## **Quantitative Methods**

# PhD PROGRAMS

The Krannert School of Management's doctoral program in quantitative methods involves applied optimization and applied statistics.

Applied optimization explores resource allocation issues that frequently arise in managerial decision-making. With dwindling resources and increased competition, optimization has assumed a new and urgent importance. Doctoral seminars focus on advanced optimization applications and methodologies.

Statistics and its applications address managerial problems in which randomness or uncertainty complicates the decision environment. This involves in-depth study of methodology, with the flexibility to apply these methods to any areas of management. Courses from departments, such as economics, statistics and industrial engineering as well as other areas of management, offer a rich variety of topics for research.

#### **Unique Features**

- Faculty on editorial boards for top academic journals
- Publications in top-tier journals by faculty and PhD students
- · Doctoral fellowships available
- Small program with a low student-to-faculty ratio
- Active interactions with other functional areas of the school and University

#### **Student Profile (what we look for in an applicant)**

- Strong analytical background
- · Fluency in speaking and writing in English
- · Work and business experience not required



The quantitative methods faculty are among the top echelon of research leaders in analytics. As you progress in the PhD program, these faculty will instill in you the true symbiotic relationship between teaching and research. That is, 'if you dare to teach, you must never cease to learn.'

— Bob Plante, Lewis B. Cullman Professor of Management and Quantitative Methods



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### **Plan of Study**

Students are required to submit a formal plan of study to the Graduate School by the end of the spring semester of their second year in the doctoral program and prior to taking the preliminary examination. Research papers will be assigned to students to prepare for the preliminary examination. The preliminary exam will be based on the assigned papers as well as the second summer research paper.



Mohit Tawarmalani
Professor of Management,
Allison and Nancy Schleicher
Chair of Management

The PhD program in quantitative methods is designed for students with a passion for analytics and a penchant for solving practical business problems. The program instills habits that should prepare students for a successful career in academics or industry.

krannert.purdue.edu/programs/phd/ program-details/quant-methods.php



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