EDUR 9131 Spring 2025 Syllabus

EDUR 9131

Syllabus

Doctoral Research Methods

Department of Curriculum, Foundations, and Reading

Spring 2025

Prerequisites	EDUR 7130 (Educational Research) and EDUR 8131 (Educational Statistics I) or equivalent.
Credits	3
Faculty	

Antonio P. Gutierrez de

Blume, Ph.D.

All course communication will take place within the online course. All e-mails to me should be sent using the e-mail feature within Folio. My Georgia Southern e-mail address should be used for emergencies only! The Folio News tool w be used to notify students of upcoming due dates, any cours changes, or special situations. I will reply to all course correspondence within 24 hours Monday through Friday, 8:(AM to 5:00 PM Eastern Time. If you send correspondence during the weekends (Saturdays and Sundays) or on Georgia Southern observed holidays (http://em.georgiasouthern.edu/registrar/resources/calenda (click on the link for a list), do not expect a reply until the following academic business day. Rarely, I may be out of rea for more than one day during the week. If this is the case, I v notify students via a course announcement (i.e., News tool). Please note that several meetings—via video conference or phone conference—will be required as part of this course; se below for more details.

Contact information and Communication

Note: Do not be embarrassed to ask questions. If you are confused, it is likely there are other students in the course w are confused and who will appreciate you taking the lead in asking a question. However, please be advised that I will NC answer questions regarding information that can be found c the Syllabus or Course Schedule, and thus, please make sure you carefully read and understand the Syllabus and Course Schedule to ensure the information is not located there befc asking a question.

Office Hours: By appointment via video conference (see below) or phone conference (use my mobile number) only.

Georgia Southern E-mail: **agutierrez@georgiasouthern.edu**

Phone: 912-478-7831 (Office); 702-324-2695 (Mobile [Texting is Acceptable])

Synchronous Virtual (Zoom) Meeting Dates: Please note tha this is a hybrid course, with combination asynchronous onlir and synchronous virtual meetings. There will be four require virtual synchronous meeting dates (**all Saturdays**) throughou the semester, as follows: **January 25; February 22; March 2 and April 26, from 9:00 AM to 12:00 PM ET. We will meet virtually via Zoom**. Except for these four **virtual, synchronou** meetings, all course correspondence will occur online withir Folio.

Video Conference Options:

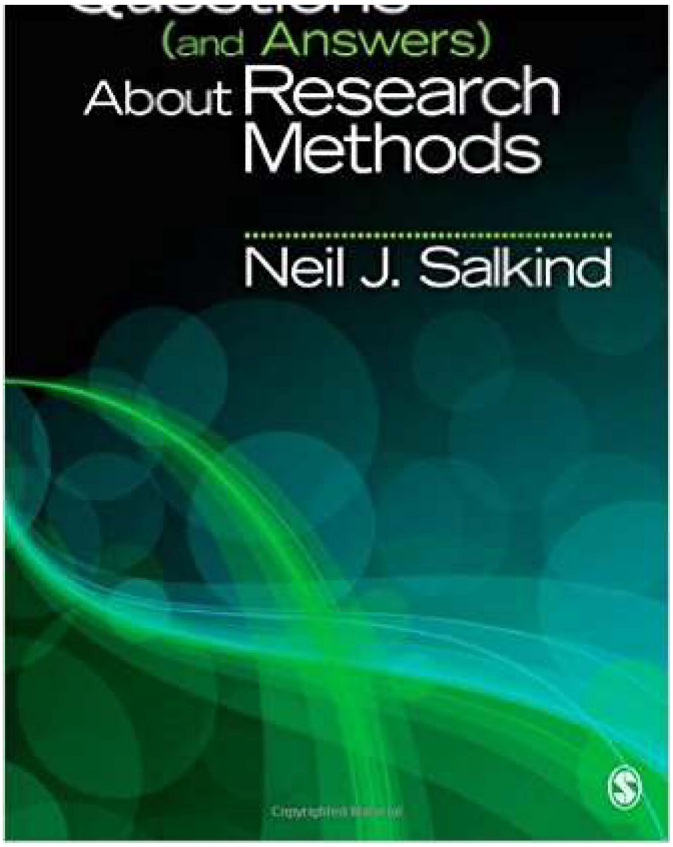
Zoom: **agutierrez@georgiasouthern.edu**

Course Description

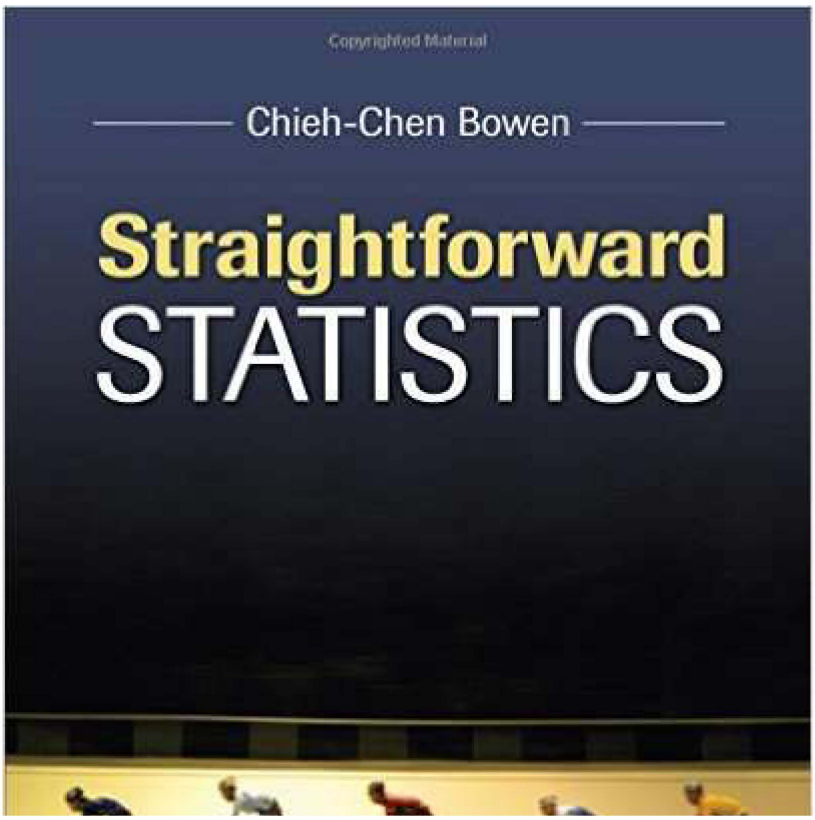
The purpose of this course is for doctoral-level students to gain a firm foundation in educational research prior to enrollment in the more specialized courses in quantitative or qualitative methods. Students engage in an applied research project that updates their understanding of quantitative research procedures (hypothesis generation, sampling theory, instrument construction, measurement concepts and descriptive and inferential statistics). Emphasis is on the "hands-on" application of advanced quantitative inquiry skills.

Recommended (OPTIONAL) Texts

There are **NO** required textbooks for the course. **Nevertheless, we will have readings from other sources, which will be provided to you by me in an effort to save you money. These additional readings will be posted in Folio.** Also, there are some recommended texts below.



Salkind, N. J. (2012). *100 questions (and answers) about research methods*. Thousand Oaks, CA: Sage.



Bowen, C-C. (2016). *Straightforward statistics*. Thousand Oaks: Sage.

Course Objectives

By the end of the semester the student will be able to:

Course Objectives
Knowledge 1. Compare and contrast descriptive and inferential statistics 2. Compare and contrast measures of central tendency and variation 3. Describe the properties of the normal and standard normal distributions. E these properties are important 4. Interpret the correlation coefficient and r^2 5. Explain the results of a linear regression analysis 6. Explain the importance of the sampling distribution of the means 7. Explain the importance of the standard error of measure 8. Describe the rationale and process of hypothesis testing 9. Describe the rationale for the *t*-test 10. Describe the rationale for a one-way ANOVA 11. Explain Type I and Type II errors 12. Explain "effect size" 13. Explain "power" and how to increase it 14. Interpret the results of a *t*-test and ANOVA 15. Compare and contrast different post-hoc tests of means 16. Learn about qualitative research and alternative designs 17. Learn how to collect qualitative research data 18. Understand how to analyze and interpret qualitative findings Skill: Computational 1. Read frequency tables and distributions

2. Compute standard scores
3. Compute the correlation
4. Conduct a *t*-test
5. Compute a confidence interval
6. Conduct a one-way ANOVA
7. Conduct post-hoc tests of means

Skills: Computer

1. Be able to log in
2. Download data from a disk
3. Create and edit data and variable files in SPSS
4. Use the "analyze" commands for a variety of statistical procedures
5. Print out data and output files
6. Read and interpret output files

Dispositions

1. Explain the concept of "current statistics self-efficacy" and how it impacts y about statistics
2. Identify factors from this class that increase statistics self-efficacy
3. Distinguish between statistics self-efficacy and self-efficacy to learn statist
4. Monitor your growth in statistics self-efficacy and summarize how your atti changed throughout the semester
5. Explain how "need for cognition" is related to statistics self-efficacy
6. Understand the epistemological differences between quantitative and qual research paradigms

Course Requirements/Procedures

All students are expected to have access to the Internet and GSU's Folio. We will be practicing analytic skills by conducting descriptive, correlational, and other types of data analyses using SPSS. Access to SPSS will be provided by GSU.

Please be advised that ALL TIMES for submission of assignments are in Eastern Time (ET); thus, be aware of time differences if you are not in the Eastern Time Zone, as NO late assignments will be accepted.

Class Format

This is an on-line class, which covers a challenging topic. You must be able to self-regulate your own learning to a significant degree because you will not have the face-to-face support you would in a traditional/in-person course. All of the information you will need is posted on the main EDUR 9131 site in Folio. The four in-person Saturday meetings throughout the semester will cover specific topics related to quantitative research methods. The intent of the in-person meetings is to encourage peer interaction, and thus, these will be planned in a seminar-format rather than pure lecture.

Discussions

A special discussion forum, "**Ask the Professor**", has been included in the course for general questions addressed to me. A separate forum, "**Ask Your Peers**," has also been created. Please use this forum to create discussion threads with questions so that all students can benefit from them and their responses. Students are encouraged to post questions and comments on the discussion board, even if it is not a requirement for a specific assignment. Thus, the use of Folio e-mail should be for personal inquiries. I reserve the right to delete or remove any posting that is deemed inappropriate or redundant.

Accessing Helpful Websites

There are many websites that provide free statistics tutorials. Go to www.google.com (http://www.google.com/) and use "statistics tutorials", "Atlas.ti tutorials," or other key words to snoop around. If you discover a good website, please notify me so I can share the address with other students.

Evaluation Methods

Participation (which requires regular

Participation (which requires regular attendance to the synchronous, virtual Zoom meetings; 100 points)

Participation in Folio discussions and the in-person meetings is required. Thus, you are expected to have a constant presence in both the Folio discussions and those that take place in the in-person meetings. The Folio discussions will involve your critical review and evaluation of quantitative research studies that have been published in peer-reviewed/ scholarly journals. These exercises are intended to develop your skills as a scholar/ researcher and your critical thinking and metacognitive skills. These article reviews/ evaluations will be provided throughout the semester via Folio.

"In-Class" (Virtual) Lab Assignments (100 points)

These assignments involve your analysis and interpretation of fundamental, common approaches in quantitative research studies. These statistical concepts will vary from univariate ANOVAs and their multivariate counterparts (MANOVAs), including anlyses with covariates (ANCOVAs, MANCOVAs), ordinary least squares (OLS) linear regression (standard, mathematical, hierarchical), and factor analysis (EFA). The virtual lab meetings will center on one or more of these statistical techniques. The discussions will proceed as follows: I will (1) introduce the concept both in Folio and in-class; (2) guide you on the procedural steps necessary to actually conduct the analysis; (3) demonstrate and scaffold how to substantively and meaningfully interpret the output; and (4) show you how to write up the results for a research report.

Next, during each of the virtual synchronous meetings, I will provide you with an assignment and fictitious dataset related to the concepts we covered in class. Students will be divided into breakout rooms in Zoom to work on your individual lab assignments, which are due at the end of each respective virtual, synchronous meeting. In these assignments you will: 1) actually analyze the data; 2) substantively and meaningfully interpret the ouput succinctly in writing and using APA-approved statistical statements; and 3) provide a MS Word document with your output tables copied to it and your interpretation. These assignments will give you experience in actually conducting research, analyzing, and interpreting data, and they will be submitted via Dropbox portals in Folio.

portals in Folio.

Note: All written work submitted for a grade must be your own. Turning in for a grade writing that is not your own (e.g., copied from the textbook, the Internet, or another person) constitutes academic misconduct and dishonesty and is unacceptable. I will not provide any feedback on any assignment that is plagiarized. Any assignment that is plagiarized will receive a grade of zero (0) and students will NOT be permitted to redo these assignments. Thus, please ensure that all work you submit is entirely your own intellectual property!

Evaluation of Performance

ASSIGNMENT OF GRADES BASED ON COURSE POINTS:

Evaluation Criteria	Points (%)
Participation	**100 (50%)**
In-Class Lab Assignments (25 * 4 = 100 points)	**100 (50%)**
TOTAL	**200 (100%)**

Students may earn up to 200 points equivalent to 100% of the grade for the course. The letter grade assigned is according to the grading scale listed below. **Per GSU guidelines, "+" and "-" are not awarded**. For example, if a student earns 90% in the course, an "A" is awarded. A student who earns 87% is awarded a "B". **There is no rounding up of points/percentages**.

Grading Scale

90-100	A
80-89	B
70-79	C
60-69	D
59-	F

below

It is likely that not all students will earn a grade of "A" in this course. Per the Georgia Southern University definition of an "A" grade, a student must possess "exceptional mastery of the course material" before an instructor assigns a grade of "A" to the student's work. This is a graduate level course, and graduate standards will be applied in assessing student performance.

Incomplete (I) Grades

Students wishing an incomplete must request such with me. I may grant the request for an "Incomplete" if the following conditions are met:

1. Seventy-five percent (75%) of the coursework has been successfully completed;
2. There are **extenuating circumstances**; and
3. The student can finish the course without repeating it because of satisfactory progress to the point he/she requested the incomplete.

Extra Credit