

Current Positions of Recent Graduates

M.A. Graduates

Guanjie Huang 2019	Ph.D. student Baylor University
Julia Vranas 2019	Teacher at Lake Forest Academy
Elizabeth Scofidio 2017 (thesis)	Instructor of Statistics at Colorado State University
Joseph Eisner 2017 (thesis)	Ph.D. student University of Virginia
Sean Nemetz 2017 (thesis)	Ph.D. student Texas A&M University
Rebecca Miller 2017	Instructor Lindenwood University & SLU
Kevin Menos 2014	High School Teacher John Burroughs School
Daniel Bossaller 2013	Ph.D. student Ohio University
Shasta Shakya 2013 (thesis)	Ph.D. student in Finance Pennsylvania State University
Christopher Shaver 2012	High School Teacher Chaminade

Ph.D. Graduates

James Mixco 2018 (Srivastava)	Data Analyst U. S. Bank
C.J. Halverson 2019 (Gill)	Mathematics Department Chair Cardinal Ritter High School
Gerrit Smith 2017 (Khan)	Lecturer Iowa State
Sean Corrigan 2017 (Druschel)	Lecturer Texas State
Kyle Sykes 2016 (Chambers)	Data Scientist Care Otter
James Munden 2015 (Hebda)	Associate Professor STLCC – Forest Park
Ferroz Siddique 2015 (Srivastava)	Assistant Professor Wisconsin – Barron County
Kathering Paullin 2015 (Letscher)	Lecturer Kentucky
Mark Pedigo 2014 (Blyth)	Data Analyst Allscripts Healthcare Solutions
Tanya Lloyd-Hepburn 2013 (Harris)	Assistant Professor University of the Bahamas
Jesse Prince-Lubawy 2014 (Kalliongis)	Assistant Professor North Alabama
Vignon Oussa 2012 (Currey)	Assistant Professor Bridgewater State
Ashley Pitlyk 2010 (Speegle)	Senior Data Scientist Care Otter
Phil Huling 2010 (Scannell)	Assistant Professor Saint Louis University
Larry Granda 2007 (Tsau)	Associate Professor Webster University

Selected Course Offerings

Regular Graduate Courses

Math 5102	Linear Algebra
Math 5202	Metric Spaces
Math 5105	Number Theory
Math 5203	Multivariable Analysis
Math 5110	Algebra I
Math 5120	Algebra II
Math 5210	Real Analysis
Math 5220	Complex Analysis
Math 5230	Functional Analysis
Math 5240	Harmonic Analysis
Math 5310	Topology I
Math 5320	Topology II
Math 6410	Differential Geometry I
Math 6420	Differential Geometry II

Recent Topics Courses

Math 6380	3-Manifold Topology
Math 6180	Algebraic Geometry
Math 6280	Probability with Measure Theory
Math 6280	Lie Groups

Advanced Undergraduate Courses

Math 4110	Introduction to Abstract Algebra
Math 4210	Introduction to Analysis
Math 4310	Introduction to Complex Variables
Math 4320	Complex Variables II
Math 4550	Nonlinear Dynamics & Chaos Theory
Math 4570	Partial Differential Equations
Math 4630	Graph Theory
Math 4650	Cryptography
Math 4800	Probability Theory
Math 4840	Time Series
Math 4850	Mathematical Statistics
Math 4860	Statistical Models
Math 4870	Applied Regression

Apply

To apply, visit <http://graduate.slu.edu>. The department requires transcripts, three letters of recommendation, GRE general scores, a résumé, and a professional goal statement. The deadline to be considered for assistantships is January 1.



**SAINT LOUIS
UNIVERSITY™**

— EST. 1818 —

Graduate Studies in

Mathematics & Statistics

<http://mathstat.slu.edu>

Chair: Bryan Clair bryan.clair@slu.edu

Graduate Director: Jim Gill jim.gill@slu.edu

Our graduate programs in mathematics provide students with the opportunity to learn and grow as scholars in an exciting environment of mathematical research. The department offers programs leading to the Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees. Our department

- is located in the culturally rich Midtown neighborhood of Saint Louis City;
- has a student to faculty ratio near 1:1;
- provides a nurturing yet challenging environment;
- has a record of recruiting, graduating, and placing minority students;
- prepares students for doctoral study or careers in teaching or industry;
- considers both M.A. and Ph.D students for teaching assistantships.

Financial Support

Our program has a number of teaching assistantships to offer. Typically we can offer between 3 to 5 each year. Students who are awarded a teaching assistantship will receive a nine-month stipend (\$19,000 for the academic year 2017-2018), full tuition remission, and medical benefits. The duties associated with these assistantships typically include teaching one lower-division undergraduate class per semester. Both M.A. and Ph.D students are considered for teaching assistantships. In addition, each year the department can nominate outstanding candidates for Minority Fellowships and Presidential Fellowships.

Students must maintain a 3.0 GPA to renew their assistantship from one year to the next. Master's students are eligible for two years of funding, while Ph.D. students are eligible for five years of funding (including time spent in the M.A. program).

M. A. in Mathematics

The master's degree requires ten courses in mathematics at the 4000-level or higher. At least seven of the courses must be at the 5000-level or higher. All master's students must complete at least two sequences chosen from algebra (5110-5120), analysis (5210-52x0) and topology (5310-5320). The typical student's program is built around a number of year-long sequences from areas including algebra, analysis, and topology. The department typically offers year-long sequences in algebra, analysis, and probability and statistics at the 4000-level; algebra, analysis, and topology at the 5000-level; and differential geometry at the 6000-level. The department also routinely offers a variety of electives determined by student and faculty interest. Full time students typically take three courses a semester and complete the degree in two years.

Master's students have the option of completing a masters thesis with a faculty member which counts as 2 of the 10 classes. Students that do not wish to complete a thesis instead take an oral exam.

Ph. D. in Mathematics

The requirements for the Ph.D. in mathematics comprise coursework, examinations, and a dissertation.

Coursework

Students who enter the Ph.D. program with a bachelor's degree in mathematics must complete 48 credit hours (16 courses) in mathematics at the 4000 level or higher, in addition to twelve hours of dissertation research. At most 9 of these 48 hours can be at the 4000-level with the remaining 39 hours at the 5000 or 6000-level. For those who enter with a master's degree in mathematics, the requirement is 24 hours (8 courses) of coursework at the 5000 or 6000-level plus twelve hours of dissertation research. All Ph.D. students must complete the sequences in algebra (5110-5120), analysis (5210-52x0), and topology (5310-5320, as well as the 6000-level sequence in differential geometry. Beyond that, students choose a set of courses that provide them with a broad knowledge of mathematics and a deep understanding of their intended research area. The department routinely offers a variety of electives determined by student and faculty interest. Full time students typically take two or three courses each semester, including reading courses and dissertation research hours.

Written Examinations

Students must pass written examinations in three of the four areas covered by the graduate sequences: algebra, analysis, topology, and differential geometry.

Language Examination

Students must pass a written examination in one of French, German, and Russian. The examination consists of translating a mathematical article that is written in one of those languages. The use of a dictionary is allowed.

Dissertation

The culminating requirement for the Ph.D. degree is writing and successfully defending a dissertation that presents the results of the original and independent mathematical research that the student has carried out over 12 registered credit hours, with the guidance of a faculty member.

Faculty Research Areas

Below is the current list of graduate faculty and their primary research interests.

Tae-Hyuk (Ted) Ahn bioinformatics and high-performance computing
Anneke Bart geometric and low dimensional topology
Russell Blyth group theory
Erin Wolf Chambers computational geometry and topology
Bryan Clair spectral graph theory, geometric topology
Bradley Currey harmonic analysis and representation theory
Kimberly Druschel algebraic topology, orbifolds, cobordism
Daniel Freeman functional analysis
James Gill complex analysis, metric space analysis
Haijun Gong bioinformatics, statistics
Stacey Harris differential geometry, relativity
James Hebda Riemannian geometry, differential geometry
Benjamin Hutz number theory and dynamical systems
Brody Johnson applied harmonic analysis
John Kalliongis topology
David Letscher computational topology & 3-manifold algorithms
Greg Marks noncommutative ring theory
Michael May algebra, teaching with technology
Elodie Pozzi complex analysis, operator theory and its applications
Julianne Rainbolt group representation theory, fusion systems
Nirina Lovasoa Randrianarivony functional analysis, metric geometry
Kevin Scannell natural language processing, hyperbolic geometry
Darrin Speegle applied harmonic analysis, time series
Ashish Srivastava noncommutative algebra, combinatorics