

STA 1013-01: Statistics through Example
Florida State University, Department of Statistics
FALL 2021

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 8:00 - 8:50 am, TUL_B001

Office Hours: Mon. 10:30 - 11:30 AM and Tues. 1:00 - 2:00 PM, or by appointment

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

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

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)

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, Sep. 10, TUL_B001
- **Quiz 2:** Friday, Oct. 01, TUL_B001
- **LSQA:** Friday, Oct. 15, TUL_B001
- **Quiz 3:** Friday, Nov. 05, TUL_B001
- **Quiz 4:** Friday, Nov. 19, TUL_B001
- **Final exam: Wednesday, Dec. 08, 7:30 am - 9:30 am, TUL_B001**

Grade Composition

- In-Class Quizzes: $15 \times 3 = 45$ %
- Final Exam: 35 %
- Attendance: 10 %
- 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.
[Fall 2021 Academic Calendar](#)
 (Last day to drop a course without receiving a grade is October 8th.)

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](#)

Tentative Pacing Schedule

		Monday	Wednesday	Friday
Week 1	Aug. 23 - Aug. 27	First Day Attendance	Terminology	Terminology
Week 2	Aug. 30 - Sep. 03	Sampling	Sampling	Sampling
Week 3	Sep. 06 - Sep. 10	Labor Day	Visualization	Quiz 1
Week 4	Sep. 13 - Sep. 17	Visualization	Visualization	Summary Statistics
Week 5	Sep. 20 - Sep. 24	Summary Statistics	Summary Statistics	Summary Statistics
Week 6	Sep. 27 - Oct. 01	Empirical Rule	Normal Distribution	Quiz 2
Week 7	Oct. 04 - Oct. 08	Normal Distribution	Normal Distribution	Central Limit Theorem
Week 8	Oct. 11 - Oct. 15	Central Limit Theorem	Preparation for LSQA	LSQA
Week 9	Oct. 18 - Oct. 22	Central Limit Theorem	Probability	Homecoming
Week 10	Oct. 25 - Oct. 29	Probability	Probability	Random Variable
Week 11	Nov. 01 - Nov. 05	Random Variable	Random Variable	Quiz 3
Week 12	Nov. 08 - Nov. 12	One-sample mean	One-sample mean	One-sample mean
Week 13	Nov. 15 - Nov. 19	One-sample mean	Correlation	Quiz 4
Week 14	Nov. 22 - Nov. 26	Correlation	Thanksgiving Holiday	
Week 15	Nov. 29 - Dec. 03	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 Universitys 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 well 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/