

**HED 460 – Research Methodology and Statistics**  
College of Education  
Department of Health and Kinesiology  
Fall 2007

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**Text/Readings:** Conducting & Reading Research in Health & Human Performance. Fourth Edition, Baumgartner, T.A. & Hensley, D.D., McGraw Hill, New York, NY. 2006. ISBN: 0-07-297290-4.

**Course Description:**

This course introduces the student to the fundamentals of research, measurement and evaluation, and statistical analysis specific to health education and human performance. Health educators must keep current with the research literature. They must understand and discriminate credible research and be able to translate technical jargon into meaningful information. Health educators have a responsibility to generate new information through research. Research often requires outside funding and health educators need to be able to conceive, formulate and present fundable grant proposals. The goal of this course is to teach students to be fluent in the language and technology of research and be able to use them for the practice of health education.

**Course Format:** Course format includes whole class and small group discussions, team projects, individual research and writing assignments and in-class presentations. Evaluation consists of regular examination, participation in group projects and presentations, individual assignments and class participation.

**Content:**

- I. The Research Process
  - A. The Nature and Purpose of Research
  - B. Understanding the Research Process
  - C. Searching the Literature
  - D. Developing the Research Plan
  - E. Ethical Concerns in Research
  - F. Participant Selection
  - G. Reading and Evaluating Research Reports
  
- II. Types of Research
  - A. Experimental Research
  - B. Descriptive Research
  - C. Qualitative Research
  - D. Meta-analysis
  
- III. Data Analysis
  - A. Descriptive Data Analysis
  - B. Inferential Data Analysis
  - C. Measurement in Research
  
- IV. Writing and Reporting
  - A. Developing the Research Proposal
  - B. Writing the Research Report

**Objectives:**

The primary objective of this course is to prepare the student to critically evaluate the validity, adequacy and relevance of research in health and human performance. Students will gain an appreciation of how scientific research can have practical usefulness in individuals' daily lives (i.e., how research findings can contribute to greater health, work productivity, etc.). Upon completion of the course, the students should be able to

1. understand the structure of the scientific method and the fundamentals of research design
2. formulate good research questions and design appropriate research
3. develop research questions and hypotheses
4. perform a data based literature search and write a review of the literature pertaining to a research topic
5. be more informed "critics" of scientific literature

**Course Requirements:**

1. Attendance – see attendance policy.
2. Each student will participate in assigned readings, in-class activities and discussion groups.
3. Survey Assessment – Each student will participate in a group to develop a survey questionnaire to be administered and the results presented to the class.
4. Research proposal and presentation – Students will individually prepare a research proposal and presentation on a topic of their choice.

**Evaluation:**

Journal Article Reviews (5 x 20 points)	100 points
Pedometer Project	100 points
Survey Design and Presentation	100 points
Research Proposal	100 points
Presentation of Research Proposal	100 points
Exams (3 x 100 points)	300 points
Total	800 points

A = 90% and above

B = 80% - 89%

C = 70% - 79%

D = 60% - 69%

F = < 60%

All assignments are due on the assigned due date. Assignments turned in late will be reduced 10% for each day late.

No assignments will be accepted after the last class day of the semester. If you have questions about your assignments or grade see me before the last day of classes. This is your responsibility...after the last day of class all grades are final...so see me before then if you have a concern.

**Attendance:**

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an

examination or complete an assignment from which the student is excused within a reasonable time after the absence. Regular and punctual class attendance is expected of all students. Justification for absences will be determined by the instructor. Students who know in advance that they will be absent are advised to inform the instructor prior to the absence. The following policy will be applied to all members of this class:

Perfect attendance	2% bonus on overall grade
1- 3 unexcused absences	no bonus or deduction
4 unexcused absences	3% deduction from overall grade
5 unexcused absences	5% deduction from overall grade
6 unexcused absences	10% deduction from overall grade
7 unexcused absences	Register again next semester!

**Disability Statement:**

It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request help with academically related problems stemming from individual disabilities from their instructors, school/department chair, or by contacting the Chair of the Committee for Continuing Assistance for Disabled Students and Director of the Counseling Center, Lee Drain Annex, or by calling (936) 294-1720.

**Religious Holy Days:**

Section 51.911 (b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.