



Educational Research and Statistics

CEST 6300 ~ NOLA2U LIVE

New Orleans Baptist Theological Seminary
Church Ministry Division

Monday Hybrid, 6:00-7:50 pm ~ Fall 2022

8/15, 8/29, 9/12, 9/26, 10/10, 10/24, 11/7, 11/28

Richie C. Stanley

Adjunct Professor of Church Ministry and Evangelism

rstanley.nobts@gmail.com

Cell: (770) 401-4572

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

Purpose of the Course

The purpose of this course is to provoke student mastery of basic tools in research design and statistical analysis -- the advanced languages of Christian education. These tools include both a required vocabulary to help students become better consumers of academic research, and the requisite skills for designing an original study, collecting valid data, and analyzing collected data in order to answer real world questions that confront contemporary educational ministries. Essentially, CEST 6300 is a language course, laying the linguistic and conceptual foundation for analyzing empirical research in doctoral seminars, and eventually writing a research prospectus, conducting original research, and writing a formal dissertation.

Course Description

The course explores (1) the nature of science as a way of knowing, (2) the scientific method as a means of collecting credible empirical data regarding questions raised by educational ministries, and (3) statistical procedures as the means of analyzing collected data. The biblical basis for honest measures and analyses is found in passages such as “The Lord abhors dishonest scales, but accurate weights are his delight” (Pr 11:1, NIV. See also Lv 19:36; Dt 25:15; Pr 16:11, 20:23; Mi 6:11). Christian ministers can use quantitative methods to improve educational and administrative programs in the local church, taking “captive every thought to make it obedient to Christ” (2 Co 10:5-6, NIV). Through this course, students will construct an educational foundation for doctoral level research and analysis.

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.

Required Text

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

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

Students will access the textbook via the Cengage Mindtap online learning module. Instructions for accessing the course and the textbook are found in Canvas. Students will use the following course key to register for the class in Mindtap:

Course Key: MTPQP6GQFZH7

IBM SPSS Statistics GradPack 26. This software may be downloaded as either a 6 month license or 12 month license at this url:

https://estore.onthehub.com/WebStore/OfferingsOfMajorVersionList.aspx?pmv=304b1df-f-5b5d-e911-8115-000d3af41938&cmi_mnuMain=8659da1b-241d-e611-941a-b8ca3a5db7a1

A calculator and access to Excel is required.

Course Teaching Methodology

Units of Study

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

Unit 1: Introduction to Quantitative Research

1. Science and Faith
2. Introduction to SPSS
3. Math Review

Unit 2: Descriptive Statistics

4. Measurement Types: Nominal, Ordinal, Interval, Ratio
5. Variability
6. Graphs
7. Correlation Coefficients
8. Reliability and Validity

Unit 3: Statistical Testing and Probability

9. Hypothesis and Research Questions
10. Probability
11. The Normal Curve

Unit 4: Inferential Statistics

12. One-sample Tests of Difference (z-, t-)
13. Two-Sample Tests of Difference (independent t, matched t)
14. One-Way Analysis of Variance (F);
15. Correlation (Pearson r, Spearman rho, Kendall tau)
16. Linear Regression
17. Chi-Square (Goodness of Fit, Test of Independence)

Teaching Method

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.

Delivery Format

The course will be delivered via in class and NOLA2U Live on eight specified Mondays, 6:00-7:50 pm (Aug 15, Aug 29, Sep 12, Sep 26, Oct 10, Oct 24, Nov 7, and Nov 28) 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.

Attendance Policy

NOLA2U Classes: Students are expected to attend and participate in the class sessions. Any student missing more than nine hours may receive an automatic grade of “F” for the course. Three tardies will count as one absence.

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

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 Policies

The following policies will serve to govern both the student and professor for the duration of this course.

Assignment Submission

Assignments will be made available to student access on Monday morning. Homework is due Saturday night before midnight. Initial Discussion board posts are due by midnight Thursday, each student is expected to make substantive comments on at least two of his/her peer's posts by midnight Sunday. **Assignments not posted on time will be docked 50%.**

Assignment Format

All assignments are to be submitted in Word or WordPerfect formats. They are to be typed, double-spaced with 12-point font (Times New Roman preferred) and 1-inch margins unless otherwise indicated. You may "cut and paste" the final draft of each assignment into the appropriate Discussion Board under your personally created thread. Since not every student has both Word and WordPerfect word processors, you may not attach the document to the discussion post.

NOBTS Grading Scale Percentages

A 93-100% B 85-92% C 77-84% D 70-76% F 0-69%

Course Grade Computation

The professor will prescribe a grade based upon the student's satisfactorily completion of the following:

<i>Homework Assignments</i>	<i>40%</i>	<i>Due each Saturday by midnight</i>
<i>Discussion Forum Responses</i>	<i>15%</i>	<i>Due each Sunday by midnight</i>
<i>Midterm Exam</i>	<i>20%</i>	<i>Due October 24 by midnight</i>
<i>Final Exam</i>	<i>25%</i>	<i>Due December 14 by midnight</i>

Technical Assistance

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

1. Selfserve@nobts.edu - Email for technical questions/support requests with the Selfserve.nobts.edu site (Access to online registration, financial account, online transcript, etc.)
2. Canvas.NOBTS.com Click on the "Help" button for technical questions/support requests regarding the NOBTS Canvas System. You can also email questions to Canvas@nobts.edu.
3. ITCSupport@nobts.edu - Email for general technical questions/support requests.
4. www.NOBTS.edu/itc/ - General NOBTS technical help information is provided on this website.

Netiquette

Appropriate Online Behavior. Each student is expected to demonstrate appropriate Christian behavior when working online on Discussion Boards or whenever interaction occurs through web, digital, or other electronic medium. The student is expected to interact with other students in a fashion that will promote learning and respect for the opinions of others in the course. A spirit of Christian charity is expected at all times in the online environment.

Academic Honesty Policy

All graduate and undergraduate NOBTS students, whether on-campus, internet, or extension center students, are expected to adhere to the highest Christian standard of honesty and integrity when completing academic assignments for all courses in every delivery system format. The Bible provides our standard for academic integrity and honesty. This standard applies whether a student is taking tests, quizzes, exams, writing papers, completing Discussion Boards, or any other course requirement.

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. A copy of the approved NOBTS Style Guide can be found in the course Canvas shell, or can be located online at the Writing Center’s page on the seminary website at:

<https://www.nobts.edu/resources/pdf/writing/StyleGuide.pdf>

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*, 4th ed. Los Angeles: Sage Publications, Inc. 2014.
- George, Darren and Paul Mallery. *IBM SPSS Statistics 26 Step by Step: A Simple Guide and Reference*. 16th Edition. New York: Routledge, 2020. ISBN: 978-1-138-79107-6
- Gravetter, Frederick J. and Larry B. Wallnau. *Statistics for the Behavioral Sciences*. 10th Edition. Boston: Cengage Learning. ISBN: 978-1-305-50491-2
- Houser, Rick A. *Counseling and Educational Research: Evaluation and Application*, 3rd ed. Los Angeles: Sage Publications, Inc. 2015.
- Johnson, R. Burke and Larry Christensen. *Educational Research: Quantitative, Qualitative, and Mixed Approaches*, 5th 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