The Mathematics PhD degree curriculum at The University of Texas at Dallas offers extensive coursework and intensive research experience in theory, methodology and applications of mathematics. During their study, PhD students acquire the necessary skills to prepare them for high level careers in fields requiring mathematical sophistication. 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 mathematics are as follows: algebraic and complex geometry; analysis and its applications; control theory and optimization; dynamical systems and ordinary differential equations; differential geometry; mathematical physics; mathematical methods in medicine, biology, geosciences and mechanics; numerical analysis and scientific computing; partial differential equations; and topology.

Program Description
The PhD in Mathematics 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
Graduates of the program seek positions such as: professor in an academic institution, or professional in industry, government or finance and researcher in public or private sector. Available emphases ensure that candidates can tailor their future career by having targeted their educational background to their research interests.

The jobs of mathematicians consistently appears among the top jobs 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 mathematics, view the career page of American Mathematical Society at http://www.ams.org/profession/career-info/career-index.

 Marketable Skills
Students take a number of courses in advanced mathematics and conduct original research in mathematical disciplines under the supervision of an advisor. This training prepares them to embark on careers in research in business, industry, government and academia.

- Creative and critical thinking; advanced knowledge of specialized mathematical theories, methods, tools and practices; ability to create logical mathematical arguments and conclusions with accuracy and clarity.
- Independent research ability; research writing and research presentation.
- Computer literacy and pedagogical practices.