

Math 355: Elementary Statistical Methods

Instructor: Mr. Fehrenbach

Room: Sci A202

Text: *Introduction to the Practice of Statistics* by Moore, McCabe, Craig (8th Edition, © 2014)

Statistics is the science of collecting, organizing, and interpreting numerical facts, which we call *data*. MTH 355, Elementary Statistical Methods, is an introductory 4-credit course dedicated to the study of Statistics.

Course Goals

Many majors at UWSP and elsewhere require students to take and pass an introductory Statistics course. To that end a goal for students in this class is to not only demonstrate enough learning of statistics to pass, but also to learn the material well enough to be of value as you pursue other fields of study. The learning standards we will follow are the ones set forth internationally by the College Board (CB) in conjunction with the American Statistical Association (ASA).

Furthermore, MTH 355 fulfills UWSP's Quantitative Literacy component of the General Education requirement. Accordingly, additional goals for the student include the following: (1) Select, analyze and interpret appropriate numerical data used in everyday life in numerical and graphical format, (2) identify and apply appropriate strategies of quantitative problem solving in theoretical and practical applications, and (3) construct a conclusion using quantitative justification.

Our textbook authors state, "We are bombarded by data in our everyday lives." This has never been more true! Making sense of it can have shape how you make decisions and how you live. To that end, perhaps the most important goal for students in this course is *understand statistics as it relates to our everyday lives, today and beyond*.

The purpose of an introductory course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:

- * Exploring Data: Observing patterns and departures from patterns
- * Planning a Study: Deciding what and how to measure
- * Anticipating Patterns: Producing models using probability theory and simulation
- * Statistical Inference: Confirming models

Student Expectations and Grading

1. **Formative Assessments:** Formative assessments are intended to guide the instructor as to student progress while not lowering the student's grade. Students are expected to be present and to participate in class activities each day and do daily assignments. *Attendance will be taken.* Assignments will be assessed by homework quizzes and periodic notebook checks. You should have a *graph paper notebook* for your daily assignments and a *binder* for distributed notes. You should have a *graphing calculator* with lists (I will demonstrate with a TI-84, so get a TI-83+ or TI-84 if you're buying one) in class on a daily basis. Formative assessments will include in-class activities, daily assignments, homework checks, notebook checks, and quizzes and will count as **15%** of your grade.
2. **Projects:** Projects assess some essential concepts in the curriculum and are a significant part of the course. You are required to complete three projects in Stats. Projects will count as **15%** of your grade.
3. **Mid-Term Exams:** There will be three mid-term exams. Each will have a Multiple Choice section and a Free-Response section. Exams must be taken at the scheduled time. Mid-terms will count **40%** of your grade, with the first exam counting 10% and the other two 15%.
4. **Final Exam:** The Final will be cumulative, will also have multiple choice and free response sections, and will count **30%** of your grade. Mark your calendar—May 15, 5:00 – 7:00 pm—as there are no make-ups.

The Grading Scale, rounded:

A 93-100, A- 90-92, B+ 87-89, B 84-86, B- 80-82, C+ 77-79, C 74-76, C- 70-72, D+ 67-69, D 60-66, F below 60.

Keys to Student Success

Daily attendance is crucial to your success in Stats. You will learn a lot by being here and staying engaged. If you are absent, it is your responsibility to make up the missed work or activity which may affect your grade. *Your attendance is expected on test days.*

Here are five recommended practices to help you to learn the course material.

1. **Stay engaged** and participate in class activities. Ask questions. Request processing time or a re-statement.
2. **Read** the textbook as assigned. Do the examples.
3. **Do the assigned problems**, from the text and the College Board questions.
4. **Study** your notes and examples after class.
5. **Complete the projects** thoroughly.

Extra Help

I highly recommend working with study partners or groups. Take part in the TIMS (Tutoring in Math and Science) program at 018D ALB (formerly LRC, library basement), where Samantha has been assigned as a tutor for this class. Visit the Math Room (SCI A113A, 9 am-4 pm, 7-9 pm) with questions on assignments. See me during my office hours or arrange another time to see me (Sci D221).

General Classroom and Course Rules/Policies: *Respectful, Responsible, Committed*

1. Please observe general university rules in the classroom and outside.
2. Please be on time and prepared for class.
3. Participate in class activity. Stay engaged! (See above.) No texting. No ear buds. No cell phone use without permission.
4. Make-up tests or quizzes are not generally granted without pre-arrangement. An exception may be made in unusual circumstances.
5. Appeal of grading should be submitted in writing within 5 days of receiving the evaluation of assessment.
6. Special consideration may be made for students with disabilities. See <http://www.uwsp.edu/special/disability/>
7. UWSP Community Rights and Responsibilities can be found at the For Students section of the Dean of Students website <http://www.uwsp.edu/dos/Pages/default.aspx>
8. Copyright and File Sharing: Posting instructor-created notes and course material onto course-sharing websites directly violates the instructor's copyright on his/her academic materials. These materials are provided for your convenience as an aid to learning. Permission to post instructor-created material on any such site is unequivocally denied.
9. No electronic cigarettes are allowed in my/our classroom.

Contact Information for Mr. Fehrenbach

Email (best way to contact): bill.fehrenbach@uwsp.edu

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Teaching Hours: MTRF 9-11

Office Hours: Sci D221 T 11:10 – 12:30, R 8:00 – 8:50 and by arrangement

I look forward to a great term together. You're going to love Stats!

Mr. Fehrenbach