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
MATH 201
INTRODUCTION TO PROBABILITY AND STATISTICS

COURSE DESCRIPTION
Introduction to descriptive statistics and probability, probability distributions, estimation, tests of hypotheses, chi-square tests, regression analysis, and correlation with applications in business and science.

RATIONALE
As members of a society increasingly devoted to the use and misuse of numbers, students must learn to correctly interpret and construct statistical presentations in all areas of public discourse, especially in their major fields. This course emphasizes the major applications of statistical knowledge rather than its theory. The course seeks to educate men and women who will make important contributions to their workplaces and communities, follow their chosen vocations as callings to glorify God, and fulfill the Great Commission.

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
D. Scientific or graphing calculator
E. MyStatLab software. Available at www.pearsonmylabandmastering.com. To be admitted into this site, the student will provide an access code which comes with the purchase of the Larson & Farber text.

IV. MEASURABLE LEARNING OUTCOMES
Upon successful completion of this course, the student will be able to:
A. Construct and interpret appropriate graphical representations of data.
B. Compute statistical measures which describe the location, dispersion, and placement of data values.
C. Compute probabilities associated with multiple events and common distributions.
D. Create confidence intervals for unknown parameters.
E. Perform hypothesis tests.
F. Determine the correlation between two variables and develop linear regression models which predict the value of one variable as a function of the other.

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. Exercises (8)
   Each module/week, the student will complete a set of exercises which will correlate with the weekly Reading & Study assignment. These exercises will be completed using MyStatLab.
D. Projects (4)
   Modules/Weeks 1, 3, 5, and 7 will each have an individual project. These projects will apply statistics to real-life situations and demonstrate links between statistics and the Bible. Projects 2 and 4 will be completed in Discussion Board Forums 1 and 2.
E. Core Competency Quiz
   This quiz covers material from the course selected to align with Liberty University’s Core Competency Learning program. The quiz will be assigned in MyStatLab.
F. Exams Reviews (4)
   The review assignment for each exam must be completed with a grade of at least 85% before the exam can be taken. Each question on all of the Exam Reviews can be worked as many times as needed to get full credit. All of the Exam Reviews can be found in MyStatLab.
G. Exams (4)
   The student will complete exams during Module/Week 2, 4, 6, and 8. Each exam will be timed, open-book/open-notes, and will cover 2 modules/weeks of material. The exams will be taken in MyStatLab.

VI. COURSE GRADING AND POLICIES
A. Points
<table>
<thead>
<tr>
<th>Course Requirements Checklist</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercises (8 at 35 pts ea)</td>
<td>280</td>
</tr>
<tr>
<td>Projects (4 at 40 pts ea)</td>
<td>160</td>
</tr>
<tr>
<td>Core Competency Quiz</td>
<td>20</td>
</tr>
<tr>
<td>Exam Reviews (4 at 10 pts ea)</td>
<td>40</td>
</tr>
<tr>
<td>Exams (4 at 125 pts ea)</td>
<td>500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1010</td>
</tr>
</tbody>
</table>

B. Scale

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

C. Late Assignment Policy

If the student is unable to complete an assignment on time, then he or she must contact the instructor immediately by email.

Assignments that are submitted after the due date without prior approval from the instructor will receive the following deductions:

1) Late assignments submitted within one week of the due date will receive a 10% deduction. Assignments submitted beyond the one week grace period will receive a zero.

2) Assignments submitted after the final date of the course will not be accepted.

3) Late Discussion Board threads or replies will not be accepted.

Special circumstances (e.g. death in the family, personal health issues) will be reviewed by the instructor on a case-by-case basis.

D. 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

**MATH 201**


<table>
<thead>
<tr>
<th>MODULE/ WEEK</th>
<th>READING &amp; STUDY</th>
<th>ASSIGNMENTS</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Larson &amp; Farber: sections 1.1–2.1, 1 video</td>
<td>Course Requirements Checklist, Class Introductions, Exercises 1.1–2.1, Project 1</td>
<td>10, 0, 35, 40</td>
</tr>
<tr>
<td>2</td>
<td>Larson &amp; Farber: sections 2.2–2.5, 1 video</td>
<td>Exercises 2.2–2.5, Exam Review 1, Exam 1</td>
<td>35, 10, 125</td>
</tr>
<tr>
<td>3</td>
<td>Larson &amp; Farber: sections 3.1–3.4, 1 video</td>
<td>Exercises 3.1–3.4, Discussion Board Forum 1/Project 2</td>
<td>35, 40</td>
</tr>
<tr>
<td>4</td>
<td>Larson &amp; Farber: sections 4.1–4.2, 5.1–5.3, 1 video</td>
<td>Exercises 4.1–4.2, 5.1–5.3, Exam Review 2, Exam 2</td>
<td>35, 10, 125</td>
</tr>
<tr>
<td>5</td>
<td>Larson &amp; Farber: sections 5.4, 6.1–6.3, 1 video</td>
<td>Exercises 5.4, 6.1–6.3, Project 3</td>
<td>35, 40</td>
</tr>
<tr>
<td>6</td>
<td>Larson &amp; Farber: sections 7.1–7.3, 1 video</td>
<td>Exercises 7.1–7.3, Exam Review 3, Exam 3</td>
<td>35, 10, 125</td>
</tr>
<tr>
<td>7</td>
<td>Larson &amp; Farber: sections 7.4, 9.1–9.2, 1 video</td>
<td>Exercises 7.4, 9.1–9.2, Discussion Board Forum 2/Project 4</td>
<td>35, 40</td>
</tr>
<tr>
<td>8</td>
<td>Larson &amp; Farber: sections 10.1–10.3, 1 website</td>
<td>Exercises 10.1–10.3, Exam Review 4, Exam 4, Core Competency Quiz</td>
<td>35, 10, 125, 20</td>
</tr>
</tbody>
</table>

**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**.