**AUBURN UNIVERSITY SYLLABUS**

KINE 4780 – Exercise Science Research

**Course Number**

KINE 4780

**Course Title**

Exercise Science Research

**Credit Hours**

3 semester hours

**Prerequisite**

KINE 4760 – Introduction to Exercise Science Research

**Corequisite**

None

**Term**

Spring 2022

**Day/Time/Location**

Distance learning

**Instructor**

Andreas N. Kavazis, PhD

**Office Address**

Room 287 in Kinesiology Building

**Contact Information**

Email: [ank0012@auburn.edu](mailto:ank0012@auburn.edu)

**Office Hours**

Tuesday/Wednesday 11:00 am – 12:00 pm

By appointment

**Textbooks**

None

**Course Description**

Development of a research proposal including the introduction, review of literature, methods, and experimental design.

**Student Learning Outcomes**

Learn how to write a research proposal that includes the introduction, review of literature, methods, and references.

Acquire experience in presenting the research proposal using a PowerPoint poster format.

Acquire team skills by working with a group of fellow students to complete these tasks.

**Assignments/Projects**

KINE 4780 – Exercise Science Research requires to complete a group (4-5 students) project (described below in detail) that will consist of both a Research Proposal (Introduction, Review of Literature, Methods, and References) and a poster presentation delivered via Zoom. The final product will reflect both the individual efforts and those of other students within the group. The Research Proposal Paper will be submitted as an electronic copy. The poster will be presented on Zoom. Each student understands that he/she is required to attend the poster presentation (via Zoom).

*The* *Research Proposal*

**1) Title and group member names = 1 page**

**2) Introduction = 2-3 pages**

**3) Review of literature = 8-10 pages**

**4) Methods = 4-6 pages**

**5) References = At least 20 primary references**

***See 2 full paper examples posted on Canvas***

**Specific guidelines in writing the research proposal include:**

All Research Proposals are to be e-mailed to me as a Word document.

Pages must be numbered in the upper right-side margin as part of a header.

Use a one-inch margin on all sides.

The font must be Arial 12-point.

The main text (sections 1, 2, 3, 4) must be double-spaced.

The reference list must be single-spaced.

*The PowerPoint Poster Presentation*

At the end of the semester, you will present your research proposal as a poster presentation using Zoom. Specific details will be provided in late March.

*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 are lucky, you may find a review article.

Possible Reference Sources:

PubMed ([www.ncbi.nlm.nih.gov/pubmed](http://www.ncbi.nlm.nih.gov/pubmed))

Google Scholar ([www.scholar.google.com](http://www.scholar.google.com))

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

**Rubric and Grading Scale**

Class evaluation breakdown **- Total points for the class = 500 points**

**Assignment 1** – 20 points

**Assignment 2** – 10 points

**Assignment 3** – 10 points

**Assignment 4** – 10 points

**Assignment 5** – 10 points

**Assignment 6** – 20 points

**Assignment 7** – 20 points

**Assignment 8** – 10 points

**Assignment 9** – 50 points (scored on content, grammar and clarity, and adherence on the page numbers and specific guidelines stated)

**Assignment 10** – 30 points

**Assignment 11** – 10 points

**Assignment 12** – 70 points (scored on content, grammar and clarity, and adherence on the page numbers and specific guidelines stated)

**Assignment 13** – 30 points

**Assignment 14** – 10 points

**Assignment 15** – 70 points (scored on content, grammar and clarity, and adherence on the page numbers and specific guidelines stated)

**Assignment 16** – 30 points

**Assignment 17** – 30 points

**Assignment 18** – 60 points (60 points will be subtracted if you are not present in the zoom presentation)

Grading scale

A = 90-100% (500 – 450 points)

B = 80-89% (449 – 400 points)

C = 70-79% (399 – 350 points)

D = 60-69% (349 – 300 points)

F = 0-59% (less than 299 points)

**Class Policy Statements**

Excused absences

Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student’s immediate family, the death of a member of the student’s immediate family, trips for student organizations sponsored by an academic unit, trips for university classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from class for any other reason must contact the instructor in advance of the absence to request permission. The instructor will weigh the merits of the request and render a decision. When feasible, the student must notify the instructor prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please see the Student Policy eHandbook ([www.auburn.edu/studentpolicies](http://www.auburn.edu/studentpolicies))for more information on excused absences.

Make-Up Policy

Arrangement to make up a missed assignment due to properly authorized excused absences must be initiated by the student within one week of the end of the period of the excused absences(s).

Academic Honesty Policy

All portions of the Auburn University student academic honesty code found in the Student Policy eHandbook ([www.auburn.edu/studentpolicies](http://www.auburn.edu/studentpolicies)) will apply to university courses. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

Disability Accommodations

Students who need accommodations are asked to electronically submit their approved accommodations through AU Access and to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternate time can be arranged. To set up this meeting, please contact me by e-mail. If you have not established accommodations through the Office of Accessibility, but need accommodations, make an appointment with the Office of Accessibility, 1228 Haley Center, 844-2096 (V/TT).

Course contingency

If normal class is disrupted due to illness, emergency, or crisis situation, the syllabus and other course plans and assignments may be modified to allow completion of the course. If this occurs, an addendum to your syllabus and/or course assignments will replace the original materials.

Professionalism

As faculty, staff, and students interact in professional settings, they are expected to demonstrate professional behaviors as defined in the College’s conceptual framework. These professional commitments or dispositions are listed below:

o Engage in responsible and ethical professional practices

o Contribute to collaborative learning communities

o Demonstrate a commitment to diversity

o Model and nurture intellectual vitality

**Course Content Outline, Schedule, and Assignment Deadlines**

**Week #1 (****Jan 12-18)**

The Nature and Purpose of Research (posted on Canvas).

Understanding the Research Process (posted on Canvas).

Reading and searching the literature to decide on a topic for the group research proposal.

Communicate with classmates about forming your group.

**Week #2 (Jan 19-25)**

Developing the Research Plan (posted on Canvas).

Reading and searching the literature to decide on a topic for the group research proposal.

**Assignment 1 – (DEADLINE Jan 25**)

Form your group (4-5 students), assign group leader, and group leader emails me the information (group leader please cc all members in all emails).

**Assignment 2 –** (**DEADLINE Jan 25**)

Contract of Deliverables signed and submitted (posted on Canvas).

**Assignment 3 –** (**DEADLINE Jan 25**)

Schedule and have a Zoom meeting with all group members and me.

**Week #3 (Jan 26-Feb 1)**

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

Read and review primary references.

Develop notes from references.

**Assignment 4 –** (**DEADLINE Feb 1**)

Submit the tentative title for your paper.

**Assignment 5 –** (**DEADLINE Feb 1**)

Submit Group Log (example posted on Canvas).

**Week #4 (Feb 2-8)**

Work on developing research questions/hypotheses.

Example Hypotheses Aims Purposes (posted on Canvas).

**Assignment 6 –** (**DEADLINE Feb 8**)

Submit research question and hypothesis.

**Assignment 7 –** (**DEADLINE Feb 8**)

Submit 5 primary references to be used in your paper.

All references should be typed in the following format

**Example 1**

Lovering RM, Porter NC, Boch RJ. The muscular dystrophies from genes to therapies. Physical Therapy. 2005. 85:1372-1388.

**Example 2**

Lindeman E, Leffers P, Spaans F, Drukker J, Reulen J, Kerckhoffs M, Koke A. Strength training in patients with myotonic dystrophy and hereditary motor and sensory neuropathy: A randomized clinical trial. Archives of Physical Medicine and

Rehabilitation. 1995. 76:612-620.

**Overall format**

LastName Initials, LastName Initials …………... Title of paper. Full name of journal. Year. Volume:page-page.

**Week #5 (Feb 9-15)**

Descriptive Data Analysis (posted on Canvas).

Work on outline for the paper.

Start writing Introduction and Review of Literature.

**Week #6 (Feb 16-22)**

**Assignment 8 –** (**DEADLINE Feb 22**)

Submit Group Log.

**Assignment 9 –** (**DEADLINE Feb 22**)

Submit Introduction.

Please use your own words (do not copy/paste from your references).

*Must use at least 4 references and include them at the bottom of the Introduction typed in the format outlined above.*

*Pages for the reference list are NOT included in the above page guidelines.*

**Introduction = 2-3 pages**

Introduce the topic of your proposal to the reader.

Briefly state what we know and what we do not know about the topic.

Why is the topic important to study?

What are you planning to accomplish and learn with your study that we do not already know?

You should include and cite some of your references here, but this section is just to set the stage for your study (i.e., provide the big picture).

What are your research questions and hypotheses (include in last paragraph of the Introduction)?

***See 2 full paper examples posted on Canvas***

**Week #7 (Feb 23-Mar 1)**

**Assignment 10 –** (**DEADLINE Mar 1**)

Submit revisions and corrections of Introduction

**Week #8,9,10 (Mar 2-22)**

**(Spring Break Mar 7-11)**

**Assignment 11 –** (**DEADLINE Mar 22**)

Submit Group Log.

**Assignment 12 –** (**DEADLINE Mar 22**)

Submit Review of Literature.

Please use your own words (do not copy/paste from your references).

*Must use at least 12 references and include them at the bottom of the Introduction typed in the format outlined above.*

*Pages for the reference list are NOT included in the above page guidelines.*

**Review of literature = 8-10 pages**

This is the section that you go into details about your topic.

You should **summarize in your own words** what has been already been published in this topic (main section that you will use a lot of your references).

What do we know about the topic?

What has already been researched?

What data are available to us (summarize studies that have already been published)?

***See 2 full paper examples posted on Canvas***

**Week #11 (****Mar 23-29)**

**Assignment 13 –** (**DEADLINE Mar 29**)

Submit revisions and corrections of Review of Literature

**Week #12 (Mar 30-Apr 5)**

**Assignment 14 –** (**DEADLINE Apr 5**)

Submit Group Log.

**Assignment 15 –** (**DEADLINE Apr 5**)

Submit Methods

*Must use at least 4 references and include them at the bottom of the Introduction typed in the format outlined above.*

*Pages for the reference list are NOT included in the above page guidelines.*

**Methods = 4-6 pages**

This is the section that you will describe the study **you plan to do**.

Please use future tense in this section.

You will not do the study – you are just telling me what you plan to do

What is your experimental/study design?

Describe the participants you plan to recruit and use in the study.

What are your manipulations/interventions? What and how you will collect your data?

How will you statistically analyze your data?

**Overall recommendations**

Try to streamline the process

Recruitment

Describe participants (numbers, sex, etc), inclusion, exclusion criteria

Describe group assignments

How many groups

What each group will do

Describe what data will be collected on all people before study begins

Provide details of the procedures you propose to use to obtain these measurements

Describe what participants will do

Is it training – provide enough details so that someone reading your paper can repeat the study

Type of exercises, repetitions, duration, volume, etc

Describe that the same data will be collected from all participants at end of study

Provide details of the procedures you propose to use to obtain these measurements

Describe how you will analyze data and what comparisons you will do

***See 2 full paper examples posted on Canvas***

**Week #13 (Apr 6-12)**

**Assignment 16 –** (**DEADLINE Apr 12**)

Submit revisions and corrections of Methods.

**Week #14 (Apr 13-19)**

**Assignment 17 –** (**DEADLINE Apr 19**)

Turn in paper (Title and group member names, Introduction, Review of Literature, Methods, References).

**Week #15 (Apr 20-29)**

Work on Poster

**Assignment 18 –** (**DEADLINE Apr 29**)

Present poster on Zoom.