Graduate Program in Mathematics 2009-10

Program Faculty

Leslie Cheng
Associate Professor & Chair
Ph.D., University of Pittsburgh, 1998
Research Interests: Fourier Analysis | Oscillatory Integrals | Singular Integrals | Hardy Spaces

Victor Donnay
Professor
Ph.D., Courant Institute, New York University, 1986
Research Interests: Dynamical Systems | Ergodic Theory | Differential Geometry

Helen G. Grundman
Professor & Graduate Chair
Ph.D., University of California, Berkeley, 1989
Research Interests: Algebraic Number Theory | Analytic Number Theory | Algebra

Rhonda Hughes
Helen Herrmann Professor & Co-director of the EDGE program
Ph.D., University of Illinois at Chicago, 1975
Research Interests: Functional Analysis | Harmonic and Wavelet Analysis | Operator Theory

Paul Melvin
Rachel C. Hale Professor of the Sciences and Mathematics
Ph.D., University of California, Berkeley, 1977
Research Interests: Geometric Topology | Low-Dimensional Manifolds | Quantum Topology

Lisa Traynor
Professor
Ph.D., State University of New York, Stony Brook, 1992
Research Interests: Differential Geometry and Topology

Visit
To arrange a visit, contact Professor Helen G. Grundman: grundman@brynmawr.edu or 610-526-5347.

Additional Information and Videos
www.brynmawr.edu/math/graduate/
www.brynmawr.edu/math/graduate/video.html

Applications
www.brynmawr.edu/gsas/Admissions/
GRADUATE MATHEMATICS AT BRYN MAWR

Bryn Mawr’s Graduate Program in Mathematics occupies a special niche in the mathematics education community in the United States. We offer university-quality research training that leads to M.A. and Ph.D. degrees in the supportive environment of a liberal arts college. For students interested in well-rounded training that includes serious attention to teaching as well as research, Bryn Mawr is an excellent alternative to the large research-oriented university. The program is part of the Graduate School of Arts and Sciences, a coeducational school that is part of Bryn Mawr College, a world-renowned women’s college.

Graduate Course Offerings

Our standard graduate courses are offered on a two-year cycle, with students typically taking two classes each semester for their first two years. After that, students usually begin working with their research advisors on an individual basis or as part of a research seminar. When appropriate, students may also enroll in courses at the University of Pennsylvania.

Standard Graduate Courses

• Topology
• Complex Analysis
• Graduate Algebra I & II
• Graduate Analysis I & II
• Graduate Topology I & II

Additional Courses, available to graduate students as needed

• Abstract Algebra II
• Real Analysis II
• Partial Differential Equations
• Algebraic Number Theory

* These courses share lectures with undergraduate courses.

Financial Support

The Bryn Mawr Mathematics Department views graduate student teaching assistantships as an important facet of each graduate student’s education. In general, we support all of our students with teaching assistantships, as long as they are making satisfactory progress towards their degrees. In addition, each year, at least one advanced mathematics graduate student is awarded a research assistantship, allowing for a year of research without teaching duties.

A typical financial package includes a teaching assistantship, a summer stipend, tuition coverage, and a health insurance subsidy. The amounts in 2009-10 are:

- Teaching (or Research) Assistantship and Summer Stipend $18,000
- Tuition Coverage and Health Insurance Subsidy (approximately) $23,400
- Total Financial Package $41,400

M.A. Degree

Unlike some Master’s programs, ours requires the writing of a thesis, which may be based on original research, expository, or a combination of the two.

Summary of Requirements

• Four graduate courses
• Two supervised research courses
• An exam in reading French, German, or Russian
• An original M.A. thesis
• A final oral presentation and exam

Ph.D. Degree

Our Ph.D. program requires students to obtain a strong command of the breadth of mathematics and to complete original research, the results of which must be presented in a publication-quality dissertation and in an oral defense.

Summary of Requirements

• 12 course credits (including supervised research)
• An exam in reading French, German, or Russian
• Three written exams: algebra, analysis, and topology
• An oral exam based on the written exams
• A Ph.D. dissertation based on original research
• A final oral presentation and exam

Undergraduate Preparation

Our graduate courses assume a knowledge of mathematics equivalent to that of a student who has completed a strong undergraduate mathematics major, including a full year of real analysis and a full year of abstract algebra. Many of our students have completed M.A.’s at other institutions before entering our program. At the same time, we also admit some students who are a good fit for our program, but lack the recommended background. These students then spend up to one year taking needed advanced undergraduate courses.