

“Making Educational and Social Systems Work for All”
-- UO College of Education Mission Statement

EDLD 610 APPLIED STATISTICAL METHODS IN EDUCATIONAL RESEARCH

4 Credits – CRN 44312

University of Oregon – College of Education - Educational Leadership Area

2006 SUMMER Term Syllabus

Meeting Days/Time: **Monday-Thursday 2:00-3:50 pm** (1400-1550)

Location: **Condon 203**

Instructor: Joseph Stevens, Ph.D.	
Phone:	(541) 346-2445
Fax:	(541) 346-5174
e-mail:	stevensj@uoregon.edu
Web:	http://www.uoregon.edu/~stevensj
Address:	170 D Education Bldg 5267 University of Oregon Eugene, OR 97403-5267
Office Hours:	Tuesday & Wednesday 1:00-1:50 or by appointment

COURSE DESCRIPTION AND OBJECTIVES

This course surveys statistical and quantitative methods commonly used in educational research. The goal of the course is to enable you to read and interpret quantitative research reports with good understanding of the results and analytic methods. You will not learn how to compute statistics or conduct analyses in this class. Those skills are covered in other College of Education courses. The emphasis in this course is on the abilities needed to read, interpret and use educational research.

COURSE PREREQUISITES

A graduate level course in research design is a good foundation for this course and is recommended.

REQUIRED MATERIALS

Johnson, B., & Christensen, L. (2004). *Educational research: Quantitative, qualitative, and mixed approaches* (2nd ed.). Boston, MA: Pearson Education, Inc.

Assigned articles available on the web. A reading list will be distributed in class.

OTHER REFERENCES AND RESOURCES:

American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th Ed.). Washington, DC: Author.

Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research*. Chicago, IL: Rand McNally.

- Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis issues for field settings*. Chicago, IL: Rand-McNally.
- Coladarci, T., Cobb, C. D., Minium, E. W., & Clark, R. C. (2003). *Fundamentals of Statistical Reasoning in Education*. New York: Wiley.
- Hays, W. L. (1981). *Statistics*. New York: Holt, Rinehart, and Winston.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th Ed.). Orlando, FL: Harcourt Brace.
- Kirk, R. E. (1994). *Experimental design : Procedures for behavioral sciences* (3rd Ed.). Wadsworth Publishing.
- Minium, E. W., & King, B. M. (2002). *Statistical Reasoning in Psychology and Education*. New York: Wiley.
- Pedhazur, E. J., & Schmelkin, L. P. (1991). *Measurement, Design, and Analysis*. Hillsdale, NJ: Erlbaum.
- Rosenthal, R., & Rosnow, R. L. (1991). *Essentials of behavioral research: Methods and data analysis*. New York: McGraw-Hill.
- Stevens, J. P. (1999). *Intermediate Statistics: A Modern Approach* (2nd ed.). Mahwah, NJ: Erlbaum.

COURSE STRUCTURE AND REQUIREMENTS

EDLD 610 is organized in a format that will include lecture, discussion, and group activities. The course will cover foundations of educational research and a survey of the statistical methods most commonly used in educational research. In addition to readings in the text, the class will read, study, and discuss research articles that provide examples of the use of statistical techniques. In some cases students will work in groups to study research articles and groups will also make short presentations to the class as a whole. Two quizzes and four reaction papers are required as well as regular participation and discussion in the class.

QUIZZES

Two quizzes will be given during the course. Both quizzes will be a combination of selected-response, short answer items, and short applied problems and will be designed to take about one hour. Quizzes will cover assigned reading material as well as whatever we cover in class. Makeup exams will not be allowed except in rare circumstances and must be arranged in advance. Quizzes are closed book but you will be allowed to bring a one page crib sheet (8 ½ X 11, two-sided) to use during the quiz. The first quiz will be on July 20th, the second quiz will be on August 3rd, the second quiz is not cumulative.

REACTION PAPERS

Four reaction papers will be required. Each reaction paper will be typewritten and 1-2 pages in length. Each reaction paper will detail student reactions, comments, and questions in response to the assigned reading. For complete credit, students will need to turn in their response to the assigned reading during the class meeting according to the schedule below.

GROUP WORK

Throughout the semester students will work in groups to share discussions and answer discussion questions on assigned research articles. Groups will be required to share the results of their discussions with the entire group several times during the course.

GRADING POLICY

Late work will be penalized a minimum of 10%. Work is due at the beginning of the class on the due date. Each student is responsible for submitting his/her own original work. Any instance of academic dishonesty (e.g., plagiarism) will result in a minimum of a score of zero for the assignment. Grading will be assigned on percentage of possible points, 90% and higher for an “A”, 80-89% for a “B”, etc. Work at the “C-“ level or below is graded as an “F”.

Quizzes will count 60% of the semester grade, reaction papers 28% and participation and group work 12% of the semester grade.

COURSE INCOMPLETES will be offered only very rarely and in unusual circumstances that truly prevent the student from completing course work during the regular course schedule. My policy on incompletes is more restrictive than the general UO policy. Incompletes will NOT be awarded simply because you have not been able to finish course work. Incompletes will only be awarded when there is a documented medical or similar unforeseen emergency that prevents the student from completing course work.

SCHEDULE OF TOPICS AND ASSIGNMENTS (schedule may change depending on our pace)

DATE	TOPIC	TEXT READING
Week 1		B&J 1-4, 5 (pp. 123-129 only), 7
July 13	Reaction paper #1	
Week 2		B&J 15
July 18	Reaction paper #2	
July 20	Quiz 1	
Week 3		B&J 16
July 25	Reaction paper #3	
Week 4		B&J 8-11
August 1	Reaction paper #4	
August 3	Quiz 2	

ATTENDANCE POLICY

Attendance is required to succeed in this course and master the course material. If a student does miss class, it is the student’s responsibility to get class notes, and handouts or other distributed materials. Contact the instructor in case of illness or emergencies that preclude taking quizzes as scheduled or attending class sessions. Messages can be left on the instructor's voice mail or e-mail at any time of the day or night, prior to class. If no prior arrangements have been made before class time, the absence will be unexcused.

ACADEMIC MISCONDUCT POLICY

All students are subject to the regulations stipulated in the UO Student Conduct Code (<http://www.uoregon.edu/~conduct/>). This code represents a compilation of important regulations, policies, and procedures pertaining to student life. It is intended to inform students of their rights and responsibilities during their association with this institution, and to provide general guidance for enforcing those regulations and policies essential to the educational and research missions of the University.

CONFLICT RESOLUTION

The mission of the College of Education is to “Make educational and social systems work for all.” Several options, both informal and formal are available to resolve conflicts for students who believe they have been subjected to or have witnessed bias, unfairness or other improper treatment. Within the College of Education, you can contact: Bill Young, COE Ombudsperson at 346-1401 or wdyoung@uoregon.edu or <http://education.uoregon.edu/ombuds>

Outside the College, you can contact:

UO Bias Response Team: 346-1139 or <http://darkwing.uoregon.edu/~brt/>

UO Conflict Resolution Services 346-0617 or <http://darkwing.uoregon.edu/~crs/>

UO Affirmative Action and Equal Opportunity 346-3123 or <http://aaeo.uoregon.edu/>

DIVERSITY

It is the policy of the University of Oregon to support and value diversity. To do so requires that we:

- respect the dignity and essential worth of all individuals.
- promote a culture of respect throughout the University community.
- respect the privacy, property, and freedom of others.
- reject bigotry, discrimination, violence, or intimidation of any kind.
- practice personal and academic integrity and expect it from others.
- promote the diversity of opinions, ideas and backgrounds which is the lifeblood of the university.

DOCUMENTED DISABILITY

Appropriate accommodations will be provided for students with documented disabilities. If you have a documented disability and require accommodation, arrange to meet with the course instructor within the first two weeks of the term. The documentation of your disability must come in writing from the Disability Services in the Office of Academic Advising and Student Services. Disabilities may include (but are not limited to) neurological impairment, orthopedic impairment, traumatic brain injury, visual impairment, chronic medical conditions, emotional/psychological disabilities, hearing impairment, and learning disabilities. For more information on Disability Services, please see <http://ds.uoregon.edu/>

EXPECTED CLASSROOM BEHAVIOR

Classroom expectations include:

- Participating in class activities
- Respecting the diversity of cultures, opinions, viewpoints in the classroom
- Listening to fellow students, professors, and lecturers with respect
- Arriving on time, prepared for class
- Attending for the duration of class; not reading other materials, books, newspapers
- Turn off cell phones and other electronic devices
- Racist, homophobic, sexist, and other disrespectful comments will not be tolerated.

GRIEVANCE

A student or group of students of the College of Education may appeal decisions or actions pertaining to admissions, programs, evaluation of performance and program retention and completion. Students who decide to file a grievance should follow the student grievance procedure, or alternative ways to file a grievance outlined in the Student Grievance Policy (<http://education.uoregon.edu/feature.htm?id=399>) or enter search: student grievance.

INCLEMENT WEATHER

In the event the university operates on a curtailed schedule or closes, UO media relations will notify the Eugene-Springfield area radio and television stations as quickly as possible. In addition, a notice regarding the university's schedule will be posted on the UO main home page (in the "News" section) at <http://www.uoregon.edu>.

If an individual class must be canceled due to inclement weather, illness, or other reason, a notice will be posted via email. During periods of inclement weather, please check your email rather than contact department personnel. Due to unsafe travel conditions, departmental staff may be limited and unable to handle the volume of calls from you and others.