MATHEMATICS
RESEARCH EXPERIENCES FOR
UNDERGRADUATES
JUNE 4, 2012 - AUG 3, 2012

RESEARCH, EDUCATION AND TRAINING IN
MATHEMATICS AND NONLINEAR DYNAMICS
OF BIOLOGICAL, BIO-INSPIRED AND ENGINEERING SYSTEMS

EARN WHILE YOU LEARN!

Research Areas
• Modeling using deterministic and stochastic differential equations
• Computational biology, biomechanics
• Mathematics of Materials
• Nonlinear dynamics and Micro Air Vehicles
• Mathematics Education

Program Eligibility
Minimum 3.3 GPA
Must be currently in junior/senior year
Must be a US Citizen or Permanent Resident

Financial Support
Stipend ($3,375)
Travel Allowance ($550)
Housing and dining provided

Application Deadline
March 2, 2012

Contact
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About the Program: The Department of Mathematical Sciences at GMU will host a multidisciplinary undergraduate research program in computational mathematics and nonlinear dynamics of biological, bio-inspired and engineering systems. This program will expose twelve mathematics undergraduate students and two K-12 teachers to advanced topics in mathematics and mathematics education, problem-solving techniques and multidisciplinary applications. Selected problems range from Aneurysm mechanics and Design of Smart Materials to Modeling of Micro Air Vehicles, Porous substrates and Materials engineering applications to Exploratory Data analysis in mathematics education applications. The overall goal of this program is to encourage students and teachers to learn by discovery and enhance their understanding of the multidisciplinary role of mathematics in engineering, science and medicine. The metro region of Washington, DC is a particularly fertile area for research and work opportunities, including consulting, teaching, and government.

Women and minorities are especially encouraged to apply.

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