

ATHABASCA UNIVERSITY

COURSE OUTLINE

MGSC368 UT3(3-0-0)

INTRODUCTION TO PRODUCTIONS AND OPERATIONS MANAGEMENT

Fall 2007

INSTRUCTOR: Richard Beeson, B.Sc., M.B.A.
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OFFICE: C301
OFFICE HOURS: 10:00 to 11:00TR or by appointment
CLASS TIME 11:30 - 12:50 M; 10:00 - 11:20F
PRE-REQUISITES: MGSC301, or MATH215.
TEXT: Chase, R. B., Jacobs, F. R., & Aquilano, N.J. (2006). *Operations Management for Competitive Advantage* (11th ed.). New York: McGraw-Hill/Irwin. ISBN-10: 0073121665; ISBN-13: 9780073121666

COURSE DESCRIPTION

The course provides an introduction to the functional area of production and operations management. The following topics will be covered:

- Project Management
- Product Design and Process Selection
- Quality Management
- Strategic Capacity Planning
- Job Design and Work Measurement
- Inventory Systems
- Operations Scheduling

Prerequisites: MGSC301, or MATH215.

OVERVIEW

MGSC 368 is a three-credit management science course that examines the subject of production and operations management (POM) and discusses its importance to the overall strategy and competitiveness of a firm. In addition, this course focuses on specific tools used to manage and enhance a firm's operations and production, such as facility layout, product design, aggregate planning, inventory management, and forecasting.

COURSE FORMAT

The learning process in this course is based on lectures and class discussions. Video and handouts may be employed to facilitate learning.

COURSE OBJECTIVES

1. To introduce the student to production and operations management.
2. To provide an opportunity for students to develop and refine their analytical skills.

GRADING

Athabasca University policies supersede all outline content in the event of conflicting information with respect to evaluation.

Every effort will be made to ensure that the final grade you receive reflects your effort and achievement as accurately as possible.

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|--------------------------------------|-----|
| Ongoing Assignments (5% each)* | 20% |
| Midterm Exams | 30% |
| Final Exam | 40% |
| Attendance, effort and participation | 10% |

* In addition to the graded course assignments you may be expected to complete various reading and writing assignments outside of class time. (e.g. chapter-end questions for discussion) Pop quizzes may be used to give feedback on your comprehension and retention. Quiz scores may be factored into the participation component of your final grade.

Re: Exams

You will be tested on your understanding of and ability to apply the concepts presented in class and in the readings. Textbook material and anything discussed in class, presented by

guest speakers, videos or distributed in handouts is fair game for exams. The final exam will be cumulative. More detail on the exams will be provided as the term progresses. Calculators will be allowed in exams; however, you will be required to show your work to get full marks for all answer.

Re: Participation

It is strongly advised that the assigned chapters are read before each lecture. The participation grade is based on attendance and both the quantity and quality of in-class participation. You will be called upon to answer questions during class. You may be asked for informal exercises or assignments to be handed in on a random basis. As well, you are responsible for obtaining any notes or handouts you may have missed due to an absence.

- * hand-in assignments are due at the beginning of Class on the due date
- * if you feel you have a valid reason for an extension, please request it well in advance
- * unauthorized late assignments, if accepted, will have a 25% per day late penalty
- * enter into discussions and exercises
- * avoid private conversations when someone else has the floor
- * ask questions to make sure you understand

COURSE SCHEDULE (*May be revised as required)

| Week | Topics Reading | |
|------------|--|-----------------------|
| 1 | Introduction to the Field | Ch. 1 |
| 2 | Operations Strategy & Competitiveness | Ch. 2 |
| 2 | Linear Programming | Ch. 2 Technical Note |
| 3 | Forecasting | Ch. 13 |
| 3 | Product Design | Ch. 4 |
| 4 | Learning Curves | Ch. 4 Technical Note |
| 5 | Process Analysis | Ch. 5 |
| 5 | Job Design and Work Measurement | Ch. 5 Technical Note |
| 6 | Mid-Term Exam | |
| 7 | Manufacturing Process Selection and Design- | Ch. 6 |
| 7 | Facility Layout | Ch. 6 Technical Note |
| 8 | Services Process Selection and Design | Ch. 7 |
| 8 | Waiting Line Management | Ch. 7 Technical Note |
| 9 | Aggregate Sales and Operations Planning | Ch 14 |
| 9 | Supply Chain Strategy | Ch. 10 |
| 10 | Strategic Capacity Management | Ch. 11 |
| 10 | Facility Location | Ch. 11 Technical Note |
| 11 | Lean Production | Ch. 12 |
| 11 | Mid-Term Exam | |
| 12 | Project Management | Ch. 3 |
| 12 | Inventory Control | Ch. 15 |
| 13 | Material Requirements Planning | Ch. 16 |
| 13 | Quality Management | Ch. 8 |
| 14 | Process Capability and Statistical Quality Control | Ch. 8 Technical Note |
| 14 | Operations Scheduling | Ch. 17 |
| December ? | Final Exam (T.B.A.) | |