

# KINE 4780: EXERCISE SCIENCE RESEARCH

Spring 2011

1. **Course Number:** KINE 4780  
**Course Title:** Exercise Science Research  
**Credit Hours:** 3 hours  
**Prerequisite:** KINE 4760 – Introduction to Exercise Science Research  
**Meeting Times:** 8:00 – 8:50 a.m. – MWF  
**Meeting Place:** Room 2043 Coliseum
2. **Instructor:** **Dr. L. Bruce Gladden**; 844-1466; [gladdlb@auburn.edu](mailto:gladdlb@auburn.edu)  
Office Hours, 2129 Memorial Coliseum:  
T – 8:00 – 9:00 a.m. and by appointment
3. **Optional Text:** *Conducting & Reading Research in Health & Human Performance, Fourth Edition*, by Ted A. Baumgartner and Larry D. Hensley, McGraw-Hill, New York, 2006.  
ISBN-13: 978-0-07-297290-0.  
ISBN-10: 0-07-297290-4.
4. **Course Description:**  
Development of a research proposal including the introduction, review of literature, methods, experimental design, statistics, and references.
5. **Course Objectives:**
  - a. To write a research proposal  
(four sections: Introduction, Review of Literature, Methods, References);
  - b. To present the research proposal using Microsoft PowerPoint poster format.
6. **Grading and Evaluation Procedure:**  
The final grade for this course is **Satisfactory** or **Unsatisfactory**. The final grade is determined by:
  - 1) Research proposal and group partnership - 75%
  - 2) Poster presentation of the research proposal - 25%

**Note:** The Contract of Deliverables clearly indicates both an individual and a group responsibility for producing the final products. Also, please see item h under **Class Policies** below for additional important grading and evaluation information.

A satisfactory grade is defined as 70% or greater. **Failure to meet any assignment deadline will result in the loss of ten (10) percentage points from the final grade. This means that missing three (3) deadlines will most likely result in an unsatisfactory grade for this course. Again, see item h under Class Policies below.**

## 7. Class Policies:

- a. **Appropriate Effort** – Assignments are due on the day assigned, and evidence of activity should be obvious on a regular basis between deadlines. All assignments must reflect the efforts of both the group as a whole and each individual in fulfilling the class requirements.
- b. **Unannounced quizzes** – There are no unannounced quizzes in this course.
- c. **Plagiarism** – Proper credit and notation/citation must be given for all source materials.
- d. **Email** – You are responsible for checking your e-mail regularly and in a timely manner for any communications related to this class. The University has requested that all students use their Auburn University email accounts. This is the most efficient way for instructors to communicate with an entire class, and the University will occasionally send global notices that are important for all students. For this class, it is a requirement that you check your Auburn University email frequently.
- e. **Cell Phones** – As a courtesy to others, turn your cell phone completely off during class or individual meetings with me. If you are expecting an emergency call, please let me know at the beginning of class or appointment.
- f. **Extra Credit** – There are no extra credit opportunities for this class.
- g. **Disability Accommodations** – Students who need accommodations are asked to arrange a meeting with me during the first week of classes, or as soon as possible if accommodations are needed immediately. To set up this meeting, please contact me by Email or phone. 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).
- h. **Attendance** – This class will not meet on a regular basis. However, at the beginning of the semester, regular meetings may be needed to form research groups and to identify a research proposal topic. Thereafter, most of your work will be conducted by meeting with your individual group members. I expect each group to meet regularly (minimum of once per week) and to keep a log what occurred at each meeting, including the names of members present and absent. These logs must be sent to me by email following each meeting. Formal class meetings may also be needed when assignments are due and when the poster presentations are being developed. **ATTENDANCE IS REQUIRED AT ALL FORMAL CLASS MEETINGS AND AT ALL GROUP MEETINGS. IF YOU MISS MORE THAN TWO (2) CLASSES OR MORE THAN TWO (2) MEETINGS OF YOUR RESEARCH GROUP, A GRADE OF “UNSATISFACTORY” WILL BE ASSIGNED FOR THE COURSE.**

- i. **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.

## The Research Proposal

Three sections plus references:

- 1) Introduction, 2-4 pages.
- 2) Review of Literature, 10-15 pages.
- 3) Methods, 2-5 pages.
- 4) At least 20 primary references; pages for the reference list are NOT included in the above page guidelines. In other words, the references are in addition to the above and are not counted in the page allocations. In general, references to websites will NOT be permitted. You must choose the reference style of a particular journal and use that format for citing references in the body of the paper as well as for typing your reference list. **You will be required to provide a 1) copy of the journal instructions, 2) copy of one page of a current article from the journal that illustrates the method of citation within the body of the article, and 3) copy of a reference page from a current article.** As you write your paper, cite/describe at least some actual experiments from the primary papers.

All Research Proposals are to be printed (include a title page) and also e-mailed to me as a Microsoft Word document; pages must be numbered in the upper right-side margin as part of a header. The font must be **Times New Roman 12-point**. Printed pages for the main text must be double-spaced with a one-inch margin on all sides. The reference list may be single-spaced within each reference, and double-spaced between references. The outline of the paper and all draft copies for each section must be submitted to me via attachment of a Microsoft Word document to an email.

## The PowerPoint Poster Presentation

At the end of the semester, you will present your research proposal as a poster presentation. The posters will be mounted in a conspicuous place (to be determined and announced later), and faculty and students from outside the class will be encouraged to view them. Instructions on poster presentation format and construction will be provided later.

## To Choose and Explore Your Topic

Read sections of interest and relevance in textbooks, especially from your Exercise Science classes.

Search the literature. If you're lucky, you may find a review article.

Possible Reference Sources:

Entrez PubMed (<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?DB=pubmed>)

Google Scholar

Web of Science (access through AU Libraries on the internet)

MEDLINE (access through AU Libraries on the internet)

PsycINFO (access through AU Libraries on the internet)

SPORTDiscus (access through AU Libraries on the internet)

You might also glance at Chapter 3, pages 46-66 of your KINE 4760 textbook.

Look in familiar scientific journals.

## Class Schedule and Assignment Deadlines (Microsoft Word; sent electronically)

### Week #1 – 1/12, 1/14

Introduction and orientation to class; the scientific method, scientific format, literature searches, and group dynamics/grading. Do not use the word, “prove.” Do not use “you” and “your.” Outside assignment is to be reading and searching the literature to decide on a topic for the research proposal.

### Week #2 – 1/19, 1/21

#### 1/17 – Martin Luther King Holiday

Animals and humans in research: rules, regulations, standards, ethics. Reference manager programs. Search and gather research literature in quest of research topic.

**Deadline 1/19: Research group assignments.**

**Deadline 1/21: Contract of Deliverables signed and submitted.**

### Week #3 – 1/24, 1/26, 1/28

Continue reading and searching the literature, focusing on a topic for the research proposal.

**Deadline 1/28: Submit three journal references for papers that you have read during your search for a topic.**

### Week #4 – 1/31, 2/2, 2/4

Read and review primary references. Develop review notes from references.

**Deadline 2/4: Submit the tentative title for your paper.**

### Week #5 – 2/7, 2/9, 2/11

Review research literature, develop research question (purpose), and formulate outline for paper.

**Deadlines 2/11: Submit supporting material for your journal format. Submit 20 primary references. All references should be typed in your chosen journal format.**

**Week #6 – 2/14, 2/16, 2/18**

Work seriously on Outline.

**Week #7 – 2/21, 2/23, 2/25**

Work on developing research questions/hypotheses, refining outline, and begin writing Review of Literature.

**Deadline 2/25: Submit research question(s), hypothesis/hypotheses.**

**Week #8 – 2/28, 3/2, 3/4**

Work on outline, paper, and poster.

**Deadline 3/4: Submit Outline for paper.**

**Week #9 – 3/7, 3/9, 3/11**

Work on paper and poster.

**Week #10 – 3/14, 3/16, 3/18**

Work on paper and poster.

**SPRING BREAK.**

**Week #11 – 3/21, 3/23, 3/25**

**Deadline 3/25: First draft of Review of Literature.**

**Week #12 – 3/28, 3/30, 4/1**

**Feedback on Review of Literature**

**Deadline 4/1: First draft of Introduction and Methods.**

**Week #13 – 4/4, 4/6, 4/8**

Work on paper and poster.

**Feedback on Introduction and Methods.**

**Week #14 – 4/11, 4/13, 4/15**

Work on paper and poster.

**Week #15 – 4/18, 4/20, 4/22**

Work on paper and poster.

**Week #16 – 4/25, 4/27**

Work on paper and poster.

**Deadlines 4/25: Final Senior Paper draft (electronic). PowerPoint Poster (electronic).**

**Week #17 – 5/2, 5/4 (Exam Period)**

**Deadline 5/4: Final Senior Paper (both electronic and hard copy).**