This course is focused on presenting the statistical theory necessary to study econometrics. Specifically, it is designed to prepare students for Econ. 4090: Econometrics.

- The course begins with a survey of probability theory and demonstrates how probability is used to quantify the inherent uncertainty of working with incomplete data.
- The probability theory covers both single and multi-dimensional data measured on either discrete or continuous scales.
- The course turns to the study of statistical estimators used in economic measurement. The course covers the desirable properties of such estimators and the construction of confidence intervals to convey the uncertainty in the estimators.
- The course finishes with classical hypothesis testing and describes how these techniques are used to test economic theories.
- The course emphasizes learning the correct meaning of frequently misunderstood statistical concepts. These include the bias, consistency and efficiency of estimators, the interpretation of confidence intervals and statistical versus practical significance in hypothesis testing.
- All examples and problems presented in class come from economics, other social sciences and business.

Who should take this course:

- The course is strongly recommended for student planning to take Econ. 4090
- Student in other social sciences such as history, political science or sociology that use quantitative methods would find the course very useful.
- Business students in accounting, finance and marketing would greatly benefit from this course.

**Prerequisites for the course are ECON 2010 and ECON 2020 and MATH 1180.