## **School of Natural Sciences and Mathematics**

Doctor of Philosophy in Statistics

# **U**D

The Statistics PhD degree curriculum at The University of Texas at Dallas offers extensive coursework and intensive research experience in theory, methodology and applications of statistics. During their study, PhD students acquire the necessary skills to prepare them for careers in academia or in fields that require sophisticated data analysis skills.

The PhD program is designed to accommodate the needs and interests of the students. The student must arrange a



course program with the guidance and approval of the graduate advisor. Adjustments can be made as the student's interests develop and a specific dissertation topic is chosen.

Some of the broad research areas represented in the department include: probability theory, stochastic processes, statistical inference, asymptotic theory, statistical methodology, time series analysis, Bayesian analysis, robust multivariate statistical methods, nonparametric methods, nonparametric curve estimation, sequential analysis, biostatistics, statistical genetics, and bioinformatics.

#### **Program Description**

The PhD in Statistics requires 75 semester credit hours minimum beyond the baccalaureate degree. For complete admission and degree requirements, view the Graduate Catalog at **catalog.utdallas.edu**.

#### **Career Opportunities**

Statisticians generally find employment in fields where there is a need to collect, analyze and interpret data — including pharmaceutical, banking and insurance industries, and government — and also in academia. The job of a statistician consistently appears near the top in the rankings of 200 jobs by CareerCast's *Jobs Rated Almanac* based upon factors such as work environment, income, hiring outlook and stress.

For more information about careers in statistics, view the career page of American Statistical Association at **www.amstat.org/careers/index.cfm**. UT Dallas PhD graduates are currently employed as statisticians, biostatisticians, quantitative analysts, managers, and so on, and also as faculty members in universities.

#### **Marketable Skills**

Students take a number of courses in statistical theory and methodology and conduct original research under the supervision of an advisor. This training prepares them to serve as a professor in an academic institution; a professional in industry, government, financial services, or healthcare institutes; and a researcher in the public or private sector.

- Creative and critical thinking; advanced knowledge of specialized statistical theories, methods, tools and practices. Ability to create logical statistical arguments and conclusions with accuracy a nd clarity.
- Ability to formulate a strategy for analysis of a given dataset, apply it using a statistical software, and evaluate its appropriateness; independent research ability.
- Proficiency in scientific writing and presentation; proficiency in computer programming languages including R and SAS; knowledge of pedagogical practices.

### Contact Information

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utdallas.edu/math/graduate