# STA 2023: Fundamental Business Statistics Section 16

Florida State University Department of Statistics Fall 2020

# **Class Information:**

Class Section: STA 2023 Fundamental Business Statistics, Section 16

**Meeting Time:** This class will be taught remotely, **asynchronously**. Videos will be uploaded on **Monday** and **Thursday** on canvas.

Meeting Dates: Aug. 24, 2020 - Dec 6, 2020

# **Instructor Information:**

Instructor: Jiuwu Jin

Email Address: jj17g@my.fsu.edu

**Office Hours:** Zoom meetings by appointment. You can also email me if you have questions.

## **TA Information:**

TA: Wenshan Han

Email Address: wh17c@my.fsu.edu

Office Hours: Zoom meetings by appointment.

## **Course Description:**

**Credit Hours: 3** 

**Prerequisite:** None, but we recommend two years of high school algebra. Special Note: High school students who earn a "3" or better on the AP Statistics exam will be given credit for STA 2023. The course covers statistical applications in business, involving graphical and numerical descriptions of data, data collection, correlation and simple linear regression, elementary probability, random variables, Binomial and Normal distributions, sampling distributions, and confidence intervals and hypothesis tests for a single sample. The purpose of this course is to prepare students for further study and job preparation in the field of Business. It will emphasize understanding of data and interpretation of statistical analyses. It will require students to think of data, and report the results of their analyses, in context.

**Learning 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:

- 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 2023, which includes a written summary of results.
- 3. Use descriptive statistics and graphical methods to summarize data accurately.
- 4. Use inferential statistics to make valid judgments based on the data available.
- 5. Describe the goals of various statistical methodologies conceptually.
- 6. Apply statistical techniques in the context of business processes, everyday life, and further studies in their discipline.
- 7. Develop a healthy skepticism toward statistical studies and their results based on a sensible consideration of the techniques employed.

**Required Materials:** TI-84 Plus or equivalent calculator. Notes and slides will be uploaded on canvas. No textbooks are required.

| <b>Tentative Pacing Schedule: (will be</b> | updated | as v | we go) |
|--|---------|------|--------|
|--|---------|------|--------|

| Week                           | Торіс                                  |
|--------------------------------|--|
| 1 (Aug. 24 - Aug. 30)          | Syllabus, Graphs                       |
| 2 (Aug. 31 - Sep. 6)           | Graphs, Summary Statistics             |
| 4 (Sep. 7 - Sep. 13)           | Summary Statistics, Quiz 1             |
| 5 (Sep. 14 - Sep. 20)          | Normal Distributions                   |
| 6 (Sep. 21 - Sep. 27)          | Normal Distributions                   |
| 7 (Sep. 28 - Oct. 4)           | Central Limit Theorem                  |
| 8 (Oct. 5 - Oct. 11)           | Central Limit Theorem, Quiz 2          |
| 9 (Oct. 12 - Oct. 18)          | Simple Linear Regression               |
| 10 (Oct. 19 - Oct. 25)         | Simple Linear Regression, LSQA         |
| 11 (Oct. 26 - Nov. 1)          | Probability, Quiz 3                    |
| 12 (Nov. 2 - Nov. 8)           | Random Variables, Quiz 4               |
| 13 (Nov. 9 - Nov. 15)          | Binomial Distributions, Quiz 5         |
| 14 (Nov. 16 - Nov. 22)         | One-sample Confidence Interval         |
| 15 (Nov. 23 - Nov. 29)         | One-sample Confidence Interval, Quiz 6 |
| 16 (Nov. 30 - Dec. 6)          | One-sample Hypothesis Tests            |
| Finals Week (Dec. 7 - Dec. 11) | Quiz 7                                 |

# **Grade Structure:**

| LSQA    | = | 10%  |
|---------|---|------|
| Quizzes | = | 90%  |
| Total   | = | 100% |

# Special notes about the quizzes:

- 1. Quizzes will **not** be cumulative.
- 2. You are allowed **2** attempts for each quiz.
- 3. I will drop quizzes with lowest scores when calculating final grades.
- 4. DO NOT USE SAFARI when you take assessments on Canvas please use Chrome or Firefox.

### **Grading Scale:**

| А  | = | $[93,\infty)$ |
|----|---|---------------|
| A- | = | [90, 93)      |
| B+ | = | [87, 90)      |
| В  | = | [83, 87)      |
| B- | = | [80, 83)      |
| C+ | = | [77, 80)      |
| С  | = | [73, 77)      |
| C- | = | [70, 73)      |
| D+ | = | [67, 70)      |
| D  | = | [63, 67)      |
| D- | = | [60, 63)      |
| F  | = | [0, 60)       |
|    |   |               |

#### Grade review policy:

You may appeal your grades for assignments, quizzes and exams within one week after the grades are available on canvas. If no complaints are voiced within that time frame, then it is assumed that the grade is accepted, and subsequent requests for a grade review will not be granted.

## **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/Academics/Academic-Honor-Policy)

# **Americans With Disabilities Act:**

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. 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/

#### **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."

# **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 the items under Course Activities. You may expect a response to your email within two work days.

## Grades:

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.

#### 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. Please DO NOT USE SAFARI when you take assessments on Canvas – please use Chrome or Firefox.

## **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/), 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 (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 get it approved by the Dean of Arts and Sciences office, and (iii) 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.

# **Lecture Videos:**

Watching the lecture videos is equivalent to attending class and listening to lectures. We acknowledge that the lecture videos are not short, but remember that class time would have been 50 or 75 mins - not short either. On the bright side, however, you may pause the video at any time and return to it later - you would not have been able to do that with live lectures. Therefore, we fully expect you to watch the lecture videos in their entirety. Pause whenever you need to, but always be sure to return and finish watching the video.

Recorded lectures are FSU properties and only available to students enrolled in your class. Students are not allowed to share the recorded lectures to any other people outside the class. Copyright of the recorded lectures are reserved by the instructors and FSU.