MISSISSIPPI STATE UNIVERSITY
COLLEGE OF EDUCATION

DEPARTMENT of KINESIOLOGY
COURSE SYLLABUS

Course Prefix & Number: KI 8303

Course Title: Research Methods in Kinesiology

Credit Hours: Three (3) semester hours

Course Type: Lecture

Catalog Description: Study of the methods and techniques used in kinesiology research. During the course of the semester students prepare a research proposal.

College of Education Conceptual Framework:

The faculty in the College of Education at Mississippi State University are committed to assuring the success of students and graduates by providing superior learning opportunities that are continually improved as society, schools, and technology change. The organizing theme for the conceptual framework for the College of Education at Mississippi State University is educational professionals **-** dedicated to continual improvement of all students' educational experiences. The beliefs that guide program development are as follows:

1. **KNOWLEDGE** - Educational professionals must have a deep understanding of the organizing concepts, processes, and attitudes that comprise their chosen disciplinary knowledge base, the pedagogical knowledge base, and the pedagogical content knowledge base. They must also know how to complement these knowledge bases with the appropriate use of technology.
2. **COLLABORATION** - Educational professionals must continually seek opportunities to work together, learn from one another, forge partnerships, and assume positions of responsibility.
3. **REFLECTION** - Educational professionals must be willing to assess their own strengths and weaknesses through reflection. They must also possess the skills, behaviors, and attitudes necessary to learn, change, and grow as life-long learners.
4. **PRACTICE** - Educational professionals must have a rich repertoire of research-based strategies for instruction, assessment, and the use of technologies. They must be able to focus that array of skills on promoting authentic learning by all students or clients, while exhibiting an appreciation and commitment to the value and role of diversity.

Course Objectives:

1. Plan and evaluate research that includes selection a problem, identification and use of appropriate references, critiquing research studies, use of appropriate referencing format. **(CFPO 1, 2, 3, 4, 8, 9, 10, 13, 14)**

2. Plan and carry out analyses for descriptive data, differences among and between groups, relationships among and between variables. **(CFPO 1, 2, 3, 4, 7, 8, 9, 10, 13, 14)**
3. Interpret statistical analyses, tables, and summaries typically presented in research reports. **(CFPO 1, 2, 3, 4, 7, 8, 9, 10, 13, 14)**
4. Design and interpret analytical, descriptive, epidemiological, experimental, and qualitative research. **(CFPO 1, 2, 3, 4, 7, 8, 9, 10, 13, 14)**
5. Understand basic measurement constructs such as validity, reliability, scales of measurement, field tests and laboratory tests. **(CFPO 1, 2, 3, 4, 7, 8, 9, 10, 13, 14)**
6. Use written and verbal forms for research reporting with special consideration of styles for theses. **(CFPO 1, 2, 3, 4, 5, 7, 8, 9, 10, 13, 14)**

Topics to Be Covered:

Overview of the research process **(15 hours)**
1. Intro to research in physical activity
2. Developing the problem and using the literature
3. Presenting the problem
4. Formulating the method
5. Ethical issues in research and scholarship

Statistical and measurement concepts in research **(15 hours)**
1. Becoming acquainted with statistical concepts
2. Relationships among variables
3. Differences among groups
4. Nonparametric techniques
5. Measuring research variables

Types of research **(13 hours)**
1. Historical research in physical activity
2. Philosophic research in physical activity
3. Research synthesis (Reviews and meta-analyses)
4. Survey research
5. Other descriptive research
6. Descriptive research in physical activity epidemiology
7. Qualitative research

Writing the research report **(2 hours)**
1. Completing the research process
2. Ways of reporting research

Text:

Thomas, J.R., Nelson, J.K, Silverman, S.J (2011). *Research Methods in Physical Activity.* Champaign, IL: Human Kinetics.

Methods of Instruction: Lecture

Suggested Student Activities: None for this course.

MSU Honor Code:

"As a Mississippi State University student I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do."

Upon accepting admission to Mississippi State University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor Code. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the MSU community from the requirements or the processes of the Honor Code. For additional information please visit: http://www.msstate.edu/dept/audit/PDF/1207.pdf

Cellular Phones: It is expected that students will show respect for the instructor as well as their peers by turning off their cellular phones before entering the classroom.

Technology: Not an aspect of this course.

Diversity:

It is important to help students understand the significance of the diverse learner. We will address professionalism and how to help individuals or groups who are diverse in age, disability, ethnicity, gender, race, sexual orientation, socioeconomic class, and other characteristics. We will address these issues in our topics to be covered.

Disability:

It is the policy of Mississippi State University to accommodate students with special needs and learning disabilities as per the MSU Student Support Services policy. Students seeking accommodations on the basis of a disability or special need must identify themselves to the Office of Student Support Services (325-3335) to verify eligibility. Additional documentation guidelines may be obtained by contacting the Office of Student Support Services directly, or via the web at http://www.msstate.edu/dept/audit/91130.html. Academic accommodations and services are based upon an individual's needs. All documentation is confidential.

Field Component:

There is not a field component with this course.

Evaluation:

The grade for each student is based upon:

A.	Weekly assignments	100 points
B.	Review of Literature	50 points
C.	Research Proposal	100 points
D.	Research Proposal Presentation	50 points
C.	Exams (2)	200 points
		500 total points

Exams**:** There will be two exams during the semester that will be announced at least one week before the exam (around midterm). The final exam is scheduled for Friday, December 11th 6:00-8:50pm. Format of exams may include multiple choice, matching, fill-in-the-blank, and short answer questions.

- Any student missing an exam must inform the instructor in advance and submit an acceptable written excuse to the instructor the first day of return. Failure to submit a written excuse with proper documentation, or failure to make up the exam will result in a zero for the exam.
- Acceptable excuses are discussed in the *Academic Operating Policy and Procedure Manual*.

Assignments:

- Late Assignments will not be accepted without prior communication to professor.
- Assignments are due at the beginning of class.
- For every large writing assignment, you must have the document reviewed by the Writing Center at least once prior to submission. Failure to do so will result in a zero grade for that assignment. Be sure to request a receipt each time you seek assistance from the Writing Center. Please turn in both the marked-up original (with the Writing Center's receipt) and revised document.
- For every large writing assignment, you must have the document proofread by another person. Please turn in both the marked-up original (with reviewer's name/signature denoted somewhere on the document) and revised document.
- Make arrangements so there is ample time for proofing, editing, and modifying the document prior to the due date.

Attendance: Class attendance and participation is expected for all classes. Students who will be representing the University in an official, documented capacity should see the professor at the beginning of the semester.

A = 90 – 100%, B = 80 – 89%, C = 70 – 79%, D = 60 – 69%, F = 59% or less

Bibliography:

Benos, D. J., Kirk, K. L., & Hall, J. E. (2003). How to review a paper. *Adv Physiol Educ, 27*(1-4), 47-52.

Bulmer, M. (1982a). Are pseudo-patient studies justified? *J Med Ethics, 8*(2), 65-71.

Bulmer, M. (1982b). The research ethics of pseudo-patient studies: a new look at the merits of covert ethnographic methods. *Sociol Rev, 30*(4), 627-646.

Dahlberg, J. E., & Mahler, C. C. (2006). The Poehlman case: running away from the truth. [Biography Historical Article]. *Sci Eng Ethics, 12*(1), 157-173.

Lachin, J. M. (1981). Introduction to sample size determination and power analysis for clinical trials. *Control Clin Trials, 2*(2), 93-113.

The Poehlman case: understanding and indexing ethical problems in scientific journals. (2011). *Indexer, 29*(4), 179-184.

Sandelowski, M. (1995a). Qualitative analysis: what it is and how to begin. *Res Nurs Health, 18*(4), 371-375.

Sandelowski, M. (1995b). Sample size in qualitative research. *Res Nurs Health, 18*(2), 179-183.