

Syllabus

STA 2023: FUNDAMENTAL BUSINESS STATISTICS

Fall

Course Information

Class Meeting Time and Location:

- Monday, Wednesday and Friday: 8:00am – 8:50am in OSB 110

Instructor Information

Jiahui Shen

- Email: js16j@my.fsu.edu
- Office location: Room 209E, OSB
- Office Hours: Thursday 3:00-4:00pm or by appointment

Course Description

Prerequisite: None, but we recommend two years of high school algebra.

Credit Hours: 3

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.

Required Materials

- Lecture Notes will be provided online. You may print them out by yourself and bring them to the lecture.
- TI-84 calculator or equivalent
- (Optional, not used in class) The Practice of Statistics for Business and Economics, 4th ed. , by Moore McCabe Alwan Craig Duckworth; Publisher: W.H.Freeman

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 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.

Grading

1. Homework:
 - Homework will be randomly assigned each week. You are not required to hand in the homework and you won't be graded on homework. Solutions will be given and you need to check it by yourself. They are mainly used for preparing for the quizzes.
2. Attendance:
 - Attendance will be checked every class (quiz days not included). If you got 32 attendance or more, you can get full credit (10%) for the attendance part.
 - If you got 92% or more in a quiz, you can get all the attendance credits for the classes on that quiz. (E.g. If you got 93% on quiz 2 and there are 7 classes between quiz 1 and quiz 2, then you can get all these 7 attendances even if you miss some of those classes)

3. Quizzes:

- Approximately every 2-3 weeks there is a quiz, which lasts for 45 mins. You may prepare for one-page hand written cheat sheet for the quiz. Quiz paper won't be returned. However, you can see your quiz during office hour.
- There will be 5 quizzes in total, details and contents will be announced before the quiz.

4. Exams:

- There will be one final exam. Final exam will last 2 hours. You can use your calculator and bring two pieces of hand written cheat sheets to the final exam.
- Final exam will be on DEC 11th (Tuesday) at 12:30-2:30pm. (Location to be announced later)

5. Extra credit:

- Extra credit might be given if you solve an extra credit problem in quiz.

Graded Assessment	Percentage
Attendance	10%
Quizzes	50%
Final exam	40%
Extra credit	5%
Total	105%

Overall course grade

FSU does not award A +	B+	87-89	C+	77-79	D+	67-69	F	<60	
A	>92	B	83-86	C	73-76	D			63-66
A-	90-92	B-	80-82	C-	70-72	D-			60-62

- Any grade with decimals will be round up to the closest integer, e.g. 80.2 will be round up to 81
- The final grade might be curved up.

Penalties for missed quizzes and exams

Without any reason, if you miss a quiz or exam, you will receive zero mark for that quiz or exam. You may make up your exam with reasonable excuse and documents are required. However, make-ups need to be done within one week. Also, no make ups are allowed after the final teaching week. (i.e. after Dec.7th)

Excused Absence Make Up Policy

If provided with eligible documents, students missed any quizzes or exams may be made up in my office during my office hours. If you miss any lecture, you may come to my office hour to ask specific questions or get help from your classmates.

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.

Grading Appeals

During the term, if you believe that a paper was improperly graded, you can come to my office and discuss with me.

Incompletes

A grade of "Incomplete", "I", will only be given under extreme circumstances where a student has an FSU approved reason for missing a significant portion of course.

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

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. This should be done during the first week of class. We will begin providing special accommodations as soon as possible after I get your letter. You must take your quizzes and final exam at the SDRC testing center, on the same day as the other students take them in class. If you need to take a quiz or the final exam

on a different day, please talk to me about it first. Please do not schedule a quiz or the final exam for a different day without first clearing it with me. If you choose to take a quiz or the final exam in the regular classroom or at some other location, you forfeit your special accommodations and you must comply with the rules that the other students follow. In particular, we will not be able to allow you extra time in the regular classroom. You may choose to complete the activities in class or at the SDRC testing center. Please note that some activities are designed to be group efforts, so you may not fully grasp the learning objectives if you do them on your own. In my experience, however, students with disabilities have always elected to complete the activities in class and have not had significant problems doing so. Classmates are generally co-operative and helpful. 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>

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.

wk	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1	Syllabus, etc Au 27		Summary Statistics 28	Summary Statistics 29	Summary Statistics 30
2	Labor Day no classes Sep 3		Summary Statistics 4	Summary Statistics 5	Summary Statistics 6
3	ACTIVITY 1 10		Normal Distributions 13	Normal Distributions 14	Quiz 1 15
4	Normal Distributions 17		Normal Distributions 18	Normal Distributions 19	Normal Distributions 20
5	ACTIVITY 2 24		CentralLimitTheorem 25	CentralLimitTheorem 26	Quiz 2 27
6	CentralLimitTheorem Oc1		CentralLimitTheorem 2	CentralLimitTheorem 3	CentralLimitTheorem 4
7	ACTIVITY 3 8		No Class 9	No Class 10	No Class 11
8	Simple Linear Regression 15		Quiz 3 16		Home Coming no classes 18
9	Simple Linear Regression 22		Activity 4 23	Activity 4 24	Random Variables 25
10	Quiz 4 29		Random Variables 30	Random Variables 31	Binomial Distribution Nov. 1
11	Probability 5		Probability 6	Probability 7	Probability 8
12	Veteran's Day no classes 12		ACTIVITY 5 13	ACTIVITY 5 14	Quiz 5 15
13	One-sample ConfidenceIntervals 19		no classes 20	no classes 21	Thanksgiving no classes 22
14	One-sample ConfidenceIntervals 26		One-sample ConfidenceIntervals 27	One-sample ConfidenceIntervals 28	One-sample Hypothesis Tests 29
15	One-sample Hypothesis Tests Dec 3		One-sample Hypothesis Tests 4	One-sample Hypothesis Tests 5	One-sample Hypothesis Tests 6

FALL 2018 TENTATIVE PACING SCHEDULE for STA 2023

