

General Information

Class meets:	MW 6:00-9:30pm in SVEDRUP 202
Professor:	Dr. Sri Pudipeddi
Office:	Science 137C, phone: 612-330-1391
E-mail:	pudipedd@augsborg.edu
Office Hours:	MW 5 – 5:50 PM, and other times by appointment.
Prerequisite:	You must be in Math Placement Group 3 or higher. If you have previously completed another college statistics course, you will not receive credit for this course – please see me immediately!
Text & Materials:	<ol style="list-style-type: none">1. <i>The Basic Practice of Statistics, 4th edition</i> by Moore (Freeman, 2003)2. <i>A scientific calculator that does elementary statistics.</i> A graphing calculator is certainly acceptable, but you may find it easier to work with a simpler calculator like TI 83. Cell phones are not allowed on exams.

Course Description

This course provides an introduction to statistics. The main purpose of this course is to give you a feel for working with data – collecting, organizing, describing, analyzing, and drawing conclusions. Specifically, in this course, you'll

- See types of questions statistics can (and can't) be used to answer.
- Experience data collection and understand the limitations of methods used to collect data.
- Appreciate the nature of variation and its critical role in statistical analysis.
- Describe distributions using words, graphs, and numbers.
- Gain familiarity with the normal distribution.
- Understand and apply the basic concepts of correlation and regression.
- Understand and apply the basic concepts of probability.
- Construct and use confidence intervals to interpret data.
- Use technology appropriately, including statistical functions on a calculator, Excel® spreadsheet program, and Java® applets on the web.

This course is a Natural Science/Mathematics Liberal Arts Foundation (NSM-LAF) course and contains a Quantitative Reasoning graduation skill component (grade of at least 2.0 required).

Expectations

You are expected to:

- Attend and participate in every class. Be on time and prepared for every class. Bring your text and calculator to every class.
- Please behave professionally in the class. Avoid conversations with your classmates or friends, as this will disturb other students who want to learn the material. Turn off your cell phones, laptops and iPods before the beginning of each class. Your overall behavior in the classroom will determine your class participation grade.
- Take exams when scheduled. Follow all academic honesty rules.
- Keep me up-to-date on how the class is going for you. Let me know of any special needs that you have.

As your professor, you can expect me to:

- Foster a safe, respectful, and fun classroom environment. My philosophy is that we are all friends in the classroom. This positive environment will be created through discussion, small group activities, and the occasional bad joke. By the end of the lecture you can expect to have sufficient tools, resources, and examples to make a good attempt at assigned problems.
- Be on time and prepared for every class. Each day I have specific objectives and goals that I want to accomplish. You have the right to ask for these objectives.
- Make my time available to you to ask questions and receive any necessary help. If you cannot meet my office hours, please do not hesitate to set up an appointment.
- Have homework, exams, and other submitted materials returned to you in a timely manner. Your course grade will be available at any time through the moodle website.
- Keep an up-to-date course website on moodle and communicate pertinent course announcements through email.
- Follow up to violations of academic honesty as needed depending on the severity of the violation.
- Submit an academic alert for the following circumstances:
 - a) Three consecutive class absences
 - b) A score below 2.0 (<74%) on exam.
 - c) A current course grade below 2.0 (<74%).
 - d) Any other reason deemed necessary by me.

An academic alert is not a punishment; the academic alert will not become part of your permanent record. I want you to succeed in this class; academic alerts are one way to make sure you are receiving all appropriate campus resources to help you

succeed. On the academic alert I will ask you to follow up on certain items. Please do so with diligence.

Learning Tools

The best, if not only, way to learn the concepts and techniques of this course is to discuss the material with others and to work on problems. There are four specific ways in which we will do this – in-class activities, homework, labs, and quizzes.

IN-CLASS ACTIVITIES

I like to punctuate lecture with frequent turn-to-your neighbor activities. For example, we might work on an “Apply Your Knowledge” question from the text, or practice a calculation on our calculator, or discuss a concept. You will find these activities to be important in helping you learn and to do homework problems.

Course Grade

Your course grade is based on

Class Participation.....	5%
Homework and In class activities	15%
Exam 1.....	20%
Exam 2.....	25%
Final Exam.....	35%

Exam 1 is on July 15th, from 6:00 – 7:30pm (Will be over materials covered on July 8th and July 13th)

Exam 2 is on July 27th, from 6:00 – 7:30pm (Will be over materials covered on July 20th and July 22th)

Final Exam is on Aug 5th, from 7:30 – 9:30pm (Will be comprehensive but more weight will be given to materials covered on July 29th and Aug 3rd)

At the end of the course, your percentage grade is converted to a course grade according to the following curve.

94% – 100%.....	4.0	66% – 72%.....	2.0 (passing)
87% – 93%.....	3.5	62% – 65%.....	1.5
80% – 86%.....	3.0	58% – 61%.....	1.0
73% – 79%.....	2.5	0% – 57%.....	0.0

- If you elect to take this course P/N, you must earn at least a 2.0 to get grade P. Please talk with me if you are considering the P/N option.
- I reserve the right to lower your course grade if your attendance, participation, or preparation falls well below expectations.

Teaching Standards Met

MAT 163: *Introductory Statistics* meets Grades 5-8 Specialty in Mathematics MN BOT 8710.3200 Subpart 4 Part B Items listed below.

5. Concepts of *data investigations*:
 - a. Data and its power as a way to explore questions and issues;
 - b. Investigation through data, including formulating a problem; devising a plan to collect data; and systematically collecting, recording, and organizing data;
 - c. Data representation to describe data distributions, central tendency, and variance through appropriate use of graphs, tables, and summary statistics;
 - d. Analysis and interpretation of data, including summarizing data; and making or evaluating arguments, predictions, recommendations, or decisions based on an analysis of the data;

6. Concepts of *randomness and uncertainty*:
 - a. Inference and the role of randomness and sampling in statistical claims about populations;
 - b. Probability as a way to describe chance or risk in simple and compound events;
 - c. Predicting outcomes based on exploration of probability through data collection, experiments, and simulations;
 - d. Predicting outcomes based on theoretical probabilities and comparing mathematical expectations with experimental results.

List of Recommended Homework Problems:

Chapter	Problem #s
1	1.13, 1.14, 1.16, 1.17, 1.18, 1.19, 1.20, 1.24, 1.27, 1.28, 1.29, 1.36, 1.41
2	2.13, 2.14, 2.15, 2.16, 2.17, 2.23, 2.30 (a) and (b), 2.35, 2.45,
3	3.16, 3.17, 3.20, 3.21, 3.22, 3.23, 3.24, 3.27, 3.30, 3.32, 3.35, 3.38, 3.40, 3.44
4	4.12, 4.13, 4.16, 4.17, 4.19, 4.21, 4.24
5	5.14, 5.16, 5.17, 5.18, 5.23, 5.24, 5.30, 5.48, 5.49
8	8.17, 8.20, 8.21, 8.26, 8.27, 8.30, 8.34, 8.37
9	9.16, 9.17, 9.31, 9.32 (a), 9.33
10	10.20, 10.21, 10.22, 10.25, 10.27
12	12.17, 12.18, 12.24, 12.27, 12.28, 12.33, 12.34, 12.48, 12.49
14	14.11, 14.13, 14.14, 14.15, 14.28, 14.29
15	15.26, 15.27, 15.28, 15.29, 15.34, 15.40, 15.43, 15.44
16	16.19, 16.20, 16.21, 16.24, 16.30, 16.34