IMMERSE YOURSELF IN MATHEMATICS

For complete information on the MASS Program at Penn State, visit our website:

www.math.psu.edu/mass/

MASS Program 2015

The Department of Mathematics at Penn State University runs a semester-long intensive program for undergraduate students interested in pursuing a career in mathematical sciences. The Mathematics Advanced Study Semesters (MASS) program started in 1996 and is held during the fall semester of each year. The program combines advanced learning with research initiation and provides a highly charged interactive environment among a “critical mass” of talented and motivated students and a committed group of strong research faculty and top graduate students. For majority of its participants, the MASS program serves as a spring board to graduate studies in mathematics.

The main idea behind MASS — and its principal difference from other honors and research programs — is its comprehensive character. MASS participants are literally immersed in mathematical studies. A key feature of the MASS experience is an intense and productive interaction among the students. The environment is designed to encourage such interaction. A classroom is dedicated full-time to MASS and furnished to serve as a lounge and computer lab outside class times. The students live together in a contiguous block of dormitory rooms and pursue various social activities together. The effect is dramatic: the students find themselves members of a cohesive group of like-minded people sharing a special formative experience.

Components of the Program

Three Core Courses chosen from major areas in Algebra, Analysis, and Geometry, specially designed and offered exclusively to MASS participants.

MASS Colloquium, a weekly lecture series by visiting and resident mathematicians.

MASS Seminar, run by the program director.

Students with strong mathematical background may choose to work on a semester-long research project with a Penn State faculty member instead of taking one of the three courses. This option is subject to approval by the MASS Director.

The program elements total 16 credit hours, all of which are recognized by Penn State as honors credits and are transferable to participants’ home universities.

MASS 2015 Core Courses

Lie Groups in Two, Three and Four Dimensions
Instructor: Nigel Higson
Evan Pugh Professor of Mathematics

Classical Mechanics and Calculus of Variations
Instructor: Mark Levi
Professor of Mathematics

Introduction to Applied Algebraic Geometry
Instructor: Jason Morton
Assistant Professor of Mathematics and Statistics

Financial Arrangements

All successful applicants will be awarded the Penn State MASS Fellowship which reduces the tuition to the in-state level. For students currently enrolled in U.S. colleges and universities, best efforts will be made not to increase their out-of-pocket expenses.

Application

Students may apply by going to MathPrograms.org or our website: www.math.psu.edu/mass/

Deadline for MASS applications: April 4, 2015

Contact Us

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