

Note:

Course content may be changed, term to term, without notice. The information below is provided as a guide for course selection and is not binding in any form, and should not be used to purchase course materials.

COURSE SYLLABUS

EDCO 735

STATISTICS

COURSE DESCRIPTION

A review of descriptive and inferential statistics with attention to how these techniques are utilized in community counseling and the role of primary research in the counseling literature. Students will gain proficiency in research techniques data analysis.

RATIONALE

This course is designed to give students a working knowledge of the topics listed above with an emphasis on the application of statistical knowledge rather than the theory. This course should also further equip students to succeed in more advanced statistics courses within their field of counseling.

I. PREREQUISITE

For information regarding prerequisites for this course, please refer to the [Academic Course Catalog](#).

II. REQUIRED RESOURCE PURCHASE

Click on the following link to view the required resource(s) for the term in which you are registered: <http://bookstore.mbsdirect.net/liberty.htm>

III. ADDITIONAL MATERIALS FOR LEARNING

- A. Computer with basic audio/video output equipment
- B. Internet access (broadband recommended)
- C. Blackboard [recommended browsers](#)
- D. Microsoft Office

IV. MEASURABLE LEARNING OUTCOMES

Upon successful completion of this course, the student will be able to:

- A. Develop a basic understanding of probability and statistics, their basic concepts and practical applications.
- B. Develop an understanding of how research design and statistics are used hand-in-hand to address specific kinds of research questions.
- C. Understand the specific kinds of research questions associated with each statistical technique.

- D. Obtain an understanding of how multivariate statistics is an extension of many these univariate statistics.
- E. Obtain a more in-depth understanding of several important and commonly used statistical techniques, including their assumptions and limitations, fundamental equations, major types and variations, and important conceptual and practical issues.
- F. Demonstrate the ability to set-up and run each of the techniques in the textbook on SPSS, using the data sets supplied in the texts and by the professor.

V. COURSE REQUIREMENTS AND ASSIGNMENTS

- A. Textbook readings and lecture presentations/notes
- B. Course Requirements Checklist

After reading the Course Syllabus and [Student Expectations](#), the student will complete the related checklist found in Module/Week 1.

- C. Comprehension Questions (7)

Each student will be required to complete seven homework exercises from the Warner text. These homework assignments are explained within instructions in each relevant module/week. Each assignment depends on information gained from the assigned readings as well as presentations intensive week. Each of these assignments is due by the end of the Sunday of the assignment week. After these assignments are graded you are permitted to resubmit with only the redone questions included. You may submit an assignment up to three times.

Comprehension Questions required for submission:

- a. Chapter 1: 1–2, 7–10, 12, 14–15, 17.
- b. Chapter 2: 1–3, 5–11
- c. Chapter 3: 1, 3, 6–7, 11, 14– 17, 19
- d. Chapter 4: 1–10
- e. Chapter 5: 1–4, 15–20
- f. Chapter 6: 2, 4–6, 8–9, 11–14
- g. Chapter 7: 2–6, 8–9, 11–12, 17

- D. Quizzes (7)

Each quiz will cover the chapter reading for that week. It will be 10 questions and you have 45 minutes to take each quiz. Each quiz is worth 30 points. Students may take a quiz as many times they like. The attempt with the highest score for each quiz will be recorded in the grade center. They are open book and open notes.

- E. Final Exam

Each student will complete a comprehensive final exam. This exam will encompass the material from the entire course. The exam will be comprised of 45 questions and students will have 120 minutes to complete. The final exam will be open-book/open-notes. It can be completed as many times as the student likes.

VI. COURSE GRADING AND POLICIES**A. Points**

Course Requirements Checklist	10
Comprehension Questions (7 at 100 pts ea)	700
Quizzes (Modules 7 at 30 pts ea)	210
Final Exam	90
Total	1010

B. Scale

A = 940–1010 A- = 920–939 B+ = 900–919 B = 860–899 B- = 840–859
 C+ = 820–839 C = 780–819 C- = 760–779 D+ = 740–759 D = 700–739
 D- = 680–699 F = 0–679

D. Tests/Exams

1. For timed tests/exams students are required to complete the exam within the assigned time. For students who exceed this time limit a penalty of 1 point may be deducted for each minute they exceed the assigned time limit.
2. Students must take the exam during the assigned module/week. Late submissions will be penalized at 5% per day, cumulative, with no test/exam being accepted seven (7) days after the original due date without written approval from the professor. Whenever possible, this approval must be sought prior to the test/exam due date.

E. Dual Relationship

The faculty is responsible to interact with counseling students in a supervisory capacity/role. As such, faculty may provide students professional principles, guidance, and recommendations as it relates to the context of the student-client setting. The faculty is responsible to avoid dual relationships with students such as entering a student-counselor or student-pastor relationship. Thus, the faculty does not provide personal counseling addressing student personal problems. If a faculty member perceives that a student is in need of personal or professional counseling, then that faculty member will recommend that the student pursue either pastoral or professional assistance from a counselor in their community.

F. Limits of Confidentiality

In the event of a student's disclosure, either verbally or in writing, of threat of serious or foreseeable harm to self or others, abuse or neglect of a minor, elderly or disabled person, or current involvement in criminal activity, the faculty, staff, administrator, or supervisor will take immediate action. This action may include, but is not limited to, immediate notification of appropriate state law enforcement or social services personnel, emergency contacts, and notification of the appropriate program chair or online dean. The incident and action taken will become part of the student's permanent record.

C. Disability Assistance

Students with a documented disability may contact Liberty University Online's Office of Disability Accommodation Support (ODAS) at LUOODAS@liberty.edu to make arrangements for academic accommodations. Further information can be found at www.liberty.edu/disabilitysupport.

If you have a complaint related to disability discrimination or an accommodation that was not provided, you may contact ODAS or the Office of Equity and Compliance by phone at (434) 592-4999 or by email at equityandcompliance@liberty.edu. Click to see a full copy of Liberty's [Discrimination, Harassment, and Sexual Misconduct Policy](#) or the [Student Disability Grievance Policy and Procedures](#).

COURSE SCHEDULE

EDCO 735

Textbook: Warner, R. M., *Applied Statistics* (2012).

MODULE /WEEK	READING & STUDY	ASSIGNMENTS	POINTS
1	<p>Reading: Warner: ch. 1 Videos: #1 Mindset #2 Reading Warner #3 Module 1 Assignments #4 Samples and Populations #5 Normal Distribution #6 Levels of Measurement #7 Causal Inference #8 Designs: Experimental, Quasi-Experimental, and non-Experimental #9 Chapter One Questions</p>	<p>Course Requirements Checklist Class Introductions Chapter 1 Questions DB Chapter 1 Comprehension Questions Chapter 1 Quiz</p>	<p>10 0 0 100 30</p>
2	<p>Reading: Warner: ch. 2 Videos: #10 Calculating the Basics #11 Normal Distribution and Identifying Scores #12 Standard Error of the Mean #13 Calculating Confidence Interval #14 Chapter Two Questions</p>	<p>Chapter 2 Questions DB Chapter 2 Comprehension Questions Chapter 2 Quiz</p>	<p>0 100 30</p>
3	<p>Reading: Warner: ch. 3 Videos: #15 Exact <i>p</i> value #16 Statistical Significance and the Null Hypothesis #17 Type I Vs Type II Error #18 Statistical Power #19 One-Tailed Vs Two-Tailed #20 Effect Size #21 Chapter Three Questions</p>	<p>Chapter 3 Questions DB Chapter 3 Comprehension Questions Chapter 3 Quiz</p>	<p>0 100 30</p>

MODULE /WEEK	READING & STUDY	ASSIGNMENTS	POINTS
4	Reading: Warner: ch. 4 Videos: #22 SPSS Introduction #23 Data Screening Introduction #24 Select Cases and Split File #25 SPSS Frequencies #26 SPSS Box Plots #27 SPSS Scatter Plots #28 Chapter Four Questions	Chapter 4 Questions DB Chapter 4 Comprehension Questions Chapter 4 Quiz	0 100 30
5	Reading: Warner: ch. 5 Videos: #29 Logic of Independent Samples <i>t</i> -test #30 Assumptions of the Independent Samples <i>t</i> -test #31 Effect Sizes for <i>t</i> -test #32 Data Screening for Independent Samples <i>t</i> -test #33 Conducting Independent Samples <i>t</i> -test and Interpreting the Results #34 Chapter Five Questions	Chapter 5 Questions DB Chapter 5 Comprehension Questions Chapter 5 Quiz	0 100 30
6	Reading: Warner: ch. 6 #35 Logic of One Way ANOVA #36 SPSS: Conducting ANOVA, post hoc and Planned Contrasts #37 Chapter Six Questions	Chapter 6 Questions DB Chapter 6 Comprehension Questions Chapter 6 Quiz	0 100 30
7	Reading: Warner: ch. 7 #38 Chapter Seven Questions	Chapter 7 Questions DB Chapter 7 Comprehension Questions Chapter 7 Quiz	0 100 30
8	Reading: Warner: chs. 1–7	Final Exam	90
TOTAL			1010

DB = Discussion Board

NOTE: Each course module/week begins on Monday morning at 12:00 a.m. (ET) and ends on Sunday night at 11:59 p.m. (ET). The final module/week ends at 11:59 p.m. (ET) on **Friday**.