

## CONTACT US

Thank you for your interest in our programs here at The University of Tennessee. We invite you to contact us with any questions you may have about our degree programs, assistantships, or research.

Our web site offers more in-depth information about our Department, our University, online assistantship application, Graduate Admissions, and fellowships.

[www.math.utk.edu/grad/](http://www.math.utk.edu/grad/)

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THE UNIVERSITY OF TENNESSEE, KNOXVILLE  
**BIG ORANGE  
UT BIG IDEAS**

# Graduate Study in Pure and Applied Mathematics The University of Tennessee



## *A message from our Department Head....*



**Conrad Plaut**

### **Mathematics Department Head**

*Thank you* for your interest in the graduate mathematics program at the University of Tennessee.

The Mathematics Department at UT offers a variety of advanced degree programs to prepare students for a diverse set of career goals.

Possible positions in mathematics include research and teaching in an academic environment, teaching at two- or four-year institutions, and working in industry or at a national laboratory.

In this brochure, you will find a description of our degree programs, a few examples of the career paths of some of

our former graduates, comments from current students, and other information. We hope the University of Tennessee will be the perfect fit for furthering your mathematical development and achieving your ambitions.

### **RESEARCH AREAS**

Algebraic geometry, algebraic topology, commutative algebra, complex analysis, computational math & modeling, continuum mechanics, differential geometry, enumerative combinatorics, functional analysis, geometric topology, harmonic analysis, mathematical ecology, number theory, numerical differential equations, ordinary differential equations, partial differential equations, probability & stochastic processes, stochastic differential equations.

An expanded and more detailed research list is available on our web site at [www.math.utk.edu](http://www.math.utk.edu).

## **EMPLOYMENT & LOCATION**

### **EMPLOYMENT**

Students earning Masters and/or PhD degrees are finding challenging and diverse employment.

Recent PhD graduates have accepted postdoctoral, tenure-track, and industrial positions. Academic employers include schools such as Appalachian State University, Brigham Young University, Eastern Kentucky University, Middle Tennessee State University, Tennessee Technological University, University of Pittsburgh, University of South Florida, and Wofford College, to name a few. Industrial jobs have included NSA, Silicon Valley, consulting firms, and computer companies.

Masters graduates have accepted teaching positions at high schools, community colleges, and universities. Industrial positions have included careers with companies such as the Census Bureau, Consumer Product Safety Commission, Milliken, and the Naval Surface Warfare Center.

### **ABOUT KNOXVILLE**

We are located along the Tennessee River in the eastern portion of the state. Nestled between the Great Smoky Mountains to our east and the Cumberland Mountains to our north and west, we are conveniently located where interstates I-40 and I-75 merge. The Great Smoky Mountains National Park and Gatlinburg are just a short drive away. Knoxville also offers a combination of outdoor activities, spectator sports, and water recreation on the many nearby lakes and rivers, as well as cultural attractions.



**A view from the  
Tennessee River**



## STUDENT COMMENTS

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When visiting different math departments in my search for a graduate school, the welcoming and open door atmosphere of the UTK math department really impressed me. I could not have asked for a math department that cares more about their students! - Jennifer R.

UT offers a rigorous research atmosphere coupled with invaluable teaching experience. The family-like relationship among peers has made the math graduate program a unique and invaluable part of my life. - Fei X.

As an incoming student, one concern I had was how competitive the atmosphere would be. I was pleasantly surprised at the camaraderie, which is developed due to the atmosphere the department sets into place. Throughout my career here, I have enjoyed a truly awesome learning experience amplified by the collaboration with fellow students and professors alike. - Amanda D.

Each professor here has a tremendous wealth of knowledge which they are always willing to share with eager students. - Jimmy S.



Smoky Mountains

## DEGREES OFFERED

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Students are encouraged to choose broadly based programs in pure and/or applied mathematics. Careful faculty advising helps students select courses at the appropriate level for their graduate course work. Small graduate classes permit individual attention. Students benefit from close contacts between the Mathematics Department and the Oak Ridge National Laboratory.

#### Doctor of Philosophy (PhD)

Designed for students who are interested in teaching and/or research at the university level or in industry.

Candidates for the Doctor of Philosophy degree must develop a broad background in mathematics as well as an intense specialization in their chosen research area. In addition to the standard coursework, PhD students must pass 2 written preliminary examinations, an oral specialty examination, and write a dissertation.

The Department also offers a PhD concentration in Mathematical Ecology/ Evolution.

#### Master of Science (MS)

Designed for students interested in a career in industry or teaching.

The MS degree is available in both pure and applied mathematics. Students may choose from a broad range of research areas and have the choice of either a thesis or a non-thesis option.

The Department also offers an MS concentration in applied mathematics. This structured program is intended to prepare students for careers primarily in industry or government.

#### Graduate Minors

Graduate minors are also available in Computational Science and Statistics.

#### Master of Mathematics (MM)

Designed for students who would like to teach at either a high school or community college. This degree requires neither a thesis nor a project, but MM students must pass a six-hour comprehensive exam.

# ASSISTANTSHIPS

## ASSISTANTSHIPS

Graduate teaching assistantships (GTAs) offer graduate students the chance to gain valuable teaching experience while earning their masters or PhD degree. Assistantships provide students with a monthly stipend, tuition waiver, and health insurance.

Students who are awarded a GTA position can expect to receive continued support as long as academic progress is maintained and teaching or other assigned responsibilities are met.

Applications received by February 1st will receive primary consideration on a competitive basis for GTA positions for the following academic year. Applicants are also automatically considered for any departmental awards that are available, if their application is complete by the February 1 deadline.

Learn more, and apply for admission and assistantship online, at [www.math.utk.edu/grad/](http://www.math.utk.edu/grad/).

## ADDITIONAL FINANCIAL SUPPORT

Additional awards such as Science Alliance Associateships, Dryzer Awards, and research assistantships are available through the department to students. Mathematics students may also compete for fellowships which are administered directly by the Graduate School and which may be combined with a graduate teaching position. Faculty grants and contracts from DOE, NSF, and Oak Ridge National Laboratories also support several graduate students in the Department of Mathematics.



Ayres Hall in winter

# FELLOWSHIPS, HOUSING, & ADMISSIONS

## FELLOWSHIPS

Several university fellowships are available for new graduate students interested in programs within the mathematics realm. These fellowships offer tuition waivers and stipends up to \$30,000 per year. Other Graduate School fellowships may also be viewed at [gradschool.utk.edu/gradfund.shtml](http://gradschool.utk.edu/gradfund.shtml).

For more information, and to see if you qualify, please review the links below:

\*PEER: [web.utk.edu/~peer](http://web.utk.edu/~peer)

\*SCALE-IT: [web.utk.edu/~scaleit](http://web.utk.edu/~scaleit)

\*Distinguished Graduate Fellowships: [cire.utk.edu/dgf.shtml](http://cire.utk.edu/dgf.shtml)

## HOUSING

Knoxville has a low cost of living as well as an abundance of apartments and housing options. For more information about housing, please look over the following links:

[tnhousingsearch.org](http://tnhousingsearch.org)

[www.knoxapts.com](http://www.knoxapts.com)

[knoxville.apartments.com](http://knoxville.apartments.com)

[www.rent.com](http://www.rent.com)

## ADMISSIONS

The Graduate & International Admissions Office handles all graduate admissions submitted to The University of Tennessee. Their online admission application may be found at

[graduateadmissions.utk.edu/](http://graduateadmissions.utk.edu/).

Please note that the Math Department Assistantship Application is now a supplemental form within the Graduate Admissions application.

International students should pay particular attention to deadline dates since these dates may impact your admission to our program.



A campus walkway