<b>TG:</b> p46-59, 68-70, 82-88, 102 <b>SWB:</b> p1-2, 5, 25-26, 28-30, 32
9	6-4	Shoulder joint	<b>F:</b> p109-133 <b>TG:</b> p46, 48-50, 61-65, 100, 102-103 <b>QUIZ</b>
		Palpation Lab: Shoulder Joint	<b>TG:</b> p46-51, 59-60, 67-68, 71-81, 89-94, 99, 104-106, 274 <b>SWB:</b> p27, 31, 33-50
10	6-5	Elbow: Radioulnar joint	<b>F:</b> p141-160 <b>TG:</b> p108, 110-112; <b>QUIZ</b>
		Palpation Lab:Radioulnar Joint/ Forearm, Wrist, and Hand	<b>TG:</b> p95-98, 106, 108, 113-118, 127-130, 132-133, 147-148, 160-162 <b>SWB:</b> p52-55
11	6-6	Forearm, Wrist, and Hand	<b>F:</b> p167-199 <b>TG:</b> p116-119, 108, 110-112, 119-120, 127-131, 149; <b>QUIZ</b>
		Palpation Lab: Wrist and Hand	<b>TG:</b> p109, 116, 118-126, 134-166 <b>SWB:</b> p56-82
12	6-10	Written Exam#2 & Palpation Exam #1	
13	6-11	Pelvis and Hip Joint	<b>F:</b> p227-264 , 296-304 <b>TG:</b> p276-283; <b>QUIZ</b>
		Palpation Lab: Pelvis and Hip Joint	<b>TG:</b> p284-295, 315-342 <b>SWB:</b> p143-159

14	6-12	Thigh and Knee	<b>F:</b> p271-285 <b>TG:</b> p305, 344-345, 347-348, 392-392; <b>QUIZ</b>
		Palpation Lab: Thigh and Knee	<b>TG:</b> p306-314, 350-353, 394-397 <b>SWB:</b> p160-177
15	6-13	The Lower Leg, Ankle and foot	<b>F:</b> p291-321, 354-355, 366-370 <b>TG:</b> p246; <b>QUIZ</b>
		Palpation Lab: Lower Leg, Ankle and foot	<b>TG:</b> p356-365, 371-391, 398-405 <b>SWB:</b> p179-208
16	6-17	Trunk & Spinal Column	<b>F:</b> p327-354 <b>TG:</b> p168, 170-174, 188-195, 240-243; <b>QUIZ</b>
		Palpation Lab: Trunk & Spinal Column	<b>TG:</b> p169, 175-187, 196-223, 244-249 <b>SWB:</b> p85-117
17	6-18	Review	
	6-20	Written Exam #3 Palpation Exam #2	



- ❖ All students are held to the standards of the George Mason University Honor Code [See <http://www.gmu.edu/catalog/apolicies/#Anchor12>]
- ❖ University policy states that all sound emitting devices shall be turned off during class unless otherwise authorized by the professor
- ❖ Students with disabilities who seek accommodations in a course must be registered with the Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester [See [www.gmu.edu/student/drc](http://www.gmu.edu/student/drc)]
- ❖ For additional School of Recreation, Health, and Tourism information, please visit the website at <http://rht.gmu.edu>