



STA 1013-0013/0017 LEC, Spring 2020
Statistics Through Examples

Department of Statistics
Florida State University

Instructor: Jaehui Lim

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Office: LOV 431

Office Hour: MW 12:10 – 1 PM

Class Title: Statistics through Examples

Credit Hours: 3

Class Time: MWF 10:10-11AM / MWF 11:15-12:05PM

Class Room: HCB 0207

Textbook: Statistical Reasoning for Everyday Life, Fifth Edition, 2018, by Bennet Briggs Triola

Software: Graphic Calculators, MyStatLab(Optional)

Class Description: 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.

Keywords: Statistical Terminology, Simple Random Sample, Sampling, Graphs(Histogram, Stem plots, Bar Charts), Summary Statistics, Empirical Rule, **Normal Distributions, Central Limit Theorem**, Probability, Random Variables, One-sample mean, One-proportion, Correlation, Simple Linear Regression.

Prerequisite: None (but recommended two years of high school algebra).

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:

- Select and apply appropriate methods (i.e., mathematical, statistical, logical, and/or computational models or principles) to solve real-world problems.
- 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.

By the end of the course, students will demonstrate the ability to:

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

Course Schedule:

Week		Monday	Wednesday	Friday
1	Jan 5	First Day	Intro.	Intro.
2	Jan 12	Sampling	Sampling	Quiz 1
3	Jan 19	No Class	Visualization (Graphs)	Visualization (Graphs)
4	Jan 26	Visualization (Graphs)	Summary Statistics	Quiz 2
5	Feb 2	Summary Statistics	Empirical Rule	Normal Distribution
6	Feb 9	Normal Distribution	Normal Distribution	CLT
7	Feb 16	CLT	CLT	LSQA
8	Feb 23	Probability	Probability	Random Variables
9	Mar 1	Random Variables	One-Sample Mean	Quiz 3
10	Mar 8	One-Sample Mean	One-Sample Mean	One-Proportion
11	Mar 15	No Class		
12	Mar 22	One-Proportion	Correlations	Quiz 4
13	Mar 29	Correlations	Simple Linear Regression	Simple Linear Regression
14	April 5	Simple Linear Regression	Simple Linear Regression	Quiz 5
15	April 12	Review	Review	Review
16	April 19	Last Week		

Grading:

Homework (4/5): 10% total

Quiz: 5 quizzes, 30% total

Attendance (2 Free): 10 % total

LSQA: 20% total

Final Exam: 30% total

Scale:

	B+: 87 – 89	C+: 77 – 79	D+: 67 – 69	F: 0 – 59
A: 93 – 100	B: 83 – 86	C: 73 – 76	D: 63 – 66	
A-: 90 – 92	B-: 80 – 82	C-: 70 – 72	D-: 60 – 62	

Final Exam:Section 0013: **Thursday, April 30th, 10 – 12 noon.**Section 0017: **Monday, April 27th, 10 – 12 noon.**

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.

Homework/Exam: There will be homework every other week. The due date for each homework will be announced in the class. No late homework is accepted, and any missing assignment will be 0. One lowest homework grade will be excluded. Make-up exams/quizzes will be given if there are exceptional reasons such as hospitalization, family emergency, etc.; otherwise, 10% penalty will be charged. A student must take a make-up exam/quiz within a week after regular exam/quiz day. There will be 5 quizzes, 1 LSQA, and 1 final exam. You may receive partial credits on some problems on the exams by showing a clear process to solve problems.

“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.”

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>)

Americans with Disabilities Act: Students with disabilities needing academic accommodation should:

- register with and provide documentation to the Student Disability Resource Center; and
- bring a letter to the instructor indicating the need for accommodation and what type.

Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from the Student Disability Resource Center 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:

Student Disability Resource Center
874 Traditions Way
108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
<http://www.disabilitycenter.fsu.edu/>

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/>).

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.

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/rescheduling-final-examination> and take it to the Dean of Arts and Sciences office at 010 LON to get it approved, and

(iii) bring the approved form back to me **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.

Note on Proctored Testing Fees

- 1. Post all requirements for proctored testing in the course syllabus, including whether or not a web-based, remote proctor service (FSU’s current agreement is with Examity®) will be allowed.*
- 2. Encourage students to estimate the cost of their proctored exams at the start of the course. Students can use the [Proctor Selection](#) application on the ODL website to locate an approved, nearby testing center and then follow up with that facility to find out its current testing fees. Keep in mind that some facilities charge by the hour, and students will need to know the length of an exam to estimate their costs.*
- 3. Because they are considered an educationally related expense, students may use financial aid toward their proctored testing fees, just as they would toward books and supplies.*

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.