



Fall 2022

Florida State University, Department of Statistics

Main office 214 OSB, phone 850-644-3218.

FSU Police non-emergency: 850-644-1234.

Emergency: 911.

Course Information

Name: [Introduction to Applied Statistics](#)

Course Code: STA 2122 Sections: 0039 & 0041

Credit-hours: 3

Format: [Online Asynchronous](#)

Final Exam: December 5th – December 9th

Prerequisites: A grade of "C-" or better in MAC 1105 College Algebra (or equivalent).

Special Note: Subsequent credit for STA 5126 is not permitted. No credit given for STA 2122 if a grade of "C-" or better is earned in STA 2171, STA 3032 or QMB 3200.

Note on lecture videos

Watching the lecture videos is equivalent to attending class and listening to lectures. If you find that you are unable to watch an entire video in one go, you are encouraged to take a break and return to it later. Pause whenever you need to, but always be sure to return and finish watching the video.

Instructor Information

Name: [Hunter Melton](#)

Email: hjm19d@fsu.edu

You may expect a response from me within two work days in Fall/Spring, or one work day in Summer.

Office Hours: [Monday/Thursday 9-10am on Zoom](#)

If you would like to meet with me at another time or in my physical office, just send an email and ask.

Online Mentor (TA)

Name: [Anjana Renganathan](#)

Email: ar22cj@fsu.edu

Office Hours: [Monday/Wednesday 5-6pm on Zoom](#)

Course Description

The course covers Normal distributions, sampling variation, confidence intervals, hypothesis testing, one-way and two-way analysis of variance, correlation, simple and multiple regression, contingency tables and chi-square tests, non-parametric statistics.

The purpose of this course is to prepare students for further study and job preparation in the field of Natural Sciences. 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.

Learning Objectives

This course has been approved to meet FSU's Liberal Studies **Quantitative and Logical Thinking** requirements and helps 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 for STA 2122, 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. Select the appropriate statistical tools to analyze a particular problem.
6. Describe the goals of various statistical methodologies conceptually.
7. Develop a healthy skepticism toward statistical studies and their results based on a sensible consideration of the techniques employed.

Required 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. Please note that the materials provided by the instructor were put together for your individual use only. We ask that you do not share them, especially with third parties who are not enrolled in this class. If you seek help outside of class, then you may, of course, allow your helper to see the materials, but please do not allow them to make copies or in any other way take our material. We appreciate your co-operation in protecting our material. Thank you!

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, www.openstax.org/details/introductory-statistics.

Lecture videos and/or other recordings provided by the instructor

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

Note on Technology-dependent Assessments

This course is 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.

Grades

There will be no make-ups, extra credit, and in general no opportunities for grade improvement after the last day of class (12/9). Assessments that are not submitted will receive a grade of zero. When a makeup is submitted, the zero will be replaced with the earned grade.

If you believe that the grade you received on an assessment is incorrect, please bring it to my attention within 72 hours after the grade has been made available to you. If no issues are raised during that 72-hour time frame, then it will be assumed that the grade is accepted and subsequent requests for a grade review may not be granted.

Your overall course grade will consist of the following:

Assessment	Quantity	Weight
Online Homeworks (OH)	6 drop 1 = 5 counted	25%
LSQA	1	10%
Online Exams (OE)	5 drop 1 = 4 counted	40%
Final Exam	1	25%
Total		100%

Online Homeworks (25%)

These homeworks will be on Canvas and will be designed to see if you are engaged in the course and up-to-date with what is being taught. They will be testing both knowledge gained and effort put in. Unlimited attempts will be allowed over a week or two. They will be typically be assigned Monday morning and due approximately two weeks later. They are in the form of Canvas quizzes with unlimited attempts. There will be no make-ups and no extensions, but I will drop your lowest grade. These are homeworks, so, if you need help, feel free to ask questions via email or during office hours. Also, I encourage you guys to collaborate with your classmates on the homeworks.

Online Exams (OEs + LSQA) (50%)

CLASSROOM ASSESSMENTS	
LSQA (10%)	Online Exams (40%)
Mandatory; not dropped; not substituted	Lowest grade dropped.
Will be available on Canvas from 8:00am Thursday until 11:59pm Sunday.	
60 minutes (1 hour) allowed, two attempts allowed.	
Will generally not be cumulative, except in the sense that the material is naturally cumulative.	
The questions will include a few question types that were <u>not</u> previously presented in the class notes or exercises, but these question types will cover material that was definitely previously presented. This means that you should aim to learn the concepts and not just learn how to answer specific types of questions.	
Each assessment is open note, but collaboration is NOT ALLOWED. The ONLY allowed website is the course Canvas, do not use other online resources for exams.	
You will want to use a TI-84 Plus or equivalent calculator.	
Solutions to exams will not be posted, but you may discuss them with me in office hours.	
DO NOT COMMIT ACADEMIC DISHONESTY. Collaboration is not allowed for the online exams. I understand that, given the online class format, there are numerous temptations. Please do not take them.	
I reserve the right to impose a penalty on your grade if you violate any of the guidelines above.	

To prepare for the online exams:

- the topics/class notes covered will be announced on the course website prior to each assessment;

- study the information and examples in the class notes that are specified in the announcements, your notes should have all of the examples that we did in lecture filled in, the notes are incomplete without the filled-in examples;
- do all of the try-on-your-own exercises in the notes;
- do all of the extra/investigative exercises posted with the notes;
- study the solutions even if you get the answers right because the solutions can provide insights to the problems;
- make sure you know how to use your calculator appropriately; and
- come to office hours for additional help if necessary
- there will be review sessions hosted by our TA Anjana on Wednesday before each exam

Missing Exams and Extensions

With the exception of university excused absences, **no makeups or extensions will be allowed for exams.**

Final Exam (25%)

The final exam will be cumulative. You will have two hours to take it and two attempts, and all rules for the online exams apply (no collaboration, etc.). The exam will be available for you to take for the entirety of finals week, from 8:00am Monday 12/5 to 11:59pm Friday 12/9.

Overall Course Grade

Please ignore the grade totals or averages that you may see on Canvas; they are not correct. In this class, we only store and display individual assessment grades on Canvas, we do not do grade calculations there. All grades will be recorded as percentages, and these percentages (not points) will be used in your overall course grade calculation as described in the following steps:

- (i) Online Homework Average = average of all the Online Homework percentages (omitting the lowest one);
- (ii) Online Exam Average = average of all the Online Exam percentages (omitting the lowest one);
- (iii) Overall numerical course grade = $0.25 \times \text{Online Homework Average} + 0.10 \times \text{LSQA percentage} + 0.40 \times \text{Online Exam Average} + 0.25 \times \text{Final Exam percentage}$;
- (iv) Your letter grade will be selected from the table below after rounding the above number grade UP to the next highest whole number.

Number	Letter	Number	Letter	Number	Letter	Number	Letter	Number	Letter
≤59	F	67–69	D+	77–79	C+	87–89	B+	FSU does not award A+	
		63–66	D	73–76	C	83–86	B	≥93	A
		60–62	D-	70–72	C-	80–82	B-	90–92	A-

See the final grade calculator posted on the course website to get a good idea of your current grade.

Issues with Grading

All of our assessments take place on Canvas, so hopefully there will be no problems with missing grades. If Canvas is being strange when you're taking an exam **take a video (probably easiest with your phone) and email it to me.** This is the only way I can guarantee an accommodation. If you complete an exam or homework and your grade isn't showing up in the gradebook, send me an email right away.

Incompletes

A request for a grade of "Incomplete" will ~ NOT be granted if you have completed the coursework, including the assessments that cannot be dropped and excluding the drops and allowable absences.

~ be granted only if both of the following conditions are satisfied:

- (1) the only assessment that you have yet to take is the final assessment, and
- (2) your overall average excluding the final assessment is a passing grade (70% or above).

Sexual Misconduct and Title IX Reporting

As an instructor, I am obliged to report all instances of sexual misconduct and other Title IX issues 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. If you would like to submit a report to the University's Title IX Director, please go to <https://report.fsu.edu/>.

Final Exam Rescheduling Policy

You may not take the final exam before final exams week.

I don't foresee any issues with rescheduling the final exam, since it will be available for all of finals week. Should you need to for some reason, see below.

Individual students who need to reschedule the final exam for a different time during final exams week should talk to me about it first to get my approval and then fill out and follow the instructions on the "Request to Reschedule a Final Examination" form at [https://artsandsciences.fsu.edu/sites/g/files/upcbnu321/files/2022-01/Request to Reschedule 01032022.pdf](https://artsandsciences.fsu.edu/sites/g/files/upcbnu321/files/2022-01/Request_to_Reschedule_01032022.pdf).

The form needs to be submitted to the College of Arts and Sciences before 5pm on 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. Drop and Withdrawal deadlines are given in the University's academic calendar at <https://registrar.fsu.edu/calendar/>.

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>)

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 Department of Student Support and Transitions to learn more.

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.

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 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 the latest version of this statement and 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>

Academic accommodations will be provided as soon as possible after verification is received. Academic accommodations are not retroactive, so they will not apply to lectures/lessons and assessments that took place before verification was received.

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 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/
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Disaster

At times of severe weather or other disasters, please check your FSU email, your text messages, the Seminole Safe App and FSU Alerts (<https://alerts.fsu.edu/>) as often as you can to keep yourself informed. In the absence of internet access, you may call 850-644-4636 for updates. Check for the latest information every day before you leave home so that you don't miss any last minute announcements. If the University closes due to a disaster, we will all be informed via the above means, and classes and office hours will be automatically cancelled even if I don't announce it. As long as the University remains open, classes will still be on. However,

please practice safety first. If it will be unsafe for you to come to class due to the effects of a disaster, please do not attempt to come in. You will not be penalized, we will work with you.

You can sign up to receive alerts via SMS text messages here: <https://emergency.fsu.edu/services/fsu-alert-emergency-notification-warning-system/fsu-alert-sms-text-messages>.

See here for other ways in which FSU delivers warnings: <https://emergency.fsu.edu/services/fsu-alert-emergency-notification-warning-system>.

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.

Classes Subject to HB233 Recording

In this class, consistent with state law and university policy, students are permitted to make recordings of class lectures for personal use only. As noted, sharing, posting, or publishing classroom recordings may subject you to honor code violations and legal penalties associated with theft of intellectual property and violations of other state law. Moreover, students and educators have expressed concern that recording classroom activities may negatively impact the learning experience for others, especially in classes that involve questions, discussion, or participation. To protect a learning environment in which everyone feels free to experiment with ideas, we ask you refrain from recording in ways that could make others feel reluctant to ask questions, explore new ideas, or otherwise participate in class. Students must monitor their recording so that they do not include participation by other students without permission. Students with disabilities will continue to have appropriate accommodations for recordings as established by the Office of Accessibility Services.