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

PSYC 510
RESEARCH METHODS AND STATISTICS IN PSYCHOLOGY I

COURSE DESCRIPTION

Advanced research methodology and statistical techniques for psychological research. Focuses on methods for use with non-experimental designs, including correlation and regression. Measurement issues, such as reliability and validity, are covered, as well as research ethics. Lab component focuses on use of computer software packages for analysis of data.

RATIONALE

Due to the often highly publicized nature of social science research, it is imperative for the student in the social sciences to have a basic understanding of statistics that aids in the description and interpretation of data at a basic level. This course is designed to give the student a working knowledge of the topics listed above with an emphasis on the application of statistical knowledge rather than the theory. This course will also further equip the student to succeed in upper-level statistics courses within his or her field of study.

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. Microsoft Office
IV. Measurable Learning Outcomes

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

A. Describe the basic concepts of probability and statistics.
B. Analyze psychological data, both by hand and with SPSS.
C. Use critical thinking to solve everyday problems related to behavior and mental processes.
D. Apply statistics within a biblical worldview.
E. Communicate the results of data analysis in appropriate APA format.

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. Therefore, the student is required to create a thread in response to the provided prompt for each forum. Each thread must be at least 400 words and demonstrate course-related knowledge. In addition to the thread, the student is required to reply to 2 other classmates’ threads. Each reply must be at least 200 words.
D. Homework (8)
   Most assignments are SPSS-based and depend on information gained from the Reading & Study material in the assigned module/week.
E. Exams (4)
   Each exam will cover the Reading & Study material for 2 modules/weeks. Each exam will be open-book/open-notes, contain 40 multiple-choice questions, and have a time limit of 1 hour and 30 minutes.

VI. Course Grading and Policies

A. Points

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Requirements Checklist</td>
<td>10</td>
</tr>
<tr>
<td>Discussion Board Forums (2 at 40 pts ea)</td>
<td>80</td>
</tr>
<tr>
<td>Homework (8 at 65 pts ea)</td>
<td>520</td>
</tr>
<tr>
<td>Exam 1 (Modules 1–2)</td>
<td>100</td>
</tr>
<tr>
<td>Exam 2 (Modules 3–4)</td>
<td>100</td>
</tr>
<tr>
<td>Exam 3 (Modules 5–6)</td>
<td>100</td>
</tr>
<tr>
<td>Exam 4 (Modules 7–8)</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1010</td>
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B. Scale

D- = 680–699  F = 0–679

C. Disability Assistance

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

**PSYC 510**

Textbooks:  

<table>
<thead>
<tr>
<th>MODULE/WEEK</th>
<th>READING &amp; STUDY</th>
<th>ASSIGNMENTS</th>
<th>POINTS</th>
</tr>
</thead>
</table>
| 1           | Green & Salkind: lessons 1–2, 5–6, 13  
              Nolan & Heinzen: ch. 1  
              2 presentations  
              1 document | Course Requirements Checklist  
              Class Introductions  
              Homework 1 | 10  
              0  
              65 |
| 2           | Green & Salkind: lessons 16A/B, 20, 21 (section 21.5: “Creating a Histogram” only)  
              Nolan & Heinzen: chs. 2–3  
              4 presentations | Homework 2  
              Exam 1 | 65  
              100 |
| 3           | Green & Salkind: lesson 21 (all sections except those pertaining to z-scores)  
              Nolan & Heinzen: ch. 4  
              2 presentations  
              2 websites | DB Forum 1  
              Homework 3 | 40  
              65 |
| 4           | Nolan & Heinzen: ch. 5  
              1 presentation | Homework 4  
              Exam 2 | 65  
              100 |
| 5           | Green & Salkind: lesson 21 (section “Converting Scores…Assuming Normality”: steps 1–4 only)  
              Nolan & Heinzen: ch. 6  
              2 presentations | Homework 5 | 65 |
| 6           | Green & Salkind: lesson 21 (section 21.4: last 8 steps on percentile ranks only)  
              Nolan & Heinzen: ch. 7  
              3 presentations | Homework 6  
              Exam 3 | 65  
              100 |
| 7           | Nolan & Heinzen: ch. 8  
              1 presentation | DB Forum 2  
              Homework 7 | 40  
              65 |
| 8           | Green & Salkind: lesson 22  
              Nolan & Heinzen: ch. 9 (Only read through the section on single-sample t-tests. Stop at “The Paired Samples T-test.”)  
              4 presentations | Homework 8  
              Exam 4 | 65  
              100 |

**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.