

Other aspects of this course: Although the mathematical level of this course may seem modest, the course material is frequently difficult, and requires careful and logical thinking. One must develop *good judgment* and interpretation skills as opposed to learning simply mechanical procedures of other mathematical subjects.

Probability is taught in this course only in the service of statistics. Consequently, it is largely presented on a “just-in-time” basis. For a substantive treatment of probability, take Math 340.

It is easy for the pace of class to slow when an active learning approach is used. You will need to proceed efficiently and at a reasonably fast pace in your in-class work for us to cover the requisite material. Work together whenever you like, or need help. I may have to push on at times before everyone has finished. At times you will have to complete the in-class Investigations at home. I may also assign an Investigation to be started, or even worked completely, at home.

Goals: By the conclusion of the course, I hope that you will be able to:

- understand many of the fundamental ideas of statistics, such as variability, distribution, association, causation, sampling, experimentation, confidence, and significance;
- apply and interpret the results of a variety of statistical techniques
- analyze and assess statistical arguments, such as those found in the popular press as well as in scholarly publications;
- use computer software both to analyze data and to explore statistical ideas;
- communicate your knowledge of statistical ideas effectively.