

## **Kinesiology Course Syllabus**

- 1. Course Number:** KINE 8900  
**Course Title:** Directed Studies  
(Muscle Physiology Lab Techniques)  
**Credit Hours:** 3  
**Prerequisite:** Instructor approval  
**Corequisite:** None  
**Instructor:** L. Bruce Gladden

**2. Text:** None. Various research papers will be used.

**3. Course Description:** Discussion, investigation, and implementation of techniques used in metabolic studies using the isolated, spontaneously perfused canine gastrocnemius preparation. Practicing techniques, including chemical analyses. There will also be detailed reading and review of scientific articles related to oxygen uptake on-kinetics.

**4. Course Objectives:** Upon completion of this course, the student will understand:

1. Essentials of the techniques for the canine gastrocnemius plus superficial digital flexor.
2. The basic tenets of the metabolic response to exercise/contractions onset.
3. The role of oxidative phosphorylation and metabolism in the transition from one metabolic rate to another.
4. Essentials of lactate and pyruvate analysis.

**5. Course Content and Schedule:** The course involves in-depth study of the chosen topic. The student will meet with Dr. Gladden on a weekly basis to a) observe and practice techniques, b) select scientific articles to be read, c) to review and discuss articles that have already been read, and d) to turn in summaries of articles read.

### **6. Course Requirements/Evaluation:**

The course requirements include observing and practicing techniques, reading scientific articles and summarizing/synthesizing them in the form of short essays/abstracts.

Satisfactory =  $\geq 70\%$

Unsatisfactory =  $<70\%$

### **7. Class Schedule**

Weekly one-on-one discussion/presentation/observation/practice sessions.

## 8. Class Policy Statements:

**Participation** - It is expected that the student will attend every scheduled meeting, will actively bring discussions to the meetings, and will meet all assigned paper and presentation deadlines. Please refer to the current edition of the Tiger Cub (<http://www.auburn.edu/tigercub>) for the definition of excused absences. The student is responsible for initiating arrangements for missed work.

**Unannounced Quizzes** – There will be no unannounced quizzes in this class.

**Accommodations** – If the student needs accommodations, she is asked to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If she has a conflict with the office hours, an alternate time can be arranged. To set up this meeting, please contact me by E-mail. Bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have an Accommodation Memo but need accommodations, make an appointment with The Program for Students with Disabilities, 1244 Haley Center, 844-2096 (V/TT).

**Honesty Code** – The University Academic Honesty Code and the Tiger Cub Rules and Regulations pertaining to Cheating will apply to this class.

**Professionalism** – As faculty, staff, and students interact in educational settings, they are expected to demonstrate professional behaviors as defined in the College of Education's conceptual framework. These professional commitments or dispositions are as follows: 1) engage in responsible and ethical practices, 2) contribute to collaborative learning communities, 3) demonstrate a commitment to diversity, and 4) model and nurture intellectual vitality.