

**Purdue University
College of Health and Human Sciences
Department of Health and Kinesiology**

**HK 496: Independent Inquiry in Movement and Sport Science
Spring 2016 – MW 7:30-8:20
3 Credit Hours**

LAMB 108

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Course Description

This course is designed to provide an experiential learning activity for undergraduate students majoring in Movement and Sport Science in the Department of Health and Kinesiology at Purdue University. Students will gain research and presentation experience under the guidance of a supervising faculty member in one of the movement and sport science sub disciplines including biomechanics, exercise physiology, exercise and sport psychology, motor control, motor development, sport history, sport philosophy, and sport administration.

Prerequisites

Undergraduate students who have received written permission from a Movement and Sport Science faculty member are eligible to enroll in this course.

Course Goals and Objectives

This course is designed to foster an appreciation for and knowledge of the research process and research practices used in the field of movement and sport science.

At the completion of this course, students will be able to:

1. Explain and discuss the research process.
2. Identify or develop sound movement and sport science research questions and hypotheses, and discuss appropriate methods for testing the hypotheses.
3. Demonstrate appropriate techniques regarding data collection in the movement and sport sciences.
4. Interpret research findings and discuss their implications relative to movement and sport science.

Instructional Procedures and Course Experiences

The primary teaching methods used to achieve the goals and objectives of this course involve hands on experiences in the lab, mentoring by the faculty research supervisor, and student presentations.

Course Requirements

1. Students are expected to attend class meetings over the course of the semester. One meeting will be held at the beginning of the semester and is organizational in nature (**Monday, January 11**). Other meetings will be held halfway through the semester (**Monday, March 7**) and during the last week of classes (**Wednesday, April 27**). In addition, all students will present their research on **Monday, April 25, in Armstrong 1010 from 5:30 - 7:20 pm**.
2. Under the supervision of a Movement and Sport Science faculty member, students are expected to be actively involved in research-related activities for an average of 9 hours per week. These hours are to be arranged with the student's faculty research supervisor. Students are expected to meet with their faculty research supervisor during the first week of classes to discuss specific research hours and responsibilities.
3. Students are expected to create a presentation that describes their research project and present it at the "Movement and Sport Science Undergraduate Research Presentation Session". Two weeks prior to the presentations, students will be asked to submit the title of the presentation and names of the authors. Presentations should include the significance, purpose, and hypotheses associated with the study, the methods used to explore the research question or test the hypotheses, the results of the study, and a discussion of the results. Format of the presentation should be consistent with what is presented at professional conferences. Each presentation will take about 5-8 minutes and will be followed by a brief Q&A session. Finally, each student will be expected to provide an oral commentary of their lab and project experience at the final class meeting on **Wednesday, April 27**.

Grading

The final grade in this course will be based on the number of lab hours accumulated under the guidance of their faculty research supervisor, the quality of the students' work, and the quality of their presentation. Faculty research supervisors will determine their students' final grade. Be sure to discuss the specific grading criteria with your supervisor during the first week of classes.

It is important to remember that this class is not a lecture format. You will be working on real research under the supervision of a faculty member and/or graduate student. As you will learn, research is taken very seriously by the faculty. Although the specific rules between the various labs may differ, you will in general be expected to attend weekly meetings, be punctual, answer emails within 12 hours, collect data, analyze data, demonstrate reliability and dependability, read papers, and complete all assignments. If these responsibilities are not fulfilled, it will adversely affect your grade.

Résumé Information

Completing this course will be a valuable experience to list on your resume, especially if you plan to apply to graduate school. These types of research experiences tend to make a favorable impression on those involved in graduate admission and funding decisions. An appropriate way to convey what you accomplish(ed) in this regard might look something like this:

Research Experience:

HK 496: Independent Inquiry in Movement & Sport Science: This was a ‘hands-on’ research course where I assisted with... (e.g., data collection and analysis...). For the project, we examined how... (e.g., subjects 65-80 years old maintained balance when walking up a set of stairs...). The research culminated with the development of a research presentation which I presented in a public forum at the end of the semester.

Please note that it is not appropriate to list this experience as a ‘laboratory assistant’ or ‘research assistant’. Those terms have a very different meaning than being involved in the research process for course credit.

HK 496 – Spring 2016 IMPORTANT INFORMATION AND DEADLINES

Please take some time now to read through this information and these deadlines regarding the preparation and your participation in the Research Presentation session.

Friday January 15, 2016 (or before):

Meet with your faculty supervisor to discuss your responsibilities for the semester.

Monday March 7, 2016 at 7:30am

Students should come prepared to discuss the research related activities they have done up to this point, such as discussing the purpose of the study, independent/dependent variables, hypothesis(es), and methods. Each group will have around 5 minutes.

Monday April 11, 2016 (or before):

Send to me via e-mail (brosegui@purdue.edu) the following:

1. title of your study
2. the names of all the authors (i.e., people involved in the project) listed in the order they will appear on the presentation
3. the name of your faculty mentor and graduate student mentors (if any).

If you are working in a group on the same presentation, I only need one of you to send me the information.

Sunday April 24, 2016 (or before):

Send me via e-mail the power point file of your presentation slides. If several of you are working in a group on the same presentation, only one of you needs to send me the file.

Monday April 25, 2016 at 5:30-7:20 pm (ARMS 1010):

Oral presentations will begin. Each group will give a 5-8 min. presentation on the research. The presentation should include a brief introduction to the purpose and significance of the study, a description of the methods you used to carry out the research, the results, a brief discussion of the results (i.e., what do the results mean), and a conclusion. This will be followed by a brief Q&A period.

Wednesday April 27, 2016 at 7:30 am

We will meet for the last time on the last Wednesday of classes (dead week) from 7:30 - 8:20 am. This will be an informal class gathering that will provide you with the opportunity to share your research experiences with the Movement and Sport Science faculty and other HK 496 students. On Wednesday, the focus will be on your personal and group experiences in HK 496.

If you have any questions, problems, or concerns please do not hesitate to contact me. I'm looking forward to learning from all of you this semester in HK 496.