

Florida State University, Department of Statistics
Statistics Through Example (STA1013)
3 credit hours
Fall 2018

Instructor: Lexi René

Instructor Email: LRene@fsu.edu

Lecture Section 3: Monday, Wednesday 3:35PM - 4:50PM, OSB 110

Lecture Section 17: Tuesday, Thursday 8:00AM - 9:15AM, HCB 207

Office Hours: Tuesdays 2:00PM - 3:00PM, or by appointment

Office Location: 210E Oceanography/Statistics Building (OSB)

Grader (October 22nd to December 16th): Heli Gao (hg14e@my.fsu.edu)

Prerequisites: None

Course 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.

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:

- Scientific or Graphing Calculator (Preferably TI-84)
- You will be required to have either printed or electronic notes to fill in each class; *shells of the lecture slides will be posted on Canvas.*
- You will also be required to print the assigned homework and fill in this homework sheet for submission. ***Non-stapled homework will not be accepted.***

Grade Composition

Homework (5)	40%
Midterm	30%
Final	30%

*You will be allowed up to a single 8.5" x 11" **one-sided** piece of paper for the midterm and the final.*

Important Dates

Add/Drop: October 12th

No classes:

Labor Day: September 3rd

Veteran's Day: November 12th

Thanksgiving Break: November 21st-25th

Midterm (**scheduled**):

Section 3: Wednesday October 24th, 3:35PM - 4:50PM, OSB 110

Section 17: Thursday October 25th, 8:00AM - 9:15AM, HCB 207

Final:

Section 3: Monday December 10th, 5:30PM - 7:30PM, OSB 110

Section 17: Tuesday December 11th, 10:00AM-12:00PM, HCB 207

Grading

Each student's lowest homework grade will be dropped. Grade cutoffs will be established at the end of the course, but will not be stricter than the following cutoffs.

≥ 94%: A	≥ 73%: C
≥ 90%: A-	≥ 70%: C-
≥ 87%: B+	≥ 67%: D+
≥ 83%: B	≥ 60%: D
≥ 80%: B-	< 60%: F
≥ 77%: C+	

Missing Exams and Homeworks:

You must write in your section number on all homework assignments.

Make-ups will **not** be given unless the student has official documentation for an excused absence; see the **University Attendance Policy** below for more information on excused absences. It is up to the discretion of the instructor as to how to handle excused absences. No documentation will be accepted any later than **one week after the absence**. *The makeup must be completed within one week of the date that the homework was due, unless special circumstances apply, of the absence accompanied by the*

proof of documentation. All documentation will be emailed to me, please see below for steps on emailing me.

Grade Appeal:

You have **one** week to appeal *to the instructor* about a grade after it is given. To appeal a grade please email the instructor to set up a time to meet and discuss the homework/exam, preferably within office hours; please come to the office with the homework/assignment in hand. If no appeals are made within the one week time frame, it is assumed that the grade is accepted and will not be changed.

Course Website:

All pertinent information for this class will be posted on the course website at <http://fsu.instructure.com> (Canvas). Go to this site for class announcements, important dates, etc. **You are responsible for all information sent by email, included in this syllabus, and posted on the course website.**

Contacting the instructor or grader outside of class:

You are encouraged to ask questions during class and come to my office during office hours for additional help. If your schedule conflicts with my office hours, you can make an appointment. You may also ask me questions by e-mail, but questions are, usually, better answered in person. Please note it may take 24-72 hours, or even longer if there is a delay in the system, for me to respond to your email. When you send e-mails please remember the following:

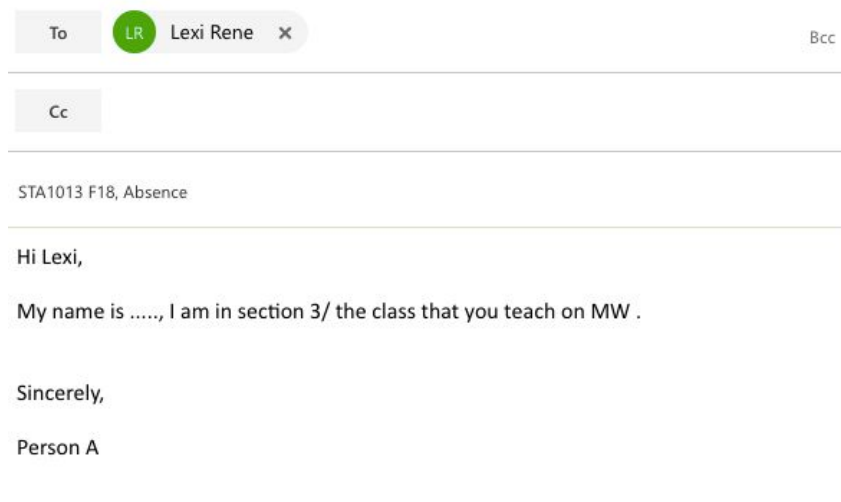
DO NOT REPLY TO ANY EMAIL SENT AS A MASS ANNOUNCEMENT VIA CANVAS.

Steps to email me:

Preferred Email: LRene@fsu.edu

Subject: STA1013_F18, "Topic of Email"

Include your section number in them email.



Course Topics:

- Statistical study process
- Types of Data: population, sample, parameter, statistic, categorical, quantitative
- Sampling: simple random sample, systematic, stratified, cluster, convenience
- Visual Displays of data: histograms, stemplots, bar charts, pie charts, boxplots
- Summary Statistics
- Empirical Rule

- Normal Distribution
- Central Limit Theorem
- Probability
- Expected Values
- One Sample Hypothesis Tests
- Correlation
- Simple Linear Regression

Attendance: Everyday *lecture* attendance is **not** mandatory, however, if you miss class for any reason, you are still responsible for the material covered in class. You can either get notes from a classmate, or come to my office hours for general questions. Completed shells of the lecture slides **will not** be posted after completion.

Classroom Conduct: You are expected to act professionally in the classroom. Cell phones should be silenced and put away. You should arrive on time and prepared for class. If you do arrive late or leave early, please do so in a manner that does not disturb the class.

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.

(1) 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.

(2) Religious Holiday Attendance Policy:

Per Section 1006.53, Florida Statutes, the Florida State University policy on observance of religious work-restricted holy days provides that students shall, upon notifying their instructor **within the first two weeks of the semester**, be excused from class to observe a religious work-restricted holy day of their faith. While students will be held responsible for the material covered in their absence, each student shall be permitted a reasonable amount of time to make up the work missed.

(<http://registrar.fsu.edu/bulletin/undergraduate/information/integrity/>)

(3) 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.>)

(4) Americans With Disabilities Act:

Students with disabilities needing academic accommodation should:

- (1) register with and provide documentation to the Student Disability Resource Center; and
- (2) 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/>