

## **PET 4905c/GMS 7593**

### **Fundamentals of Skeletal Muscle**

#### Course Directors:

PET4905c  
Elisabeth Barton, Ph.D.  
Professor  
Applied Physiology and Kinesiology  
Office: Room 124 FLG  
Email: erbarton@ufl.edu

GMS 7593  
H. Lee Sweeney, Ph.D.  
Professor, Pharmacology and  
Therapeutics  
Director, Myology Institute  
Office: ARB R5-216  
Email: Lsweeney@ufl.edu

#### Meeting Times:

Tuesday, Period 2 (8:30 – 9:20), FLG 280  
Thursday, Period 2-3 (8:30 – 10:25), FLG 260

#### Course Description:

The course will provide a comprehensive background of skeletal muscle properties, focusing on key aspects of function at the protein, cellular and whole organ level. Major topics include muscle contraction and force generation, fuel sources and energy utilization, growth and development, and an introduction to pathology.

#### Course Goals:

1. To provide students with an overall background in skeletal muscle in order for them to have a working knowledge of skeletal muscle physiology that can complement their research, and support their future studies in the health professions.
2. To provide fundamental exposure to the methodology used in skeletal muscle research.
3. To develop the ability to understand and critically review the broad literature covering skeletal muscle.

#### Course Prerequisites

The course is open to juniors and seniors who have completed APK2105c (Applied Human Physiology with Lab) and obtained a B or higher.

#### Preliminary Course Schedule:

A tentative lecture schedule is attached.

#### Textbook:

There is no required text for this course. However, a recommended reference textbook is "Muscle: Fundamental Biology and Mechanisms of Disease" edited by Joseph A. Hill and Eric N. Olson. Academic Press, 2012.

#### Grading:

There will be 4 exams each covering 1 segment of the course, and the exams will not be cumulative. For graduate students, there will be an additional section of the exam comprised of short essay questions. These exams will comprise 80% of the grade. In

addition, students will be formed into small groups, and be required to complete a special topic project within 1 segment of the course. These will be presented during class time, and help to emphasize concepts. The special project will be worth 20% of the final grade. Grading will be determined by a standard conversion of a percent score to a letter grade using the transformation below. Grades will be calculated to the nearest 2 decimal places.

<b>Letter Grade</b>	<b>Grade Point</b>	<b>Percentage</b>
A	4.0	94 - 100%
A-	3.7	90 - 93%
B+	3.3	87 - 89%
B	3.0	83 - 86%
B-	2.7	80 - 83%
C+	2.3	77 - 79%
C	2.0	73 - 76%
C-	1.7	70 - 72%
D+	1.3	67 - 79%
D	1.0	60 - 66%
F	0.0	0 - 59%

*Students with Disabilities and Special Needs:*

Students requesting classroom accommodation must first register with the Dean of Student's Office. The Dean of Students Office will then provide documentation to the student who will provide this documentation to the instructor when requesting accommodation. We are very tolerant of special needs; please contact one of the course directors to discuss any issues or concerns.

*Policy on Classroom Demeanor, Missing Class/ Exams:*

Attendance is encouraged for all class time sessions. You will be excused from class if you have a legitimate reason to be gone; please send an email before class starts as to why you need to miss the class. These will be kept on file for the semester. Please note: the University has specific reasons that are acceptable for missing class, which apply to both undergrad and grad students. You can find this at <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>:

*"In general, acceptable reasons for absence from or failure to participate in class include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, professional conferences), military obligation, severe weather conditions, religious holidays and participation in official university activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused. Other reasons also may be approved."*

If you feel need for taking advantage of the University counseling services or mental health services, please call 392-1575 <http://www.counseling.ufl.edu/cwc/Default.aspx>  
The University Police can be contacted at 392-1111 or 911 for emergencies.

In general, cell phones or computers are allowed in class, particularly to follow along

with the lectures and assignments. However, please put your phone on “silent” or airplane mode during class and do not answer the phone or respond to a text message during class. If whatever you are doing is disturbing the class, you will be asked to leave.

If you miss an exam due to an excused absence, a make up exam will be scheduled at the earliest feasible date. If an exam is missed due to an unexcused absence, then a make up exam will be scheduled, but 10 points will be deducted from the final score for every 3 days of delay.

**Policy on Ethics and Plagiarism and Cheating:**

For written assignments the instructor submits all material to TURNITIN.com, which is designed to determine whether what you have written is original material. Penalties for plagiarism will be enforced in this class. It may have extreme consequences such as receiving an F (failure) for the entire class, depending on the severity of the infraction. Understanding this aspect of scholarship is required to prepare you as a scientist, scholar and professional. Please review the UF Honor Pledge Code for students <https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/> which specifies a number of behaviors that are in violation of the code and possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct in others. Please contact me directly if you have any concerns about ongoing misconduct.

**Course Evaluation:**

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last 2-3 weeks of the semester but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu>. Good participation in these evaluations is extremely important for maintaining and improving the quality of coursework at UF. Consider it a privilege to participate in UF's future by doing your evaluations. The outcome of these is used in many ways to make this a better environment for you and future students.