

STA 1013-12: Statistics through Example
Florida State University, Department of Statistics
SPRING 2022

Course modality: Face-to-Face/F2F (in-person in a classroom)
You are EXPECTED TO WEAR a face-covering or mask at all times.

Instructor: SungHee Park

Instructor email: sp17s@my.fsu.edu

Time and Location: M/We/Fr 4:50 pm - 5:40 pm, OSB 110

Office Hours: Mon. 2:30 pm - 4:50 pm, or by appointment

Office: OSB 201 E [[Location link](#)]

Course Website: Course website is available through canvas: canvas.fsu.edu

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. We will not use Honorlock.

Course Description

- Prerequisites: None.
- **Credit hours:** 3

This course provides students with a background in applied statistical reasoning. Fundamental topics are covered including graphical and numerical description 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.

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 for STA 1013, which includes a written summary of results.
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

- **Textbook:** No book is required.
- **Class notes:** Class notes will be posted on Canvas.
You should either print them before class or have them available on a computer. I will post it before the class.
- **Calculator:** Scientific or Graphing Calculator (Preferably TI-84 Plus or equivalent is necessary)

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.

Course Topics

- Terminology/ Initial ideas
- Sampling: simple random sample, systematic, stratified, cluster, convenience
- Visualization of data: histograms, stem plots, bar charts, pie charts
- Summary Statistics
- Empirical Rule
- Normal Distribution
- Central Limit Theorem
- Probability: random process, four rules, probability models, addition rule for mutually exclusive events
- Random variable
- One-sample mean: obtain and interpret z-intervals, carry out and interpret results of z-test, interpret p-value
- One-proportion: z-intervals and z-tests
- Correlation
- Simple Linear Regression

Exam Schedule

- **Quiz 1:** Friday, January 21, OSB 110
- **Quiz 2:** Friday, February 18, OSB 110
- **LSQA:** Friday, March 4, OSB 110
- **Quiz 3:** Friday, April 1, OSB 110 (collaboration allowed)
- **Quiz 4:** Friday, April 15, OSB 110
- **Final exam: Monday, April 25, 5:30 pm - 7:30 pm, OSB 110**

Grade Composition

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 48 hours after the grade has been made available to you. If no issues are raised during that 48-hour time frame, then it will be assumed that the grade is accepted and subsequent requests for a grade review may not be granted.

- In-Class Quizzes: $15 \times 3 = 45$ %
- Final Exam: 35 %
- Attendance: 10 % (pop-quizzes)
- LSQA: 10 %

STA 1013 has been certified as meeting FSU's Liberal Studies requirements in the area of Quantitative and Logical Claims. In order to maintain that certification, we must administer the appropriate Liberal Studies Quantitative Assessment (LSQA). It is a common assessment (not the final exam).

Your lowest grade of quizzes will be dropped at the end of the semester, but LSQA can not be dropped. So if you missed LSQA strongly recommend you to make it up.

Grading

Grade cutoffs will be established at the end of the course, but will not be stricter than the following cutoffs.

Average	Letter
$\leq 94\%$	A
$\leq 90\%$	A-
$\leq 87\%$	B+
$\leq 83\%$	B
$\leq 80\%$	B-
$\leq 77\%$	C+
$\leq 73\%$	C
$\leq 70\%$	C-
$\leq 67\%$	D+
$\leq 63\%$	D
$\leq 60\%$	D-
$< 60\%$	F

Missing Quizzes

There will be no late work allowed in this course. 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.

Email

- Please check your @my.fsu.edu email every day.
- Always include your full name, course code and section number when you email us.
- Send test-related questions at least 24 hours before the test is due to begin
- Be aware that email sent from outside the FSU domain may not get through to us, so if you email us and you don't get a response within two days, please try to meet us in person before class, or after class, or during office hours.

Attendance, Absence and Drop/Withdrawal

- First day attendance is mandatory per university regulations.
- Drop/Withdrawal deadlines are given in the University's academic calendar at the following hyperlink.
[Spring 2022 Academic Calendar](#)
(Last day to drop a course without receiving a grade is Feb. 18th.)

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.

- If you have been tested positive for COVID-19, or have been in close contact with someone who does, please report to Secure Assessment for FSU Exposure Response (<https://stayhealthy.fsu.edu/safer>) and follow their instructions.
- [State University System of Florida Health Policies for the 2021-22 Academic Year](#)
- [Message from the University Administration on the Spring Semester Expectations for Campus](#)

Tentative Pacing Schedule

		Monday	Wednesday	Friday
Week 1	Jan. 5 - Jan. 7		First Day Attendance	Terminology
Week 2	Jan. 10 - Jan. 14	Terminology	Sampling	Sampling
Week 3	Jan. 17 - Jan. 21	MLK day	Sampling	Quiz 1
Week 4	Jan. 24 - Jan. 28	Visualization	Visualization	Visualization
Week 5	Jan. 31 - Feb. 4	Visualization	Visualization	Summary Statistics
Week 6	Feb. 7 - Feb. 11	Summary Statistics	Summary Statistics	Summary Statistics
Week 7	Feb. 14 - Feb. 18	Empirical Rule	Normal Distribution	Quiz 2
Week 8	Feb. 21 - Feb. 25	Normal Distribution	Normal Distribution	Central Limit Theorem
Week 9	Feb. 28 - Mar. 4	Central Limit Theorem	Preparation for LSQA	LSQA
Week 10	Mar. 7 - Mar. 11	Probability	Probability	Probability
Week 11	Mar. 14 - Mar. 18		Spring Break!	
Week 12	Mar. 21 - Mar. 25	Probability	Random Variable	Random Variable
Week 13	Mar. 28 - Apr. 1	One-sample mean	One-sample mean	Quiz 3
Week 14	Apr. 4 - Apr. 8	One-sample mean	One-sample mean	Correlation
Week 15	Apr. 11 - Apr. 15	Correlation	Simple Linear Regression	Quiz 4
Week 16	Apr. 18 - Apr. 22	Simple Linear Regression	Simple Linear Regression	Simple Linear Regression

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 insRoyalBlueces 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 AssisRoyalBluece 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

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/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
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.

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:

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

Public Health Protocols

In our classroom, I will expect everyone to wear a proper, well-fitting mask. As our President has informed the university community, FSU expects everyone on campus to use face-coverings. In regions where virus rates are high, the CDC recommends that even vaccinated individuals wear masks in public indoor spaces, like classrooms, especially where social distancing is not possible. Florida infection and hospitalization rates are greater now than they were at the height of the 2020 surge due to the Delta variant, a more infectious and easily transmissible version of the COVID-19 virus. The best way to protect against serious illness is to be fully vaccinated, but not everyone among us can be. Because the Delta variant can infect even vaccinated individuals and can be spread by them to others, it poses a special threat to members of the community with underlying health conditions and children at home who are too young for vaccination. For these reasons, FSU expects each member of the community to comply with the public health protocols our President set forth on August 9, 2021, including (1) wearing masks in public indoor spaces, (2) getting fully vaccinated, (3) being tested for the virus if you have symptoms, and (4) staying home and away from others if you are sick. Please remember that you should NOT attend class in person if you have tested positive for COVID-19 or are quarantining after exposure. Finally, please bear in mind that the COVID-19 situation is fast-moving, and that university guidance on the issue may change at any time.

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.