STAT 285 Intro to Applied Statistics
Self-Paced Format
This course follows a self-paced online format. You have 180 days from your selected start date to complete the course. The last day to withdraw with a full refund is 15 days after your start date.

Instructor Contact
Please refer to course in LearningHub for the teacher contact information.

Communication with the Instructor
It is important to remember that while the Internet is available 24 hours a day, your instructor is not. You can expect that your instructor will respond to e-mail message to you within 2 business days during the week and may not be available to respond on weekends.

Other Assistance

<table>
<thead>
<tr>
<th>Service</th>
<th>Contact Information</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Username and password assistance</td>
<td><a href="mailto:helpdesk@andrews.edu">helpdesk@andrews.edu</a></td>
<td>(269) 471-6016</td>
</tr>
<tr>
<td>Enrollment and withdrawal questions</td>
<td><a href="mailto:sderegister@andrews.edu">sderegister@andrews.edu</a></td>
<td>(269) 471-6323</td>
</tr>
<tr>
<td>Technical assistance with online courses</td>
<td><a href="mailto:dlit@andrews.edu">dlit@andrews.edu</a></td>
<td>(269) 471-3960</td>
</tr>
<tr>
<td>Exam requests and online proctoring</td>
<td><a href="mailto:sdeexams@andrews.edu">sdeexams@andrews.edu</a></td>
<td>(269) 471-6566</td>
</tr>
<tr>
<td>Distance Student Services - any other questions</td>
<td><a href="mailto:sdestudents@andrews.edu">sdestudents@andrews.edu</a></td>
<td>(269) 471-6566</td>
</tr>
</tbody>
</table>

Part 1: Course Information

Course Descriptions
A data-driven study of basic descriptive and inferential statistics. Concepts such as null distributions, hypotheses, test statistics, and p-values are emphasized while applying standard statistical tests including logistic regression.

Prerequisite
Math Placement Exam ≥ P2

Required Text/Material

NOTE: Textbooks for online courses may be purchased from any supplier. For financial aid in payment, contact your financial advisor at the university where you are completing your degree. Andrews University degree students who have confirmed that funds are available will then purchase the books themselves and send receipts to their financial advisor for reimbursement.

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 135 total hours on this course. This translates to a steady 9 hours each week. This course has many different assignments, so it is recommended you set aside time for the following:

A recommended weekly schedule to divide your time is provided below.

- Readings: 2 hours
- Homework: 2 hours
- Preparing for quizzes: 1 hour
- Quizzes: 1 hour
- Preparing for exams: 2 hours
- Finding, reading, summarizing professional articles: 1 hour

Institutional Outcomes:
1.a. Demonstrate competence in intellectual, affective, and practical skills to prepare for careers in the twenty-first century, lifelong learning and service.
1.b. Select and apply intellectual, affective, and practical skills from their field of study to solve meaningful problems. The identified transferable skills for undergraduate students are: information literacy, quantitative literacy, engaging diverse perspectives, ethical reasoning, analytical inquiry in the form of problem solving and creative thinking, communication, wellness and transferable life skills.
2.b. Pursue enduring questions through study in core fields and explore the connections between those fields.

Student Learning Outcomes
1. Understand 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.
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.

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. If you need assistance, call or email us: (296) 471-6016 or mailto:helpdesk@andrews.edu.

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.

MyMathLab Access
- A purchase of a new hardcopy textbook comes with an access code to additional online materials

Alternatively, you can purchase a standalone code from MyMathLab and use the e-version of the text, DO NOT: use mymathlab.com to sign into the course.
- Click on the MyLab & Mastering Tools in LearningHub
- Click on Open MyLab & Mastering
- Following the instructions to put in your access code that you received with your textbook or that you purchased at mymathlab.com
- You are now ready to do your assignments for the course
- Your assignment grades will show up in the gradebook in LearningHub
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.

Your Schedule
In Learning Hub, you will access online lessons, course materials, and resources. This course is self-paced. You must complete the course within 180 days. This is the Consortium policy. You may have a stricter deadline imposed by graduation, financial aid, or other restrictions.

Start by creating a schedule for completion of the course.

• Determine your deadline. Do you need a transcript sent to your home institution?
• Working from your deadline, count backwards. Allow 2 weeks after you take your final exam for your final grade to be calculated. Allow another 2 weeks for the transcript to be processed and sent.
• Now use the suggested schedules to create a schedule for yourself that ensures completion 4 weeks before your deadline.

Submit your course plan to your instructor within Learning Hub AND discipline yourself to make regular progress.

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 150 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. 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

**Journal Posts**
Several times during the term you will be asked to respond to a journal question. These questions promote the integration of faith and learning by asking you to reflect on the connections between mathematics and spiritual issues. Discussion questions are worth 5% of the final grade. The following rubric will be used to evaluate your responses.

Excellent (5) Average (3) Below Average (1) Unacceptable (0)

**Exams**
You are allowed 150 minutes to complete each exam. The exams are worth 50% of your grade.

All exams in this course require proctoring. All tests and exams in this course are proctored through the School of Distance Education Testing Center. Please read the important information about taking exams and how online proctoring works at [www.andrews.edu/distance/students/exams.html](http://www.andrews.edu/distance/students/exams.html). The follow the instructions that apply to your situation on the [exam request form](http://www.andrews.edu/distance/students/exams.html) to set up your exam session.

Please note that an exam code is never released to the student. All students must present photo identification before each exam session. Exams can only be proctored after a deadline with approval directly from the instructor to the Testing Center ([sdeexams@andrews.edu](mailto:sdeexams@andrews.edu) or 269-471-6566). No exam is returned to the student for review. The instructor, to aid studying for future exams can provide feedback on exams.
### Suggested schedule for completion in 8 weeks:

<table>
<thead>
<tr>
<th>Module</th>
<th>Lessons</th>
<th>Readings</th>
<th>Assignments</th>
</tr>
</thead>
</table>
| Intro   | These items will need to be completed before you will have access to the rest of the course | Orientation  
Course Overview  
Introductions  
Academic Integrity | Schedule  
Introduce Yourself  
Academic Integrity Quiz  
Academic Integrity Statement |
| 1       | Chapter 1 | Read and watch videos for Ch. 1 | MyStatLab Assignment: Ch. 1  
Chapter 1 Quiz |
|         | Chapter 2 | Read and watch videos for Ch. 2 | MyStatLab Assignment: Ch. 2  
Chapter 2 Quiz |
| 2       | Chapter 3 | Read and watch videos for Ch. 3 | MyStatLab Assignments: Sections 3.1, 3.2 and 3.3  
Chapter 3 Quiz  
Discussion #1 |
|         | Chapter 1-3 Test | Review Chapters 1 - 3 | PROCTORED Test #1 (Chapters 1-3)  
Submit Article Review #1 |
| 3       | Chapter 4 | Read and watch videos for Ch. 4 | MyStatLab Assignments: Sections 4.1, 4.2 & 4.3 |
|         | Chapter 4 continued  
Chapter 4 Test | Review Chapter 4 | MyStatLab Assignment: Sections 4.4, 4.5  
Chapter 4 Quiz  
PROCTORED Test #2 (Chapter 4) |
| 4       | Chapter 5 | Read and watch videos for Ch. 4 | MyStatLab Assignments: Sections 5.1, 5.2 & 5.3  
Chapter 5 Quiz |
|         | Chapter 6 | Read and watch videos for Ch. 6 | MyStatLab Assignments: Sections 6.1, 6.2, 6.3, 6.4  
Discussion #2 |
| 5       | Chapter 6 continued  
Chapter 5 & 6 Test | Review Chapters 5 & 6 | MyStatLab Assignment: Section 6.5  
Chapter 6 Quiz  
PROCTORED Test #3 (Chapters 5 & 6) |
|         | Chapter 7 | Read and watch videos for Ch. 7 | MyStatLab Assignments: Sections 7.1, 7.2 & 7.3  
Chapter 7 Quiz |
| 6       | Chapter 8 | Read and watch videos for Ch. 8 | MyStatLab Assignment: 8.1, 8.2, 8.3 & 8.4  
Chapter 8 Quiz  
PROCTORED Test #4 (Chapters 7 & 8) |
|         | Test over Chapters 7 & 8 | Review Chapters 7 & 8 |
| 7       | Chapter 9 | Read and watch videos for Ch. 9 | MyStatLab Assignments: Sections 9.1, 9.2, 9.3 &9.4  
Chapter 9 Quiz  
PROCTORED Test #5 (Chapter 9)  
Submit Article Review #2 |
|         | Chapter 9 Test | Review Chapter 9 |
| 8       | Chapter 10 | Read and watch videos for Ch. 10 | MyStatLab Assignments: Sections 10.1,10.2,10.3, 10.4, 10.5  
Chapter 10 Quiz  
Discussion #3  
PROCTORED TEST #6 (CHAPTER 10) |
# Suggested schedule for completion in 16 weeks:

<table>
<thead>
<tr>
<th>Module</th>
<th>Lessons</th>
<th>Readings</th>
<th>Assignments</th>
</tr>
</thead>
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<tr>
<td>Intro</td>
<td>These items will need to be completed before you will have access to the rest of the course</td>
<td>Orientation, Course Overview, Introductions, Academic Integrity</td>
<td>Schedule, Introduce Yourself, Academic Integrity Quiz, Academic Integrity Statement</td>
</tr>
<tr>
<td>1</td>
<td>Chapter 1</td>
<td>Read and watch videos for Ch. 1</td>
<td>MyStatLab Assignment: Ch. 1, Chapter 1 Quiz</td>
</tr>
<tr>
<td>2</td>
<td>Chapter 2</td>
<td>Read and watch videos for Ch. 2</td>
<td>MyStatLab Assignment: Ch. 2, Chapter 2 Quiz</td>
</tr>
<tr>
<td>3</td>
<td>Chapter 3</td>
<td>Read and watch videos for Ch. 3</td>
<td>MyStatLab Assignments: Sections 3.1, 3.2 and 3.3, Chapter 3 Quiz, Discussion #1</td>
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<tr>
<td>4</td>
<td>Chapter 1-3 Test</td>
<td>Review Chapters 1 - 3</td>
<td><strong>PROCTORED Test #1 (Chapters 1-3)</strong>, Submit Article Review #1</td>
</tr>
<tr>
<td>5</td>
<td>Chapter 4</td>
<td>Read and watch videos for Ch. 4</td>
<td>MyStatLab Assignments: Sections 4.1, 4.2 &amp; 4.3</td>
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<tr>
<td>6</td>
<td>Chapter 4 continued, Chapter 4 Test</td>
<td>Review Chapter 4</td>
<td>MyStatLab Assignment: Sections 4.4, 4.5, Chapter 4 Quiz, <strong>PROCTORED Test #2 (Chapter 4)</strong></td>
</tr>
<tr>
<td>7</td>
<td>Chapter 5</td>
<td>Read and watch videos for Ch. 4</td>
<td>MyStatLab Assignments: Sections 5.1, 5.2 &amp; 5.3, Chapter 5 Quiz</td>
</tr>
<tr>
<td>8</td>
<td>Chapter 6</td>
<td>Read and watch videos for Ch. 6</td>
<td>MyStatLab Assignments: Sections 6.1, 6.2, 6.3, 6.4, Discussion #2</td>
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<td>9</td>
<td>Chapter 6 continued, Chapter 5 &amp; 6 Test</td>
<td>Review Chapters 5 &amp; 6</td>
<td>MyStatLab Assignment: Section 6.5, Chapter 6 Quiz, <strong>PROCTORED Test #3 (Chapters 5 &amp; 6)</strong></td>
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<tr>
<td>10</td>
<td>Chapter 7</td>
<td>Read and watch videos for Ch. 7</td>
<td>MyStatLab Assignment: Sections 7.1, 7.2 &amp; 7.3, Chapter 7 Quiz</td>
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<tr>
<td>11</td>
<td>Chapter 8</td>
<td>Read and watch videos for Ch. 8</td>
<td>MyStatLab Assignment: 8.1, 8.2, 8.3 &amp; 8.4, Chapter 8 Quiz</td>
</tr>
<tr>
<td>12</td>
<td>Test over Chapters 7 &amp; 8</td>
<td>Review Chapters 7 &amp; 8</td>
<td><strong>PROCTORED Test #4 (Chapters 7 &amp; 8)</strong></td>
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<tr>
<td>13</td>
<td>Chapter 9</td>
<td>Read and watch videos for Ch. 9</td>
<td>MyStatLab Assignment: Sections 9.1, 9.2, 9.3 &amp; 9.4, Chapter 9 Quiz</td>
</tr>
<tr>
<td>14</td>
<td>Chapter 9 Test</td>
<td>Review Chapter 9</td>
<td><strong>PROCTORED Test #5 (Chapter 9)</strong>, Submit Article Review #2</td>
</tr>
<tr>
<td>15</td>
<td>Chapter 10</td>
<td>Read and watch videos for Ch. 10</td>
<td>MyStatLab Assignments: Sections 10.1, 10.2, 10.3, 10.4, 10.5, Chapter 10 Quiz, Discussion #3</td>
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<tr>
<td>16</td>
<td></td>
<td></td>
<td><strong>PROCTORED TEST #6 (CHAPTER 10)</strong></td>
</tr>
</tbody>
</table>

## Completing Assignments

All assignments for this course will be submitted electronically through LearningHub unless otherwise instructed. Assignments and exams must be completed within **180 days** of course registration date. This timeframe is subject to change depending on deadlines set by your home institution.
Part 4: Grading Policy

Graded Course Activities

<table>
<thead>
<tr>
<th>Percent %</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Article Reviews</td>
</tr>
<tr>
<td>5</td>
<td>Journals/Faith Interview Questions</td>
</tr>
<tr>
<td>20</td>
<td>Homework Assignments</td>
</tr>
<tr>
<td>15</td>
<td>Chapter Quizzes</td>
</tr>
<tr>
<td>50</td>
<td>Exams</td>
</tr>
<tr>
<td>100</td>
<td>Total Percent Possible</td>
</tr>
</tbody>
</table>

Viewing Grades in Moodle
- Click into the course.
- Click on the Grades link in Administration Block to the left of the main course page.

Letter Grade Assignment

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100%</td>
</tr>
<tr>
<td>A-</td>
<td>90-92%</td>
</tr>
<tr>
<td>B+</td>
<td>88-89%</td>
</tr>
<tr>
<td>B</td>
<td>83-87%</td>
</tr>
<tr>
<td>B-</td>
<td>80-82%</td>
</tr>
<tr>
<td>C+</td>
<td>78-79%</td>
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<tr>
<td>C</td>
<td>73-77%</td>
</tr>
<tr>
<td>C-</td>
<td>70-72%</td>
</tr>
<tr>
<td>D</td>
<td>60-69%</td>
</tr>
<tr>
<td>F</td>
<td>0-59%</td>
</tr>
</tbody>
</table>

Part 5: Course Policies

Withdrawal and Incomplete Policies
The current withdrawal policy can be found online at https://www.andrews.edu/distance/students/gradplus/withdrawal.html. The incomplete policy is found online at 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/
2. Download and fill in the disability form at 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.

Commitment to Excellence
You deserve a standing ovation based on your decision to enroll in, and effectively complete this course. Along with your pledge of “commitment to Integrity” you are expected to adhere to a “commitment to excellence.” Andrews University has established high academic standards that will truly enhance your writing and communication skills across the disciplines and in diverse milieu with many discourse communities in the workplace.

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. 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.