MA171 (Web)
INTRODUCTION TO PROB. & STATS
4 credits

SYLLABUS

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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.
- MA171 Formula Sheets.
- MA171 Supplement.
- Graphing Calculator; TI-85/TI-86 recommended

OR

- Laptop with Graphing Software, such as, TI InterActive

All these materials are available at the NMU bookstore. If it is inconvenient for you to go to the NMU bookstore, you can have the bookstore send you the required textbooks and materials.

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

There will be 8 Chapter tests and a Comprehensive Final Exam.

You are expected to finish all the required tests including the Final Exam by the end of the semester. This means you should take a Chapter test about every week to stay on schedule. You may finish early, but you must finish by Aug. 6, 2008. **No extensions will be given (no exceptions!).**

Also, be aware of the following test dates:

Tests 1-4 must be completed by June 27, 2008

Tests 5-8 must be completed by August 6, 2008

Final Exam must be completed by August 6, 2008

All testing will be proctored (supervised) and closed book. *You will need your laptop/calculator, formula sheets and a pen/pencil during tests.* **No other materials are allowed!** Please note that you are **not** allowed to mark-up your Formula Sheets with *"special notes"*.

You may have your tests proctored or supervised by your instructor, the Math Department, or a proctor. If you are taking tests remotely, you must set-up a proctoring arrangement with your instructor (dpowers@nmu.edu). When you are ready for your first test, please contact your proctor.

Tests are password protected. In order to take a test, you must obtain the password from your proctor.

**** Note: You will receive an automatic F for this course**

- If you obtain a password from someone other than your proctor (for example, from another student).
- If you provide a password to another student.

- If you take a test without the supervision of your proctor.

Expectations

You are expected to become familiar with instructional objectives, course requirements, and methods employed in determining the course grade. You are also responsible for familiarizing yourself with the course syllabus and completing all the requirements of the course (*NMU Student Rights and Responsibilities .02 Student Responsibility*).

Grading

- 80% -- 8 Chapter Tests
- 20% Final Exam (Comprehensive).

There is **no** extra credit and all test scores are included in the calculation of your average score.

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

Disabilities Services: If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office by: coming into the office at 2001 C. B. Hedgcock; calling 227-1700; or e-mailing disserv@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.