

PSYC6475 SCIENTIFIC RESEARCH 2
New Orleans Baptist Theological Seminary

Disclaimer: This syllabus is intended to give the student a general idea of the content, format, and textbooks used for this class. The professor will submit a full syllabus at the beginning of the class which will contain a course schedule and the instructor's information.

VERY IMPORTANT: If a student communicates with the professor by email, note clearly in the subject line the purpose of the message. Due to junk email, if the purpose of the email is not clear, the message may be deleted without ever being read.

NOBTS Mission Statement: The mission is to equip leaders to fulfill the Great Commission and the Great Commandments through the local church and its ministries.

NOBTS Core Values: The seminary's core values are: (1) doctrinal integrity, (2) spiritual vitality, (3) mission focus, (4) characteristic excellence, and (5) servant leadership.

I. Course Description

This course integrates a semester length scientific research project with an investigation of multiple regression analysis, multiple discriminant analysis, MANOVA, and factor analysis. Specific attention is given to the basic methods of research, experimental control, validity, behavioral assessment, instrumentation and measurement techniques, sampling techniques, questionnaire strategies, various research designs, sources of error, research proposals and report development. A semester length research project is completed by each student in accordance with the Publication Manual of APA or Turabian. (*Prerequisite: PSYC6474, or equivalent*).

II. Course Objectives

Through the design, implementation and analysis of a term length research project, the student will:

- a. Learn the major steps of the research process
- b. Learn how to conduct and interpret multivariate analyses
- c. Study and demonstrate an understanding of the various basic methods of research including: descriptive, correlational, ex post facto, true experimental, quasiexperimental methods, etc.
- d. Understand the major research design and methodology concepts such as the various experimental designs, reliability and validity, sampling, randomization, scaling, control, sources of error, generalization, etc.
- e. Develop scientific thought processes; to think critically when reading research reports and developing research studies.
- f. Acquire and demonstrate a satisfactory ability to utilize the research process given a research hypothesis through participation in a current research study, conducting all phases of the project including the selection, administration, and interpretation of appropriate statistical tests and in developing a written research report

III. Required Textbooks:

Gravetter, Frederick and Lori-Ann B. Forzano, *Research Methods for the Behavioral Sciences*, 3rd ed., Wadsworth/Thompson Learning, 2008.

Green, Samuel B. And Neil J. Salkind, *Using SPSS for Windows and Macintosh*, 5th ed., Upper Saddle River, NJ: Pearson/Prentice Hall, 2008.

Optional Texts:

American Psychological Association. *Publication Manual of the American Psychological Association*, 5th ed., 2001.

Fink, Arlene. *Conducting Research Literature Reviews*. Thousand Oaks, CA: Sage Publications, 1998.

Fink, Arlene and Jacqueline Kosecoff. *How to Conduct Surveys: A Step by Step Guide*, 3rd ed. Thousand Oaks, CA: Sage Publications, 2005.

Nicol and Pexman. *Presenting Your Findings*. Washington, DC: American Psychological Association, 2003.

Reed, Jeffrey and Pam Baxter. 3rd ed. *Library Use: A Handbook for Psychology*. Washington, DC: American Psychological Association, 2003.

Optional Resource:

SPSS Graduate Pack 17.0 for Windows (2007). Computer software. Version 15.0 CD-ROM. Chicago, IL: SPSS.

Options for Statistical Software:

This course requires using the statistical software SPSS. The current version is 17.0.

However, earlier versions can be used usually with no problems.

Five options for using this software package are available to the student.

(1) Use one of the five SPSS designated computers in the seminary's computer lab. This option will save the student \$\$\$ since there is no cost for using one of these computers. However, the downside is that the student must use the computers while the ITC offices are open.

(2) Purchase *SPSS 17.0 Student Version* (ISBN-10: 0136139485) from the UNO bookstore or Prentice Hall. The student version costs \$99.00 when purchased by itself. This version is restricted in the number of variables and cases that can be loaded but it can handle all the problems related to this course and most of the problems in Scientific Research II. The student version will expire 4 years after purchase.

(3) Purchase *SPSS 17.0 Graduate Pack* for about \$200.00 from the UNO bookstore. The graduate package has no restrictions and is the same package that is sold for hundreds of dollars more to those who are non-students. If you plan to do Ph.D. work using SPSS, you might want to consider purchasing the Graduate Pack. Students have the option to purchase the SPSS Graduate Pack on-line at www.journeyed.com, www.academicssuperstore.com, www.studentdiscounts.com. **NOTE: Both SPSS Student Version and SPSS Graduate Pack expire after 4 years.**

(4) Download a free trial version of SPSS 17.0. The demo version is the full SPSS version with no restrictions but the demo version will expire approximately 14 days after it is downloaded. This option will provide a temporary fix until a student decides what other option to choose. The demo file is 106 MB in size and will take 9 minutes to download using a DSL/Cable connection.

Downloading the file is not recommended using a dialup (56Kb) connection. The Web site for downloading the demo file is located at www.spss.com/downloads.

(5) At a considerable savings, a student can purchase a six or twelve-month subscription from www.e-academy.com. A copy of a student's ID card must be faxed to the company in order to prove student status and obtain an ID and password. Other sources are:

<http://www.journeyed.com/home.asp>

<http://www.gradware.com/>

<http://www.studentdiscounts.com/>

NOTE: To license the SPSS Student Version, you must be a currently enrolled student or an instructor, and using the product for educational purposes only. Installation on a network or in an academic lab is *strictly prohibited* by the license agreement. The SPSS student version is a full version of the SPSS Base software but is limited to 50 variables and 1500 cases. The 17.0 release of this software is only available for Windows and will expire 4 years after the software is installed. SPSS add-on modules cannot be added to this package.

How to Use SPSS - Videos

Videos will be posted on Blackboard that will help students to learn various SPSS procedures. The student is encouraged to use these videos to supplement the textbook instructions.

IV. Course Methodology:

Course content will be communicated through means of lectures posted on Blackboard, Email, and readings. A research project will be designed, implemented, evaluated, written, and submitted.

V. Requirements and Evaluation Schedule:

a. Quizzes 20%

(Lowest 2 quizzes will be dropped)

b. Homework 20%

(Lowest homework will be dropped)

a. Research Project 60%

Project and final typed research report

Research Topics:

Students will design their study, collect the data, collate and analyze the data, and report on the findings. A more detailed description will be given on this major course component during the first week of class. The typed report of the research study is due on the 15th week of class on or before Tuesday.

Topics for the Research Study: I prefer that you conduct an experimental or quasi-experimental research study. Correlational designs are also acceptable only with professor's approval. Each student is responsible to conduct an independent research project. Examples of past projects are listed below.

Various Family Health Issues: Family Rituals and Family Health

Accountability/Trust and Family Health
Religious Practice and Family Health
Community Connectedness and Family Health
Spousal Autonomy and Family Health
Premarital History Factors and Family Health
Spousal Time/Interests Together and Family Health
The Effects of a Spiritual Life Review on the Life Satisfaction Inventory for Senior Adults
Relationship between physical fitness and spiritual well-being
Relationship between dogmatism and seminary students' major area of study (degree)
Stress Responses in Ministers
Correlation of attitude toward professional Christian counseling and ministry field
Relationship between pastoral tenure and personality styles of pastors
Effects of supportive versus cognitive treatments for depression
Effects of premarital counseling on healthy relationship beliefs
Relationship between cheek chewing and anxiety
Religiosity and Obsessive-Compulsive Traits Among Seminary Students
Family of origin factors as predictors of incarceration among females
For an example of the finished Research Project: See journal articles in such scientific journals as Journal of Clinical and Consulting Psychology and the Journal of Counseling Psychology.
Note: a journal article is in a final form; your paper will be in the "proposal" format; see APA Manual.

The research project report is to be typed according to standards of the Publication Manual of APA or Turabian. The final report should be written as a proposal for publication according to the Publication Manual of APA or Turabian. It is hoped that several students will be able to submit their final report for publication with a professional journal.

Important Notes:

Length of the research paper may vary. Most published journal articles are 4 to 12 published pages. Normally 3-4 typed pages equal one final published page, hence most papers are between 12 and 48 typed pages.

Students are required to use **at least one multivariate technique** plus at least one other statistical procedure such as t-test, Pearson r, and ANOVA. Students must also provide all necessary demographic data and utilize appropriate measures of central tendency to describe accurately the subjects in the study.

Form, content, and correct use and interpretation of statistics will be evaluated in the final paper. Each student is to submit their own paper; work is to be done independently. Assistance may be used during the experimental phase (i.e. gathering subjects, conducting the experiment, etc.). The statistical analysis and the writing is to be done by each student independently.

The course is designed to be a preparatory for a Ph.D. dissertation. Very high standards are expected.

VI. Project Outline:

This course is designed to follow standard research steps: Most steps will be required for the student to complete his or her research project:

THE RESEARCH PROCESS:

1. Preliminaries
 - a. Explore questions: Does Research Problem Exist?
 - b. Review Research Ethics
2. Determine the Variables and Operational Definitions
3. Determine the Research Questions or Hypotheses
4. State Hypothesis (Begin Process of Hypothesis Testing: steps 5-14 below)
5. Determine Levels of Measurement, Validity and Reliability
6. Review the Related Literature
7. Determine the Sampling Method and Procedures
8. Select the Research Design
9. Determine the Data Collection Methods
10. Determine the Instruments to Measure the Variables
 - a. Designing Questionnaires or Interview Schedules
 - b. Selecting/Using Other Types of Instruments
11. Select the Statistical Test(s)
12. Plan Data Handling and Reduction
13. Conduct the Pilot Study and Complete Proposal
14. Conduct the Research and Write the Report (state conclusions)

VII. Papers and Assignments

*All assignments are to be typed in either Times New Roman 12 or Courier 10. Any deviation in this will result in the deduction of points.

*Papers or homework/assignments turned in after the due date will be considered late. Late assignments will result in a deduction of four points per calendar day. No paper or assignment will be accepted after seven calendar days and a grade of zero will be given.

*Assignments must be given, mailed, or emailed to the professor, grader, or Leavell Center secretary. The time and date of submission will be noted.

*All counseling students will write papers in accordance to standards set in the style manuals.

PLAGARISM

*A high standard of personal integrity is expected of all students. Copying another person's work, submitting downloaded material without proper references, submitting material without properly citing the source, and submitting the same material for credit in more than one course is prohibited. Although anything cited in three sources is considered public domain, we require that all sources be cited. Such forms of dishonesty is strictly forbidden. **ANY INFRACTION WILL RESULT IN FAILING THE COURSE.**

Netiquette Statement on Appropriate Online Behavior

Each student is expected to demonstrate appropriate Christian behavior when working online on the Discussion Board. 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 will be expected at all times in the online environment.

Bibliography

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Rea, L.M. and Parker, R.A. (1992). *Designing and Conducting Survey Research*. San Francisco: Jossey-Bass Publishers.

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