



**Florida State University**

**Department of Statistics**

**STA 2023 – Fundamental Business Statistics**

**Spring 2022 – Online Course (Sections 0020, 0021, 0022)**

**3 Credit Hours**

**Instructor:** Kristine Rosenberger

**Email:** [kjr17c@my.fsu.edu](mailto:kjr17c@my.fsu.edu) (expect responses within 48 hours).

**Office:** OSB 410

**Office Hours:** Since this is an online course, there will be no office hours. Please e-mail me to schedule an appointment if a question or concern arises.

**Mentor (TA):** Shaokang Ren

**Email:** [sr17k@my.fsu.edu](mailto:sr17k@my.fsu.edu)

Shaokang Ren will help answer/ address assignment/quiz questions emails from you, to provide faster response times. He will also assist with various grading tasks relating to this course. **If you have assignment/quiz questions please email Shaokang Ren ([sr17k@my.fsu.edu](mailto:sr17k@my.fsu.edu)) and cc me on it: Always title your email STA2023 clarification,...etc.**

**Class Meeting Days/Times/Location:** This is an online course. The LSQA and Final Exam will both be given on Canvas.

The Common Assessment (CA) is a special quiz required by the FSU for certain STEM core courses. This quiz is based on units 7 and 8 (linear regression).

**Required Material:**

- A personal computer, reliable internet connection, and Chrome or Firefox browser. This class will be conducted entirely on Canvas. This has the notes and quizzes for the course.
- 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 TI-84 Plus or equivalent calculator.

**TI-83, TI-83+, TI-84, TI-84+ Graphing Calculator- Very Important course companion**

If you use any of the above model TI- calculator the cause can be extremely easy, and very short video links for almost all chapters are provided on canvas for you. So please borrow or buy one and use it for this class. It will save you a lot of time, energy, challenges when solving problems and doing the CA and final exam.

**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\\_!!EpnwITfSMW4!6iOJIC228c4coaXTS9R1LbkHHLUQhxjL-CBrHNcncv9Sf5nbinIVpII88Ae7oSmCDP8A\\$](https://urldefense.com/v3/http://www.openstax.org/details/introductory-statistics_!!EpnwITfSMW4!6iOJIC228c4coaXTS9R1LbkHHLUQhxjL-CBrHNcncv9Sf5nbinIVpII88Ae7oSmCDP8A$) .

General Course Information:

**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.

**Description:**

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.

**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 L.S. 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:

**First Day Attendance:** *Represents taking the unit 0 quiz on Canvas (this will not be graded for accuracy).* Due by Thursday January 6, 2022 at 8:00 pm. If you have not completed the requirement by this point you will be dropped from the course.

**Common Assessment:** Due from March 6 – March 12: You will be asked to pick any day from March 6 – March 12 to take the CA on Canvas.

**Final Exam:** Due from April 25 – April 29. You will be asked to pick any day from April 25 – April 29 to take the final on Canvas.

Pacing Schedule:

All assignments are due **Saturdays at 11:59pm eastern time (EDT)**. Grades will submit automatically at this time, even if you are working on them. Note that there is a quiz to complete for every chapter

<b>Week</b>	<b>Due Date</b>	<b>Assignments Due</b>
Week 1 (Jan 2 – Jan 8)	<b>Thursday Jan 6 – 8:00pm EDT</b>	First Day Attendance (Unit 0 on Canvas)
Week 2 (Jan 9 – Jan 15) <b>Introduction; Unit 1 – Data and Graphing</b>	Jan 15	Quiz 0 (Collaboration Allowed) Quiz 1
Week 3 (Jan 16 – Jan 22) <b>Unit 2 - Sampling</b>	Jan 22	Quiz 2

Week 4 (Jan 23 – Jan 29) <b>Unit 3 – Summary Statistics</b>	Jan 29	Quiz 3
Week 5 (Jan 30 – Feb 5) <b>Unit 4 - Probability</b>	Feb 5	Quiz 4
Week 6 (Feb 6 – Feb 12) <b>Unit 5 – Random Variables</b>	Feb 12	Quiz 5
Week 7 (Feb 13 – Feb 19) <b>Unit 6 – Binomial Distribution</b>	Feb 19	Quiz 6
Week 8 (Feb 20 – Feb 26) <b>Unit 7 – Simple Linear Regression</b>	Feb 26	Quiz 7 (Collaboration Allowed)
Week 9 (Feb 27 – Mar 5) <b>Unit 8 – Linear Regression</b>	Mar 5	Quiz 8 (Collaboration Allowed)
Week 10 (Mar 6 – Mar 12) <b>TAKE LSQA</b>	Mar 12	LSQA/Common Assessment
Week 11 (Mar 13 – Mar 19) <b>SPRING BREAK</b>	--	--
Week 12 (Mar 20 – Mar 26) <b>Unit 9 – Normal Distribution</b>	Mar 26	Quiz 9
Week 13 (Mar 27 – Apr 2) <b>Unit 10 – Central Limit Theorem</b>	Apr 2	Quiz 10
Week 14 (Apr 3 – Apr 9) <b>Unit 11 – Confidence Intervals</b>	Apr 9	Quiz 11

Week 15 (Apr 10 – Apr 16) <b>Unit 12 – Hypothesis Testing</b>	Apr 16	Quiz 12
Week 16 (Apr 17 – Apr 23)	--	--

### Studying and Doing the Weekly Assignments

Click on the course module that you want to do on Canvas. Each unit will have notes, a lecture video and a quiz (when applicable, there may also be supplemental material including additional notes and practice problems). There are various videos containing examples of how to do problems on the TI-84 calculator. The PowerPoint will tell you if the unit has a supplementary calculator component. The units will generally become available on Canvas Sunday at 12am ET 6 days before they are due.

**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

### Assignments

#### Types of Assignments:

**Quizzes:** Quizzes are assigned on Canvas. Quizzes are graded for accuracy and may be completed twice. The highest score will be kept for each quiz. There is a two (2) hour time limit for each quiz. Quizzes are always due Saturdays at 11:59pm ET. Note that collaboration (i.e., working with other students in the class) is allowed on quizzes 0, 7, and 8.

**Extensions:** You are allowed extensions on up to 2 units in the course (first day attendance, LSQA, and final exam cannot be extended). **All extensions must be completed within 1 week of the original due date - no exceptions.** Additional extensions will require proper documentation.

**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.

**Tests:** See Final Exam and Common Assessment below. There are no other tests.

**Common Assessment & Final Exam:** The Final Exam and Common Assessment will be taken on Canvas. You will be allowed unlimited notes (typed and/or handwritten) and a calculator.

Grading Structure:

**Weights:** Quizzes (Collaboration not allowed) – 50%, Quizzes (Collaboration allowed) – 15%, Common Assessment – 10%, Final Exam – 25%

Assessments that are not taken, and assignments that are not submitted, will receive a grade of zero. When a missed assessment/assignment is made up, the zero will be replaced with the earned grade.

**Letter Grades:**

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
93 to 100	90 to 92.99	87 to 89.99	83 to 86.99	80 to 82.99	77 to 79.99	73 to 76.99	70 to 72.99	67 to 69.99	63 to 66.99	60 to 62.99	Less than 60

Late Work:

***Absolutely NO reschedule for missed scheduled exams/tests without valid emergency documentation is allowed. Missed assignments and/or tests/quizzes will receive a 0%.***

Grade Appeals:

Errors in grades **MUST** be reported within one week of the due date of the assignment in question. Absolutely no grades will be adjusted after the final week in the course.

**No Extra Credit Whatsoever**

Absolutely No extra credit is given under any circumstances.

### Recorded lectures:

Recorded lectures are FSU properties and only available to students enrolled in this 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.

## **Mandatory Syllabus Statements**

### 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>.)

### Academic Success

Your academic success is a top priority for Florida State University. University resources to help you succeed include tutoring centers, computer labs, counseling and health services, and services for designated groups, such as veterans and students with disabilities. The following information is not exhaustive, so please check with your advisor or the Dean of Students office to learn more

### Confidential Campus Resources

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

Victim Advocate Program  
University Center A, Rm. 4100  
(850) 644-7161  
Available 24/7/365

K. Rosenberger  
STA 2023 – Spring 2022

Office Hours: M-F 8-5

<https://dsst.fsu.edu/vap>

Counseling and Psychological Services

Askew Student Life Center, 2nd floor

942 Learning Way

(850) 644-8255

<https://counseling.fsu.edu/>

University Health Services

Health and Wellness Center

(850) 644-6230

<https://uhs.fsu.edu/>

### 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](mailto:oas@fsu.edu)

<https://dsst.fsu.edu/oas>

### Liberal Studies for the 21<sup>st</sup> Century

The *Liberal Studies for the 21<sup>st</sup> Century Program* at Florida State University builds an educational foundation that will enable FSU graduates to thrive both intellectually and materially and to support themselves, their families, and their communities through a broad and critical engagement with the world in which they live and work. Liberal Studies offers a transformative experience; this course has been approved as meeting the Liberal Studies requirements and thus is designed to help you become a critical analyzer 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.

### E-mail and 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 the items under Course Activities. You may expect a response to your email within two work days.

### Notes 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.

### 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 advanced 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/>), or 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/students/undergraduate/forms-requiring-deans-approval/reschedulingfinal-examination> and get it approved by the Dean of Arts and Science office and
- (iii) let me have the approved 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.