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EDF 7486  
Methods of Educational Research  
Term: Fall, 2020

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**Instructor and Office Hours**

Instructor:	Jann MacInnes, Ph.D.
Office:	2-265J
Phone:	352-273-4303
Email:	jann@coe.ufl.edu

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**Course Description**

This course is designed to cover the fundamentals of research design and methodologies. 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**

Dooley, D. (2004). Social Research Methods (4th Ed.). Upper Saddle River, NJ: Prentice Hall.

**Additional readings will be provided:**

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education (1999). Standards for Educational and Psychological Testing. Washington, DC: Author.

Cook, T.D., & Campbell, D.T. (1979). Quasi-Experimentation: Design & Analysis Issues for Field Settings. Boston: Houghton Mifflin.

## Course Requirements

**Exams (Individual)** There will be **two exams**. The exam questions are a mixture of selected and open response. You will have only one two-hour attempt for each exam. Exam preparation materials are provided on the course site.

**Test Your Knowledge (Individual)** There will be eight short quizzes that address general knowledge of a topic. The quiz questions are all selected response. You will have 2 attempts at each quiz and the highest attempt grade will be retained. If you do not complete an attempt for a quiz by the due date your grade for the quiz will be a 0. All due dates are on a Wednesday and are listed in Canvas in multiple places.

**Critiques (Group Project)** There will be four quantitative research article critiques. Each critique will address an area of research design. The instructions for construction of the critiques and a rubric for the scoring of the critiques will be provided in the course site.

**Forums.** There will be 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 classmates
4. Go to the forum (Questions and Answers)
5. Contact the instructor through email or Canvas message. You should receive a response within 24 hours if the contact was made on a weekday, 48 hours if it was made on a weekend or holiday.

## Grade Assignment

Each exam and quiz will be scored on a percentage correct scale. Each critique will be scored on a 10-point scale and converted to a percentage correct scale. The grade will be a weighted composite of Exam I (25%), Exam II (25%), Check Your Knowledge Quizzes (20%) the critiques of the four research articles (20%), and forum discussion participation (10%). Grades will be assigned in the following manner:

<u>Overall Course Percent</u>	<u>Grade</u>
93.0% - 100%	A
90.0% - 92.9%	A-
87.0% - 89.9%	B+
83.0% - 86.9%	B
80.0% - 82.9%	B-
77.0% - 79.9%	C+
73.0% - 76.9%	C
70.0% - 72.9%	C-
67.0% - 69.9%	D+
63.0% - 66.9%	D
60.0% - 62.9%	D-
59.9% or less	E

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at <http://www.registrar.ufl.edu/staff/grades.html>

## 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**

If you require classroom accommodation because of a disability, you must first register with the Dean of Students Office (<http://oss.ufl.edu/>). The Dean of Students Office will provide documentation to you, which you then give to the instructor when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework.

### **Counseling and Student Health**

Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with the instructor and to seek confidential assistance at the University of Florida Counseling Center, 352-392-1575, or Student Mental Health Services, 352-392-1171. Visit their web sites for more information:

<http://www.counsel.ufl.edu/> or

<http://www.health.ufl.edu/shcc/smhs/index.htm#urgent>

The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services, including primary care, women's health care, immunizations, mental health care, and pharmacy services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: [www.health.ufl.edu/shcc](http://www.health.ufl.edu/shcc)

Crisis intervention is always available 24/7 from: Alachua County Crisis Center: (352) 264-6789.

<b>Tentative Schedule Fall, 2020</b>	
<b>Topic</b>	<b>Readings</b>
Topic 1: Introduction to Research (08/31 – 09/13)	Dooley, Chapter 1  Forum: Practice to Become a Critical Reader <b>Initial Post by 9/10; Due 9/13</b>  <b>Test Your Knowledge Quiz Due 9/16</b>
Topic 2: Ethics of Research and IRB (09/14 – 09/20)	Dooley, Chapter 2 <a href="http://irb.ufl.edu/irb02/index.html">http://irb.ufl.edu/irb02/index.html</a>  <b>Test Your Knowledge Quiz Due 9/23</b>
Topic 3: Measurement: Basics – Reliability and Validity (09/21 – 10/04)	Dooley Chapters 5 & 6 <u>Test Standards</u> , Chapters 1&2  Forum: Construct Validity <b>Initial Post by 10/01; Due 10/04</b>  <b>Test Your Knowledge Quiz Due 10/07</b>
Topic 4: Experimental Design & Internal Validity (10/05 – 10/18)	Dooley, Chapters 9, 10 & 11 Cook & Campbell, Chapter 2  <b>Critique 1 Due 10/11</b>  Forum: Internal Validity Threats and Solutions <b>Initial Post by 10/15; Due 10/18</b>  <b>Test Your Knowledge Quiz Due 10/21</b>

<p>Exam 1 Review and Administration (10/19 – 10/25)</p>	<p><b>Zoom Exam Review</b> <b>Thursday, October 22<sup>nd</sup> at 7:00 p.m.</b></p> <p><b>Exam 1</b> <b>October 23<sup>rd</sup> – October 25<sup>th</sup></b></p>
<p>Topic 5: External Validity and Sampling (10/26 – 11/08)</p>	<p>Dooley, Chapter 10</p> <p>Forum: Sampling <b>Initial Post by 11/05; Due 11/08</b></p> <p><b>Critique 2 Due 11/01</b></p> <p><b>Test Your Knowledge Quiz Due 11/11</b></p>
<p>Topic 6: Descriptive Statistics (11/09 – 11/15)</p>	<p>Dooley, Chapter 8, 12, &amp; Appendix B</p> <p>Forum: Descriptive Statistics and Their Meaning <b>Initial Post by 11/12; Due 11/15</b></p> <p><b>Test Your Knowledge Quiz Due 11/18</b></p>
<p>Topic 7: Introduction to Inferential Statistics (11/16 - 11/22)</p>	<p>Dooley, Chapter 8, 12, &amp; Appendix B</p> <p><b>Critique 3 Due 11/22</b></p> <p><b>Test Your Knowledge Quiz Due 11/25</b></p>

<p>Topic 8: Statistical Conclusion Validity (11/23 – 12/06)</p>	<p>Dooley, Chapter 8 Cook &amp; Campbell, Chapter 2</p> <p>Forum: Statistical Conclusion Validity <b>Initial Post by 12/03; Due 12/06</b></p> <p><b>Test Your Knowledge Quiz Due 12/09</b></p> <p><b>Critique 4 Due 12/13</b></p>
<p>Review Exam 2 and Administration (12/07 – 12/14)</p>	<p><b>Zoom Exam Review</b> <b>Thursday, December 10<sup>th</sup> 7:00 p.m.</b></p> <p><b>Exam 2 12/13 - 12/15</b></p>

Sample Syllabus