Instructor: Dr. Richard D. Gordin  
Office: HPER 136  
Telephone: 797-1506  
Credits: (3 credits) MWF 9:30 am  
Office Hours: MWF 11:30am -1:00 pm  
E-mail: rich.gordin@usu.edu


**Course Description:**
The primary purpose of this course is to introduce graduate level health and physical education students to the fundamental processes of conducting research in the health sciences. This course serves as an introduction to the basic aspects of reading, evaluating and writing research. Topics include problem selection, literature review, instrumentation, methodology, and types of research in physical activity. The student will complete a research prospectus for his/her master’s thesis as part of the course requirements. An understanding of various statistical analyses will be covered during the course. Also, the student will complete all requirements for human subjects research training as part of this course. This course will help the beginning graduate student to evaluate published research as well as develop his or her own research plans. A combination of teaching methods will be utilized including: reading and discussing research articles, learning activities will be provided as practical experiences. Therefore, it is important to read the required readings prior to coming to class. I will call on you randomly to answer questions during class.

**Course Objectives:**
As a result of this course the student will be able to:
1. Plan and evaluate research, which includes selecting a problem, locating and using appropriate references, critiquing research studies, and using the American Psychological Association referencing style.
2. Plan and carry out analyses for descriptive data, differences between or among groups, and relationships among variables.
3. Interpret statistical analyses, tables, and summaries typically presented in research studies.
4. Design and interpret analytical, descriptive and experimental research
5. Understand basic measurement concepts such as validity, reliability and objectivity, scales of measurement, field tests and laboratory tests.
6. Use written and verbal forms for research reporting, with special consideration of styles for theses.

Course Organization:

The major portion of class time will be spent in lecture and discussion. However, some laboratory assignments will be given.

Course Outline:

I. Overview of the research process
   a. Introduction to research in physical activity
   b. Developing the problem and using the literature
   c. Presenting the problem
   d. Formulating the method
   e. Ethical issues in research and scholarship

II. Statistical and measurement concepts in research
   a. Becoming acquainted with statistical concepts
   b. Statistical issues in research planning and evaluation
   c. Relationships among variables
   d. Differences among groups
   e. Nonparametric techniques
   f. Measuring research variables

III. Types of research
   a. Historical research in physical activity
   b. Philosophical research
   c. Research synthesis (Meta-analysis)
   d. Surveys
   e. Other descriptive research methods
   f. Physical activity epidemiology research
   g. Experimental and quasi-experimental research
   h. Qualitative research
   i. Mixed-methods research
IV. Writing the research report

a. Completing the research process
b. Ways of reporting research

Course Evaluation:

a. Midterm and a final examination
b. A completed proposal for research project
c. Each student will pass an examination on APA style and format
d. Each student will complete the human subjects research requirement
e. Each student will critique another student’s research proposal draft
f. Each student will critique a research study from the literature
g. Each student will complete the required and assigned readings and homework given

Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Midterm and Final</td>
<td>200</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>100</td>
</tr>
<tr>
<td>Literature Review</td>
<td>100</td>
</tr>
<tr>
<td>Total Points</td>
<td>400</td>
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</tbody>
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94-100 A
90-93 A-
87-89 B+
83-86 B
80-82 B-
Below 80 C

Reasonable accommodation will be provided for all persons with disabilities to ensure equal participation within the class. Persons with disabilities are encouraged to discuss your needs with the instructor during the first week of the class. Help is also available from the Disability Resource Center.