

SYLLABUS: Math 171
Introduction to Probability and Statistics

Don Faust

In this course we will get familiar with a broad spectrum of fundamental mathematical systems and techniques related to the very useful area of *probability and statistics*. There will be an emphasis, hopefully both interesting and helpful, on understanding and applying **inferential statistics**.

More generally, the following broad perspective may be helpful to you. The fundamental tools of mathematics provide a rich storehouse of models for the representation and solution of many problems. Making intelligent use of these models involves both (1) developing a facility for analyzing problems and casting them in ways which, where appropriate, make good use of these models of mathematics, and (2) developing a facility for working with these models themselves. Our course will take us through a representative sample of these tools of mathematics, and will concentrate on both aspects (1) and (2) delineated above. It can be a very exciting journey (if your involvement is sincere and includes both good class attendance and a parallel daily commitment to hammering things out on your own through daily study and problem-solving), at the end of which you will find not only that your mathematical maturity has been substantially enriched, but also that the general analytical skills you bring to bear in the broader arena of your daily life will be substantially enriched as well.

This course satisfies the Formal Communication Studies requirement.

This course is designed to introduce students to the ways in which information and ideas are expressed using a communication system other than English. This course 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 and Brown

Evaluation:

Firstly, in addition to ungraded daily assignments, there will be a sequence of graded SUBMITTED ASSIGNMENTS which can be resubmitted repeatedly until satisfactory.

Secondly, there will be four mid-semester exams and a final exam. Only very exceptional circumstances could justify missing an exam; in these rare cases, except in emergencies, permission must be requested in advance, and a make-up exam (usually oral) will occur on Friday 27 April.

The evaluation framework is as follows: (please note especially the dates, already fixed, when the four exams will take place):

Exam 1:	Wed	14 Feb	150 points
Exam 2:	Wed	14 Mar	150 points
Exam 3:	Wed	4 Apr	150 points
Exam 4:	Wed	18 Apr	150 points
Final Exam:			350 points

Submitted Assignments:

All to be submitted *en masse* by
Friday 20 Apr for grade recording 50 points

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Total: 1000 points

Grading:

90-100%, A; 80-89%, B; 70-79%, C; 60-69%, D; 0-59%, F. The grading may be less stringent, but not more stringent, than this.

Note regarding special needs:

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.