

**Mathematics Department
University of Wisconsin Oshkosh**

**General Syllabus for
MATH 201 Applied Statistics**

Course Description:

We live in the information age. The ability to analyze and interpret information displayed in tables, graphs, and formulas is an essential quantitative skill for success. This course is an introduction to applied statistics. Topics include descriptive statistics, elementary probability, discrete and continuous distributions, interval and point estimation, hypothesis testing, regression and correlation. Data analysis will be conducted using statistical software such as MINITAB, or Microsoft Excel, or the TI-83.

Prerequisite:

Mathematics 104 or 108 with a grade of C or better.

Description of Students Who Take the Course:

MATH 201 satisfies the requirements for the Bachelor of Science degree in the College of Letters and Science.

General Goals and Objectives for the Course:

The goal of statistics is to gain understanding from data. This course focuses on critical thinking and active learning. Students will be engaged in statistical problem solving and will develop intuition concerning data analysis, including the use of appropriate technology.

Specifically students will develop

- an interest and aptitude in applying statistics to other areas of human inquiry
- an awareness of the nature and value of statistics
- a sound, critical approach to interpreting statistics, including possible misuses
- facility with statistical calculations and evaluations, using appropriate technology
- effective written and oral communication skills

Textbook and Other Required Materials Recently Used:

Introduction to the Practice of Statistics, 5th edition, by David S. Moore and George P. McCabe. Some sections require a specific graphing calculator or other technology.

Specific Course Content:

The following list is a suggested list. Course content may vary by instructor.

One Variable Displays and Summaries

Histograms

Means, Medians, etc.

Two Variable Displays and Summaries

Scatterplots

Regression and Correlation

Probability and Random Variables

Sampling and Experiments

Randomness

Sampling Distributions

Statistical Inference: Confidence Intervals

Statistical Inference: Hypothesis Tests

Variation by instructor:

Although this course has a common content syllabus across sections and course coordination occurs, teaching methodology and evaluation policies may vary. Evaluation may include quizzes, exams, a comprehensive final, and the collection of homework. In addition, instructors of this course may assign projects and reading and writing assignments.

Students should consult the individual course syllabus for more information.

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