EDF 6938
Foundations of Educational Research - Introduction
Term: Summer 2011

Instructor and Office Hours
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Course Description
This course is designed to cover the fundamentals of research design and topics in applied statistics. The course covers the types of research that are typically conducted and the basic elements of the research. When you complete the course you should be able to critically review empirical research with the exception of understanding advanced statistical methods. That is, you should be comfortable reading, understanding and critiquing the design of studies, the generalizability of the studies, the instrumentation of studies, and the basics of the statistics of studies.

Course Goal
The goal of this course is to provide learning experiences that help you understand, apply, and interpret quantitative research in the behavioral sciences. I believe the best way to achieve this goal is by building a conceptual schema for applied statistics. One way I attempt to facilitate this is by introducing statistical concepts by using research design and research examples.

Texts

Additional readings will be provided from these books:

Course Requirements

**Exams.** There will be two exams, which will be a mixture of short answer responses and selected response.

**Exercises.** There will be two articles for you to critique the methodology. The articles will be selected by you to critique empirical studies in your area of study. The instructions for the critiques are provided in the Moodle site.

**Forums.** There will be some discussion forums throughout the course for us to share our understanding and knowledge with each other. You are required to post at least one thread and respond to at least 3 other posts for each forum topic.

Course Policy

When you have question(s), here is the order to seek help:
1. Check the course materials (video or PowerPoint)
2. Check the textbook
3. Communicate with your group members (Group information will be sent to you at the beginning of the course)
4. Go to the forum (Questions and Answers)
5. Contact the instructor

Grade Assignment

Each exam will be scored on a percentage correct scale. Each exercise will be scored on a 10-point scale, which then is converted to a percentage correct scale. The grade will be a weighted composite of Exam I (35%), Exam II (35%), the critiques of the two research articles (20%), and forum discussion participation (10%). Grades will be assigned in the following manner:

<table>
<thead>
<tr>
<th>Weighted Composite</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
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<tr>
<td>85-89</td>
<td>B+</td>
</tr>
<tr>
<td>70-84</td>
<td>B</td>
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<tr>
<td>65-69</td>
<td>C+</td>
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<tr>
<td>50-64</td>
<td>C</td>
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<tr>
<td>40-49</td>
<td>D</td>
</tr>
<tr>
<td>Topic</td>
<td>Readings</td>
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<td>----------------------------------------------------------------------</td>
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| Introduction to Research - Overview of Types of Research (5.9-5.14) | Dooley, Chapters 1 & 4  
Overview of Section 4 (with more detail to come) |
| Ethics of Research and IRB (5.15-5.21)                                | Dooley, Chapter 2  
http://irb.ufl.edu/irb02/index.html |
| Measurement: Basics - Reliability (5.22-5.28)                        | Dooley Chapters 5 & 6  
Test Standards, Chapter 2 |
| Measurement: Validity and Locating Tests (5.29-6.4)                  | Dooley Chapters 5 & 6  
Test Standards, Chapter 1 |
| Internal Validity (6.5-6.11)                                         | Dooley, Chapter 9  
Cook & Campbell, Chapter 2 |
| Experimental Design (6.12-6.18)                                      | Dooley, Chapters 9, 10 & 11  
Cook & Campbell, Chapter 2 |
| Midterm Review (6.19-6.25)                                           |                                                                         |
| Exam 1 & Sampling and Generalizability (6.26-7.2)                    | Dooley, Chapter 10  |
| Statistical Conclusion Validity (7.3-7.9)                            | Dooley, Chapter 8  
Cook & Campbell, Chapter 2 |
| Descriptive Statistics & Inferential Statistics (7.10-7.16)         | Dooley, Chapter 8, 12, & Appendix B                                      |
| Reporting Results, Evaluation and Overview (7.17-7.23)               | Dooley, Chapter 14 & 15                                                  |
| Final Exam (7.24-7.30)                                               |                                                                         |
**University of Florida Policies:**

*Academic Honesty:* As a result of completing the registration form at the University of Florida, every student has signed the following statement: "I understand the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty, and understand that my failure to comply with this commitment may result in disciplinary action, up to and including expulsion from the University."

*Acceptable Use Policy:* Please read the University of Florida Acceptable Use Policy. It is expected that you abide by this policy.

*Software Use:* All faculty, staff, and students of the University of Florida are required and expected to obey laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

*Accommodations for Students with Disabilities:* Students with disabilities, who need modifications to complete assignments successfully and otherwise satisfy course criteria, are encouraged to meet with the instructor as early in the course as possible to identify and plan specific accommodations. Students WILL be asked for documentation from the Office for Students with Disabilities to assist in planning accommodations. Please see me during office hours to discuss any accommodations you might need.

*University of Florida Counseling Services:* Resources are available on campus for students having personal problems or lacking clear career and academic goals which interfere with their academic performance. These resources include:

- University Counseling Center, 301 Peabody Hall, 392-1575, personal and career counseling.
- Student Mental Health, Student Health Care Center, 392-1171, for personal counseling.
- Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161, for sexual assault counseling.
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.
**UF Computer Policy.** In keeping with the University of Florida’s student computer policy all assignments completed for this class must be typed using a word processing program. Use of spell-checking and grammar-checking programs is strongly encouraged. Points will be deducted from assignment with excessive spelling/grammar errors. Use of desktop publishing software and computer generated graphics for course product that may eventually be included in student’s portfolios is also strongly encouraged.

*Response times:* Allow 24 hours for replies to emails. This may be extended to 48 hours if the email is left over a weekend or holiday.

*Student Concerns:* If you have any concerns or questions about any situation in the course please contact me ASAP.