

STA 2023: Fundamental Business Statistics

Section 0015

Florida State University
Department of Statistics
Spring 2021

Course Information

Class Times and Location

This class will be taught remotely and asynchronously. As such, there are no scheduled class times for synchronous meetings on Zoom, nor any assigned meeting places. All content will be hosted on the course's Canvas site.

Instructor: Junge Li

- Email: j118r@my.fsu.edu
- Office hours: Zoom meetings by appointment.

Teaching Assistant: Jiuwu Jin

- Email: jj17g@my.fsu.edu
- Office hours: Zoom meetings by appointment.

Course Description

Credit Hours: 3

Prerequisite

None, but we recommend two years of high school algebra.

Special Note

High school students who earn a "3" or better on the AP Statistics exam will be given credit for STA 2023.

Required Materials

TI-84 Plus or equivalent calculator. We will help you to learn how to use a TI-84 series calculator, but we cannot promise to be able to help with any other type of calculator.

Textbook (Optional)

Moore, D. S., McCabe, G. P., Alwan, L. C., & Craig, B. A. (2016). *The Practice of Statistics for Business and Economics* (Fourth ed.). New York, NY: W. H. Freeman.

The course covers statistical applications in business, involving graphical and numerical descriptions of data, data collection, correlation and simple linear regression, elementary probability, random variables, Binomial and Normal distributions, sampling distributions, and confidence intervals and hypothesis tests for a single sample.

The purpose of this course is to prepare students for further study and job preparation in the field of Business. It will emphasize understanding of data and interpretation of statistical analyses. It will require students to think of data, and report the results of their analyses, in context.

Email & Communication

Please **turn on the course notifications in Canvas** by going to “Account/Notifications/” and checking the “Notify immediately” option for all of the items under Course Activities.

If you email us, please do so from your @my.fsu.edu account. Sending mail from personal e-mail id may not reach us due to filters. While you can expect me to try to answer as quickly as possible, please allow us up to **two working days** to respond. If we have not responded by that time, we encourage you to send me a follow-up email.

You are also welcome to message us through Canvas, but our quickest responses will always come through email.

Lecture Videos

Watching the lecture videos is equivalent to attending class and listening to lectures. We acknowledge that the lecture videos are not short, but remember that class time would have been 50 or 75 mins - not short either. On the bright side, however, you may pause the video at any time and return to it later - you would not have been able to do that with live lectures. Therefore, we fully expect you to watch the lecture videos in their entirety. Pause whenever you need to, but always be sure to return and finish watching the video.

Please note that the recorded lectures are the property of Florida State University and are made available only to the students enrolled in this class. Students are not permitted to share the recorded lectures with any other persons outside of this class. Copyrights of the recorded lectures are reserved by the instructor and Florida State University.

Note on Technology-dependent Assessments

This course is heavily technology-dependent. While we will do our best to work with you on technology issues, please be aware that if you take an assessment but we can find absolutely no record of the fact, then we will not be able to give you credit for it. Please **DO NOT USE SAFARI** when you take assessments on Canvas – **please use Chrome or Firefox**.

Course Objectives

This course has been approved to meet FSU’s Liberal Studies Quantitative and Logical Thinking requirements and is designed to help you become a critical analyst of quantitative and logical claims. In order to fulfill the State of Florida's College mathematics and computation requirement the student must earn a “C-” or better in the course.

By the end of the course, students will:

(1) Select and apply appropriate methods (i.e., mathematical, statistical, logical, and/or computational models or principles) to solve real-world problems.

(2) Use a variety of forms to represent problems and their solutions.

The above two competencies will be assessed in the Liberal Studies Quantitative Assessment for STA 2023, which includes a written summary of results.

(3) Use descriptive statistics and graphical methods to summarize data accurately.

(4) Use inferential statistics to make valid judgments based on the data available.

(5) Describe the goals of various statistical methodologies conceptually.

(6) Apply statistical techniques in the context of business processes, everyday life, and further studies in their discipline.

(7) Develop a healthy skepticism toward statistical studies and their results based on a sensible consideration of the techniques employed.

Important Dates

Classes begin on January 6th and end on April 16th.

Last day to drop a course without receiving a grade is February 19th.

The final exam will be given during Finals Week April 19th – 23rd. Please see the Tentative Pacing Schedule (TPS) for all other assessment dates.

First Day Attendance and Drop/Withdrawal Deadline

Although the class is remote, first day attendance is still mandatory per university regulations. I expect each of you to submit the “First Day Attendance” Quiz on the very first day of your class – January 6th. Students who register for this course after January 6th, need not to submit “First Day Attendance” Quiz.

Drop and Withdrawal deadlines are given in the University’s academic calendar at <https://registrar.fsu.edu/calendar/>.

Link to Resources at the Office of Faculty Development and Advancement:

<https://fda.fsu.edu/academic-resources>

Assessments and Grading

Assessments that are not submitted will receive a grade of zero. If you are absent for an assessment, there may be make-up opportunities (see the Make-Up Policy). When a makeup is submitted, the zero will be replaced with the earned grade. If you miss an assessment and do not make it up according to the Make-Up Policy, then it will be given a grade of zero (0).

Grading Structure

Assessments			
Type	Count	Weight	Total Weight
Open Quizzes	8 (drop 1)	5%	35%
Timed Quizzes	4 (drop 1)	10%	30%
LSQA	1	10%	10%
Cumulative Final Exam	1	25%	25%
Total			100%

(1) Open Quizzes (35%)

There will be eight (8) open quizzes which will be available on Canvas *from 8:00 am Monday to 11:59 pm Sunday*. The lowest one will be dropped at the end of the semester. Each quiz will allow unlimited attempts. Open quizzes will allow collaboration with others.

(2) Timed Quizzes (30%)

There will be four (4) timed quizzes which will be available on Canvas *from 8:00 am Monday to 11:59 pm Friday*. The lowest one will be dropped at the end of the semester. Each quiz will take 60 minutes and allow two attempts. Collaboration with others will NOT be permitted.

(3) Liberal Studies Quantitative Assessment (LSQA) (10%)

There will be one (1) Liberal Studies Quantitative Assessment (LSQA), a university-mandated assessment covering one topic. LSQA will be available on Canvas *from 8:00 am Monday to 11:59 pm Friday* during the week 7. It will take 50 minutes and allows for two attempts. Collaboration with others will NOT be permitted.

(4) Cumulative Final Exam (25%)

There will be one (1) cumulative final exam which will be given on Canvas *from 8:00 am Monday to 11:59 pm Friday* during the final week. The exam will take 2 hours and allow two attempts. Collaboration with others will NOT be permitted.

Final instructions will be given prior to each assessment, but the following will generally apply:

- Each assessment will be open book, which means you can use your own notes, any material (e.g., notes, slides, emails, videos) I provide, or any other resources at your disposal (excluding other humans unless told otherwise).
- You will be allowed to use your calculator.

Unless told, otherwise under no circumstances will you be allowed during an assessment to:

- Share resources, equipment, work, or answers with other students.
- Receive help from other students or people.
- Give help to other students.

Grade Distribution	
Letter Grade	Numerical Grade
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	0-59

Your overall course grade will be calculated according to your assessment scores (reported as percentages) and the weights given to those assessments, and your letter grade will be assigned using the table above and the smallest whole number greater than or equal to your overall course grade (e.g., an overall course grade of 89.04 will be assigned an A- since 90 is the smallest whole number greater than or equal to 89.04).

Grades will not be curved, and there will be no opportunities for extra credit, make-ups, or any other forms of grade improvement after the Last Day of Class. Therefore, you should do your best throughout the entire semester.

We will not be using Honorlock.

To make the most of this course, one should

- Listen to all the video lectures attentively.
- Make sure to ask any doubts / questions and discuss it with us till the point of clear understanding.
- Go through the topics covered in lecture videos and practice numerical examples in spare time on your own.
- Complete the assessments in timely manner. If you ask for help from your friends or from us, make sure you understand the solution before you submit it.
- Participate in the class. Ask questions on the discussion board, answer other students' questions. Now that we are not going to meet in person, class participation is more important than ever.
- Plan your studies during the semester, so that one is prepared for the exams in timely manner without unnecessary stress.

Course Policies**Syllabus Change Policy**

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.

Grade Appeal Policy

If you believe an assessment has been improperly graded, then you must discuss it with me within one (1) calendar week after your grade has been posted to Canvas. If I do not hear from you within this period, I will assume the grade is accepted. **Grade appeals will not be allowed after the Last Day of Class.**

Make-Up Policy

Make-ups are for being unable to submit an assessment during its availability only. Make-ups will not be given due to undesired performance on an assessment.

If you are unable to submit an assessment during its availability, then please email me immediately. You will have until Wednesday of the following week to make up a missed assessment unless you have a documented reason for being unable to do so. You will be allowed three (3) makeups without providing documentation, but you must provide documentation for all further make-up opportunities. If you do not complete a make-up according to the above guidelines, then the missed assessment will receive a grade of zero (0).

No make-ups will be given after the Last Day of Class. If you are absent for the Final Exam, then you must email me immediately. Absolutely no documentation will be accepted after the last day of class.

* WE WILL ACCEPT DOCUMENTATION FOR ABSENCES CAUSED BY:

- religious holidays: write a letter, date and sign it, and give it to your TA by the Monday of the week in which the holiday occurs; letters presented after this deadline will not be accepted and your absence will count as a “without documentation” case.
- health matters related to self or immediate family members: doctor’s note must be dated at most 5 calendar days before or after the date of absence.
- crises for which we receive a notification letter from the Dean of Students Department events where you represent FSU, such as FSU sports teams, FSU music groups, etc
- traffic accident or any other event where law enforcement was called in
- death in the family and other documented crises as approved by the Dean of Students Department
- jury duty or any other court appointments
- military-related matters

Please note that lack of future planning, or mismanagement of time and other resources, are not acceptable reasons for being absent. In addition, travel tickets and itineraries do not count as documentation, because travel per se is not an acceptable reason for being absent. You must have an acceptable reason for travelling.

Please note that the FSU University Health Services ‘Verification of Visit’ does not constitute a documented absence.

Final Exam Rescheduling Policy

You may not take the final exam before final exams week. Individual students who need to reschedule the final exam for a different time during final exams week will need to

- (1) talk to me about it first and get my permission to reschedule,
- (2) fill out the “Request to Reschedule Final Examination” form at <https://artsandsciences.fsu.edu/students/undergraduate/forms-requiring-deans-approval/rescheduling-final-examination> and get it approved by the Dean of Arts and Sciences office, and
- (3) let me have the approved form **by the last day of classes.**

If you experience a documented emergency that prevents you from observing the above deadline, contact me as soon as you are able to, and we’ll take it from there.

University Attendance Policy

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Academic Honor Policy

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/Academics/Academic-Honor-Policy>)

Sexual Misconduct and Title IX Reporting

As an instructor, I am obliged to report all instances of sexual misconduct that I become aware of to the University’s Title IX Director; I cannot hold such information confidential. If you would like to discuss your situation in confidence, you may contact the Victim Advocate Program (<https://dos.fsu.edu/vap/>), the University Counseling Center (<https://counseling.fsu.edu/>), the Employee Assistance Program (<https://eap.fsu.edu/>), University Health Services (<https://uhs.fsu.edu/>), or pastoral counselors.

Americans with Disabilities Act

Florida State University (FSU) values diversity and inclusion; we are committed to a climate of mutual respect and full participation. Our goal is to create learning environments that are usable, equitable, inclusive, and welcoming. FSU is committed to providing reasonable accommodations for all persons with disabilities in a manner that is consistent with academic standards of the course while empowering the student to meet integral requirements of the course.

To receive academic accommodations, a student:

- (1) must register with and provide documentation to the Office of Accessibility Services (OAS);
- (2) must provide a letter from OAS to the instructor indicating the need for accommodation and what type; and,
- (3) should communicate with the instructor, as needed, to discuss recommended accommodations. A request for a meeting may be initiated by the student or the instructor.

Please note that instructors are not allowed to provide classroom accommodations to a student until appropriate verification from the Office of Accessibility Services has been provided. This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the

Office of Accessibility Services
 874 Traditions Way
 108 Student Services Building
 Florida State University
 Tallahassee, FL 32306-4167
 (850) 644-9566 (voice)
 (850) 644-8504 (TDD)
 oas@fsu.edu
<https://dsst.fsu.edu/oas>

Tentative Course Pacing Schedule:

Week/Holidays	Dates	Day 1	Day 2	Assessment
1	Jan 6th – 10th		Syllabus & Introduction	First Day Attendance
2	Jan 11th-17th	Summary Statistics	Summary Statistics	OQ 1
3 / MLK Jr Day	Jan 18th-24th	Summary Statistics	Timed Quiz 1	
4	Jan 25th-31st	Normal Distribution	Normal Distribution	OQ 2
5	Feb 1st-7th	Central Limit Theorem	Central Limit Theorem	OQ 3
6	Feb 8th-14th	Timed Quiz 2	Simple Linear Regression	
7	Feb 15th-21st	Simple Linear Regression	LSQA	
8	Feb 22nd-28th	Probability	Probability	OQ 4
9	Mar 1st-7th	Random Variables	Random Variables	OQ 5
10	Mar 8th-14th	Timed Quiz 3	Binomial Distribution	
11	Mar 15th-21st	Binomial Distribution	One-Sample CIs	OQ 6
12	Mar 22nd-28th	One-Sample CIs	One-Sample CIs	OQ 7
13	Mar 29th-Apr 4th	Timed Quiz 4	One-Sample Hypothesis Tests	
14 / Homecoming	Apr 5th-11th	One-Sample Hypothesis Tests	One-Sample Hypothesis Tests	OQ 8
15	Apr 12th-18th	Last Week - No Lectures		
Final week	Apr 19th-23rd	Final Exam		