



STA 2023: Fundamental Business Statistics

Section 0015

Department of Statistics

Florida State University

Fall 2020

COURSE INFORMATION

Course Website: <https://canvas.fsu.edu/>

Class Time and Location: The class will be taught remotely (no physical location) and asynchronously (no particular class timings).

Instructor: Sudipto Saha

- E-mail: ss18eo@my.fsu.edu
- Office Hours: Wednesday, 12pm – 1pm (EST), or by appointment
- Office hours joining link: Sudipto's Office Hours (Zoom meeting on Canvas webpage)

Teaching Assistant: SungHee Park

- E-mail: sp17s@my.fsu.edu
- Office Hours: Friday, 2pm – 3pm (EST), or by appointment
- Office hours joining link: SungHee's Office Hours (Zoom meeting on Canvas webpage)

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. Textbook is not a required material for this course.

Recommended Textbook: 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: Macmillan 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.

Lecture Videos: As the course is asynchronous, no live lectures would be performed; instead, lecture notes and lecture videos will be uploaded. 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.

Recorded lectures are FSU properties and only available to students enrolled in your class. Students are not allowed to share the recorded lectures to any other people outside the class. Copyright of the recorded lectures are reserved by the instructors and FSU.

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 demonstrate the ability to:

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 (LSQA) 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.

E-MAIL AND COMMUNICATION

- Please **turn on the course notifications on Canvas** by going to “Account / Notifications /” and checking the “Notify me right away” option for all the items under Course Activities.
- Please **do not reply to "notifications@instructure.com"**. Use our **mentioned e-mail id** or **Canvas inbox** while replying us to any Canvas notifications.
- Always use your @my.fsu.edu e-mail id to communicate. Sending mail from personal e-mail id may not reach us due to filters. You may expect a response to your e-mail **within 2 working days**.
- Apart from conversation during office hours, we will communicate with you by sending e-mails to your @my.fsu.edu id and posting announcements on the course website. **Please check your e-mail and the announcements daily**.
- Please send assessment-related enquiries at least 24 hours before the assessment is due to begin.
- Always include your name when you e-mail us. If we need to know this information in order to answer your query and you have not provided it, you may not get a response.

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 - August 24th. Students who register for this course after August 24th, 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/>.

ASSESSMENTS AND GRADING STRUCTURE

Assessments			
Type	Count	Weight	Total Weight
Quiz	6 (drop 1)	15%	75%
LSQA	1	10%	10%
Homework	3	5%	15%
		Total:	100%

1. All the quizzes will be online, through Canvas.
2. All the quizzes will have defined time limit, which will be communicated before each quiz.
3. There will be **6 quizzes** in total. The lowest scored quiz among the **first five quizzes** will be dropped at the end of the semester. The last quiz (Quiz 6) will not be dropped even if someone scores lowest in that one. Before each quiz, the topics covered for that quiz will be communicated.
4. There will be **1 Liberal Studies Quantitative Assessment (LSQA)**, which will cover only one topic. The topic covered will be communicated accordingly.
5. There will be **3 homeworks** in total. The topics covered will be communicated accordingly.

Instructions: Final instructions will be given prior to each quiz, but in general you must follow below instructions.

- TI-84 (or equivalent) calculator is allowed. You can also use the TI Emulator (software version).
- All the quizzes are open book, open material.
- Discussion or any kind of collaboration with other students for quizzes is **STRICTLY NOT ALLOWED**.
- You can use scratch papers to solve problems.

Discussion is allowed for homeworks. **Homeworks are required to be submitted individually and not in groups**, but you can discuss your homework with other students of your class. However, you should come up with your own solution. Please avoid plagiarism, it means, you can discuss a problem with your classmate, but your answer should not be exactly same with your classmate. You should have your own words to write an answer.

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 submit 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 submit assessments on Canvas, please **USE Chrome** or **Firefox**.

Overall Course Grade:

Grade Distribution	
Letter Grade	Overall Percentage
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 percentage will be calculated according to your assessment scores (reported as percentages) and the weights given to those assessments. Your letter grade will be assigned using the table above by rounding up the overall percentage to the smallest whole number greater than or equal to that (e.g., an overall percentage of 89.01% will be assigned an A- since 90% is the smallest whole number greater than or equal to 89.01%).

No make-ups, no extra credit assignments, no curving grade, and in general, no opportunities for grade improvement will be allowed after the Last Day of Class. So, please submit every assessment on time and do your best throughout the term. **Assessments that are not submitted will receive a zero score.** These will be replaced with earned scores if make-ups of the same are submitted later.

Assessment Grade Appeal: During the term, if you believe that an assessment has been improperly graded, then you must e-mail me and discuss it with me **within 1 calendar week** after your grade for that assessment has been posted on Canvas. If you get an answer wrong in an assessment and believe that you may be right, you are able to send an e-mail to me and explain the question, the correct answer, and your justification. The problem will be reviewed and if you are correct, you will receive points back for that question. If I do not hear from you within 1 calendar week, I will assume the grade is accepted. **Assessment grade appeals will not be allowed after the Last Day of Class.**

Missing Grade: Please check your grades on the course website every day to make sure your latest grade has been posted; please do this even if you already know your grade. If a grade is not posted, **alert me immediately via e-mail**. It is important that you alert me via e-mail so that there will be a record of the fact that you reported the matter. If you report a missing grade **within 2 working days** after the assessment took place, I will do my best to locate the missing grade.

Receiving a grade of “Incomplete”: A request for a grade of “Incomplete” will

- **NOT be granted** if you have completed the coursework, including the final quiz (Quiz 6).
- **be granted** only if both of the following conditions are satisfied:
 - a) the only assessment that you have yet to submit is the final quiz (Quiz 6), and
 - b) your overall percentage excluding the final quiz (Quiz 6) is a passing grade (70% or above).

COURSE POLICIES

Make-up Policy:

Make-ups will not be allowed due to undesired performance on an assessment. Make-ups of any quiz or LSQA are allowed only if you have a **religious holiday** fallen on the assessment days or a **strong and genuine reason** for not submitting that assessment in the timely manner. If you could not be able to submit a quiz or LSQA for some reason, **let me know immediately** and I would assign you a make-up only if your reason is genuine and if you can show proper documentation. If you could not submit a quiz or LSQA for any medical reason, then a medical certificate or similar document needs to be sent to me **before the make-up date**. A missed make-up will receive a zero score.

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.

Grade Appeal Policy:

If you are not satisfied with your final course grade, then please e-mail me within **3 calendar weeks** after your final grade has been posted on Canvas and we will discuss.

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.

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.

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>)

Americans with Disabilities Act:

Students with disabilities needing academic accommodation should:

- 1) register with and provide documentation to the Office of Accessibility Services; and
- 2) request a letter from the Office of Accessibility Services to be sent to the instructor indicating the need for accommodation and what type; and
- 3) meet (in person, via phone, email, skype, zoom, etc.) with each instructor to whom a letter of accommodation was sent to review approved accommodations.

Please note that instructors are not allowed to provide classroom accommodation 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 PACING SCHEDULE

Week	Holiday	Topics Covered	Assessments due
Aug 24 – Aug 28		- Prerequisite Math Skills - Introduction	
Aug 31 – Sept 4		Summary Statistics	
Sept 7 – Sept 11	Labor Day on Sept 7	Summary Statistics	Quiz 1 due on Sept 7
Sept 14 – Sept 18		Probability	
Sept 21 – Sept 25		Probability	Quiz 2 due on Sept 21
Sept 28 – Oct 2		Random Variables	
Oct 5 – Oct 9		Simple Linear regression	Quiz 3 due on Oct 5
Oct 12 – Oct 16		Simple Linear regression	Homework 1 due on Oct 16
Oct 19 – Oct 23		Binomial Distribution	
Oct 26 – Oct 30		Normal Distribution	LSQA due on Oct 26
Nov 2 – Nov 6		Central Limit Theorem	Quiz 4 due on Nov 2
Nov 9 – Nov 13	- Veteran's Day on Nov 11 - Homecoming on Nov 13	One Sample Confidence Interval	Homework 2 due on Nov 9
Nov 16 – Nov 20		One Sample Hypothesis Test	Quiz 5 due on Nov 20
Nov 23 – Nov 27	Thanksgiving on Nov 25 – Nov 27	No Lectures	
Nov 30 – Dec 4		One Sample Hypothesis Test	Homework 3 due on Dec 4
Dec 7 – Dec 11		Last Week - No Lectures	Quiz 6 due on Dec 10