

# QUANTITATIVE METHODS

## PHD IN QUANT

In an era of dwindling resources and increasing competition, optimization questions have assumed a new and urgent importance. To that end, doctoral seminars in Quantitative Methods focus on advanced optimization applications and methodologies. Related courses are available from areas such as industrial and electrical engineering and computer sciences.

Faculty collaboration with other areas of management and related engineering programs enables students to participate in research on a stimulating range of optimization applications. Current areas of faculty interest in applied optimization include transportation, communication, distribution, and manufacturing systems. Other application domains include auditing, scheduling, and quality control.

A specialization in statistics and its applications address managerial problems in which randomness or uncertainty complicates the decision environment, offering students a rich variety of topics for research. Current faculty research interests in applied statistics include data mining, reliability theory, stochastic marketing models, auditing and acceptance sampling, statistical decision theory, and statistical quality and process control.

## FACULTY RESEARCH AREAS

- Analytics
- Analytical consulting
- Choice and judgment variables
- Complexity and approximation
- Computational advertising
- Data mining
- Data science: dynamic pricing
- Evolutionary optimization algorithms
- Experiential learning
- Machine learning: statistical reinforcement learning
- Mathematical programming
- Neuroimaging analysis
- Online matching
- Optimization
- Quality management
- Quantitative methods
- Service contracts
- Spatial models
- Statistics education
- Symbolic computing
- Tensor learning

Visit our [website](#) to learn more about faculty research.

## FUNDING OPPORTUNITIES

Daniels School of Business PhD students will have their tuition paid for five years beginning year 1, conditional on satisfactory progress in the program. In addition to the standard funding package, each department can supplement a student's funding at its discretion.

### Standard Funding Package

- Tuition remission
- \$25,000 minimum stipend per year
- Partial medical, dental, and vision insurance coverage for the student and dependent(s)
- Professional development grants for use toward conference attendance, research, and related travel

For more information, please contact an [admissions specialist](#).

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## PROGRAM REQUIREMENTS

- Complete required coursework
- Serve as teaching or research assistant
- Complete 2 research papers
- Pass preliminary examination
- Write and defend dissertation

Visit our [website](#) to explore additional program details.

## PLACEMENT

Quantitative Methods graduates have gone on to secure research-focused faculty and industry positions at the following institutions/organizations:

- Cummins, Inc
- JP Morgan Chase & Co
- Sam's Club
- Sejong University
- University of North Carolina Pembroke
- University of South Alabama
- University of Western Ontario
- Yuan Ze University