

STA 1013 : Statistics Through Example
Florida State University, Department of Statistics
Spring 2024

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: Statistics Through Example

Course Code: STA 1013

Credit-hours: 3

Format: F2F/ Face-to-Face

Class Meeting Days, Times, and Locations:

- **Section 11:** M/W/F 12:00 p.m. - 12:50 p.m., HCB 0207
- **Section 12:** M/W/F 01:20 p.m. - 02:10 p.m., HCB 0207

Students will need to follow the University's current health and safety guidelines when they attend class.

Final Exam Day and Time:

- **Section 11:** Tuesday, April 30, 10:00 a.m. – 12:00 noon
- **Section 12:** Wednesday, May 1, 12:30 p.m. – 02:30 p.m.

Prerequisites: None.

Please note that, for each class period, if no students show up within the first 15 minutes, or if there is a 15-minute stretch of time when no students show up after the last student has left, then the rest of the period will be cancelled. The next lecture will begin where the cancelled lecture would have left off, and the next assessment will include the material that would have been taught in the cancelled lecture.

Instructor Information

Instructor: Jiwon Kang

Email: jk20ej@fsu.edu

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

Office Hours and Locations: Mon. 2:30 p.m. - 4:00 p.m. If you are unable to come at this time, please email me to set up an appointment.

Course Access

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

Canvas Support

Email: canvas@fsu.edu

Phone: 850-644-8004

Website: <https://support.canvas.fsu.edu/home/>

Hours: 8am-5pm, Mon-Fri

Please turn on the course notifications in Canvas by going to Account/Notifications and selecting the Notify immediately option for all of the items under Course Activities. Please check your FSU email and the course announcements every day. If you communicate with me via email, please use your @fsu.edu account. We will not use an online proctoring service.

Course Description

This course provides students with a background in applied statistical reasoning. Fundamental topics are covered, including graphical and numerical descriptions of data, understanding randomness, central tendency, correlation versus causation, line of best fit, estimation of proportions, and statistical testing. Statistical thinking, relevant ideas, themes, and concepts are emphasized over mathematical calculation. In this class students learn many of the elementary principles that underlie collecting data, organizing it, summarizing it, and drawing conclusions from it.

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 (LSQA) which includes a written summary of results. The LSQA forms a mandatory ten percent of the course grade. **If you do not take it, you will not be permitted to pass the class, regardless of how well you perform on the other assessments.** The LSQA will be an online assessment graded for accuracy; two attempts will be allowed; collaboration is not permitted; no internet sources are allowed apart from the course Canvas.

3. Apply sound concepts of sample selection and experimental design in producing data.
4. Use statistical thinking in the context of work processes, academic endeavors, and everyday life.
5. Describe how inferential statistical methods are used to make valid judgments based on the data.
6. Evaluate the validity of statistical results with skepticism based on sensible considerations.

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. While you may share these materials with classmates, we ask that you do not share them with third parties who are not enrolled in this class. If you seek help outside of class, you may 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 Materials

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.

Video/audio recordings

Please note that any recordings provided by the instructor 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 recordings with any person or entity outside of this class. Copyrights of the recordings are reserved by the creators of the recordings 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.

Completing missed assessments in order and in a timely manner so that you can stay on track

Please note that missed assessments need to be completed in order. Therefore, an extension on a specific assessment will not be granted if you have prior outstanding assessments. For example, if you request an extension on Assessment 8 but you did not complete Assessment 3, then you will be denied an extension on Assessment 8 but you may receive an extension on Assessment 3. The last day of classes will be the deadline for all assessment submissions, including assessments where extensions were granted, but not including the final assessment. In addition, since this is a semester-long college course, designed to be taken one step at a time throughout the semester rather than hurriedly over the span of a few days, or a few weeks, we will not allow extensions on due dates during the last two weeks of classes unless you have completed at least eighty percent of the assessments given up to that point, including the LSQA. For example, if the LSQA and nine other assessments have been given by the start of the last two weeks of classes, then you will need to have completed the LSQA and at least seven other assessments in order to receive any extensions on due dates during the last two weeks of classes.

Course Topics

- Terminology/ Initial ideas
- Sampling
- Visualization of data
- Summary Statistics
- Empirical Rule
- Normal Distribution
- Central Limit Theorem
- Probability
- Random variable
- One-sample mean
- One-proportion
- Correlation
- Simple Linear Regression

Assessments and Grades

Assessments

Assessments	Weight
Homework <ul style="list-style-type: none"> - Collaboration and internet sources will be permitted. - Your lowest homework grade will be dropped at the end of the semester. 	10%
Quizzes <ul style="list-style-type: none"> - Quizzes will be in-class. - Collaboration is not allowed. - Your lowest grade of quizzes will be dropped at the end of the semester. 	50%
Liberal Studies Quantitative Assessment (LSQA) <ul style="list-style-type: none"> - If you do not take it, you will not be permitted to pass the class, regardless of how well you perform on the other assessments. - The LSQA is online assessment graded for accuracy. - Collaboration is not permitted. - No internet sources are allowed apart from the course Canvas. - Two attempts will be allowed. - The LSQA cannot be dropped. 	10%
Final Exam <ul style="list-style-type: none"> - Final Exam will be in-class. - Collaboration is not permitted. - No internet sources are allowed apart from the course Canvas. - The final exam cannot be dropped. 	25%
Attendance	5%
Bonus <ul style="list-style-type: none"> - You will be able to get extra credit from Bonus assignments. - No late submission or make-up will be allowed for these assignments. 	0-5%

Grading

Grade cutoffs will be established at the end of the course and overall grades may be adjusted. However, you are guaranteed from the grading scale below after rounding your overall numerical course grade up to the next higher whole number.

Grade Distribution (Letter & Overall Course Grades)						
		B+ [87, 90)		C+ [77, 80)		D+ [67, 70)
A [93, 105]		B [83, 87)		C [73, 77)		D [63, 67)
A- [90, 93)		B- [80, 83)		C- [70, 73)		D- [60, 63)
						F [0, 60)

A request for a grade of “Incomplete” will NOT be granted if you have completed the course-work, including the assessments that cannot be dropped and excluding the drops and allowable absences. A request for a grade of “Incomplete” will 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).

If you are unable to submit an assessment during its availability, then please email me immediately to request an extension. Please check your email every 12 hours until you receive a response saying that the extension was granted/denied.

Make-ups will not be given due to undesired performance on an assessment. Also, Make-ups will not be given unless the student has an official document for an excused absence; see the University Attendance Policy for more information. No documentation will be accepted any later than one week after the absence.

Assessments that are not completed will receive a grade of zero. When a makeup is completed, 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 two work days after the grade has been made available to you. If no issues are raised during that time frame, then it will be assumed that the grade is accepted and subsequent requests for a grade review may not be granted.

Tentative Pacing Schedule

Week		Monday	Wednesday	Friday	Homework
1	Jan 08 – Jan 14	First-Day Attendance*	Terminology	Terminology	
2	Jan 15 – Jan 21	MLK day	Sampling	Sampling	
3	Jan 22 – Jan 28	Visualization	Visualization	Summary Statistics	Homework 1
4	Jan 29 – Feb 04	Summary Statistics	Summary Statistics	Quiz 1	
5	Feb 05 – Feb 11	Empirical Rule	Empirical Rule	Normal Distribution	
6	Feb 12 – Feb 18	Normal Distribution	Normal Distribution	Central Limit Theorem	Homework 2
7	Feb 19 – Feb 25	Central Limit Theorem	Central Limit Theorem	Quiz 2	
8	Feb 26 – Mar 03	Probability	Probability	Probability	Homework 3
9	Mar 04 – Mar 10	Probability	Probability	LSQA	Homework 4
10	Mar 11 – Mar 17	Spring Break			
11	Mar 18 – Mar 24	Random Variable	Random Variable	Quiz 3	
12	Mar 25 – Mar 31	Random Variable	Random Variable	Random Variable	Homework 5
13	Apr 01 – Apr 07	One-sample mean	One-sample mean	Quiz 4	
14	Apr 08 – Apr 14	One-sample mean	One-sample mean	One-sample mean	Homework 6
15	Apr 15 – Apr 21	Simple Linear Regression	Simple Linear Regression	Quiz 5	
16	Apr 22 – Apr 28	Simple Linear Regression	Simple Linear Regression	Review	Homework 7
Final	Apr 29 – May 03	Final			

***First-Day Attendance :** University policy states that first-day attendance is mandatory for all students. First-Day Attendance quiz will be on Canvas. If you have not completed the requirement by this point you will be dropped from the course.

Course Policies

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 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. 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/>. If you are absent for an extended period of time and/or you do not respond to emails from the instructor over an extended period of time, the instructor reserves the right to deny access to assessments or limit the number of allowed attempts until attendance and/or contact is resumed.

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 email notification from the OAS is received. Academic accommodations are not retroactive, so they will not apply to lectures/lessons and assessments that took place before verification was received.

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.

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 or impracticable for you to come to class or complete an assignment due to the effects of a disaster, please do not attempt to do so. 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.