

# STA 2023-0015(Fall 2021): Fundamental Business Statistics

## Department of Statistics, Florida State University

Course modality: Face-to-Face/F2F (in-person in a classroom)

Time & location: MWF 12:00 - 12:50 PM, OSB 110

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

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### Instructor information

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Name:	Ye Eun Bae
Email:	<a href="mailto:yb18c@my.fsu.edu">yb18c@my.fsu.edu</a>
Office Hours:	Mon & Tue 1:00 - 2:00 PM

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## Course Description

**Credit Hours** 3

**Prerequisites** 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.

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.

### Materials

- A personal computer, reliable internet connection, and Chrome or Firefox browser.
- A TI-84 Plus or equivalent calculator. We will teach you how to use a TI-84 series calculator, but we cannot promise to be able to help with any other type of calculator.
- A textbook is not required for this class. The instructor will provide all required course notes and exercises.

**Additional Resource** The following free online textbook is an additional resource that you might find useful: Introductory Statistics from OpenStax, Print ISBN 1938168208, Digital ISBN 1947172050,

[https://urldefense.com/v3/\\_\\_http://www.openstax.org/details/introductory-statistics\\_\\_;!!Epnw\\_ITfSMW4!7W4bWv5HfpB9NXB\\_GRjru28-GDNSpk0BQ1KkRl6ec4vEVcs5\\_ePmDSNpu5oQHwbGhw\protect\T1\textdollar](https://urldefense.com/v3/__http://www.openstax.org/details/introductory-statistics__;!!Epnw_ITfSMW4!7W4bWv5HfpB9NXB_GRjru28-GDNSpk0BQ1KkRl6ec4vEVcs5_ePmDSNpu5oQHwbGhw\protect\T1\textdollar).

## Learning 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 2122, which includes a written summary of results.*

- (4) Use descriptive statistics and graphical methods to summarize data accurately.
- (5) Use inferential statistics to make valid judgments based on the data available.
- (6) Describe the goals of various statistical methodologies conceptually.
- (7) Apply statistical techniques in the context of business processes, everyday life, and further studies in their discipline.
- (8) Develop a healthy skepticism toward statistical studies and their results based on a sensible consideration of the techniques employed.

## Assessments and Grading

- **Attendance (10%)**
- **Liberal Studies Quantitative Assessment (LSQA) (10%)**: There will be one LSQA, a university-mandated assessment covering one topic.
- **Quizzes (50%)**: There will be five quizzes, each of which will cover approximately two weeks' worth of material, given through Canvas. Students must turn in a scanned copy or photo of their answers by clicking "Submit" on the Assignments tab. Each quiz score will be weighted equally.
- **Final Exam (30%)**: There will be one cumulative final exam, which is scheduled for **Dec 6 (Mon) at 3:00 - 5:00 PM** (location TBA). Further instructions will be given as Final Exam Week approaches.
- **Bonus Questions (up to 5%)**: You will be able to get extra credit from at least one bonus questions given in each quiz.

Students are NOT allowed to collaborate on the LSQA, quizzes including bonus questions, and final exam.

Grade Distribution (Letter & Overall Course Grades)									
A	93 – 105	B+	87 – 89	C+	77 – 79	D+	67 – 69	F	0 – 59
A-	90 – 92	B	83 – 86	C	73 – 76	D	63 – 66		
		B-	80 – 82	C-	70 – 72	D-	60 – 62		

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).

## Tentative Pacing Schedule

Week	Date	Monday	Wednesday	Friday
1	Aug 23 - Aug 27	<b>First Day Attendance*</b>	Summary Statistics	Summary Statistics
2	Aug 30 - Sep 3	Summary Statistics	Summary Statistics	Quiz 1 Preparation
3	Sep 6 - Sep 10	Labor Day	Normal Distribution	<b>Quiz 1 Due</b>
4	Sep 13 - Sep 17	Normal Distribution	Normal Distribution	Central Limit Theorem
5	Sep 20 - Sep 24	Central Limit Theorem	Central Limit Theorem	Quiz 2 Preparation
6	Sep 27 - Oct 1	Simple Linear Regression	Simple Linear Regression	<b>Quiz 2 Due</b>
7	Oct 4 - Oct 8	Simple Linear Regression	Simple Linear Regression	LSQA Preparation
8	Oct 11 - Oct 15	Probability	Probability	<b>LSQA Due</b>
9	Oct 18 - Oct 22	Random Variables	Random Variables	Quiz 3 Preparation
10	Oct 25 - Oct 29	Binomial Distribution	Binomial Distribution	<b>Quiz 3 Due</b>
11	Nov 1 - Nov 5	Binomial Distribution	Binomial Distribution	Quiz 4 Preparation
12	Nov 8 - Nov 12	One-Sample Confidence Intervals	One-Sample Confidence Intervals	<b>Quiz 4 Due</b>
13	Nov 15 - Nov 19	One-Sample Confidence Intervals	Quiz 5 Preparation	One-Sample Hypothesis Tests
14	Nov 22 - Nov 26	<b>Quiz 5 Due</b>	Thanksgiving Break	Thanksgiving Break
15	Nov 29 - Dec 3	One-Sample Hypothesis Tests	One-Sample Hypothesis Tests	Final Review (Last Day of Class)

### \*First Day Attendance

- First day attendance is mandatory per university regulations.
- Drop/Withdrawal deadlines are given in the University's academic calendar at [http://registrar.fsu.edu/registration\\_guide/fall/academic\\_calendar](http://registrar.fsu.edu/registration_guide/fall/academic_calendar).  
(Last day to drop a course without receiving a grade is Oct 8.)

## For Our Health

The Florida State University expects all the students, faculty and staff to wear a face-covering or mask in the building on campus at all times. Please click the following two hyperlinks to get to the related information.

- [State University System of Florida Health Policies for the 2021-22 Academic Year](#)
- [Message from the University Administration on the Fall Semester Expectations for Campus](#)

## Course Policies

**Make-Up Policy** Make-ups are for being unable to submit an assessment during its availability. 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 Friday of the following week to make up the missed assessment unless you have a documented reason for being unable to do so. You will be allowed three make-ups 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.

No make-ups will be given after the Last Day of Class. If you are unable to submit the Final Exam during its availability, then you must email me immediately.

**Grades** Assessments that are not submitted will receive a grade of zero. When a make-up is submitted, the zero will be replaced with the earned grade.

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

You may expect a response to your email within two work days (one work day in Summer).

**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/>), Counseling & Psychological Services (<https://counseling.fsu.edu/>), the Employee Assistance Program (<https://eap.fsu.edu/>), University Health Services (<https://uhs.fsu.edu/>), or pastoral counselors.

**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

- (i) talk to me about it first and get my permission to reschedule,
- (ii) fill out the “Request to Reschedule Final Examination” form at [https://artsandsciences.fsu.edu/sites/g/files/upcbnu321/files/2020-09/Request\\_to\\_Reschedule\\_revised.pdf](https://artsandsciences.fsu.edu/sites/g/files/upcbnu321/files/2020-09/Request_to_Reschedule_revised.pdf) and get it approved by the Dean of Arts and Sciences office, and
- (iii) 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/academic-resources/academic-integrity-and-grievances/academic-honor-policy>)

**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/>

**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.

## Confidential Campus Resources

Various centers and programs are available to assist students with navigating stressors that might impact academic success. These include the following:

<b>Victim Advocate Program</b>	<b>Counseling and Psychological Services</b>	<b>University Health Services</b>
University Center A, Rm. 4100	Askew Student Life Center, 2nd floor	Health and Wellness Center
(850) 644-7161	942 Learning Way	(850) 644-6230
Available 24/7/365	(850) 644-8255	<a href="https://uhs.fsu.edu/">https://uhs.fsu.edu/</a>
Office Hours: M-F 8-5	<a href="https://counseling.fsu.edu/">https://counseling.fsu.edu/</a>	
<a href="https://dsst.fsu.edu/vap">https://dsst.fsu.edu/vap</a>		