Statistics 1 (STAT 201-01)

Metropolitan State University
Summer 2018

Instructor: Michael Shyne

Email: michael.shyne@metrostate.edu

Meeting time: Monday, 6:00 – 9:50 pm, Founders Hall L120

Course Description

This course covers the basic principles and methods of statistics. It emphasizes techniques and applications in real-world problem solving and decision making. Topics include frequency distributions, measures of location and variation, probability, sampling, design of experiments, sampling distributions, interval estimation, hypothesis testing, correlation and regression.

Prerequisites

A grade of C- or higher in MATH 98 or MATH 102, or placement at MATH 115 College Algebra on the mathematics assessment test offered by Placement Assessment Office.

Learning Outcomes

1. Demonstrate comprehension and ability to apply inferential statistics, including construction of confidence intervals for point estimates and simple hypothesis tests.
2. Recognize appropriate use of different statistical models to represent and answer questions about representative real-world problems involving categorical and quantitative data.
3. Understand and apply statistical concepts including probability, regression and correlation, experimental design, descriptive statistics and inferential statistics.
4. Understand statistical principles and methods for data collection and analysis.

Center for Academic Excellence

You are encouraged to go to the Center for Academic Excellence (CAE) (Science Education Center Room 122 and Midway Campus Lower Level Room I) to seek help outside of class. Appointment-based tutoring is offered at the St. Paul location in the Science Education Center (SEC 122). No appointment is required for drop-in tutoring which is located at the Midway Center (Room I).

To make an appointment or for more information visit the CAE website at: http://www.metrostate.edu/student/learning-resources/learning-resources/center-for-academic-excellence

Textbook

Elementary Statistics, 13th Edition by Mario Triola (bookstore)

Note: The textbook is not strictly required. An online version is included with MyStatLab access (see below).

MyStatLab/StatCrunch

MyStatLab is an online homework and quiz system and StatCrunch is statistical software tied to MyStatLab. They are a required and essential part of this course. They will be used for homework assignments, quizzes and exams. An access code is provided with the textbook package from the bookstore. Access codes can also be purchased separately from sources like Amazon or directly while registering. Access to MyStatLab includes an online version of the textbook.

You can access the course through the link in the MyStatLab folder on D2L. Instructions for registering are in the "Student Registration Handout".

D2L / Email

Course and supplementary material, such as lecture slides and guides for using StatCrunch, will be available on D2L. Any announcements will also be posted on D2L, as well as emailed to your Metro State email address.

The best way to contact me is via email. I will try to respond to all emails withing 24 hours. However, you must email from your Metro State account. I am only allowed to discuss course matters, such as grades, over official Metro State email addresses.

Course Structure

The course will consists of lectures, in-class group work and demonstrations on MyStatLab and StatCrunch. Exams will also be conducted online in MyStatLab.

Homework

There will be weekly homework assignments on MyStatLab that will become available after each class period and will be due before the start of the next class period. Homework problems completed after the due date with only receive 50% credit. The lowest homework score of the semester will be dropped.

You are allowed to work on homework in groups with other students or with tutors. Also, MyStatLab allows multiple attempts for each homework problem. You may make as many attempts as you like on the homework problems. Therefore, with effort, it is possible for everyone to get 100% on homework.

Even after you get a problem correct, you may continue to practice. You will not be penalized for making multiple attempts. If homework is done with others or tutors, you are encouraged to try the problems on your own as well.

Quizzes

Each week will also have a timed quiz to be completed on MyStatLab. The quizzes will become available at the same time as the homework, but will not be due until before the second class

period. This is to provide an opportunity to ask questions about the homework before attempting the quiz. However, if you feel confident after doing the homework, you may take the quiz as soon as you like. Only one attempt is allowed for quiz problems. Any class materials (notes, lecture slides, textbooks) can be used, but quizzes must be completed alone. The lowest quiz score of the semester will be dropped.

Group work

Each lecture week there will be in-class assignments to be worked on in groups and discussed with the full class. While not graded, the group work can be very helpful in understanding how to approach the homework. Participation is strongly encouraged.

Exams

There will be a midterm exam and a final exam. The exams will be completed on MyStatLab on your own time. Details will be provided later in the semester. There will be no make up exams.

Grading

The homework, quizzes and exams will contribute to your final grade as follows:

Homework (lowest score dropped)	40 %
Quizzes (lowest score dropped)	15 %
Midterm exam	20 %
Final exam	25 %

Final grades will be assigned with the following distribution:

100 – 93	A	77 – 79	C+
92 – 90	A-	73 – 76	C
87 – 89	B+	70 – 72	C-
83 – 86	B	60 – 69	D
80 – 82	B-	0 – 59	F

Incompletes

Incompletes are rarely given and will be considered only when conditions beyond your control prevent you from completing the course. **Incompletes will not be given to anyone with a failing grade under any circumstances.** The request by the student must come **before** the final exam. Instructors are not required to give incompletes and final determination to assign an incomplete is at the discretion of the instructor.

Diversity and Disability Statement

Our institution values diversity and inclusion; we are committed to a climate of mutual respect

and full participation. Our goal is to create learning environments that are usable, equitable, inclusive and welcoming. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or accurate assessment or achievement, please notify the instructor as soon as possible. Students with disabilities are also welcome to contact the Center for Accessibility Resources to discuss a range of options to removing barriers in the course, including accommodations. The Center for Accessibility Resources is located in New Main, room L223. Phone number is 651-793-1549 and email is Accessibility.Resources@metrostate.edu.

Academic Integrity

Academic integrity is a fundamental element of your learning process. Only by assessing your own original work can I determine whether you've learned and met the educational goals I have developed for you in this course. For that reason, we should take academic integrity very seriously in our learning community. As instructor, I will take steps to address violations as outlined in the universities policy, including assigning zero's for assignments and failing grades for the course. It is your responsibility as a student to read and understand Metropolitan State's *Academic Integrity Policy and Procedures*. For information on the university's policies regarding academic integrity, please refer to the following…

The student handbook is here: http://www.metrostate.edu/student/student-services-support/student-services/gateway/student-handbook

The universities policies and procedures can be found here: http://www.metrostate.edu/student/course-info/course-info/university-policies-and-procedures

The policy on academic integrity is here: http://www.metrostate.edu/Documents/university-policies-procedures/section-ii-b-academic-affairs-procedures/procedure-219-student-academic-integrity-01062014.pdf