

Spring, 2010

M. G. Fischman

KINE 4780 - EXERCISE SCIENCE RESEARCH (3 cr.)
M W F, 10:00 - 10:50 AM

Instructor

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Office hours: Daily, 9 - 10 AM. Other times by appointment.

Course Description

Development of a research proposal in one of the exercise science sub-disciplines. The proposal will contain an introduction, review of literature, method, experimental design, and statistical analysis plan.

Prerequisite

KINE 4760 – *Introduction to Exercise Science Research*.

Optional Textbook

Baumgartner, T. A., & Hensley, L. D. (2006). *Conducting and reading research in health and human performance* (4th Ed.). This is the book that was used in KINE 4760.

Course Objectives

Upon completion of this course, students will have:

- a. Written a research proposal containing four sections: Introduction, Review of Literature, Method, and References);
- b. Presented the research proposal using Microsoft PowerPoint poster format.

Evaluation and Grading

The final grade for this course is **Satisfactory** or **Unsatisfactory**. The final grade is determined by the

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| 1. | Research proposal and group partnership | - | 75% |
| 2. | Poster presentation of the research proposal | - | 25% |

A **Satisfactory** grade is defined as greater than 70%. **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 result in an unsatisfactory grade for this course.**

Class Policy Statements

1. **Appropriate Effort** – Assignments are due on their posted deadlines, and evidence of activity should be obvious on a regular basis between deadlines. All assignments must reflect the group's and individual's efforts in fulfilling the class requirements.
2. **Unannounced quizzes** - There are no unannounced quizzes in this course.
3. **Plagiarism Policy** – Proper credit and notation/citation must be given for all source materials.
4. **E-mail** - The University has requested that all students use their Auburn University e-mail 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. I request that you check your AU e-mail account regularly.

5. **Cell Phones** - As a courtesy to others, please turn off your cell phone during class. If you are expecting an emergency call, please let me know at the beginning of class. Also, please do not text-message during class.
6. **Extra Credit** – There are **no** extra credit opportunities for this class.
7. **Disability Accommodations** - Students who need special accommodations in class, as provided for by the American Disabilities Act, should arrange a confidential meeting with the instructor during office hours the first week of classes - or as soon as possible if accommodations are needed immediately. You must bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have these forms but need accommodations, make an appointment with the Program for Students with Disabilities, 1244 Haley Center, 844-2096.
8. **Attendance** – This class will not meet on a regular basis. However, at the beginning of the semester, regular meetings will 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 a week) and to keep a log of what occurred at each meeting, including the names of members present and absent. These logs must be sent to me by email following the meeting. Formal class meetings will also be needed when assignments are due and when the poster presentations are being developed.
ATTENDANCE IS REQUIRED AT ALL FORMAL CLASS MEETINGS AND GROUP MEETINGS. IF YOU MISS MORE THAN 2 CLASSES OR MORE THAN 2 MEETINGS OF YOUR RESEARCH GROUP, A GRADE OF “UNSATISFACTORY” WILL BE ASSIGNED.

The Research Proposal

The proposal consists of three sections (chapters) plus references:

Chapter1: Introduction, 3 - 5 pages.

Chapter 2: Review of Literature, 12 - 15 pages.

Chapter 3: Method, 3 - 5 pages.

References: 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 the literature in the body of the paper as well as for typing your reference list. **You will be required to provide a copy of the journal instructions.** As you write your paper, cite/describe at least some actual experiments from the primary papers.

All Research Proposals (final copy) are to be printed (include a title page) and also e-mailed to me as a Microsoft Word document via the Blackboard "Assignments" function; pages must be numbered in the top 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, but double-spaced between references. The outline for the paper and all draft copies of each chapter will also be submitted to me via the Blackboard "Assignments" function. This function will also be used to send you feedback on preliminary drafts of each section.

The PowerPoint Poster Presentation

At the end of the class, you will present your research proposal as a poster presentation. The posters will be mounted in the Coliseum lobby outside the Kinesiology department offices, and faculty and students from outside the class will be encouraged to view them and interact with you. 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 from your Exercise Science classes.

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

Possible reference sources:

MEDLINE (access through AU Libraries on the internet)

PsycINFO (access through AU Libraries on the internet)

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

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

SPORTDiscus (access through AU Libraries on the internet)

Google Scholar

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

Look in familiar scientific journals

Class Schedule and Assignments (typed; sent electronically)
Deadlines: Fridays

Week #1 1/11, 1/13, 1/15

Introduction and orientation to class; the scientific method, scientific format, literature searches, and group dynamics/grading. Outside assignment is to be reading and searching the literature to decide on a topic for the research proposal.

Week #2 – 1/18, 1/20, 1/22

1/18 M. L. King Day Holiday

Animals and humans in research- Rules, regulations, standards, ethics.

Search and gather research literature in quest of research topic.

Deadline 1/22: Research group assignments.

Week #3 – 1/25, 1/27, 1/29

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

Deadline 1/29: Submit three research journal references that you have read in searching for a topic.

Week #4 – 2/1, 2/3, 2/5

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

Deadline 2/5: Submit topic decision (title for your topic).

Week #5 – 2/8, 2/10, 2/12

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

Deadline 2/12: Submit 20 primary references. All references should be typed in your chosen journal format.

Week #6 – 2/15, 2/17, 2/19

Begin writing Review of Literature (Chapter 2)

Week #7 – 2/22, 2/24, 2/26

Deadline 2/26: Submit research question(s), hypothesis/hypotheses.

Week #8 – 3/1, 3/3, 3/5

Work on paper and poster

Deadline 3/5: Submit outline for paper

Week #9 – 3/8, 3/10, 3/12

Work on paper and poster

Week #10 – 3/15, 3/17, 3/19

Spring Break

Work on paper and poster

Week #11 – 3/22, 3/24, 3/26

Deadline 3/26: Draft Copy of Review of Literature (Chapter 2)

Week #12 – 3/29, 3/31, 4/2

Feedback on Review of Literature

Deadline 4/2: Draft Copy of Introduction (Chapter 1) and Method (Chapter 3)

Week #13 – 4/5, 4/7, 4/9

Work on paper and poster

Feedback on Introduction and Method Chapters

Week #14 – 4/12, 4/14, 4/16

Work on paper and poster

Week #15 – 4/19, 4/21, 4/23

Work on paper and poster

Deadline 4/23: Final Senior Paper submitted.

Senior paper colleague evaluations due.

Week #16 – 4/26, 4/28, 4/30

Work on PowerPoint poster presentation.

Deadline 4/30: PowerPoint poster presentation submitted (electronically).

Poster presentation colleague evaluations due.

Week #17 – 5/3

Deadline 5/3: Poster Presentations 10:00 - 10:50 AM