Mathematics Research Weekend

The Department of Mathematics at SUNY Geneseo sponsors a two-day weekend research experience for undergraduate students. The Research Weekend aims to give undergraduate students a taste of mathematical research, to expose students to mathematics not covered in the standard math curriculum, and to provide students an experience that could be useful when applying to graduate schools, REUs, or employment after graduation. An invited speaker who is an expert in an emerging research area gives a series of lectures and leads a "master class" in the necessary mathematics to a select group of students. During the Research Weekend, students learn the process of mathematical discovery, experimentation, and potentially provide a solution to a research question posed by the invited speaker.

The course pre-requisites to participate in the Research Weekend are usually Math 233 (Linear Algebra) and Math 239 (Introduction to Proofs), and depending on the topic, students may need experience with programming (Math 230).

Since space is limited, only a select group of students (at most 25 students are selected) can participate in the Research Weekend. Students must complete an online application and are then notified by the Research Committee as to whether they have been accepted to the program.

The Research Weekend program starts with a Friday colloquium talk that targets a general audience in mathematics, is then followed by a pizza dinner, and then the first lecture is held Friday evening. A full Saturday program follows the Friday program. Coffee and lunch are provided on Saturday. The Friday colloquium talk is open to everyone.

Students are expected to attend all sessions of the Friday and Saturday program. A certificate of completion is awarded to the participants. Historically, over 20 students attend all sessions.

Latest invited lecturers and topics in the past

2017 - Cesar Aguilar, SUNY Geneseo, “The PageRank Algorithm: The mathematics behind Google’s search engine and its applications in sports rankings”

2016 - Thomas Cooney, “Quantum Game Theory”

2015 - Farbod Shokrieh, Cornell University, “Chip-firing games and Riemann-Roch theory for graphs”