Systems Modeling and Analysis at VCU



The Ph.D. program in Systems Modeling and Analysis focuses on the development of the mathematical and computational skills used to model and analyze real-world systems. The continued development of operations research, discrete mathematics, statistics, and applied mathematics is critical to the advancement of the sciences, business, and engineering in the 21st century. The doctoral curriculum enables students to expand these frontiers of knowledge through original, relevant research involving complex quantitative and qualitative systems derived from real problems facing our world.

The Systems Modeling and Analysis Ph.D. is offered jointly through the Department of Statistical Sciences and Operations Research and the Department of Mathematics and Applied Mathematics. The program's unique

structure is designed to encourage doctorial students to collaborate with academically diverse faculty peers to deepen their knowledge while contributing to their field of study.



Ph.D. Research and Opportunities

The program, which often combines research in various disciplines, is designed to expose students to a variety of mathematical modeling paradigms. Research in mathematical biology has covered topics from chronic wound healing to computational neuroscience while work in operations research has explored data mining, maritime security, and terrorism prevention. Statistics-oriented research covers a similarly diverse range of topics, including dimension reduction, experimental design, and environmental analysis while discrete topics include chemical, cryptographic, optimization, and other applications. Examples of recent research are available online at sysm.vcu.edu/research.

Full-time students of the program are eligible to apply for assistantship positions offered by the Graduate School and the College of Humanities and Sciences. These competitive positions foster valuable teaching experience, offer collaborative research opportunities, and provide exposure to environments that graduates will find beneficial to their professional and academic development.

Departments of Mathematics and Applied Mathematics and Statistical Sciences and Operations Research

1015 Floyd Avenue, Richmond, Virginia 23284-2014 sysmphd@vcu.edu (804) 828-6820



Degree requirements - bulletin.vcu.edu



Graduate admissions - graduate.vcu.edu/apply

The Systems Modeling and Analysis Ph.D. program was created in response to the increased national demand for graduates broadly skilled in the applied mathematical sciences to satisfy the expanding growth of technical careers in industry, government, and academia. The unique program trains students to model, understand, and solve complex systems that

For more information:

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Grace E. Harris Hall Monroe Park Campus



College of Humanities | Mathematics and and Sciences | Applied Mathematics VCU College of Humanities and Sciences

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