

STA 2023: Fundamental Business Statistics

Section 0002

Department of Statistics
Florida State University
Summer B 2019

Course Information

Class Times and Location

Monday through Friday, 9:30 - 10:45 AM, OSB 0108

Instructor: Adam Dixon

- Email: ad18g@my.fsu.edu
- Office: OSB 444
- Office Hours: Tuesday, Wednesday, and Thursday, 11:15 AM - 12:15 PM

Course Description

Prerequisites

None, but two years of high school algebra are recommended.

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.

Required Materials

TI-84 (or equivalent) calculator

Recommended Materials

Moore, D. S., McCabe, G. P., Alwan, L. C., & Craig, B. A. (2016). *The Practice of Statistics for Business and Economics* (Fourth ed.). New York, NY: W. H. Freeman and Company.

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.

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 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.

Assessments and Grading

Assessments			
Type	Count	Weight	Total Weight
Attendance	1	10%	10%
Quizzes	4	15%	60%
LSQA	1	10%	10%
Final Exam	1	20%	20%
Total:			100%

1. **Attendance is required and will be recorded each lecture.** Your attendance score will be the proportion of lectures you attend. However, given that unexpected events occur, five (5) unexcused absences will be dropped at the end of the semester. If you have an excused absence (as defined in the University Attendance Policy), then you will have one (1) calendar week from the missed lecture date to send me appropriate documentation – documentation submitted after this period will not be accepted, and the absence will be unexcused.

If you expect to miss a lecture (e.g., due to a school activity or religious holiday), then please notify me and provide documentation in advance.

2. There will be four (4) quizzes, each occurring roughly every week, which will cover lecture material occurring after the last assessment.
3. There will be one (1) Liberal Studies Quantitative Assessment (LSQA), which will cover one topic. For study purposes, treat this as you would a quiz.

4. There will be one (1) Final Exam, which will not be cumulative.

The Final Exam is scheduled for June 21, 2019 (Last Day of Class) in OSB 0108. Please see the Tentative Pacing Schedule (TPS) for all other assessment dates.

Final instructions will given prior to each assessment, but in general, you will be allowed:

- one (1) calculator (TI-84 or equivalent)
- one (1) 8.5 inches by 11 inches, **handwritten** note sheet, which may contain (on both sides) any information you wish to include

Note: you will be allowed two (2) such note sheets for the Final Exam.

- Pens or pencils
- Scratch paper provided by me

Under no circumstances will you be allowed to:

- Share calculators with other students
- Share note sheets or scratch paper with other students
- Share answers or work with other students

If you are absent for an assessment, there may be make-up opportunities (see the Make-Up Policy). If you miss an assessment and do not make it up according to the Make-Up Policy, then it will be given a grade of zero (0).

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

Your overall course grade will be calculated according to your assessment scores (reported as percentages) and the weights given to those assessments, and your letter grade will be assigned using the table above and the smallest whole number greater than or equal to your overall course grade (e.g., an overall course grade of 89.04 will be assigned an A- since 90 is the smallest whole number greater than or equal to 89.04).

Grades will not be curved, and there will be no opportunities for extra credit, make-ups, or any other forms of grade improvement after the Last Day of Class. Therefore, you should do your best throughout the entire semester.

Course Policies

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.

Behavior Policy

During lectures,

1. Please do not have conversations with your peers unless I have asked for a group discussion.
2. Please silence your devices. If you are expecting an important phone call, then please sit near the door so you can step out without causing a distraction.
3. Please minimize device usage. I understand that, inside the classroom, you may want to take notes using your devices, and outside of the classroom, you have a life which may require you to be accessible. Therefore, I do not mind your using your devices during class. But if I notice your device usage is excessive, distracting, or disproportionately irrelevant to the lecture, then I will ask you to put your devices away.
4. Please treat your peers with respect.

Grade Appeal Policy

If you believe an assessment has been improperly graded, then you must discuss it with me in my office within one (1) calendar week after your grade has been posted to Canvas. If I do not hear from you within this period, I will assume the grade is accepted.

Grade appeals will not be allowed after the Last Day of Class.

Make-Up Policy

Make-ups are for absences only. Make-ups will not be given due to undesired performance on an assessment.

If you are absent for a quiz or the LSQA, then please email me immediately. You will have until Wednesday of the following week to make up a missed assessment unless you have a documented reason for being unable to do so. You will be allowed one (1) make-up without providing documentation, but you must provide documentation for all other absences. If you do not complete a make-up according to the above guidelines, then the missed assessment will receive a grade of zero (0).

No make-ups will be given after the Last Day of Class. If you are absent for the Final Exam, then you must email me immediately.

Sexual Misconduct and Title IX Reporting

As an instructor, I am obliged to report all instances of sexual misconduct that I become aware of; 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/>).

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 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/>

Tentative Pacing Schedule

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
May 13th 1 Introduction	14th 2 Summary Statistics	15th 3 Summary Statistics	16th 4 Summary Statistics	17th 5 Quiz 1
20th 6 Simple Linear Regression	21st 7 Simple Linear Regression	22nd 8 Probability	23rd 9 Probability / Random Variables	24th 10 LSQA
27th Memorial Day (No Class)	28th 11 Random Variables	29th 12 Binomial Distribution	30th 13 Binomial Distribution	31st 14 Quiz 2
June 3rd 15 Normal Distribution	4th 16 Normal Distribution	5th 17 Central Limit Theorem	6th 18 Central Limit Theorem	7th 19 Quiz 3
10th 20 One-Sample Confidence Intervals	11th 21 One-Sample Confidence Intervals	12th 22 One-Sample Confidence Intervals	13th 23 One-Sample Confidence Intervals	14th 24 Quiz 4
17th 25 One-Sample Hypothesis Tests	18th 26 One-Sample Hypothesis Tests	19th 27 One-Sample Hypothesis Tests	20th 28 One-Sample Hypothesis Tests	21st 29 Final Exam