Computer Science (COMP) 505

Operations Management in Information Systems (Revision 4)

Status:	Replaced with new revision, see the **course listing** for the current revision
Delivery mode:	**Grouped study**
Credits:	3
Area of study:	Information Systems
Prerequisites:	None
Precluded:	None
Faculty:	**Faculty of Science and Technology**
Notes:	This is a graduate level course and students need to apply and be approved to one of the graduate programs or as a non-program **School of Computing and Information Systems** graduate student in order to take this course. Minimum admission requirements must be met. Undergraduate students who do not meet admission requirements will not normally be permitted to take this course.

Instructor: Dr. Oscar Lin

Overview

This course introduces students to the tools, processes, and concepts of operations management and their relevance to IT professionals.

Operations refers to most of the activities performed by people in an organization, whether the organization delivers services or creates products. The effective management of operations, through the application of tools and processes to develop competitive strategies, is critical to organizational success. IT professionals are usually involved in the creation of services meant to facilitate operations management goals. Thus, an understanding of this topic is important, particularly in view of globalization.

Outline

- Unit 1 Introduction to Operations Management
- Unit 2 Statistical Process Control
- Unit 3 Product Design
- Unit 4 Product and Service Creation and Quality Assurance
- Unit 5 Process and Capacity
- Unit 6 Human Resources and Project Management
- Unit 7 Supply Chain Management and Sustainability
- Unit 8 Forecasting
- Unit 9 Inventory Management
- Unit 10 Sales and Operations Planning
- Unit 11 Resource Planning and Lean Systems
- Unit 12 Scheduling

- Unit 13 Final Assignment

Learning outcomes

Upon successful completion of this course, you should be able to:

- understand the project management process.
- learn how to use statistical tools for forecasting and designing operations.
- gain detailed knowledge about the issues and steps in operations planning, implementation, and maintenance.

Evaluation

To pass this course, you must achieve an average grade of at least 60% on all three assessments. Students must also pass the Final Assignment with a grade of at least 60%.

To **receive credits** toward the Master of Science in IS for Foundation/Core Courses, students must achieve a course composite grade of at least B− (70 percent).

Activity	Weight
Case Discussion Forums (5% for each forum)	40%
Numerical Work (5% for each set)	20%
Final Assignment	40%
Total	**100%**

Materials

Digital course materials

Links to the following course materials will be made available in the course:

Russell, R. S., Taylor, B. W., Bayley, T., & Castillo, I. (2020). *Operations management: Creating value along the supply chain* (2nd Canadian ed.). Wiley.

Other Resources

WileyPLUS is a publisher website that accompanies your eText. It is included with your course registration. You are not graded for any of the work you complete in WileyPLUS, but you are encouraged to enrich your learning with the online tools it provides.

The remainder of the learning materials for COMP 505 are delivered through Athabasca University's learning management system (LMS), Moodle. Online course materials include discussion forums, learning materials, and assignments. Assignments will be submitted online.

- Course Orientation
- Study Guide
- Descriptions of the requirements for the assignments
- Course Evaluation form

Course Workload

The course schedule is based on working 15 hours per week. This translates into approximately 12 hours of reading and 3 hours of synthesis and/or exercises each week.

Special Course Features

Computer Science 505 is offered by computer mediated communications (CMC) mode, and can be completed at the student's workplace or home.

Special Note

Students registered in this course will **NOT** be allowed to take an extension, due to the nature of the course activities.

Important links

- **Future Course Offerings**
- **Important Dates and Deadlines**

- **MSc IS Contact Information**

Athabasca University reserves the right to amend course outlines occasionally and without notice. Courses offered by other delivery methods may vary from their individualized study counterparts.

Opened in Revision 4, April 9, 2021

Updated January 21, 2025

View **previous revision**