

**STA 2023/0003 LEC, B Session, Summer 2019
Fundamental Business Statistics,**

**Department of Statistics
Florida State University**

Instructor: Jaehui Lim

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Office: OSB 209H

Office Hour: TWH 3:15pm – 4pm

Class Title: Fundamental Business Statistics **Credit Hours:** 3

Class Time: MTWRF 2pm – 3:15pm

Class Room: OSB 0110

Textbook: The Practice of Statistics for Business and Economics, Fourth Edition, 2016, by Moore McCabe Alwan Craig Duckworth, Publisher: Macmillan W. H. Freeman

Software: Graphic Calculators, Launchpad(Optional)

Class Description: 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.

Keywords: Terminology(Population, etc.), Simple Random Sample, Graphs(Histogram, Stem plots, Bar Charts), Summary Statistics, Empirical Rule, Normal Distributions, Central Limit Theorem, Probability, Random Variables, Binomial Distributions, One-Sample mean, Type I & II errors, Correlations, **Simple Linear Regression.**

Prerequisite: None but recommended two years of high school algebra. If you don't meet the requirements but wish to enroll to this course, please come talk to me during the first week.

Special Note: High school students who earn a "3" or better on the AP Statistics exam will be given credit for STA 2023.

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.

Course Objectives:

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 STA2023, which includes a written summary of results.

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

Course Schedule:

Week	Monday	Tuesday	Wednesday	Thursday	Friday
5. 13.	Syllabus/ Summary Statistics	Summary Statistics	No Class	Summary Statistics	Quiz 1/ Normal Distribution
5. 20.	Normal Distribution	Central Limit Theorem	Central Limit Theorem	Simple Linear Regression	Quiz 2/ Simple Linear Regression
5. 27	No Class	Simple Linear Regression/ LSQA Preparation	Probability	Probability	LSQA/ Quiz 3 (In-Class)
6. 3.	Random Variables	Random Variables	Binomial Distributions	Binomial Distributions	Quiz 4/ One-Sample Confidence Interval
6. 10.	One-Sample Confidence Interval	One-Sample Confidence Interval	One-Sample Hypothesis Tests	One-Sample Hypothesis Tests	Quiz 5/ One-Sample Hypothesis Tests
6. 17.	Nonparametric Tests	Nonparametric Tests	Final Exam Review	Final Exam Review	Final Exam

Grading:

Homework (4/6): 20% total

Quiz: 5 quizzes(Include LSQA), 50% total

Attendance (2 Free): 10 % total

Final Exam: 20% 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	

In-class **Final Exam** will be given on **Friday, June 21st**, during regular class time.

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 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. Two lowest homework grades 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 4 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.

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/>

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/>).

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.