STA 2023 Introduction to Statistics 1 Online

Statistical Methods I (GE Core) Fall 2024

Instructor Information

Instructor

Stephanie Stine

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Office Hours: MR 10:00am – 11:30am EST and W 2:00pm – 3:30pm, or by appointment. Zoom

link is on Canvas.

Teaching Assistants and Office Hours EST

Yeji Kim T 8am – 12pm, Sayoni Roychowdhury R 2pm – 4pm and 5pm – 7pm, Abul Sudip M 1pm – 5pm.

Times are EST.

Zoom link is on Canvas.

Please contact TAs through their Canvas email.

Who to Contact for Help

Problem	Contact
Questions about grades or questions about actual exam questions.	Course Instructor
Course Material – any questions from lessons, practice materials, projects etc. (any course material questions that you have about material in which you are not proctored).	Please post your question on the Canvas discussion board. Your question can be answered by other students, the teaching assistants or the instructor.
Technical problem with videos or with quiz functions or other Canvas functionality.	UF help desk at http://helpdesk.ufl.edu/ or 352 392 4357

Course Description

In this course, students will utilize descriptive and inferential statistical methods in contextual situations, using technology as appropriate. The course is designed to increase problem-solving abilities and data interpretation through practical applications of statistical concepts. This course is appropriate for students in a wide range of disciplines and programs.

There are two major parts to this course:

I Data: Includes graphical and numerical summaries to describe the distribution of a variable, or the relationship between two variables (Modules 2 through 6, approximately 3 weeks), and data production to learn how to design good surveys and experiments, collect data from samples that are representative of the whole population, and avoid common sources of biases (Module 7, 1 day.)

II Probability and Inference: Using the language of probability and the properties of numerical summaries computed from a random sample (Modules 8 through 13, approximately 4 weeks), we learn to draw conclusions about the population of interest, based on our random sample, and attach a measure of reliability to them (Modules 14 through 24, approximately 8 weeks).

Course Objectives

The primary goal of the course is to recognize how the process of posing a question, collecting data relevant to that question, analyzing the data, and interpreting the data can help find answers to real world problems.

General Education Objective (Mathematics)

Graphical and numerical descriptive measures. Simple linear regression. Basic probability concepts, random variables, sampling distributions, central limit theorem. Large and small sample confidence intervals and significance tests for parameters associated with a single population and for comparison of two populations. Use of statistical computer software and computer applets to analyze data and explore new concepts. (M)

This course satisfies general education credits in the mathematical sciences. Students learn how to summarize data and how to make appropriate decisions based on data.

Courses in mathematics provide instruction in computational strategies in fundamental mathematics including at least one of the following: solving equations and inequalities, logic, statistics, algebra, trigonometry, inductive and deductive reasoning. These courses include reasoning in abstract mathematical systems, formulating mathematical models and arguments, using mathematical models to solve problems and applying mathematical concepts effectively to real-world situations.

In this course, this objective will be met by . . .

During the semester the students will be given an introduction to the three main aspects of statistics: design (of experiments/surveys), description (of data collected) and inference (the extension of conclusions from the data gathered in the sample to the larger population). These concepts will be presented through lectures two times a week and three mini projects. They will also learn about the normal and binomial distributions as well as the methodology of confidence intervals and significance tests. From the methods that they learn in class they will be able to critique real world surveys and experiments, interpret graphs in newspapers and magazines as well as conduct basic statistical inference for one or two groups.

General Education Student Learning Outcomes (SLOs)

- Students will visualize and summarize data using descriptive statistics.
- Students will apply basic probability concepts to draw reasonable conclusions.
- Students will employ concepts of random variables, sampling distributions, and central limit theorem to analyze and interpret representations of data.
- Students will choose an appropriate method of inferential statistics, including confidence intervals and hypothesis testing, to make broader decisions based on sample data.
- Students will model linear relationships between quantitative variables using correlation and linear regression.

Content: Students demonstrate competence in the terminology, concepts, methodologies and theories used within the discipline.

Communication: Students communicate knowledge, ideas, and reasoning clearly and effectively in written or oral forms appropriate to the discipline.

Critical Thinking: Students analyze information carefully and logically from multiple perspectives, using discipline specific methods and develop reasoned solutions to the problems.

In this course, these SLOs will be met by . . .

Content: Students will learn critical terminology, concepts, methods, and theories during lecture. These concepts will include terminology to describe one and two samples, discuss surveys/experiments, basic probability theory, sampling distributions, and one and two group inference. The students will be assessed on these terms and concepts during the lessons, quizzes and the three exams. Students will also demonstrate their competence in identifying the appropriate formulas to use for each situation and using those formulas correctly.

Communication: The students will use verbal and written communication to discuss central statistical concepts in the mini projects. These concepts include description of data sets, sampling methods and interpretations of inference methodology.

Critical Thinking: The students will be asked to critically think about trustworthiness of surveys and experiments presented in the media. Additionally, students will learn how to conduct significance tests, a statistical method to logically determine if there is enough evidence for a hypothesis. Students will learn how to state the null and alternative hypotheses (different perspectives) and then to use the data collected to determine if there is enough evidence to support the alternative hypothesis using methods central to the field of statistics. The students will be tested on these concepts in their lessons, quizzes and on the exams.

Course Requirements

Required Materials

- Lecture Notes: These are needed to follow along with the lectures. You will be able to print or download the lecture notes from the course home page in Canvas using the "Lecture Notes" link under the course banner.
- Scientific Calculator: You will need a calculator with some basic statistical functions including mean and standard deviation. Many inexpensive calculators (around \$16) have these functions; check the manual or look for the following symbols: x-bar and either s or σn-1. Graphing calculators, TI-nspires, virtual calculators, or other smart devices are NOT ALLOWED on exams.
- **Reliable Computer**: One that meets the requirements for online exams by Honorlock. This includes having access to a high speed stable Internet connection and webcam.
- Statistical Software Package: The Mini Projects will require the use a statistical software package. You can choose between three packages: artofstat.com (free online), Minitab (free in UF Apps, see https://info.apps.ufl.edu/) or StatCrunch.com (\$13.00 for 6 months). Some of the quizzes will also ask you to access artofstat.com.

Optional Materials

- **Textbook** Statistics: The Art and Science of Learning from Data by Agresti, Franklin, Klingenberg, 5th Edition, Pearson. To access the textbook you can:
 - Purchase as an etext (\$70) from UF All Access. See instructions on this <u>flyer</u>. If you opt in you will also have access to StatCrunch (statistical software package).
 - Rent from Pearson.

Prerequisites

STA2023 is an introductory course that assumes no prior knowledge of statistics but does assume some knowledge of high school algebra. There are no required prerequisites for this course.

Minimum Technology Requirements

The University of Florida expects students entering an online program to acquire computer hardware and software appropriate to their degree program. Most computers are capable of meeting the following general requirements. A student's computer configuration should include:

- Webcam
- Microphone
- Broadband connection to the Internet and related equipment (Cable/DSL modem)
- Microsoft Office Suite installed (provided by the university)

Individual colleges may have additional requirements or recommendations, which students should review prior to the start of their program.

Minimum Technical Skills

To complete your tasks in this course, you will need a basic understanding of how to operate a computer, and how to use word processing software.

Materials/Supplies Fees

There is no supply fee for this course.

Course Website

Canvas

We will be using the course management system, Canvas (elearning.ufl.edu). In Canvas you will be able to complete the lessons in the course, find any updates to the Syllabus, watch the lectures as streaming video as you complete the lessons, take the online quizzes, turn in portions of the project using the assignment tool, ask questions on the discussion board and check your grade. For any technical problems with Canvas, please contact 352 392 4357 or learning-support@ufl.edu.

Zoom

Zoom is an easy to use video conferencing service available to all UF students, faculty, and staff that allows for meetings of up to 100 participants.

You can find resources and help using Zoom at https://ufl.zoom.us.

Course Policies

Class attendance

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. See <u>UF Academic Regulations and Policies</u> for more information regarding the University Attendance Policies.

Extensions

Because it is possible to complete the lessons and quizzes early and that there are three drops, no extensions will be given on assignments unless there is prolonged hospitalization. All quizzes are open from the beginning of the semester so students can work ahead if they need to, since all the material is available as online interactive lessons posted from the start. Please complete the quizzes early if you have travel plans, religious observances, sports or club events, or any other conflict whether approved by the university or not.

Extenuating Circumstances

Sometimes students may be unable to complete their quizzes due to extended hospitalization or illness, or some catastrophic event. In these cases, the student must meet with the course instructor in person with all the appropriate documentation to discuss the situation. Each case will be reviewed individually.

Privacy Policies

Student records are confidential. Only information designated "UF directory information" may be released without your written consent. UF views each student as the primary contact for all communication. If your parents contact me about your grade, attendance or other information that is not "UF directory information", I will ask them to contact you.

Email

Email relating to information about the class should be sent to the instructor or through the course management system. If your questions are about your grade or of a personal nature, please email the course instructor directly. Your message will be answered within one to two working days, in most cases. However, please refer to this Syllabus and the course website to try to find the answers for yourself. Questions regarding the material covered should be asked on the Canvas discussion board. This way everyone can benefit from your questions.

Grading

Grades will be changed only when an error has been made; negotiation is not appropriate.

Incomplete

Incomplete grades are only assigned when extraordinary circumstances (such as an accident, or extended hospitalization), after more than 2/3rds of the course has been completed and prevent the student from completing the course requirements. Having a failing grade in the course is not a valid reason for requesting an Incomplete.

Makeup Exam Policy

Every effort should be made to take the exam during the open exam period. Only extreme situations will warrant a makeup exam. Contact the instructor prior to the exam - as soon as you realize you will be unable to take the test at the scheduled time. Each case will be reviewed individually. Valid and detailed documentation is a prerequisite for scheduling a makeup exam under such extenuating circumstances. There are no retakes on the exam, even if you were feeling badly during the exam. If you are feeling badly, you need to contact the instructor before the exam and provide a doctor's note.

If you have an emergency on the day of the exam, the instructor must be contacted by midnight of the day of the exam via email.

To make arrangements for a makeup exam, contact the course instructor. Makeup exams will cover the same material as the regularly scheduled exam but will not necessarily be in the same format.

Important: Being on vacation or traveling on the day of the exam are not a valid reasons to request a make-up exam and could result in an exam grade of a 0.

Problems

Each online distance learning program has a process for, and will make every attempt to resolve, student complaints within its academic and administrative departments at the program level. See http://distance.ufl.edu/student-complaints for more details.

- First, please contact the course instructor via email.
- If necessary after that, please contact the chair of the Statistics department at 392-1941.

• If necessary after that, should you have any complaints with your experience in this course please visit http://www.distance.ufl.edu/student-complaints to submit a complaint.

Grading Policy

Current UF grading policies for assigning grade points can be found on the **Grades and Grading Policies** webpage.

For this course the methods by which you will be evaluated and your grade determined are given below.

Course Assessment

Assessment	Percent of Grade
Exam 1	22%
Exam 2	22%
Exam 3	22%
Mini Projects	17%
Quizzes	17%

Grading Scale

Letter Grade	Grade Points	Percentage of Points Needed
Α	4.00	92 to 100%
A-	3.67	88.5 to 91.99%
B+	3.33	84.5 to 88.49%
В	3.00	80 to 84.49%
B-	2.67	78.5 to 79.99%
C+	2.33	74.5 to 78.49%
С	2.00	67.5 to 74.49%
D	1.00	60 to 67.49%
E	0.00	Below 60%

You must have a grade of a C or higher to get general education credit for this course.

Layout of the Course

The course is set up on a modular system.

- A module will be due twice a week, for a total of 24 modules in the course.
- Each module will have the following components.
 - Overview: This page gives the module objectives, a link to the interactive video(s), a list of assignments to complete, optional textbook problems (not for a grade) and extra help information.
 - **Summary**: This page gives a summary of the material learned in the module.
 - Quiz: For each quiz, you will have three attempts, the highest attempt counts. This is worth 10 points.

Course Content

Lessons

You will be completing about two lessons each week. The lesson will include text and video(s) about the day's assigned material. As you work through the material, you will be filling in the Lecture Notes. You should expect this lesson and the related quiz assignment to take you about 2 to 3 hours per lesson; however, this time may vary from student to student.

Quizzes

It is important to practice statistics in order to learn it. Each module has an online quiz that should be completed. The quizzes are worth 10 points each and are due by 11:59pm in the Eastern Time Zone. Some of these quizzes will have questions around a theme whereas others will have more independent questions. There are a total of 26 quizzes (24 module quizzes and 2 course surveys) available. The three lowest quiz scores will be dropped.

Suggested Homework

Optional homework problems (not for a grade) from the textbook can be found listed under each module page.

Mini Projects

In this course, there will be three individual mini projects. The Island mini project brings together all aspects of the course: data collection, experimental design and data analysis. More information and rubrics are provided in Canvas. The Island Project is worth 17% of your grade. There will be a 25% late penalty per day and not accepted after the 4th day. It is your responsibility to make sure that the assignment is uploaded into Canvas. The project is due at 11:59pm in the Eastern Time Zone. The mini project will be graded within 4 to 5 working days of the assignment deadline. Academic dishonesty on any mini project will result in a minimum of a grade of zero on that mini project.

Exams

There will be **three** online proctored exams (see Proctoring section below and on Canvas for details on Honorlock). The exam will be multiple choice, drop down box and matching. Exams will cover a larger amount of material than the quizzes and will also place more emphasis on the understanding of concepts and ideas behind the formulas. For the exam, you will be allowed to have **one** blank sheet of paper and a **scientific calculator**. Graphing calculators, TI-nspires, virtual calculators, or other smart devices are **NOT** allowed. Formula Sheets, and appropriate tables (z and t tables) will be provided within the exam. You are not allowed to print your own. You can find a link to the formula sheet in the Exam Overview for the exam, under Resources and Information.

Exams are not dropped. There are no retakes on exams.

Accessing a cell phone, smart device or communicating with another individual during the exam is considered an honor code violation and will be reported to the honor court. There are no breaks during the exam. Leaving the proctored area during an exam is also considered an honor violation. Academic dishonesty on any exam will result in a minimum of a grade of zero on that exam.

Question and Answer Discussion Board

We will be using the Canvas discussion board for questions. Please try to post questions with an appropriate heading, such as "lecture notes page 9 question 1" or "Mini Project Question 2" or "Interpreting R-squared". You are able to ask questions about the lecture notes, interactive videos, PlayPosit questions, Mini Projects, and the suggested homework questions. Please make sure that you don't select that respondents have to respond before seeing content.

Do not post questions about the actual exam questions online in Canvas or outside of the course. If you have a question about the material on the exam, please email me privately when you have finished the exam.

Students who post Exam questions or answers online will be penalized, with a minimum of a 0 on the exam. It will be considered an honor code violation.

Please send an email to the Instructor to discuss private matters such as grades, medical excuses and DRC letters.

The discussion board is a positive learning environment to ask questions. Please be respectful of other students at all times. Do not use profanity or use this as a place to complain. Please be positive so that we can create a positive environment for everyone to learn.

Course Material by Week

Week 1	Course Orientation		
Week 2	What is Statistics?; Exploring Data with Graphs		
Week 3	Measures of Center, Spread and Position; Introduction to Regression		
Week 4	Cautions in Regression; Categorical Data; Sampling; Experiments		
Week 5	Probability Rules; Continuous Probability Distributions		
Week 6	Discrete Probability Distributions; Review of Normal Distributions; Exam 1		
Week 7	Sampling Distribution of the Sample Proportion; Sampling Distribution of the Sample Mean		
Week 8	More Sampling Distribution Problems; Confidence Interval for the Population Proportion		
Week 9	Confidence Interval for the Population Mean; Sample Size Determination and More about Confidence Intervals		
Week 10	Significance Test for the Population Proportion; Exam 2		
Week 11	Significance Test for the Population Mean; Additional Concepts about Significance Tests		
Week 12	Comparing Two Independent Proportions; Comparing Two Independent Means		
Week 13	Comparing Two Dependent Means		
Week 14	McNemar's Test and Permutation Tests; Review Mixed Examples		
Week 15	Thanksgiving		
Week 16	Exam 3		

Online Exam Dates

Exam	Date	Time	Modules	Lecture Notes
Exam 1	Thursday September 26th	Exam Length: 2 hours	1 through 10	p1-53
	(7am to 8pm EST start time)			
Exam 2	Thursday October 24th	Exam Length: 2 hours	11 through 17	p54-89
	(7am to 8pm EST start time)			
Exam 3	Wednesday December 4th	Exam Length: 2 hours	18 through 24	p90-127
	(7am to 8pm EST start time)			

Online Proctoring with Honorlock

You will be taking your exam through an online proctoring company. Honorlock is a service that allows you to complete quizzes and exams while recording the session. The service utilizes a Google Chrome extension, meaning that the proctoring service is only compatible with a Google Chrome Browser.

Please refer to this <u>Honorlock Student Guide</u> for more information about being prepared to take your exam with Honorlock. There will also be information given on the course website.

UF Policies

UF Online students are bound by the same UF policies as on-campus students. Please read through this section in full.

University Policy on Academic Conduct

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code." On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. See the UF Conduct Code website for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Accommodations for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the "Get Started With the DRC" webpage on the Disability Resource Center site. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Class Demeanor or Netiquette

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats. Review the Netiquette Guide for Online Courses for expected student behavior.

Software Use

All faculty, staff, and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Virtual Class Sessions

Our virtual class sessions, if any, may be audio-visually recorded for students in the class to refer back. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and

comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials are prohibited.

Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faulty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Getting Help

Where to Get Help for this Course

- During Online Office Hours
- Discussion board in Canvas
- Via emails to the course instructor

Resources are available at <u>Distance Learning's Getting Help</u> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints about your experience in this course, please visit <u>Distance Learning's Student Complaint</u>

Process to submit a complaint.

Technical Difficulties

For issues with technical difficulties for Canvas, please contact the UF Help Desk at http://helpdesk.ufl.edu or 352 392 4357.

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Health and Wellness

College can be a very stressful time in a person's life. Resources are available on campus to help students meet academic goals and solve personal problems, which may interfere with their academic performance. If you find that you are having difficulty emotionally or academically, there is substantial support available. See "A Self Help Guide for Students" or contact one of the following services:

- **U Matter, We Care:** If you or someone you know is in distress, please contact <u>umatter@ufl.edu</u>, 352-392-1575, or visit https://umatter.ufl.edu to refer or report a concern and a team member will reach out to the student in distress.
- **Counseling and Wellness Center:** Visit https://counseling.ufl.edu or call 352-392-1575 for information on crisis services as well as non-crisis services.
- **Student Health Care Center:** Call 352-392-1161 for 24/7 information to help you find the care you need, or visit https://shcc.ufl.edu.
- University Police Department: Visit https://police.ufl.edu or call 352-392-1111 (or 9-1-1 for emergencies).
- **UF Health Shands Emergency Room/Trauma Center:** For immediate medical care in Gainesville, call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608.
- **GatorWell Health Promotion Services:** For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit https://gatorwell.ufsa.ufl.edu or call 352-273-4450.

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course, is urged to contact the Dean of Students (202 Peabody Hall, 392-1261) for support. Furthermore, please notify your instructor(s) if you are comfortable in doing so. This will enable us to provide any resources that we may possess.

Academic and Student Support

- Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services, https://career.ufl.edu/
- **Library Support:** Various ways to receive assistance with respect to using the libraries or finding resources, https://uflib.ufl.edu/
- **Teaching Center:** Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring, https://academicresources.clas.ufl.edu/
- Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers, https://writing.ufl.edu/writing-studio/
- Academic Complaints: Office of the Ombuds, https://www.ombuds.ufl.edu/complaint-portal/
- Enrollment Management Complaints (Registrar, Financial Aid, Admissions): https://em.ufl.edu/complaint

Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Tips for Success

How to Do Well in the Course

- Keep up with the lessons. Set a schedule for yourself and stick with it.
- Visit the course website regularly to read announcements on the course homepage.
- Do well on the interactive lessons, Module guizzes and Mini Projects.
- Attend the online office hours to get help from your instructor and the TA. Our job is to answer any questions that you may have, and to help you understand the material and learn to do the problems.
- Get to know other students in the class and get together regularly to work on homework problems, and to study
 for quizzes and exams. Please remember to be professional in your conversations. Please respect each other
 and refrain from profanity.
- Prepare carefully for exams by going over the lessons including the PlayPosit questions, studying the module quizzes, doing the suggested homework problems (not graded) and reading the textbook. Pay special attention to the understanding of concepts and ideas behind the formulas.

How to Get the Most Out of the Online Course

Taking a course online can be a lot of fun! Here are some tips that will help you get the most of this course while taking full advantage of the online format:

- Schedule "class times" for yourself. Set aside time each day to complete the lesson and then do the module quiz.
- Watch the interactive videos in a low disruption environment. In addition to watching the lecture, you should
 not be texting, instant messaging, emailing, reading a website, watching TV, etc. Your attention should be
 focused on the lesson.
- Actively involve yourself in the lesson. Be inquisitive. Work out the problems presented in the videos. Learning
 is not a spectator sport.
- It is important to do the module quizzes and Mini Projects on time. You will receive a reduction in points for Mini Projects that are turned in late.
- Take full advantage of the online discussion boards. Ask for help or clarification of the material if you need it.
- Do not wait to ask questions! Waiting to ask a question might cause you to miss a due date.
- Do your work well before the due dates. Sometimes things happen. If your computer goes down when you are trying to submit an assignment, you'll need time to troubleshoot the problem.
- To be extra safe, back up your work to an external hard drive, thumb drive or through a cloud service.

Privacy and Accessibility Policies

For information about the privacy policies of the tools used in this course, see the links below:

TECHNOLOGY	PRIVACY POLICY	ACCESSIBILITY POLICY/STATEMENT
Instructure (Canvas)	Privacy Policy	<u>Accessibility</u>
Sonic Foundry (Mediasite Streaming Video Player)	Privacy Policy	<u>Accessibility</u>

Zoom	Privacy Policy	<u>Accessibility</u>
Google	Privacy Policy	<u>Accessibility</u>
Microsoft	Privacy Policy	Accessibility
PlayPosit	Privacy Policy	Accessibility
Honorlock	Privacy Policy	Accessibility

Weekly Course Schedule (Tentative)

Module quiz and Mini Project deadlines are given below. They are due by 11:59pm EST on the given date, with the exception of the material covered before drop/add.

	Monday		Thursday
Week 1			8/22 Module 1:
			Course Orientation and
			Syllabus
Week 2	8/26 Module 2:		8/29 Module 3:
	What is Statistics?		Exploring Data with Graphs
Week 3	9/2 Labor Day	Tuesday 9/3 Module 4:	9/5 Module 5:
		Measures of Center, Spread	Introduction to Regression
		and Position	
Week 4	9/9 Module 6:		9/12 Module 7:
	Cautions in Regression and		Gathering Data
	Categorical Data		
Week 5	9/16 Module 8:		9/19 Module 9:
	Understanding Probability		Continuous Probability
	Mini Project 1 due		Distributions
Week 6	9/23 Module 10:		9/26
	Discrete Probability		Exam 1
	Distributions and Review of		
	Normal		
Week 7	9/30 Module 11:		10/3 Module 12:
Exam Week	Sampling Distribution of \hat{p}		Sampling Distribution of \bar{x}
Week 8	10/7 Module 13:		10/10 Module 14:
	More Sampling Distribution		Confidence Intervals for p
	Problems		

Week 9	10/14 Module 15:		10/17 Module 16:
	Confidence Intervals for μ		Sample Size Determination
			and More on Confidence
			Intervals
Week 10	10/21 Module 17:		10/24
	Significance Tests for		Exam 2
	Proportions		
	Mini Project 2 due		
Week 11	10/28 Module 18:		10/31 Module 19:
Exam Week	Significance Tests for Means		Additional Concepts about
			Significance Tests
Week 12	11/4 Module 20:		11/7 Module 21:
	Comparing Two Independent		Comparing Two Independent
	Proportions		Means
Week 13	11/11 Veterans Day		11/14 Module 22:
			Comparing Two Dependent
			Means
Week 14	11/18 Module 23:		11/21 Module 24:
	McNemar's Test and		Review Mixed Examples
	Permutation Tests		
	Mini Project 3 due		
Week 15	11/25 Thanksgiving		11/28 Thanksgiving
Week 16	12/2	Wednesday 12/4 Exam 3	