

Operations Management

Operations management is the systematic direction and control of the processes that transform inputs into finished goods and services. The operations function comprises a significant percentage of the employees and physical assets in most organizations. Operations managers are concerned with each step in providing a service or product. They determine what equipment, labor, tools, facilities, materials, energy, and information should go into an operating system and how these inputs can best be obtained and used to satisfy the requirements of the market place. Managers are also responsible for critical activities such as quality management and control, capacity planning, materials management, purchasing, and scheduling.

The importance of operations management has increased dramatically in recent years. Significant foreign competition, shorter product and service life-cycles, better-educated and quality-conscious consumers, and the capabilities of new technology have placed increasing pressures on the operations function to improve productivity while providing a broader array of high-quality products and services. With the globalization of markets, firms are recognizing that the operations function can be used to strengthen their position in the market place. Managers in operations management play a strategic and tactical role in satisfying customer needs and making their firms strong international competitors.

Pursuing Operations Management at Ohio State

Students interested in business administration as a degree should have a good high school background in mathematics and written and oral communication. Experience with computers is helpful.

Students who come to Ohio State to study business will be directly enrolled as pre-business students in the Fisher College of Business if they meet one of the following criteria: a minimum ACT composite score of 25, SAT combined Critical Reading and Math scores of 1150, or a rank in the top 20% of their high school class. As a pre-major, students will enter the pre-major advising program within the Fisher College of Business. Those students not eligible to directly enroll in business may enroll in the Management and Industry Exploration Program. To learn more, visit exploration.osu.edu.

Acceptance into the major and degree candidacy within the college is by application. Students may apply to a major program after completing a specified set of courses. Admission of students with an overall cumulative point-hour ratio (CPHR) of 3.00 or above is guaranteed. College academic counselors can provide CPHR information for the most recently admitted class.

New freshman with high ACT or SAT composite test scores and a high school rank in the upper 10% or acceptance into the University Honors Program may be eligible for direct enrollment in business majors.

Acceptance in the student's major area of interest within the College of Business is competitive on a space available basis. More information may be found at fisher.osu.edu.

Operations Management Requirements

- Principles Courses
 - Accounting Principles
 - Economics Principles
 - Statistics
- Core Courses
 - Business Skills and Environment
 - Legal Environment of Business
 - International Business
 - Finance
 - Management Sciences
 - Management and Human Resources
 - Marketing
 - Economics
 - Senior Seminar in Business Policy
- Required Major Courses in Operations Management Emphasis
 - Operations Strategy and Design
 - Operations Planning and Control
 - Managing Process Improvement
 - Selected Topics in Operations Management
- Required Major Courses in Purchasing Emphasis
 - Operations Planning and Control
 - Purchasing and Materials Management
 - Purchasing Strategy
 - Selected Topics in Operations Management

The Fisher College of Business undergraduate production/operations management program was ranked 8th in the nation according to *US News and World Report 2009*.

The Department of Management Sciences is home to the Center for Operational Excellence. Its mission has been to develop a consortium of business leaders, educators, and researchers who share a common ideal of achieving world-class excellence in manufacturing firms through education, research, and networking.

The Fisher College of Business is the only undergraduate program in the country that offers Six Sigma Certification to undergraduates.

Program Educational Objectives

At graduation, Fisher College of Business graduates:

- will possess strong analytical and problem-solving skills to identify and critically assess problems facing contemporary businesses.
- will demonstrate in-depth knowledge of Operations Management.

For more information, check these web sites:

Operations Management: fisher.osu.edu/mgtsci

Fisher College of Business: fisher.osu.edu

Ohio State: www.osu.edu

Career Management: fisher.osu.edu/career

Majors: fisher.osu.edu/career/ungrad/explore.htm

Rankings: fisher.osu.edu/news/about/rankings.htm

Curriculum Sample

This is a sample list of classes a student may take to pursue a degree in Operations Management. Since university students need more than specific education in a narrow field, they also will take classes to complete the General Education Curriculum (GEC). The GEC will allow students to develop the fundamental skills essential to collegiate success across major programs. Course work options satisfying the GEC often come from a variety of academic areas of study allowing students to tailor their GEC toward their interests. Note: This sample represents one of several possible paths to a degree in Operations Management. Consult the departmental web site, fisher.osu.edu/mgtsci, for details on each specific track.

Freshman Year:	
College Algebra	4
Calculus	9
Principles of Economics	5
Business Survey	1
Computer Problem Solving	5
English composition	5
GEC (arts and humanities)	10
GEC (social science)	5
Total hours	44

Sophomore Year:	
Principles of Accounting	10
Principles of Economics	5
Elements of Statistics	10
Decision Theory	4
GEC (arts and humanities)	5
GEC (second writing course)	5
GEC (natural science)	10
Total hours	49

Junior Year:	
Business Skills and Environment	4
Introduction to International Business	4
Legal Environment of Business	4
Principles of Finance	4
Principles of Marketing	4
Organizational Behavior	5
Operations Management	4
Economics options	5
GEC (arts and humanities)	5
GEC (natural science)	10
Total hours	49

Senior Year:	
Operations Planning and Control	4
Operations Major Emphasis	4
Operations Major Emphasis	4
Operations Management options	8
Seminar in Business Policy	4
GEC (social science)	5
Electives	15
Total hours	44

- will possess a global perspective and can critically evaluate the international context a contemporary business operates in.
- can identify and assess ethical issues surrounding business decisions.
- are able to work effectively in a team-based environment.
- can demonstrate professional department and effective oral and written communication skills.

Co-Curricular Opportunities

There are many opportunities for students in the Fisher College of Business to enrich and broaden their academic experience. Though internship and co-ops are not required for business students, 85% of students registered with Career Management have some kind of internship experience before they graduate. Many students receive an offer of full-time employment from their internship employer.

In addition students are encouraged to explore other opportunities such as studying abroad. In coordination with the Fisher College of Business, the Office of International Affairs offers several undergraduate exchanges for students wishing to study abroad in countries around the world.

The Educational Society for Resource Management provides a forum for production and operations management majors, promotes faculty/student interaction, and supplements the class work with guest speakers and plant tours.

Honors & Scholars Programs

Fisher College of Business honors students will enrich their academic experience by participating in the Mitte Honors Program, which includes the Accounting Honors Program, the Business Administration Honors Cohort Program, and the Business Administration Honors Contract Program. Honors students who are selected for these programs and who successfully complete the program requirements will graduate with honors.

The Accounting Honors Program consists of a sequence of accounting courses that students complete, beginning in their sophomore year and continuing into the senior year. The Honors Business Administration Cohort Program consists of a set of sequenced business honors courses that students follow in a lockstep manner beginning in the junior year. The Honors Contract Program consists of an enriched academic plan that is designed by the student and detailed in an honors contract. Honors students with strong research interests have the opportunity to pursue the Degree with Distinction, a program of research during the senior year culminating in a thesis and oral defense.

Career Prospects in Operations Management

Operations managers pursue careers in service organizations involved in banking, transportation, insurance, and government, as well as manufacturing firms involved in producing industrial and consumer products. Operations management titles often used are vice president of manufacturing, vice president of operations, vice president of quality, plant manager, purchasing manager, department supervisor, computer systems analyst, operations analyst, inventory control supervisor, facilities planner, scheduler, first-line supervisor, and buyer.

Typical careers of recent graduates with an undergraduate degree in operations management involve activities such as forecasting, supervision, purchasing, traffic management, inventory planning and control, operations scheduling and control, process methods and planning, quality management, warehouse management, and production planning in diverse industries such as banking, manufacturing, and retailing. There are also operations management career opportunities in management consulting firms or the development of computer systems for planning and scheduling. Graduating seniors in 2007–2008 averaged starting salaries of \$49,147.

Revised September 2008. For the most up-to-date information on the operations management program, visit fisher.osu.edu/mgtsci.

Contact information:

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