STAT 285 Elementary Statistics
**Part 1: Course Information**

**Course Description**
A study of basic descriptive and inferential statistics, including elementary probability and probability distributions, statistical inference involving binomial, normal and t-distributions, and hypothesis testing.

**Course Prerequisites**
SAT Math ≥ 480 or ACT Math ≥ 20 or Andrews Math Placement Exam ≥ P2
Course Learning Outcomes
1. Know how to calculate and interpret measures of center, variation and position.
2. Demonstrate an understanding of basic principles of probability, sample spaces, compound and conditional probability, independent and mutually exclusive events.
3. Know the binomial (discrete) probability distribution and how to apply it.
4. Know the normal and Student t (continuous) probability distributions and the Central Limit Theorem and know how to apply them.
5. Know how to work with bivariate data and how to calculate basic two-variable statistics as well as to determine if there is a significant linear correlation or not between the two variables.
6. Know how to describe distributions using graphs and numerical descriptors.
7. Understand basic methods of point estimation.
8. Be able to evaluate estimators, construct confidence intervals, and find margin of error.
9. Perform hypothesis tests using p-value involving one or more means and proportions with appropriate tests including z and t tests.

Required Text/Material
Mario F. Triola, Elementary Statistics textbook with MyStatLab access code

Recommended Calculator: Texas Instruments two variable scientific TI-30XIIS or the graphing calculator TI-83 or TI-84.

Credit Hour and Commitment
This course is offered for 3 semester credits. Therefore it is expected that you will spend at least 135 hours total on this course. This course has many different assignments so it is recommended you set aside time for the following:
• Reading the textbook and viewing videos on each section (approximately 1 – 2 hours per sections – 32 full sections (section one of each chapter is usually a page or less overview of the chapter with no assignment) total).
• Completing the homework in MyStatLab (on average one hour per section – 27 sections total).
• Time to study for chapter quizzes (at least 1 hour for each chapter).
• Time to take the chapter quizzes (up to 1 hour for each chapter quiz).
• Time to take the midterm and semester exams (up to 2 hours for each exam).
• Time to find, read, and write a summary for two professional article reviews (about 3 to 5 hours for each).

Part 2: Course Methods and Delivery

Methods of Instruction
Methods of instruction include article reviews, homework assignments, chapter quizzes, a midterm exam, and a semester exam. Regular participation in the course is essential to good performance.

Course/Technical Requirements
• Internet connection (DSL, LAN, or cable connection desirable).
LearningHub Access
This course is delivered online through LearningHub at http://learninghub.andrews.edu

Your username and password are your Andrews username and password. You need to activate your username and password to access LearningHub.

Please do this online here: https://vault.andrews.edu/vault/pages/activation/information.jsp if you haven’t already. (269) 471-6016 or email helpdesk@andrews.edu if you need assistance.

If you need technical assistance at any time during the course, or to report a problem with LearningHub, please email dlit@andrews.edu or call 269-471-3960.

Part 3: Course Requirements

Important Note: Activity and assignment details will be explained in detail within each learning module. If you have any questions, please contact your instructor.

Assessment Descriptions

Homework
Homework assignments will be completed through MyStatLab and are worth 20% of your grade. You are allowed to re-do most problems (do a similar exercise) as many times as you need to get 100% each time. There are “Study Plan” and “Quiz Me” features that are not requirements but would be helpful in practicing for the quizzes and exams. MyStatLab work is mostly graded by the computer software immediately.

Quizzes
There will be a quiz for each chapter in MyStatLab. Quizzes are weighted as 15% of your grade. You are allowed up to 60 minutes to complete each quiz. You can use your notes, book and calculator but you only have one chance to submit the answer for each question. These quizzes are mostly graded by the computer software immediately.

Article Reviews
There will be two separate professional journal article reviews due. These articles must be from your field of study and within 10 years of this year with the appropriate statistics listed below. You are to write a two to three page summary (in your own words) involving the statistics that were used and the conclusions that were arrived at as well as the link to the original article. Submit a copy of each professional journal article as a pdf as well your 2-3 page summary of the article in Word in Learning Hub under the indicated drop box. Each article review will be worth 7.5% of your grade. Rubric found on Learning Hub.

Article Review #1 Topic: Descriptive statistics with graphs/charts (some of the Ch. 3 statistics)

Article Review #2 Topic: Confidence interval estimates and/or hypothesis testing with a z or t-test about means or proportions OR Linear correlation and/or regression
Exams
All test questions are on MyMathLab. You may **not** use your textbook and notes to solve the test problems. Using your own paper, the answers need to be clearly numbered, written and work must be shown.

Please review the [current policy on approved proctors](#) before completing the exam request form, which is linked through your course space. It is your responsibility to make arrangements for an approved proctor (unless living near the main campus) and to complete the exam request form at least two weeks prior to each exam date. Bring an official photo ID to show the proctor at the start of the exam session.

The midterm exam is worth 20% of your grade. The final exam is worth 30% of your grade.

If you cannot take your exam within the period noted in the email regarding exam arrangements, email sdeexams@andrews.edu with the reason you cannot meet this deadline, and a proposed alternate time within a week, and prior to the course end date.

Instructors provide feedback on exams other than the final exam. Exam grades can be viewed in the course space in Learning Hub, and the final course grade is included in the University Academic Record accessible through your IVUE page.

Completing Assignments
All assignments for this course will be submitted electronically through Learning Hub unless otherwise instructed.

Part 4: Grading Policy

Graded Course Activities

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<thead>
<tr>
<th>Percent %</th>
<th>Description</th>
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<tbody>
<tr>
<td>15</td>
<td>Article Reviews</td>
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<tr>
<td>20</td>
<td>Homework Assignments</td>
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<tr>
<td>15</td>
<td>Chapter Quizzes</td>
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Viewing Grades in Learning Hub
- Click into the course.
- Click on the **Grades** link in the Settings Box to the left of the main course page.

Letter Grade Assignment

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<td>A-</td>
<td>90-92%</td>
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<tr>
<td>B+</td>
<td>88-89%</td>
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<tr>
<td>Letter Grade</td>
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**Part 5: Course Policies**

**Withdrawal and Incomplete Policies**
The current withdrawal policy can be found online at [http://www.andrews.edu/distance/students/withdrawal.html](http://www.andrews.edu/distance/students/withdrawal.html). The incomplete policy is found online at [http://www.andrews.edu/weblmsc/moodle/public/incompletes.html](http://www.andrews.edu/weblmsc/moodle/public/incompletes.html).

**Maintain Professional Conduct Both in the Classroom and Online**
The classroom is a professional environment where academic debate and learning take place. Your instructor will make every effort to make this environment safe for you to share your opinions, ideas, and beliefs. In return, you are expected to respect the opinions, ideas, and beliefs of other students—both in the face-to-face classroom and online communication. Students have the right and privilege to learn in the class, free from harassment and disruption.

**Academic Accommodations**
Students who require accommodations may request an academic adjustment as follows:
1. Read the Andrews University Disability Accommodation information at [https://www.andrews.edu/services/sscenter/disability/](https://www.andrews.edu/services/sscenter/disability/)
2. Download and fill in the disability form at [http://www.andrews.edu/services/sscenter/disability/accommodationsreqform.pdf](http://www.andrews.edu/services/sscenter/disability/accommodationsreqform.pdf). Preferably type answers. To save a digital copy, 1) print to file and save or 2) print and scan. Email the completed form and disability documentation (if any) to success@andrews.edu or fax it to 269-471-8407.
3. Email sdestudents@andrews.edu to inform the School of Distance Education that a disability has been reported to Student Success.

**Commitment to Integrity**
As a student in this course, and at the university, you are expected to maintain high degrees of professionalism, commitment to active learning, participation in this course, and integrity in your behavior in and out of this online classroom.

**Honesty**
Using the work of another student or allowing work to be used by another student jeopardizes not only the teacher-student relationship but also the student’s academic standing. Lessons may be discussed with other students, tutors may help to guide a student’s work, and textbooks, encyclopedias and other resource materials may be used for additional assistance, but the actual response must be the student’s own work.
Exams must be completed in the presence of an approved supervisor without the assistance of books, notes, devices or outside help unless otherwise specified in the exam directions. The student should have no access to the exam either before or after it is taken. A student who gives information to another student to be used in a dishonest way is equally guilty of dishonesty.

Any violation of this policy will be taken before the Higher Education Academic and Curriculum Committee for appropriate punitive action.