輔仁大學
Fu Jen Catholic University

Academic Inquiries: Fu Jen Catholic University
Email: iss@mail.fju.edu.tw
Phone: 886-2-29053731#811

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STAT 201 Introduction to Statistics

Summer 2019

Class hours: Monday through Thursday,2 hours each day
Review and Discussion: Friday, 2 hours
Office hours: Thursday/Friday,1hours or by appointment
Field trip: According to Professors' teaching plan
Credit: 3
Total contact hours: 54 hours
Instructor: TBA

Course Materials

A laptop computer is required for this course. It will be used to complete lab assignments, and exercises. A handheld scientific calculator (not a statistical calculator) is also required to complete problems on quizzes and exams.

Required text: Elementary Statistics (13th Edition), by Mario F. Triola, published by Pearson, **ISBN-13:**9780134462455.

Required software:

Statdisk, free download from https://www.triolastats.com/statdisk.

Statdisk 13 Student Laboratory Manual and Workbook version 1, by Mario Triola. Free download from https://media.pearsoncmg.com/aw/aw_triola_elemstats_13_2019/manuals/statdisk/stat13t_statdisk_manu al.pdf.

Glossary of Statistics Terms. Free download from https://drive.google.com/fi e/d/0B_DNS3dRqgoPcFctMXN6YU4zNDQ/view.

Formulas and Tables. Free download from https://drive.google.com/file/d/0B_DNS3dRqgoPSVZMNjQ2RGlIWkU/view.

Course Overview

This is a course in introductory statistics. It is expected that you will have at least algebra at the high school level, no calculus is required. The ultimate objective is to teach you how to be an intelligent consumer of statistics. The emphasis will therefore be on understanding

statistical results and to be able to interpret them in a meaningful way. Memorization of statistical formulas, arithmetical calculations and mathematical manipulations are of second order importance, since most of the more complex calculations are done with a statistical software package. One of the strengths (among many) of this textbook is that it is full of example using real world data. This helps to illustrate how statistics are used in the real world, and its importance in our everyday lives.

Course Objectives

It is important to remember that the ultimate goal is to enable students to understand and to interpret statistical results. The following objectives are simply steps to achieve the ultimate goal.

Upon completion of this course, students should be able to:

Solve statistical problems using both technology (statistical software) and a handheld calculator.

Summarize data in tables or graphs, and find the mean, media, standard deviation, and variance from a data set.

Understand probability values, discrete and continuous probability distributions.

Conduct hypothesis testing using population statistics inferred from sample statistics.

Conduct hypothesis testing involving two or more sample means (one- and two-way ANOVA).

Understand correlation and simple regression.

Assessments

There will be a midterm exam given on the Friday of the third week of classes, and a comprehensive final exam at the end of the course. Tentatively, there will be three lab exercises to be completed in class, two homework assignments to be completed on Saturdays during review and discussion, and two quizzes. Quizzes and exams are in multiple-choice format, however, they require you to complete problems using a handheld calculator.

Your grade will be based on the following weighting scheme:

Lab exercises:	10%
Exercises:	10%
Quizzes:	20%
Midterm exam:	25%
Final exam:	35%

The course letter grades will be determined according to the following criteria:

Grade	Percent	GPA
A	90-100	4.0
B	80-89	3.3
C	70-79	2.8
D	60-69	2.4
F	<60	0

Academic Integrity

Cheating or plagiarizing on quizzes and exams include but not limited to:

Using or attempting to use unauthorized materials, such as notes, textbooks or other unauthorized materials during the quizzes or exams.

Attempting to copy or copying from other student(s)'s quizzes or exams.

Having another student take your quizzes or exams.

Assisting other student(s) to cheat or to plagiarize. Cheating and plagiarism are taken very seriously in this class. Any student caught cheating or plagiarizing will receive an immediate F in the course and risk suspension from the university.

Class Attendance

I do not take class attendance. However, you are strongly encouraged to attend all classes and participate fully in all class discussions. There will be no make-up for missed quizzes and exams unless there is a verifiable emergency. You are responsible for the missed class materials should you missed a class. We'll have frequent in-class exercises which will count towards your final grade. If I notice that there are excessive absences (50% or more), it may result in a lowering of your letter grade for the course.

Use of Electronic Devices

The classroom is a learning community. As such, each one in class must be treated courteously and with respect. The use of cellphone in class is strictly prohibited. Laptop computers, ipad or similar devices should only be used for learning purposes during class. Net-surfing, instant-messaging, e-mailing, etc., are disruptive and are not permitted. Violator will be asked to leave the class for that day. Repeat violator may be barred permanently from the class.

Learning Tips

Education is a joint effort. I'll certainly do my part, but you'll have to do yours too. You'll need to be committed to do well. Your commitment includes doing the assigned reading from the textbook, and completing all other assignments in a timely manner. Your active

participation is encouraged and vital to your success in the course. Here are a few suggestions on how to do well in this class. First, read the assigned chapters for a broad understanding. Next, come to class and take good notes. Participate in class discussions, ask questions, utilize my office hours, and make sure all your questions are answered satisfactory. Attend Saturdays' discussion and review, and complete the required assignments.

Tentative Class Schedule

	Topics	Book Chapters
Week 1	Introduction and ethics in statistics Exploring, describing, and comparing data	Chapters 1, 15 Chapter 2.1, 2.2, 2.4; Chapter 3
Week 2	Probability Discrete and normal probability distributions	Chapter 4.1, 4.2 Chapter 5.1, 5.2 Chapter 6.1 – 6.5
Week 3	Inferential statistics and hypothesis testing using a sample from one population Midterm exam	Chapter 7.1 – 7.4 Chapter 8.1 – 8.3, (8.4?)
Week 4	Inference and hypothesis testing involving two populations Two-variable regression	Chapter 9.1 – 9.3, (9.4?) Chapter 10.1 – 10.3
Week 5	Goodness-of-fit test ANOVA, one- and two-way Final exam	Chapter 11.1, 11.2 (Part 1) Chapter 12.1, 12.2