Instructor: Rex Moody, Ph.D.
Office: Rassman 206
E-mail: rex.moody@angelo.edu
Phone: 325-486-6613

Office Hours
Tuesdays and Thursdays: 9:00 a.m. - 1:00 p.m.
Wednesdays: 9:00 a.m. - 11:00 a.m.
Or by appointment
I will be available to meet with you via Blackboard Collaborate Ultra during office hours.

A note on contacting Dr. Moody and e-mail
Please feel free to stop by during office hours; if you need to see me and can’t make
office hours, let me know and we can set something else up.

Outside of office hours, the best way to contact me is via email. I will work hard to return
all emails received during business hours within 24 hours of receiving them. Emails
received on weekends or during holidays will be replied to by the following Monday or the
next working day in the case of holidays.

Please be professional in all email correspondence with me. This means that you have a
subject line that is germane to what your are writing me about, a salutation (at least
addressing me by name), a message that is well written in full sentences that are free of
spelling and grammatical errors, and a proper closing (at least your name). Emails that
don’t meet these standards will be returned with a note asking for corrections.

Course Prerequisites
MATH 1324 or equivalent

Course Description
From the ASU Catalog
Introduction to statistical analysis including such topics as: descriptive statistics,
probability distributions, sampling, statistical inference, analysis of variance, and
correlation and regression analysis.

Course Objectives:
Understanding statistics and statistical analysis is imperative for managers from all
business fields. Statistics can help managers evaluate goals and make better decisions.
This course is intended to serve as an introductory course in business statistics. This
course covers data description, probability concepts, sampling methods, parameter
estimation, hypothesis testing, and regression. These are some of the basic statistical
tools that managers see in reports and use when making decisions.
Student Learning Outcomes
By the end of this course students should be able to:
✓ Define common statistical terms.
✓ Identify different types of data and the applicable statistical techniques to summarize and use such data depending upon the situation.
✓ Use computer software to generate statistical output.
✓ Explain basic of probability concepts and be able to use such concepts in management situations.
✓ Create confidence intervals and test statistical hypotheses.
✓ Understand various types of statistical reports and be able to correctly judge if the statistics in the report are good or bad.

Methods of Assessing Learning Outcomes
Learning outcomes will be assessed through your use of the Connect Master learning modules, homework assignments, and four exams.

Required Materials:

This course does not have a traditional textbook, instead it uses an online teaching system, which includes a somewhat non-traditional text.

To purchase and access the electronic resources for this course go to: http://connect.mheducation.com/class/r-moody-fall-2018

Please note that you will need to purchase your access to the above materials right away for this course. Getting started and staying ahead in this course is crucial to your success.

There are four steps for each of the nine modules you will complete for this course. For each module, you will complete these steps in the following order (some modules are broken into two parts, you will complete steps 2-4 twice for such modules):

1. Read an ebook chapter which covers the material in the module.

2. Complete a LearnSmart exercise. LearnSmart is an adaptive learning system and when you start a module, it will first ask you to answer a question. If you don’t know the answer, then you are given access to materials to help you learn what the answer is. It may take you a few tries to get used to the new system, but once you do I hope that you will find it easy to use and that it helps you learn the material in an interactive way.

3. Complete a homework assignment consisting of questions related to the module.

4. Take an exam. Exams cover two-three modules each, you will take a total of four exams.
**Required Technology:**
Students will need a web browser and internet connection for the course. Some exercises in this course use Microsoft Excel.

For the exams, you will need to download the **Respondus Lockdown Browser** through Blackboard and have a **webcam**.

All of the needed software for this course is available in the ASU computer labs. Blackboard and university computer lab technical support is provided by the university’s Technology Service Center by calling 325-942-2911 or 1-866-942-2911 or by email at helpdesk@angelo.edu.

If you have a technical issue with the Connect Master system you will need to contact McGraw-Hill directly either through their phone help line at 800-331-5094 or through their on-line help system.

**Class Format**
Students will gain their knowledge of business statistics in this course through the interactive Connect Master system. After you read the ebook, the LearnSmart system is structured in such a way that it starts by asking you a question and then, if you don’t know the answer, offering you materials in the form of readings, slides and videos to learn about the topic at hand.

The Connect Master system for this course contains a great many videos in the form of short lectures and problem solving examples. Be sure to take advantage of all the learning materials available to you as you work through the course.

You will also be given opportunities to practice and review what you have learned. When you first get into the system, I highly recommend you visit the **How To** area which should come up on your screen once you access a Connect Master (non-homework) assignment.

For each module in the course you will have reading, Connect Master (interactive learning) assignments and homework assignments. Each module or sub-module has a number of tasks for you to complete. The official due date for each of these sections is set to be the same within the module (this gives you flexibility as to when you complete your work). However, you should not attempt to wait until the last minute to do your work for this class. To help you stay on track in the course, there are suggested days/dates for each course component listed in the course schedule. Following these dates will help you keep up with the course. *I highly recommend that you work through the material in short periods, breaking it up into pieces that you are comfortable with. DO NOT attempt to complete all your work a few hours before it is due, your learning and your course grade will suffer—and you may not be able to complete all your work in a short period of time!*

You may find this video useful to watch before you jump into Connect Master: [https://youtu.be/LNlpZc9wn8k](https://youtu.be/LNlpZc9wn8k)
Graded Activities

Exams
Four exams will be given during the term. Students should expect exams consisting of multiple questions and problems. Questions on the exams will test knowledge and application of the student’s knowledge. The exams are not cumulative.

You will be given a window to each exam. The windows are open from 8 a.m. to 11:59 p.m. and all fall on a different Monday during the term.

Make up exams will be given only for reasons deemed legitimate by Professor Moody and should be avoided if at all possible. If you have to miss an exam for any reason, you must notify Professor Moody in advance, if you are ill or otherwise incapacitated a short phone message or email will suffice.

Connect Master
As described above the Connect Master is what you will use to gain your knowledge of statistics in this course. You will be given credit for the work you complete in Connect Master, based on the percentage of a module you complete.

Homework Assignments/Exercises
There will be homework assignments and exercises related to each module of material we cover. You can complete these homework assignments as many times as you like. Your score on these assignments will be recorded as of the due date for each assignment.

Course Grades
Please keep in mind that in MGMT 2331 you are graded on your performance on the graded elements of the course. Your final class grade will depend solely on how you perform on all aspects of the course and no other factors.

The following cutoffs will be used to determine final grades in MGMT 2331:

- A 90%-100%
- B 80%-89%
- C 70%-79%
- D 60%-69%
- F Below 60%

Your course grade will consist of the following components.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams 4 @ 10 % each</td>
<td>40%</td>
</tr>
<tr>
<td>Connect Master Reading Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Homework</td>
<td>30%</td>
</tr>
</tbody>
</table>

Note: You must have a passing grade (60%+) on your exam average to pass the class.
Other Course Policies

Extra Credit Work
No extra credit work will be available for students in this class. Students should prepare for exams and assignments to the best of their ability. Attendance, participation, and solid work is expected from all students.

Late Assignments
Late submissions of assignments will not be accepted.

We are all expected to abide by the ASU Norris-Vincent College of Business Code of Ethics

Students, faculty, administrators and professional staff of the College of Business should always:

▸ Be forthright and truthful in dealings with all stakeholders
▸ Take responsibility for one’s actions and decisions
▸ Serve as an example of ethical decision-making and behavior to others
▸ Admit errors when they occur, without trying to conceal them
▸ Respect the basic dignity of others by treating them as one would wish to be treated

Academic Honesty
Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

Students caught cheating on exams will be given a grade of zero for the exam and reported to the university’s office of student conduct.

Policy on Disabilities
Angelo State University is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments Act of 2008 (ADAAA), and subsequent legislation.

The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting Ms. Dallas Swafford, Director of Disability Services, at 325-942-2047 or through email at dallas.swafford@angelo.edu.
Policy on Religious Observances
A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

Course Drop
To view information about how to drop this course or to calculate important dates relevant to dropping this course, you can visit: http://www.angelo.edu/services/registars_office/course_drop_provisions.php.

November 1 is the last day to drop a course during the fall 2018 semester.

Incomplete as a Course Grade
The incomplete grade, a grade of I is only given when the student is unable to complete the course because of illness or personal misfortune. An I that is not removed before the end of the next long semester automatically becomes an F. To graduate from ASU, a student must complete all I's. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

Grade Appeal Process
A student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see Operating Procedure 10.03 at: http://www.angelo.edu/content/files/14196-op-1003-grade-grievance.

Title IX
Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU's Title IX Coordinator: Michelle Boone, J.D., Director of Title IX Compliance, at 325-486-6357 or through email at michelle.boone@angelo.edu.

General Policies
All students are required to follow the policies and procedures presented in these documents:
Angelo State University Student Handbook
Angelo State University Catalog
## Course Schedule

<table>
<thead>
<tr>
<th>Day</th>
<th>Topic</th>
<th>Assignment</th>
<th>Available</th>
<th>Due By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon., Aug. 27</td>
<td></td>
<td>Read Syllabus</td>
<td>Mon., 8-27</td>
<td>Mon., 8-27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acquire Online Learning Materials</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Module 1—Data and the Science of Statistics**

**Learning Objectives**
- LO1-1 Define the Discipline of Statistics
- LO1-2 Differentiate between Descriptive and Inferential Statistics
- LO1-3 Differentiate between Sample Data and Population Data
- LO1-4 Classify Measures as Parameters or Statistics
- LO1-5 Compare and Contrast Different Types of Data
- LO1-6 Classify Observations According to Their Level of Measurement

<table>
<thead>
<tr>
<th>Recommended Days</th>
<th>Topic</th>
<th>Assignment</th>
<th>Available</th>
<th>Due By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wed., Aug. 29</td>
<td></td>
<td>All sections of the Connect Master module. Note that this is not due until Friday, but you need to work on it during the week so you have time to do all the homework. I recommend that you do not leave things to the last minute, right before they are due in this class. Use your time wisely, pace yourself and complete your work in a timely manner.</td>
<td>Mon., 8-27</td>
<td>Fri., 8-31, 11:59 p.m.</td>
</tr>
<tr>
<td>Thurs./Fri. Aug. 30 &amp; 31</td>
<td>Module 1 Homework</td>
<td>Mon., 8-27</td>
<td>Fri., 8-31, 11:59 p.m.</td>
<td></td>
</tr>
</tbody>
</table>
# Module 2–Describing Attributes of a Data Set

## Learning Objectives
- LO2-1 Organize Qualitative Data Into a Relative Frequency Table
- LO2-2 Organize Quantitative Data Into a Relative Frequency Distribution
- LO2-3 Create a Histogram for a Set of Quantitative Data
- LO2-4 Use Summation Notation to Simplify an Expression
- LO2-5 Calculate and Interpret the Mean, Median, and Mode
- LO2-6 Calculate and Interpret Various Measures of Dispersion
- LO2-7 Apply and Contrast Chebyshev's Theorem and the Empirical Rule
- LO2-8 Determine Relative Position for a Given Measurement
- LO2-9 Categorize a Distribution as Left Skewed, Right Skewed, or Symmetric
- LO2-10 Create, Display, and Interpret the Five Number Summary

<table>
<thead>
<tr>
<th>Recommended Days</th>
<th>Topic</th>
<th>Assignment</th>
<th>Available</th>
<th>Due By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tues., Sept. 4</td>
<td>Describing the Attributes of a Data Set</td>
<td>Read Module 2 Material</td>
<td></td>
<td>Wed., 9-5, 11:59 p.m.</td>
</tr>
<tr>
<td>Wed., Sept. 5</td>
<td></td>
<td>Connect Master as Assigned; LO 2-1, 2-2, 2-3</td>
<td>Tues., 9-4</td>
<td>Sun., 9-9, 11:59 p.m.</td>
</tr>
<tr>
<td>Thurs., Sept. 6</td>
<td></td>
<td>Module 2.1 Homework</td>
<td>Tues., 9-4</td>
<td>Sun., 9-9, 11:59 p.m.</td>
</tr>
<tr>
<td>Thurs., Sept. 6</td>
<td></td>
<td>Connect Master as Assigned; LO 2-4, 2-5, 2-6</td>
<td>Tues., 9-4</td>
<td>Sun., 9-9, 11:59 p.m.</td>
</tr>
<tr>
<td>Fri., Sept. 7</td>
<td></td>
<td>Module 2.2 Homework</td>
<td>Tues., 9-4</td>
<td>Sun., 9-9, 11:59 p.m.</td>
</tr>
<tr>
<td>Mon. &amp; Tues., Sept. 10 &amp; 11</td>
<td></td>
<td>Connect Master as Assigned; LO 2-7, 2-8, 2-9, 2-10</td>
<td>Mon., 9-13</td>
<td>Sun., 9-16, 11:59 p.m.</td>
</tr>
<tr>
<td>Wed. - Fri., Sept. 12-14</td>
<td></td>
<td>Module 2.3 Homework</td>
<td>Mon., 9-13</td>
<td>Sun., 9-16, 11:59 p.m.</td>
</tr>
</tbody>
</table>
# Module 3–A Survey of Probability

## Learning Objectives

- **LO3-1** Define the Terms Experiment, Outcome, Event, and Sample Space
- **LO3-2** Calculate Probability Using the Classical Approach or the Empirical Approach
- **LO3-3** Discuss the Terms Collectively Exhaustive and Mutually Exclusive
- **LO3-4** Compute the Number of Outcomes Using the Appropriate Counting Technique
- **LO3-5** Calculate Probability Using the Addition Rule of Probability
- **LO3-6** Calculate Probability Using the Conditional Rule of Probability
- **LO3-7** Calculate Probability Using the Multiplication Rule of Probability
- **LO3-8** Calculate Probability Using the Rule of Complements

<table>
<thead>
<tr>
<th>Recommended Days</th>
<th>Topic</th>
<th>Assignment</th>
<th>Available</th>
<th>Due By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tues., &amp; Wed.,</td>
<td></td>
<td>Connect Master as Assigned; LO 3-1, 3-2, 3-3, 3-4</td>
<td>Mon., 9-17</td>
<td>Sun. 9-23, 11:59 p.m.</td>
</tr>
<tr>
<td>Sept. 18 &amp; 19</td>
<td></td>
<td>Module 3.1 Homework</td>
<td>Mon., 9-17</td>
<td>Sun. 9-23, 11:59 p.m.</td>
</tr>
<tr>
<td>Thurs. &amp; Fri.,</td>
<td></td>
<td>Connect Master as Assigned; LO 3-5, 3-6, 3-7, 3-8</td>
<td>Mon., 9-24</td>
<td>Sun. 9-30, 11:59 p.m.</td>
</tr>
<tr>
<td>Sept. 20 &amp; 21</td>
<td></td>
<td>Module 3.2 Homework</td>
<td>Mon., 9-24</td>
<td>Sun. 9-30, 11:59 p.m.</td>
</tr>
<tr>
<td>Mon. &amp; Tues.,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sept. 24 &amp; 25</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Wed. &amp; Thurs.,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sept. 26 &amp; 27</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Monday, October 1</strong></td>
<td><strong>Must be done on Mon., 10-1</strong></td>
<td><strong>Exam 1: Modules 1-3</strong></td>
<td><strong>Mon. 10-1, 8 a.m.</strong></td>
<td><strong>Mon. 10-1, 11:59 p.m.</strong></td>
</tr>
</tbody>
</table>

You will need the Respondus Lock-Down Browser and a Web-cam for the Exam!

If you can take the exam from a location with hard-wired internet access (not wi-fi) and where you are the only user online during the exam, you will be better off in terms of connectivity.
### Module 4–Discrete Random Variables

#### Learning Objectives
- LO 4-1 Describe the Characteristics of a Probability Distribution
- LO 4-2 Calculate the Expected Value of a Probability Distribution
- LO 4-3 Calculate the Variance and Standard Deviation of a Probability Distribution
- LO 4-4 Calculate the Probability of X Successes in a Binomial Experiment
- LO 4-5 Calculate the Probability of a Cumulative Set of Events for a Binomial Experiment
- LO 4-6 Calculate the Mean, Variance, and Standard Deviation of a Binomial Distribution
- LO 4-7 Describe the Characteristics of the Poisson Distribution and Use It to Calculate Probability

<table>
<thead>
<tr>
<th>Recommended Days</th>
<th>Topic</th>
<th>Assignment</th>
<th>Available</th>
<th>Due By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tues., Oct. 2</td>
<td>Discrete Random Variables</td>
<td>Read Module 4 Material</td>
<td>Tues., 10-2</td>
<td>Wed., 10-3, 11:59 p.m.</td>
</tr>
<tr>
<td>Tues., Oct. 2</td>
<td></td>
<td>Connect Master as Assigned; LO 4-1, 4-2, 4-3</td>
<td>Tues., 10-2</td>
<td>Sun., 10-7, 11:59 p.m.</td>
</tr>
<tr>
<td>Wed., Oct. 3</td>
<td></td>
<td>Module 4.1 Homework</td>
<td>Tues., 10-2</td>
<td>Sun., 10-7, 11:59 p.m.</td>
</tr>
<tr>
<td>Thurs., Oct. 4</td>
<td></td>
<td>Connect Master as Assigned; LO 4-4, 4-5, 4-6, 4-7</td>
<td>Tues., 10-2</td>
<td>Sun., 10-7, 11:59 p.m.</td>
</tr>
<tr>
<td>Fri., Oct. 5</td>
<td></td>
<td>Module 4.2 Homework</td>
<td>Tues., 10-2</td>
<td>Sun., 10-7, 11:59 p.m.</td>
</tr>
</tbody>
</table>
# Module 5–Continuous Random Variables

## Learning Objectives

- **LO5-1** Discuss the Properties of Continuous Random Variables
- **LO5-2** Describe the Characteristics of the Uniform Distribution and Use It to Calculate Probability
- **LO5-3** Discuss the Properties of the Normal Distribution
- **LO5-4** Describe the Characteristics of the Standard Normal Distribution and Use It to Calculate Probability
- **LO5-5** Use the Nonstandard Normal Distributions to Calculate Probability
- **LO5-6** Calculate Percentiles of the Normal Distribution
- **LO5-7** Use the Normal Distribution to Approximate Probabilities for a Binomial Random Variable

<table>
<thead>
<tr>
<th>Recommended Days</th>
<th>Topic</th>
<th>Assignment</th>
<th>Available</th>
<th>Due By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon., Oct. 8</td>
<td></td>
<td>Read Module 5 Material</td>
<td>Mon., 10-8</td>
<td>Wed., 10-10, 11:59 p.m.</td>
</tr>
<tr>
<td>Tues., Oct. 9</td>
<td>Continuous Random Variables</td>
<td>Connect Master as Assigned; LO 5-1, 5-2, 5-3, 5-4</td>
<td>Mon., 10-8</td>
<td>Sun., 10-14, 11:59 p.m.</td>
</tr>
<tr>
<td>Wed., Oct. 10</td>
<td></td>
<td>Module 5.1 Homework</td>
<td>Mon., 10-8</td>
<td>Sun., 10-14, 11:59 p.m.</td>
</tr>
<tr>
<td>Thurs., Oct. 11</td>
<td></td>
<td>Connect Master as Assigned; LO 5-5, 5-6, 5-7</td>
<td>Mon., 10-8</td>
<td>Sun., 10-14, 11:59 p.m.</td>
</tr>
<tr>
<td>Fri., Oct. 12</td>
<td></td>
<td>Module 5.2 Homework</td>
<td>Mon., 10-8</td>
<td>Sun., 10-14, 11:59 p.m.</td>
</tr>
<tr>
<td><strong>Monday, October 15</strong></td>
<td>Must be done on Mon., 10-15</td>
<td>Exam 2: Modules 4-5</td>
<td>Mon., 10-15, 8 a.m.</td>
<td>Mon., 10-15, 11:59 p.m.</td>
</tr>
</tbody>
</table>

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You will need the Respondus Lock-Down Browser and a Web-cam for the Exam!

If you can take the exam from a location with hard-wired internet access (not wi-fi) and where you are the only user online during the exam, you will be better off in terms of connectivity.
## Module 6–Point Estimators and the Sampling Distribution of the Sample Mean

### Learning Objectives
- LO6-1 Define Sampling Distributions
- LO6-2 Describe the Standard Error of a Point Estimator
- LO6-3 Discuss the Desired Traits of a Point Estimator
- LO6-4 Discuss the Central Limit Theorem
- LO6-5 Know the Mean and Standard Deviation of the Distribution of the Sample Mean
- LO6-6 Compare the Variation of the Sample Means to the Variation of the Random Variable
- LO6-7 Apply the Central Limit Theorem to Calculate Probabilities

<table>
<thead>
<tr>
<th>Recommended Days</th>
<th>Topic</th>
<th>Assignment</th>
<th>Available</th>
<th>Due By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tues., Oct. 16</td>
<td>Read Module 6 Material</td>
<td>Tues., 10-16</td>
<td>Wed., 10-17, 11:59 p.m.</td>
<td></td>
</tr>
<tr>
<td>Wed., Oct. 17</td>
<td>Connect Master as Assigned; LO 6-1, 6-2, 6-3, 6-4</td>
<td>Tues., 10-16</td>
<td>Sun., 10-21, 11:59 p.m.</td>
<td></td>
</tr>
<tr>
<td>Thurs. &amp; Fri., Oct. 18 &amp; 19</td>
<td>Module 6.1 Homework</td>
<td>Tues., 10-16</td>
<td>Sun., 10-21, 11:59 p.m.</td>
<td></td>
</tr>
<tr>
<td>Mon. &amp; Tues. Oct. 22 &amp; 23</td>
<td>Connect Master as Assigned; LO 6-5, 6-6, 6-7</td>
<td>Mon., 10-22</td>
<td>Sun., 10-28, 11:59 p.m.</td>
<td></td>
</tr>
</tbody>
</table>
### Module 7–Interval Estimators

#### Learning Objectives
- LO7-1 Define Interval Estimators
- LO7-2 Construct and Interpret a Confidence Interval for the Mean when Sigma is Known
- LO7-3 Determine the Sample Size Needed to Estimate the Population Mean
- LO7-4 Construct a Confidence Interval when Sigma is Unknown
- LO7-5 Discuss the Sampling Distribution of the Sample Proportion
- LO7-6 Construct and Interpret a Confidence Interval for the Population Proportion
- LO7-7 Calculate the Sample Size Needed to Estimate the Population Proportion

<table>
<thead>
<tr>
<th>Recommended Days</th>
<th>Topic</th>
<th>Assignment</th>
<th>Available</th>
<th>Due By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon., Oct. 29</td>
<td>Interval Estimators</td>
<td>Read Module 7 Material</td>
<td>Mon., 10-29</td>
<td>Tues., 10-30, 11:59 p.m.</td>
</tr>
<tr>
<td>Tues. &amp; Wed., Oct. 30 &amp; 31</td>
<td></td>
<td>Connect Master as Assigned; LO 7-1, 7-2, 7-3</td>
<td>Mon., 10-29</td>
<td>Sun. 11-4, 11:59 p.m.</td>
</tr>
<tr>
<td>Thurs. &amp; Fri., Nov. 1 &amp; 2</td>
<td></td>
<td>Module 7.1 Homework</td>
<td>Mon., 10-29</td>
<td>Sun. 11-4, 11:59 p.m.</td>
</tr>
</tbody>
</table>

**Friday, Nov. 2 is the last day to drop a course for the fall 2018 term.**

| Mon. & Tues., Nov. 5 & 6 |                     | Connect Master as Assigned; LO 7-4, 7-5, 7-6, 7-7 | Mon., 11-5         | Sun., 11-11, 11:59 p.m.        |
| Wed. & Thurs., Nov. 7 & 8 |                     | Module 7.2 Homework                    | Mon., 11-5         | Sun., 11-11, 11:59 p.m.        |

**Monday, November 12**

**Must be done on Mon., 11-12**

**Exam 3: Modules 6-7**

**Mon., 11-12, 8 a.m.**

**Mon., 11-12, 11:59 p.m.**

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You will need the Respondus Lock-Down Browser and a Web-cam for the Exam! If you can take the exam from a location with hard-wired internet access (not wi-fi) and where you are the only user online during the exam, you will be better off in terms of connectivity.
**Module 8–Hypothesis Testing**

**Learning Objectives**
LO8-1 Know the Steps to Conduct a Hypothesis Test  
LO8-2 List the Characteristics of the Null and Alternative Hypotheses  
LO8-3 Form the Test Statistic from Sample Data  
LO8-4 Describe Type I and Type II Errors and Know the Probability of a Type I Error  
LO8-5 Determine the Critical Value(s), Rejection Region, and Decision Rule for a Hypothesis Test  
LO8-6 Use the Classical Approach to Conduct a Hypothesis Test of the Population Mean when Sigma is Known  
LO8-7 Test a Hypothesis when Sigma is Known Using the P-value Approach  
LO8-8 List the Ways to Reduce the Likelihood of an Error  
LO8-9 Conduct a Test of a Hypothesis about the Population Mean when Sigma is Unknown  
LO8-10 Conduct a Test of a Hypothesis about the Population Proportion

<table>
<thead>
<tr>
<th>Recommended Days</th>
<th>Topic</th>
<th>Assignment</th>
<th>Available</th>
<th>Due By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tues., Nov. 13</td>
<td>Hypothesis Testing</td>
<td>Read Module 8 Material</td>
<td>Tues., 11-13</td>
<td>Wed., 11-14, 11:59 p.m.</td>
</tr>
<tr>
<td>Wed. &amp; Thurs., Nov. 14 &amp; 15</td>
<td></td>
<td>Connect Master as Assigned; LO 8-1, 8-2, 8-3, 8-4, 8-5</td>
<td>Tues., 11-13</td>
<td>Tues., 11-20, 11:59 p.m.</td>
</tr>
<tr>
<td>Fri. &amp; Mon. Nov. 16 &amp; 19</td>
<td></td>
<td>Module 8.1 Homework</td>
<td>Tues., 11-13</td>
<td>Tues., 11-20, 11:59 p.m.</td>
</tr>
<tr>
<td>Mon. &amp; Tues., Nov. 26 &amp; 27</td>
<td></td>
<td>Connect Master as Assigned; LO 8-6, 8-7, 8-8, 8-9, 8-10</td>
<td>Mon., 11-26</td>
<td>Sun. 12-2, 11:59 p.m.</td>
</tr>
<tr>
<td>Wed.-Fri. Nov. 28-30</td>
<td></td>
<td>Module 8.2 Homework</td>
<td>Mon., 11-26</td>
<td>Sun. 12-2, 11:59 p.m.</td>
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</tbody>
</table>
### Module 9–Two Sample Hypothesis Test Procedures

**Learning Objectives**

- LO9-1 Form and Interpret a Confidence Interval for the Difference between Two Means with Known Population Variances Based on Independent Samples
- LO9-2 Conduct a Test of Hypothesis about the Difference between Two Means with Known Population Variances Based on Independent Samples
- LO9-3 Form a Confidence Interval for the Difference between Two Means when Population Variances Are Unknown but Assumed Equal
- LO9-4 Use Excel to Test Hypothesis about the Difference between Two Means when Population Variances Are Unknown but Assumed Equal
- LO9-5 Use Excel to Test Hypothesis about the Difference between Two Means when Population Variances Are Unknown and Assumed Unequal
- LO9-6 Test Hypothesis about the Mean Difference Based on Dependent Samples
- LO9-7 Form and Interpret a Confidence Interval for the Mean Difference Based on Dependent Samples
- LO9-8 Form a Confidence Interval to Estimate the Difference between Two Population Proportions
- LO9-9 Test Hypothesis about the Equality of Two Population Variances Using Excel

<table>
<thead>
<tr>
<th>Recommended Days</th>
<th>Topic</th>
<th>Assignment</th>
<th>Available</th>
<th>Due By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon., Dec. 3</td>
<td>Two Sample Hypothesis Testing</td>
<td>Read Module 9 Material</td>
<td>Mon., 12-3</td>
<td>Wed., 12-5, 11:59 p.m.</td>
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<tr>
<td>Mon. &amp; Tues., Dec. 3 &amp; 4</td>
<td></td>
<td>Connect Master as Assigned; LO 9-1, 9-2, 9-3, 9-4, 9-5, 9-6, 9-7, 9-8, 9-9</td>
<td>Mon., 12-3</td>
<td>Sun., 12-9, 11:59 p.m.</td>
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<tr>
<td>Wed. - Fri., Dec. 5 - 7</td>
<td></td>
<td>Module 9 Homework</td>
<td>Mon., 12-3</td>
<td>Sun., 12-9, 11:59 p.m.</td>
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<tr>
<td>Monday, December 10</td>
<td>Must be done on Mon., 12-10</td>
<td>Exam 4: Modules 8-9</td>
<td>Mon., 12-10, 8 a.m.</td>
<td>Mon., 12-10, 11:59 p.m.</td>
</tr>
</tbody>
</table>

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