The department of mathematics and statistics at Saint Louis University offers graduate programs of advanced study and research leading to Master of Arts and Doctor of Philosophy degrees in mathematics. Due to the high faculty-student ratio, graduate students receive extensive individualized instruction. Ph.D. students work closely with faculty on individually tailored research programs. The department is engaged in undergraduate curriculum reform using cutting-edge technology, and graduate students participate in this reform.

OVERVIEW
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M.A.:
The master’s program prepares students for further study toward the Ph.D. or for a career in teaching or industry. This degree requires 30 credit hours of coursework, with at least seven courses at the 5000-level or higher, including two full-year 5000-level core courses. The successful master’s student must either write and defend a master’s thesis or pass an oral exam covering three areas of graduate-level mathematics.

Ph.D.:
The Ph.D. program prepares students for research and/or teaching careers in colleges, universities or industry. Requirements for the degree include 36 credit hours beyond the M.A. All Ph.D. students must complete the 5000-level sequences in algebra, analysis and topology, as well as the 6000-level sequence in differential geometry. The student must pass written exams in three major fields of mathematics, plus a language exam that tests the student’s ability to read mathematical works in French, German or Russian. The capstone is to write and defend a dissertation presenting the results of the student’s research.

DEGREES & PROGRAMS
Master of Arts (M.A.) in Mathematics
Doctor of Philosophy (Ph.D.) in Mathematics

APPLICATION REQUIREMENTS
- Application form and fee (if applicable)
- Transcript(s)
- GRE general score
- Three letters of recommendation
- Résumé or curriculum vitae
- Goal statement

ADMISSION CRITERIA
M.A.:
A bachelor’s degree in mathematics or the equivalent.

Ph.D.:
A master’s degree in mathematics (exceptionally well-qualified applicants with a bachelor’s degree may be admitted directly into the Ph.D. program).
FACULTY

Tae-Hyuk (Ted) Ahn, Ph.D.: Bioinformatics, high-performance computing, big data analytics, computational science

Anneke Bart, Ph.D.: Geometric topology, low dimensional topology, deformation theory

Russell Blyth, Ph.D.: Group theory

Erin Wolf Chambers, Ph.D.: Computational geometry and topology, combinatorial algorithms

Bryan Clair, Ph.D.: Spectral graph theory, geometric topology

Bradley Currey, Ph.D.: Harmonic analysis and representation theory

Kimberly Dru schel, Ph.D.: Algebraic topology, orbifolds, cobordism

Daniel Freeman, Ph.D.: Functional analysis

James Gill, Ph.D.: Analysis

Haijun Gong, Ph.D.: Bioinformatics, statistics

Steven Harris, Ph.D.: Differential geometry, relativity; global structures of spacetimes

James Hebda, Ph.D.: Riemannian geometry, differential geometry of knots

Benjamin Hutz, Ph.D.: Number theory and dynamical systems

Brody Johnson, Ph.D.: Applied harmonic analysis

John Kalliongis, Ph.D.: Topology

Qayum Khan, Ph.D.: Topology of high-dimensional manifolds

David Letscher, Ph.D.: Computational topology and 3-manifold algorithms

Greg Marks, Ph.D.: Noncommutative ring theory

Michael May, S.J., Ph.D.: Algebra, using technology in teaching

Julianne Rainbolt, Ph.D.: Group representation theory

Nirina Lovasoa Randrianarivony, Ph.D.: Functional analysis, metric geometry

Kevin P. Scannell, Ph.D.: Natural language processing, hyperbolic 3-manifolds, hyperbolic geometry, Lorentzian geometry

Darrin Speegle, Ph.D.: Applied harmonic analysis, functional analysis

Ashish K. Srivastava, Ph.D.: Noncommutative ring theory

Jacob Sukhodolsky, Ph.D.: Computer science

Michael Tsau, Ph.D.: Geometric topology, knot theory

Dennis Wacker, D. Sc.: Statistics, applied mathematics

CONTACT INFORMATION

Mathematics and Statistics Department

EMAIL | mathgrad@slu.edu
PHONE | 314-977-2444
WEB | math.slu.edu

PROGRAM HIGHLIGHTS

Career Paths:
Possible careers include environmental scientist, materials scientist, bioinformatician and computational biologist.

FINANCIAL SUPPORT

Applications should be submitted by Jan. 1 for assistantship consideration review. A master’s student can receive a total of up to two years of support from SLU as a teaching assistant. A Ph.D. student can receive a total of up to five years of support from SLU as a teaching assistant, including support received while in the master’s and the doctoral program. Most M.A. and Ph.D. students are supported by teaching assistantships, which include a stipend, full tuition remission and medical benefits. Students who are awarded teaching assistantships normally teach one course per semester.