Statistics

The George R. Brown School of Engineering

Chair
Katherine B. Ensor

Professors
John W. Brelsford, Jr.
Bryan W. Brown
Dennis Cox
Mahmoud El-Gamal
Don Herrick Johnson
Marek Kimmel
David W. Scott
Robin Sickle
James R. Thompson
Edward E. Williams
Rick K. Wilson

Associate Professors
Ralph F. Frankowski
Richard Heydorn
Bartholomew P. Hsi
Dennis A. Johnston
Howard D. Thames, Jr.
Robert A. White
Stuart O. Zimmerman

Professor Emeritus
Paul Pfeiffer

Adjunct Professors
Joe Dan Austin
David M. Lane

Adjunct Associate Professors
E. Neely Atkinson
Carl S. Hacker

Assistant Professor
Keith A. Baggerly

Lecturers
Peter Olofsson
Michael Pearlman

Degrees Offered: B.A., M.Stat., M.A., Ph.D.

Course work in statistics acquaints students with the role played in the modern world by probabilistic and statistical ideas and methods. Students grow familiar with both the theory and the applications of techniques in common use as they are trained in statistical research. The flexibility of the undergraduate program allows students to concentrate on theoretical or applied training, or they may link their studies in statistics to work in other related departments (see majors in economics, education, electrical and computer engineering, computational and applied mathematics, managerial studies, political science, and psychology). Graduate study has concentrations in applied probability, biomathematics, data analysis, density estimation, epidemiology, image processing, model building, quality control, statistical computing, stochastic processes, and time series analysis. A joint M.B.A./Master of Engineering degree is also available in conjunction with the Jesse H. Jones Graduate School of Management.

Degree Requirements for B.A. in Statistics

For general university requirements, see Graduation Requirements (pages 17–19). Students majoring in statistics normally complete the following:

- MATH 101 and 102 Single Variable Calculus I and II
- MATH 211 Ordinary Differential Equations and Linear Algebra
- CAAM 210 or 211 Introduction to Engineering Computation
- STAT 300 Model Building
• STAT 310 *Probability and Statistics*
• STAT 410 *Introduction to Statistical Computing and Regression*
• 5 elective courses from the Statistics Department (or other departments with approval from their adviser) at the 300 level or higher
Mathematically oriented students should also take MATH 212 *Multivariable Calculus* and MATH 355 *Linear Algebra* (or CAAM 335 *Matrix Analysis*).

**Degree Requirements for M.Stat., M.A., and Ph.D. in Statistics**

For general university requirements, see Graduate Degrees (pages 72–73). Admissions applications should include scores on the Graduate Record Examination (GRE) in the quantitative, verbal, and analytical tests. Financial support is available for well-qualified doctoral students. Course work for all degree programs should be at the 400 level or above, although two (2) approved 300-level courses may be accepted.

**Master’s Programs.** Candidates for the nonthesis M.Stat. degree must complete 30 semester hours of approved course work. Candidates for the M.A. degree in statistics must complete 30 semester hours of approved course work as well as an original thesis, which they defend in a public oral examination.

**Ph.D. Program.** Candidates for the Ph.D. degree in statistics must:
• Complete 90 semester hours of approved course work
• Perform satisfactorily on preliminary and qualifying examinations
• Complete an original thesis with a public oral defense

See STAT (pages 508–511) in the Courses of Instruction section.