



**CEST6301 Advanced Educational  
Research and Statistics**  
New Orleans Baptist Theological Seminary  
Church Ministry Division  
Spring 2023 Monday Hybrid

**Jeffrey Farmer, Ph.D.**

Associate Professor of Church Ministry and Evangelism,  
Associate Director of The Caskey Center for Church Excellence  
Office: HSC 215, Caskey Office  
Phone: 504-816-8227  
Email: [jfarmer@nobts.edu](mailto:jfarmer@nobts.edu)

**Mission Statement**

New Orleans Baptist Theological Seminary and Leavell College prepare servants to walk with Christ, proclaim His truth, and fulfill His mission.

**Course Description**

This course integrates a quantitative research project with an investigation of multiple regression analysis, multiple discriminant analysis, MANOVA, and factor analysis. Specific attention is given to methods of research, experimental control, validity, behavioral assessment, instrumentation, and measurement techniques, sampling techniques, questionnaire strategies, research proposals, and report development.

**Student Learning Outcomes**

In order to serve local churches and denominational agencies effectively through Christian Education research, the students will demonstrate . . .

1. . . . understanding of the principles of research design, the structure of a formal research proposal, the various types of research, their corresponding approaches to data gathering, and the appropriate statistical procedure for each type by submitting clear and correct assignments and examinations.
2. . . . appreciation for credible data collection and sound statistical analysis by their willingness to give themselves to assignments, discussions, and exam preparation.
3. . . . skill in solving statistical problems by using statistical procedures in an appropriate and competent manner.

**Textbooks**

Hatcher, Larry. *Advanced Statistics in Research: Reading, Understanding and Writing Up Data Analysis Results*. Saginaw, MI: Shadow Finch Media, 2013. ISBN: 9780985867003

Pallant, Julie. *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using IBM SPSS*. London: Open University Press, McGraw Hill Education, 2020. ISBN: 9780335249497.

IBM SPSS Statistics GradPack 28. This software may be downloaded as either a 6 month license or 12 month license at this url: [IBM® SPSS® Statistics 28 GradPacks | OnTheHub | Save on Minitab, SPSS, EndNote, Parallels and More](#)

A calculator and access to Excel is recommended.

## **Course Teaching Methodology**

This course will emphasize a format of teaching and learning that leads to skill-based mastery of vocabulary, concepts, and procedures. This includes weekly reading assignments, writing assignments, lecture, demonstrations, problem-solving assignments, and conceptual examinations.

## **Units of Study**

The topics of study (corresponding to chapters in text) that will be covered in the course are as follows:

### Unit 1: Review of Quantitative Research

- Probability
- Bivariate Correlation
- Bivariate Regression
- Handling Data

### Unit 2: Research Design

- Research Questions and Hypotheses
- Sampling
- Instruments
- Data Collection, Processing, Analysis
- Missing Data

### Unit 3: Statistical Testing and Probability

- Parametric Tests (Review)
- Non-Parametric Tests
- Advanced Methods – Multiple Regression, Factor Analysis, Principle Component Analysis

### Unit 4: Publication of Research

- Evaluating Journal Articles and Dissertations
- Literature Review
- Methods
- Results
- Discussion

## **Delivery Format**

*The course will be delivered via in class and NOLA2U Live on eight specified Mondays, 6:00-8:50 pm (Jan 24, Feb 7, Feb 21, Mar 7, Mar 21, Apr 4, Apr 18, and May 2) and on-line through Canvas. Since this is designed as a full semester course, no pre-course assignments will be made. See the course overview for weekly units.*

## **NOLA2U Live**

If you are taking this course as a NOLA2U Live student, please note the following attendance policies:

1. The course on the New Orleans campus will be connected synchronously via Web conferencing with Internet students. These courses will require weekly attendance at the stated class meeting times.
2. Students are only allowed to miss the amount of class time specified in the NOBTS attendance policy as stated in this syllabus.

4. Technical issues will not be considered a valid reason for missing a class session.

### **Attendance Policy**

**Hybrid Classes:** Students are expected to attend and participate in the class sessions. Because of the nature of the hybrid, students who miss more than four hours may receive a grade of “F” for the course.

### **Course Requirements**

1. **SPSS Exercises** Students will complete the SPSS exercises as assigned in Canvas.
2. **Journal Article Evaluation** Students will find and review a journal article reporting the results of a quantitative study.
3. **Research Project** Students will develop a research project over the course of the semester. The project components will be due throughout the semester (as noted on the course schedule). Project components include: research question, literature review, selection of instrument, data collection, descriptive statistics, analysis of data, and discussion. These components will be assembled over the course of the semester into a journal article suitable for publication.

### **Evaluation of Grade**

The student's grade will be computed as follows:

|                                   |     |
|-----------------------------------|-----|
| <i>SPSS Exercises</i>             | 20% |
| <i>Journal Article Evaluation</i> | 20% |
| <i>Research Project</i>           | 60% |

### **Technical Assistance**

For assistance regarding technology, consult ITC (504-816-8180) or the following websites:

1. [www.NOBTS.edu/itc/](http://www.NOBTS.edu/itc/)- Email for general technical questions/support requests.
2. [Selfserve@nobts.edu](mailto:Selfserve@nobts.edu)- Email technical questions/support requests with the [Selfserve.nobts.edu](http://Selfserve.nobts.edu) or [My.nobts.edu](http://My.nobts.edu) site (Access to online registration, financial account, online transcript, Faculty portal, etc.)
3. [Canvas@nobts.edu](mailto:Canvas@nobts.edu) Click on the “Help” button for technical questions/support requests regarding the NOBTS Canvas System. You can also email questions to [Canvas.nobts.edu](http://Canvas.nobts.edu) / [nobts.instructure.com](http://nobts.instructure.com).
4. [Bluejeanshelpdesk@nobts.edu](mailto:Bluejeanshelpdesk@nobts.edu) - Email technical questions/support requests with Bluejeans and NOBTS Bluejeans classrooms (On and Off-Campus).
5. [TelephoneHelpDesk@nobts.edu](mailto:TelephoneHelpDesk@nobts.edu)- Email technical questions/support requests with the NOBTS Nextiva Phone system.
6. [504.816.8180](tel:504.816.8180) - Call for any technical questions/support requests. (Currently available Mon-Thurs 7:00am-9:00pm & Fri 7:00-7:00pm Central Time).

### **Help for Writing Papers at “The Write Stuff”**

NOBTS maintains a Writing Center designed to improve English writing at the graduate level. Students can receive writing guides, tips, and valuable information to help in becoming a better writer.

### **Plagiarism on Written Assignments**

NOBTS has a no tolerance policy for plagiarism. Plagiarism in certain cases may result in expulsion from the seminary. See the NOBTS Student Handbook for definition, penalties, and policies associated with plagiarism.

### **Selected Bibliography**

Creswell, John W. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 4<sup>th</sup> ed. Los Angeles: Sage Publications, Inc. 2014.

George, Darren and Paul Mallery. *IBM SPSS Statistics 26 Step by Step: A Simple Guide and Reference*. 16<sup>th</sup> Edition. New York: Routledge, 2020. ISBN: 978-1-138-79107-6

Gravetter, Frederick J. and Larry B. Wallnau. *Statistics for the Behavioral Sciences*. 10<sup>th</sup> Edition. Boston: Cengage Learning. ISBN: 978-1-305-50491-2

Houser, Rick A. *Counseling and Educational Research: Evaluation and Application*, 3<sup>rd</sup> ed. Los Angeles: Sage Publications, Inc. 2015.

Johnson, R. Burke and Larry Christensen. *Educational Research: Quantitative, Qualitative, and Mixed Approaches*, 5<sup>th</sup> ed. Thousand Oaks, California: SAGE Publications, Inc. 2014.

Pelham, Brett W. *Intermediate Statistics: A Conceptual Course*. Thousand Oaks, California: SAGE Publications, Inc. 2013.

Salkind, Neil J. and Bruce B. Frey. *Statistics for People Who (Think They) Hate Statistics*. Seventh Ed. Los Angeles: Sage Publications, 2019. ISBN: 9781544381855

Salkind, Neil J. and Bruce B. Frey. *Study Guide for Education to Accompany Salkind and Frey’s Statistics for People Who (Think They) Hate Statistics*. Seventh Ed. Los Angeles: Sage Publications, 2019. ISBN: 9781544395975