

MA171
INTRODUCTION TO PROB. & STATS
4 credits

SYLLABUS

Prof. David J. Powers

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Office Hours: Are posted on my office door

(** other times by appointment **)

Course Description and Overview

The course consists of a study of the methods of elementary probability and statistics. Some time is devoted to finding probabilities for both discrete and continuous probability functions, and discussing the role probability plays in estimation and decision making. The main emphasis of the course, however, is on methods of describing data, finding sampling estimates and testing hypotheses. Throughout the course, applications are stressed as is the interpretation and understanding of the statistics and methods used.

The student will:

- become familiar with basic probability and statistical methodology and terminology
- learn how to present data graphically and be able to read and interpret such presentations
- learn how to calculate estimates and other statistics, and interpret and compare statistics
- find probabilities and understand the role of probability in statistical decision making
- learn how to test a hypothesis and use statistical procedures to help make decisions
- be able to identify an appropriate statistical procedure to use in a given situation and identify when a procedure is improperly used

In addition to lecturing, the following tools will be utilized in this course to enhance the student's learning process:

- statistics software
- graphing calculators
- use of the Internet

MA171 satisfies the Formal Communication Studies requirement (Division V). This course is designed to introduce students to the ways in which information and ideas are expressed using a communication system other than English. Such courses should foster the student's ability to conceptualize and communicate in an orderly, rational manner. Characteristics of a communication system include: 1) possession of a grammar; 2) operation from an established set of rules; 3) reasoning properties such as deduction, inference drawing and problem solving. This includes courses in languages and those in which the central focus of the course is on statistics, computers or formal logic.

Text

- GENERAL STATISTICS, by Chase & Bown, 4th Edition (c) 2000.
 - Formula Sheets.
 - MA171 Supplement.
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Other Materials

- Graphing Calculator; TI-85/TI-86 recommended

OR

- Laptop with Graphing Software, such as, TI InterActive
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Laptop Use

Laptops **cannot** be used during class lectures.

Laptops can be used in class for tests, quizzes, and in-class assignments when indicated by your instructor.

Prerequisite

C- or better in MA103, MA104, MA105 or equivalent

Tentative Schedule

Chapters 1 thru 11 will be covered. Some sections in these chapters may be omitted.

Homework

Homework assignments are listed in the MA171 Supplement. Homework is for your benefit and does not need to be submitted.

Tests

All testing will be proctored and closed book. *You will need your calculator, formula sheets and a pen/pencil during tests.*

Formula sheets can be used during testing. *Formulas do not need to be memorized.*

Make-up of Missed Work

Make-up of missed tests will be allowed if you contact me prior to the absence and you have a valid excuse.

No make-up of quizzes or in-class assignments will be allowed. Your attendance in this class will affect your final grade.

Personal Contact

I am very interested in what is happening with my students and I appreciate when you inform me of situations which could affect your attendance and/or performance in my class. However, please do not explain your class absences or other personal problems to me in the classroom (before or after class). Please use one of the following ways to inform me of personal items:

- meet me in my office during my office hours (NSF 1306)
 - use my office phone, 906-227-2501 (leave a voice message)
 - e-mail me at dpowers@nmu.edu
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Grading

- 80% test scores
- 20% Final Exam (Comprehensive).

Grades: Grades are assigned based on the % of total points obtained as follows:

A 92-100 C+ 77-79

A- 90-91 C 73-76

B+ 87-89 C- 70-72

B 83-86 D+ 67-69

B- 80-82 D 63-66

F 0-62

Americans with Disabilities Act: If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office at 2001 C. B. Hedgcock (227-1700; TTY 227-1543). 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.