Syllabus for DATA 109, General Statistics

Winter 2025

Instructor: Qinghong Zhang
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Class Time: 11:00-11:50, MWRF
Office Hours: 12:00-1:00, MWRF, 1:00-2:00 R, and by appointment.

Course Description (from NMU Bulletin):

- Applies toward the quantitative reasoning and analysis (quar) general education requirement
- Applies toward the mathematics competency university requirement (math) general education requirement.

Data and distributions, discrete and continuous probability models, central limit theorem, hypothesis testing, confidence intervals, regression and correlation, and ANOVA.

Student Learning Outcomes: Upon successful completion of this course, a student should be able to:

- classify categorical and quantitative variables
- determine sample spaces and find the probability of an event
- compute a confidence interval for a mean and a proportion
- describe the definitions used in tests of hypothesis and solve a test of hypothesis problem
- compute the correlation coefficient and the equation of the regression line
- use software R to solve various statistical problems including mean, median, ANOVA, etc.

Evaluation of these learning outcomes will be done through assignments, tests, and exams.

Prerequisite: A grade of **C-** or better in MA100, or satisfactory score on the Math Placement Exam.

Textbook: An online access to Macmillan's Achieve, an online homework system with an access to the e-textbook "The basic practice of Statistics, 9th Edition by Moore, Notz, and Fligner."

The Achieve course has already been integrated with our EduCat. When you have an access to the course on EduCat (after the roster of the class is loaded to EduCat usually a couple of days before the school starts), you will see the Achieve Learning contents on the course page on EduCat. The following link includes more detailed instructions on how to register for your course (you may copy and paste the link into your browser if the link does not work):

Since this class is a First Day® inclusive access course, your access to the course materials is granted via a fee on your student bill - There is no need to make any other purchase at the bookstore or with the publisher. And – it's at the best possible price. However, if you want to opt out of the inclusive access, you can click the link "Click here to opt out of the inclusive access fee (You still need to buy it!))" on the EduCat course website and follow the instruction there.

Homework and Tests: Achieve Homework assignments including StatTutor, LearningCurve, and Homework can be accessed via the EduCat course website. You have to complete your assignments before the deadlines and late assignment submission will not be accepted. Four Tests on EduCat are scheduled on January 31, February 21, March 21, and April 11. The final exam will be given during the final exam week. Test score will be available after the test is closed. Feedback for some problems are also available. Since the system cannot recognize some of the answers, I usually manually look at your test and adjust your scores. Partial credits might be given based on how far your answer is from the correct answer. However, I don't give extra credits for this class. Please don't ask me to offer additional extra credit to boost your grade.

Grading Plan:

I will drop the lowest score out of the four test scores. The coursework will be weighted as follows:

Attendence:5%
LearningCurve: 5%.
StatTutor: 5%.
Homework: 10%.
Quizzes: 5%.
Tests: 45%.
Final Exam: 25%

It is important to take the tests and exam at the scheduled time. Generally, no make-ups will be given.

Grading: 90%—100%, A-/A; 80%—89%, B-/B/B+; 70%-79%, C-/C/C+; 60%-69%, D-/D/D+; 0%-59%, F.

Disability Services If you have a need for disability-related accommodations or services, please inform the Coordinators of Disability Services in the Dean of Students Office at 2001 C. B. Hedgcock Building (227-1737 or disability@nmu.edu). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.