# 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 <u>not</u> be used to purchase course materials.

LIBERTY
UNIVERSITY.

# COURSE SYLLABUS

**PSYC 355**
**STATISTICS IN PSYCHOLOGY**

### COURSE DESCRIPTION

Introduction to statistical methodology in the social sciences, particularly as related to psychological measurement and development of scientific research studies involving quantitative investigation.

### RATIONALE

The purpose of this course is to acquaint the undergraduate psychology major with basic descriptive and inferential statistical analysis. The course will draw heavily upon decision-making regarding the selection of appropriate analytic techniques and interpretation of statistical results. Because today's work environment demands computer literacy, this course requires familiarization with computerized data analysis and file transfer.

## 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.     Select the appropriate statistical test to analyze and interpret psychological data produced by different research designs.

B.     Use SPSS statistical software to analyze psychological data.

C.     Determine whether statistical results support hypotheses of psychological studies.

D. Communicate the results of data analysis in appropriate APA format in written and technological forms.

V. **COURSE REQUIREMENTS AND ASSIGNMENTS**

A. Textbook readings and lecture presentations

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. Discussion Board Forums (2)

Discussion boards are collaborative learning experiences. The student will create a thread in response to the provided prompt based on the Lab assignment for each forum. Each thread must be at least 350 words and demonstrate course-related knowledge. In addition to the thread, the student will reply to at least 2 other classmates' threads. Each reply must be at least 150 words. Assertions must be supported by citations as needed.

D. SPSS Homework (7)

The student will complete 7 SPSS homework exercises. These homework exercises rely on the SPSS tutorial presentations in the Reading and Study for the module/week.

E. Mindtap Homework (2)

The student will complete 2 Mindtap homework exercises. These homework exercises rely on material learned in the Reading and Study for the module/week.

F. Lab Project (To be completed in multiple phases)

The student will administer a survey to at least 12 people and will use the resulting data to complete a lab assignment throughout the course. The lab includes data collection via a survey, choosing the correct type of data analysis using SPSS, and reporting and interpreting results in a results section to be written in current APA format. Instructions from the Institutional Review Board regarding how to administer this survey must be followed.

G. SPSS Cumulative Assessment

The student will complete one cumulative assessment that covers material learned during the course. There will be 1 problem for each of the statistical tests covered. The student will complete the analyses in SPSS and write APA-style Results sections for each problem.

H. Exams (4)

The student will complete 4 exams. Each exam will be open-book/open-notes, covering 2 modules/weeks of material. Each exam will have a time limit of 1 hour and 30 minutes and will contain 40 multiple-choice questions.

**VI.** **COURSE GRADING AND POLICIES**

    A.    Points

| | | |
|---|---|---:|
| Course Required Checklist | | 10 |
| Discussion Board Forums | | |
|     Lab Project Phase 1 | | 40 |
|     Lab Project Phase 5 | | 40 |
| SPSS Homework (7 at 40 pts ea) | | 280 |
| Mindtap Homework (2 at 20 pts ea) | | 40 |
| Lab Project | | |
|     Phase 2 | | 40 |
|     Phase 3 | | 40 |
|     Phase 4 | | 40 |
| SPSS Cumulative Assessment | | 80 |
| Exam 1 | (Modules 1–2) | 100 |
| Exam 2 | (Modules 3–4) | 100 |
| Exam 3 | (Modules 5–6) | 100 |
| Exam 4 | (Modules 7–8) | 100 |
| | **Total** | 1010 |

    B.    Scale

    A = 900–1010  B = 800–899  C = 700–799  D = 600–699  F = 0–599

    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

## PSYC 355

Textbooks: Gravetter, Wallnau, & Forzano, *Essentials of Statistics for the Behavioral Sciences* (2018).

| MODULE/ WEEK | READING & STUDY | ASSIGNMENTS | POINTS |
|---|---|---|---|
| 1 | Gravetter et al.: ch. 10 3 presentations | Course Requirements Checklist Class Introductions SPSS Homework 1 Mindtap: Chapter 10 Quiz | 10 0 40 20 |
| 2 | Gravetter et al.: ch. 11 2 presentations | SPSS Homework 2 Exam 1 | 40 100 |
| 3 | Gravetter et al.: ch. 12 2 presentations 1 document | DB Forum 1 SPSS Homework 3 | 40 40 |
| 4 | Gravetter et al.: ch. 13 2 presentations | SPSS Homework 4 Lab Project Phase 2 Exam 2 | 40 40 100 |
| 5 | Gravetter et al.: ch. 14a (Correlation) 2 presentations | SPSS Homework 5 Mindtap: Ch. 14 Problem Set | 40 20 |
| 6 | Gravetter et al.: ch. 14b (Regression) 2 presentations | SPSS Homework 6 Lab Project Phase 3 Exam 3 | 40 40 100 |
| 7 | Gravetter et al.: ch. 15 3 presentations | SPSS Homework 7 Lab Project Phase 4 DB Forum 2 | 40 40 40 |
| 8 | 1 presentation | SPSS Cumulative Assessment Exam 4 | 80 100 |
| | | TOTAL | 1010 |

DB = Discussion Board

**NOTE:** Each course module/week (except Module/Week 1) begins on Tuesday morning at 12:00 a.m. (ET) and ends on Monday night at 11:59 p.m. (ET). The final module/week ends at 11:59 p.m. (ET) on Friday.