PSYC6474 SCIENTIFIC RESEARCH 1
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 course name and 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.
This is a fast-paced course, students will need to be disciplined in their reading in order to keep pace with readings and lectures. Historically, students who achieve good grades and learn the major concepts of this course devote a minimum of 5 or more hours per week, are part of a study group, and complete the homework assignments. A lack of a strong history in math, algebra, or statistics has not been observed to place a student at a disadvantage in this course. The emphasis of this course is NOT memorizing formulas but on how to solve statistical problems using a statistical program named SPSS.

I. 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.

II. 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. This course addresses Doctrinal Integrity by using the Bible to help determine the characteristics of a healthy church. Characteristic excellence is a focus of this course because it deals with the most important characteristics required for a church to be healthy. Spiritual vitality is important to the course because it is believed that spiritually vital persons are a necessary part of a healthy church.

III. Key Competency
The Seminary has seven key competencies in its program. They are: Biblical Exposition, Christian Theological Heritage, Discipleship Making, Interpersonal Skills, Servant Leadership, Spiritual and Character Formation, and Worship Leadership. The key competency addressed in this course is Discipleship Making.

IV. Course Description
This course is designed as a graduate-level study of statistics for research. Students learn how research proceeds from forming the research hypothesis through collection, organization, description, analysis, and interpretation of data. Measures of central tendency, dispersion, relative standing, linear regression, correlation and hypothesis

testing are studied. Probability and decision making, sampling distributions, inferential statistics, decisions, error, power, independent and correlated groups, Oneway ANOVA, Two-way ANOVA, Multiple comparisons: Scheffe's Test and Tukey's HSD, interaction between levels, multiple regression, Chi Square, and randomized block designs are examined.

This course is prerequisite to PSYC6475 Statistics II and PSYC6278 Appraisal of the Individual. This course is also designed for students who plan to pursue the Ph.D. degree.

IV. Course Methodology

A. Lectures. The lectures of the professor will be a resource material for the course. Students will present their papers and lead the discussion on their assigned topics.
B. Discussion. In class discussions based on questions raised in the assigned reading and in the lectures
C. Lab Assignments. Student's will solve homework problems using the statistical program SPSS. The computers in a special designated room can be used for this purpose.
D. Research. The student will learning the basics of how to solve statistical problems. This knowledge will prepare students for their own research projects.

V. Course Objectives

1.) Students will study and develop an understanding of the key concepts of the scientific language of statistics.
2.) Students will gain a working knowledge of descriptive statistics, measures of central tendency, correlation coefficients, t-tests, analysis of variance, multiple regression analysis, chi-square, and hypothesis testing.
3.) Students will gain knowledge in understanding the statistical analysis sections of professional research journal articles in order to keep abreast of research findings in their discipline.
4.) Students will be learn and be able to discuss theoretical distributions, inferential and treatment effect tests.
5.) Students will be able to demonstrate skill in selecting and using appropriate statistical techniques given specific research questions and sample/population demographics
6.) Students will have a working knowledge and be able to use SPSS statistical software to analyze data appropriately, using the statistics introduced in this course.

VI. Course Requirements

(1) Field, Andy (2009). *Discovering Statistics Using SPSS (3rd ed.)*. Thousand Oaks, CA: SAGE Publications. **ISBN-10:** 1847879071 **ISBN-13:** 978-1847879073. **NOTE: Earlier editions are not acceptable.**
(2) IBM SPSS Statistics 18.0 Base Graduate Pack for Windows or Mac.
Textbook Notes:
Note: The textbook uses some language that may be objectionable to some students. Neither the seminary nor the professor approve of some of the author's choice of words. Except for this problem, the textbook is one the best books

available for helping students learn statistics along with the computer software SPSS.

Note: The third edition of the textbook is required. Earlier editions are **not** acceptable.

Note: The text is 821 pages long. Don't despair! Some of the chapters will be used in Scientific Research II and students will only be responsible for the parts of the chapters covered in the lecture materials. In addition, the text can also be used for later reference.

Options for Statistical Software SPSS 18.0 Graduate Pack Base:
This course requires using the statistical software *IBM SPSS Statistics 18.0 Base Graduate Pack*. Four options for using this software package are available to the student:
(1) Rent a copy of the software from e-academy
(http://www.onthehub.com/spss) for $35.00 (6 month rental) or $70.00 (12 month rental). 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. Windows, Mac, and

Linux versions are available. **Note:** By default, you are provided with two downloads to successfully install the product. The second download is available as a back-up in case you need to re-install the software. The software can be downloaded once the fee is paid. When given the option to download the file or run the set-up program from the web site, choose to download it, save it on your computer, and then run it. During the registration process, you will be asked to submit proof of eligibility (e.g. Student ID card) via file upload or fax. Once your proof has been verified, you will receive an email confirming your verified status. **NOTE:** This may take up to 1-2 business days due to the manual verification process.
(2) Use one of the four SPSS designated computers in the seminary's computer lab. 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.
(3) Purchase *SPSS 18.0 Graduate Pack* (four year license) for about $200.00 from the UNO bookstore or on-line at www.journeyed.com, www.academicsuperstore.com, or www.studentdiscounts.com.
(4) Download a free trial version of SPSS Statistics 18.0. The demo version will expire approximately 21 days after it is downloaded. This option will provide a temporary fix until a student decides what option to choose. The demo file is 305 MB in size and will take several minutes to download using a DSL/Cable connection. Downloading the file is not recommended using a dialup (56Kb). The web site for downloading the file is:
http://www.spss.com/download/request.cfm?Demo_ID=37&mCode=10002

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.

VII. Course Grading
12 Quizzes (Open book and notes) The two lowest quiz grades will be dropped - 25%
12 SPSS Homework Assignments (Open book and notes). The two lowest homework grades will be dropped - 25%
2 Exams (Open book and notes): (25% each) - 50%
Read Textbooks: (Part of each Exam)

Quizzes:
An objective question quiz is given according to the printed schedule. Quizzes cover lecture material from the immediately preceding week and textbook material. Note the attached schedule.

Homework:
Homework will involve solving problems using SPSS. The problems will be related to the Blackboard postings of the previous week. Homework should be emailed to the grader. All computer printouts must be submitted together with the answers to the problems.

Tests:
All tests will be open book and notes. Each test will cover selected chapters. Questions will be multiple choice, true/false, and solution of problems. The tests should be mailed or Emailed to the grader. All computer printouts must be submitted together with the answers to the problems.

Assignments:
If the student has difficulty meeting a deadline, contact the professor. Prior approval will be necessary to avoid penalty

SPSS:
Proficiency in the use of the statistical program *SPSS 18.0* will be guided by homework assignments. Homework assignments will be given according to the course schedule. All computer printouts must be submitted together with the answers to the problems.

VIII. Blackboard:
The professor will enroll each student into Blackboard.
Students will not be able to access Blackboard until after all fees have been paid. Each week the professor will post (1) detailed PowerPoint lectures on the subject of the week, (2) a general PowerPoint explanation on how to use SPSS to solve problems related to the subject of the week, and (3) a threaded discussion related to the material presented during the week. The professor will seek to present the material in enough detail that the student can successfully solve the homework problems and answer the tests.

Homework will involve solving problems using SPSS. The problems will be related to the Blackboard postings of the previous week. Homework should be emailed to the grader. All computer printouts must be submitted together with the answers to the problems.

All tests will be open book and notes. Each test will cover selected chapters. Questions will be multiple choice, true/false, and solution of problems. The tests should be mailed or Emailed to the grader. All computer printouts must be submitted together with the answers to the problems.

If the student has difficulty meeting a deadline, contact the professor. Prior approval will be necessary to avoid penalty.

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.

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.

Selected Bibliography

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