Data Science is an emerging discipline that lies at the intersection of computer science, mathematics, and statistics. With data being collected everywhere, including from smartphones, computers and televisions, there is a growing need to have qualified scientists who can identify and apply algorithms and statistical models to interpret big data. More than just analyzing information, data scientists utilize machine learning and software tools to process and manipulate data to help organizations visualize and find meaning in their data.

**Data Science at UT Dallas**
The BS in Data Science is an interdisciplinary degree that is jointly offered by the Department of Mathematical Sciences in the School of Natural Sciences and Mathematics and the Department of Computer Science in the Jonsson School of Engineering and Computer Science. Its curriculum provides a solid foundation in the disciplines of computer science, mathematics and statistics, and includes a capstone project. Our program prepares students for data scientist or related positions in industry, business and government, and also for graduate study in any of the three disciplines.

Students must earn 120 hours to graduate: 42 hours from the University’s core curriculum, 65-67 hours in the major, plus 11-13 elective requirements where students can tailor their learning experience more closely to their interests. Visit catalog.utdallas.edu for the most current requirements and courses offered.

Data science requires a strong high school preparation in mathematics and computer science. A minimum of elementary algebra and geometry should be completed, while trigonometry and calculus are highly recommended. Any Advanced Placement courses in computer science, mathematics or statistics are highly beneficial.

**Career Opportunities**
Data science is a rapidly growing sector of analytics and graduates seek positions in public and private industry where big data is needed to provide guidance and support to decision makers. In business sectors from finance, technology, healthcare and retail to manufacturing, data scientists are in high demand. Graduates may pursue job titles such as Data Scientist, Data Mining Engineer, Data Analyst, Decision Scientist, Machine Learning Scientist, Data Manager and Data Architect.

** Marketable Skills**
The BS in Data Science is a joint program between the Department of Mathematical Sciences, School of Natural Sciences and Mathematics, and the Department of Computer Science, Erik Jonsson School of Engineering and Computer Science. Students will gain a solid foundation in mathematical, computational, and statistical methods needed to extract usable information from data. They will be prepared for data scientist or related positions in business, industry, and government, and also for graduate study in mathematics, statistics, and computer science.

- Analytical, logical, deductive, and inductive reasoning; problem solving.
- Ability to analyze algorithms for inferring information from large datasets; ability to manipulate quantitative data and perform data analysis using software tools.
- Computational skills, including proficiency in computer programming languages for data analysis, such as R and python.
UT Dallas’ School of Natural Sciences and Mathematics offers degree programs for undergraduate and graduate students in biology, chemistry, geosciences, mathematics and physics. In addition to regular coursework, undergraduates are encouraged to participate in research alongside the faculty and graduate students. From the world-renowned Alan G. MacDiarmid NanoTech Institute, headed by Dr. Ray Baughman, to the William B. Hanson Center for Space Sciences—where Dr. John Hoffman helped discover water on Mars—the science education at UT Dallas is a hands-on, high quality experience for undergraduates and graduate students alike.

The UTeach Dallas program offers students the opportunity to complete the requirements for high school teacher certification along with their regular BS or BA degrees.

**Quick Facts about the School of Natural Sciences and Mathematics**

- Established in 1975.
- Six departments.
- More than 3,200 students.
- 29 degrees offered.
- Faculty include a Nobel Prize winner and a member of the National Academy of Engineering.

**Degrees Offered**

*Bachelor of Science:* Actuarial science, biochemistry, biology, chemistry, data science, geosciences, mathematics, molecular biology, physics

*Bachelor of Arts:* Biology, chemistry, mathematics, physics

*Master of Science:* Actuarial science, bioinformatics and computational biology, biotechnology, chemistry, geosciences, mathematics, molecular and cell biology, physics, statistics

*Master of Arts:* Teaching in mathematics education, teaching in science education

*Doctor of Philosophy:* Chemistry, geosciences, mathematics, molecular and cell biology, physics, statistics

**Certificates**

- Postbaccalaureate certificate in biomedical science
- Graduate certification in data science

**Fast Track to Graduate School**

The Fast Track program enables exceptionally gifted UT Dallas students to include master’s level courses in their undergraduate degree plans. Students who meet the requirements for admission to graduate school and the minimum GPA requirement for their major can take up to 15 hours of graduate level coursework that can apply toward their undergraduate and graduate level coursework. To take graduate courses in the Fast Track program upper-division undergraduates must have completed 90 semester credit hours and petition their associate dean for permission to take graduate courses.