

Operations and Business Analytics (PhD)

<http://business.uoregon.edu/phd>

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The Lundquist College of Business Doctoral Program in Operations Management prepares students seeking academic and research careers.

Operations Management concerns how organizations should optimize business processes (e.g., production, distribution) and policies (e.g., staffing, pricing) both internally and within the broader supply chain.

Researchers in the operations management area address these complex decisions using rigorous research methods that require a solid foundation in model building, theory development, and data analysis. These foundational skills reflect the strength of the Lundquist College's Department of Operations and Business Analytics, whose faculty work closely with students within the operations management doctoral program.

In addition to its faculty, the Department of Operations and Business Analytics spans the areas of information systems and statistics, allowing doctoral students to benefit from coursework and research opportunities in two areas complementary to the operations management area. Due to the quantitative orientation of this PhD option, students entering the program should have interests that lie at the intersection of applied mathematics and business research.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Acquire advanced knowledge relevant to their areas of specialization.
- Develop advanced research skills for their areas of specialization.
- Be able to assume teaching responsibilities at high-quality colleges and universities.
- Successfully graduate and place at high-quality, research-focused colleges and universities.

PhD in Operations and Business Analytics

Code	Title	Credits
Major Area Of Specialization		

Students are required to take ten (10) courses in specialization area, at least three of which must be taken after admission to the University of Oregon, Lundquist College of Business doctoral program. Specialization courses can be in the Functional area or in the Research Methods area. Examples include:

OBA 607	Seminar: [Topic] (Advanced Optimization)
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OBA 607	Seminar: [Topic] (Research Methods in Operations Management)
OBA 607	Seminar: [Topic] (Operations Research Modeling)
OBA 607	Seminar: [Topic] (Inventory Models and Supply Chain)
OBA 510	Experimental Course: [Topic] (Data Analytics)
OBA 555	Data Driven Predictive Modeling
OBA 566	Project and Operations Management Models
OBA 613	Operations Management
OBA 605	Reading and Conference: [Topic] (at most 5 can be counted toward degree)

Supporting Courses

Students are required to take at least three (3) courses in the Accounting, Finance, Marketing, Statistics, Microeconomics, and Linear Algebra. Examples include:

MGMT 607	Seminar: [Topic] (Academic Life)
FIN 613	Managerial Economics
EC 560	Theories of Industrial Organization
EC 543	Health Economics
EC 528	Behavioral and Experimental Economics

Courses in Mathematical Statistics

Quantitative Methods

Students are required to take at least six (6) courses in topics including, but not limited to probability & statistics, stochastic processes, regression analysis, and optimization. Examples include:

EC 607	Seminar: [Topic] (Core Econometrics (three courses))
EC 607	Seminar: [Topic] (Core Microeconomic (three courses))
EC 511	Advanced Microeconomic Theory
EC 527	Games and Decisions
MATH 567	Stochastic Processes

Dissertation

OBA 603	Dissertation
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Total Credits¹

72

¹ Students entering with no prior graduate work must take additional credits to reach the University's 81 credit minimum.

Please visit the Operations and Business Analytics PhD Program website (<https://business.uoregon.edu/programs/phd/concentrations/operations-management>) page for more information.