

OPERATIONS MANAGEMENT, PH.D.

Operations management focuses on the analysis, design, and management of the operations that produce and deliver goods and services. It applies structured, quantitative techniques to analyze and design business operations and to support effective business decision making. Operations management helps evaluate and select actions based on information, process analysis, and quantitative modeling. There are tremendous opportunities for the effective application of these tools, techniques, and methods in a wide range of business operations including service operations, manufacturing, distribution, transportation, logistics, supply chain management, revenue management, quality management, finance, human resources, information systems, marketing, and strategic planning. Operations management can be effectively applied to virtually every component of an organization.

Admissions

The program generally admits two to four applicants each year, depending on the availability of financial support and the overall current enrollment. This policy ensures that each doctoral student will have adequate support from the faculty.

In addition to the minimum Graduate School admission requirements, to be considered for regular admission an application must include:

- A resume
- 3 letters of recommendation
- A GRE score of at least 312 (verbal + quantitative), a GMAT (old version) score of at least 600, or GMAT Focus Edition score of at least 555.
- A TOEFL score of at least 94, an IELTS score of at least 7.0, or a PTE score of at least 59 for non-native English speakers who are required to submit an English Language test score (see admissions criteria link below)
 - Please note that this program does not accept a Duolingo Test score.

Students who do not meet these requirements, but who excel in other areas, may be considered for Admission with Permission to Continue.

See the Admission Criteria section of this catalog for more information.

Curricular Requirements

Students admitted to the program must complete 36 coursework hours and 24 dissertation hours to fulfill graduation requirements. In addition to curriculum hours, students must pass a two-stage qualifying exam.

Required Core Courses:		Hours
OM 540	Systems Simulation	3
OM 600	Linear Program: Theory & Appli	3
OM 601	Stochastic Decision Models	3
OM 602	Nonlinear Modeling & Optimiztn	3
OM 603	Integer Model and Optimization	3
OM 620	Production Management Models	3
ST 560	Statistical Methods	3
ST 554	Math Statistics I	3

Credit Hours Subtotal: 24

Approved Electives		12
OM 517	Supply Chain Modeling & Analys	3
OM 522	Operations Scheduling Problems	3
OM 523	Inventory Management	3
OM 524	Mfg Sched & Control Systems	3
OM 527	Purchasing and Sourcing	3
OM 697	Special Topics	1-6
MIS 541	Business Analytic Support Sys	3
ST 552	Applied Regression Analy	3
ST 555	Math Statistics II	3
ST 561	Applied Design Expermnts	3
CS 503	Programming Languages	3
CS 565	Artificial Intelligence	3
CS 570	Computer Algorithms	3
EC 573	Games and Decisions	3
EC 660	Game Theory	3
CE 554	Urban Transportation Planning	3
CE 655	Sustainable Transportation	3
Or other electives with advisor approval.		
Dissertation Research Hours (OM 699 - with advisor approval, distributed appropriately throughout the program)		24
Total Hours		60

Footnotes

- ¹ OM 695 Operations Management Seminar (1 hr.); required every semester of Ph.D. program.

Transfer Credit

Graduate School information on Transfer Credit.

Doctoral Plan of Study Requirement

Early in the graduate program, each student must confer with the appropriate departmental advisor or major professor to select courses, discuss when and by which method the doctoral residency requirement will be completed, discuss research interests, and so forth. Then a Plan of Study must be prepared and submitted to the Graduate School by the time the student has completed 30 coursework hours.

Comprehensive Exams

Students must pass a two-stage qualifying exam. The first stage exam, known as the written qualification exam (WQE), occurs at the end of the first year in the program. The WQE measures the student's competency to review, analyze and propose solutions to questions drawn from the coursework in the first year. The second stage exam, known as the research qualification exam (RQE), typically occurs during the second year in the program. The RQE measures the student's ability to review, analyze and conduct doctoral-level research, the exam consists of a research paper and presentation by the student. Failure to pass the WQE or RQE will result in the student's dismissal from the program.

Admission to Candidacy Requirements

Students may apply for candidacy after passing the two-stage qualifying exam and completion of coursework.

Continuous Enrollment Policy

See Graduate School Policy for more information.

Dissertation Requirements

Dissertation Committee:

Together with the advisor, the candidate must select a dissertation committee (on, or before, the end of the student's third year) consisting of the dissertation chairperson (usually the advisor) and at least four other graduate faculty, at least one of whom must be outside the Operations Management program and the ISM Department. The dissertation committee is responsible for admission of the student to candidacy, supervision of the dissertation, and administration of the final oral examination. Failure to form a dissertation committee by the beginning of the fourth year in the doctoral program may result in the student's dismissal from the program.

Proposal Defense:

Students should defend their dissertation proposal by the end of the third year/beginning of the fourth year. The proposal usually focuses on the already obtained findings and plans regarding research yet to be accomplished. The proposal defense is a public presentation and the student is expected to be able to address the questions and concerns of the dissertation committee and other attendees. If a student fails to defend their proposal defense, they may be given a second chance. Failure to successfully defend in the second attempt may result in dismissal.

Continuous Enrollment Policy

Graduate School information on Continuous Enrollment.

Time Limits for Degree Completion Requirements

Graduate School information on Time Limits.

Academic Misconduct Information

Graduate School information on Academic Misconduct.

Withdrawals and Leave of Absence Information

Graduate School information on Withdrawals and Leave of Absence.

Academic Grievances Information

Graduate School information on Academic Grievances.

Grades and Academic Standing

Graduate School information on Grades and Academic Standing.

Graduate School Deadlines Information

Information on Graduate School Deadlines.

Application for Graduation Information

Information on the Application for Graduation.