#### Operations Management 6N:229 (Cedar Rapids) Fall 2005

Instructor:	Ann Melissa Campbell	Phone:	319-335-0918 (office)
			319-351-2465 (home)
Office:	PBAB W244	Fax:	319-335-0297
Office Hours:	Before & After Class	E-mail:	ann-campbell@uiowa.edu

Web Page: http://icon.uiowa.edu

## Introduction and Goals

Operations Management is concerned with the planning and decision-making activities associated with the *management* of an organization's *operations*; that is, *managing* what the firm *does*. The organization may either be a provider of services, a goods producer, or a combination of both.

The basic goals of this course are: First, to help the student gain an exposure to the spectrum of operations management planning and decision-making activities. Second, to help the student to obtain insights into the basic trade-offs associated with operations management decisions. Third, to introduce a variety of tools and techniques for helping operations managers implement their decisions and reach their goals.

#### <u>Materials</u>

- CT: Cachon and Terwiesch, Matching Supply with Demand, McGraw Hill, 2006.
- CP: Course Packet available from Study.net at <u>http://www.study.net/r mat.asp?crs id=30004098</u>. This is an online case packet. You will have access to the cases online and be able to print a copy of each of the cases. For an additional fee, you may have Study.net print a copy of the full case packet and mail it to you. Email me if you have any problems with this.
- CW: Articles will regularly be posted on the class webpage. Some are listed at the start of the semester, but others will be added as the semester progresses.

## **Class Activities / Class Participation**

The approach to the course includes both lecture and case analysis. The course materials have been carefully selected to illustrate the basic concepts of operations management as they apply to a variety of organizations. Please note that the readings assigned for any session should be completed <u>before</u> the class.

Since the course makes extensive use of cases, the discussion between you and your classmates will form a major source of concepts. Thus, class participation is an important element in the learning process. All students are expected to be prepared to participate in the discussion. Note that attendance is necessary for participation but does <u>not</u> substitute for active participation. Questions are of course encouraged at any time.

## Case Analysis

Students are required to analyze cases in groups of size 3 to 5. A set of case questions will be supplied for each case used in the course. <u>Case Reports</u> will be prepared for the Natural Blends and L.L. Bean, Inc. cases according to the format provided below.

## Case Reports

Each report will be typed and will be 3-4 pages in length excluding attachments. Reports are due at the beginning of the class in which the case is discussed. Each report should answer all of the case questions and should address the <u>topics</u> identified below. Note that these will vary depending on the particulars of the case.

A complete description of the problem/situation and relevant major issues. Presentation of several alternative solutions. A recommendation with supporting arguments. Suggestions for implementation and evaluation of the changes recommended.

The report should be a self-contained document (not itemized answers to case questions) as if your group were hired consultants presenting your analysis of a particular problem. Reports will be graded both on the response to the provided questions, coverage of the above topics, as well as the style and clarity of the writing. You are not allowed to seek any outside advice in preparing your case report.

#### Hints:

- 1. Try to do as much computational analysis as possible given the data in the case and use your results to make points in your report. Numbers are the best way to describe a problem or the potential impact of a change. For example, it is better to say "with our recommendations, inventory could be reduced 25%" than "with our recommendations, inventory could be reduced?".
- 2. Realize that the case questions are all designed to help you see problems in the case and direct your analysis. Try to see the connections.
- 3. Calculations that require multiple steps should be included as part of your attachments. This helps me understand what you are doing and allows partial credit to be awarded.
- 4. Refer to your attachments in your report, and no attachment should be included that is not referenced. Please clearly label all attachments.
- 5. The only requirement for paper format is that it is easily readable, but a suggested format is 1.5 spacing and a 10 pt font. That makes it easy to read and should give you sufficient "room" to address all of the relevant issues.

## Simulation Reports

During the semester, your group will participate in two exercises based on a computer simulation of Littlefield Technologies. Each simulation runs for a period of one week. During the week, you will be able to make decisions about how to improve the operations at Littlefield. Your decisions will impact your team's "score". It is important to make some decisions early in the week and monitor the simulation.

At the end of each exercise, your team will prepare a report. This report is due at the beginning of the class in which the simulation is discussed. A portion of the grade for this assignment will be based on your team's performance. The requirements for each report will be specified. The first will be 1-2 pages and the second 3-4 pages in length.

This simulation runs on the web. Purchase of the course packet on Study.net includes an access fee for this software tool for <u>one</u> person.

#### Homework

Short homework assignments will be assigned as the semester progresses. You are encouraged to discuss problems with other students.

#### Tests/Quizzes

Two exams will be given in this class. One exam will be take-home, and one will be given in-class. The date for the take-home exam will be the date the exam is due. All exams are individual rather than group assignments.

#### **Grading Policy**

Each student's final grade will be based on the following items:

Exams	50% (25% each)
Case Reports (2)	25% (12.5% each)
Littlefield Technologies (2)	20% (7.5%, 12.5%)
Participation	5%

Assignment of final grades will be done based on the student's rank within the class, the occurrence of natural 'breaks' in the overall rankings, and the Tippie School of Management Grade Recommendations. The MBA Committee recommends less than 50% A's and more than 50% B's be awarded, with C, D, and F's awarded as needed to reflect lack of mastery.

#### **Grade Disputes**

If there are disputes with the grading of any assignments, each student has exactly 2 weeks to return the assignment to the instructor with a cover sheet indicating the specific question and issue of concern. Grades can be <u>raised</u>, lowered, or not altered as a result, and the 2 weeks are from the time the assignment is returned to the class.

## **ICON**

Class materials will be posted on ICON. These include copies of the lecture slides used in class <u>and</u> additional readings. Some of these readings will be in addition to the readings listed on the syllabus. These short articles will be relevant to the class discussion, and it is recommended that you read them before class. All of these materials will be organized by the week of the class in which they are used and should be posted by the Monday morning prior to the Wednesday class.

Any alterations to assignments, due dates, etc. will be disseminated through the "News" section of the course website.

#### Cell Phone Policy

Turn all cell phones and pagers off during class to prevent disrupting the other members of the class. Please see me before class if there is particular situation requiring an exception.

#### Eating

Even though class is during dinner time, it is requested that any food that is brought to class be consumed before class or during any breaks since it can disrupt the other members of the class.

## **Cheating Policy**

It is my sincere hope that no student in this class turns in work that is not his or her own. However, it is prudent to clarify in advance my policy on cheating. If the grader and the professor determine a project, paper, or test was not written solely by the individual(s) whose name(s) appear on it, the student(s) involved will receive a "0" on the assignment or have their semester grade(s) lowered by one full letter grade, whichever penalty is greater.

All incidents of cheating will be reported to the appropriate parties. Decisions on these matters may be appealed to the MBA Committee. The University of Iowa MBA Honor Code, as well as the definition of academic misconduct, can be found in the Tippie School of Management Student Policies and Procedures Manual.

The Honor Code applies to ALL assignments for this class, but all students will be specifically asked to sign an honor pledge on all exams.

#### **Disability Statement**

If you have a disability that may require some modification of seating, testing, or any other class requirement, please let me know as soon as possible so that appropriate arrangements can be made. Similarly if you have any emergency medical information about which I should know, or if you need special arrangements in the event the building must be evacuated, please let me know. Please see me after class hours, during my scheduled office hours, or schedule an appointment. I would also remind you that the Office of Student Disability Services is available to assist you. This office is located on the Iowa City campus at 3100 Burge Hall and can be reached at 319-335-1462. Further information is available on at http://www.uiowa.edu/~sds.

## **Operations Management** 6N:229 (Cedar Rapids) **Fall 2005**

# Week of Topic **Text/Course Packet** (Hand-ins are in Bold Type)

Introduction to OM	CT: Ch. 1
Article Discussion	CW: Deep Change
Product-Process Matrix	CT: Ch. 2

#### Week 2 Aug. 31

Week 1 Aug. 24

)1	
Little's Law	CT: Ch. 2
Case Discussion	CP: Benihana of Tokyo
Capacity Planning	CT: Ch. 3

# Week 3

Sep. 7	
Case Discussion	CP: CRU Computer Rentals
Introduction to Simulation	
Variation	CT: Ch. 6

# Week 4

Sep.14

Buffer Experiments Case Report Due Introduce Littlefield Technologies Simulation 1	CT: Ch. 7 <b>CP: Natural Blends</b> CP: Littlefield Technologies: Overview CW: Littlefield Assignment 1
Role of inventory and batching	CT: Ch. 5
Simulation 1 starts Sep. 16 at noon	

EOQ Case Discussion Quality Management

Simulation 1 ends Sep. 23 at noon

# Week 6

Week 5 Sep. 21

Sep. 28

**Simulation Report #1 Due** Case Discussion Statistical Quality Control Process Capability Exam 1 Discussion

CP: Hank Kolb, Director, QA CT: Ch. 8

CT: Ch. 5

CT: Ch. 8

CP: Manzana Insurance

Exam 1 posted Sep. 29

Week 7

Oc

Oct. 5	Exam 1 Due The Newsvendor Model Forecasting	CT: Ch. 9 CT: Ch. 9
Week 8 Oct. 12	Article Discussion Service Levels and Lead Times	CW: Rocket Science Retailing CT: Ch. 11
Week 9 Oct. 19	<b>Case Report Due</b> ATO, MTO, and Quick Response Article Discussion Introduce Littlefield Technologies Simulation 2 Simulation 2 starts Oct. 21 at noon	<b>CP: L.L. Bean, Inc.</b> CT: Ch. 10 CW: What is the Right Supply Chain? CW: Littlefield Assignment 2
Week 10 Oct. 26	Multi-Echelon System Game The Bullwhip Effect Buy-Back Contracts Simulation 2 ends Oct. 28 at noon	CT: Ch. 14 CT: Ch. 14
Week 11 Nov. 2	Simulation Report #2 Due Case Discussion Risk-Pooling Revenue Management (**time permitting) Exam 2 Discussion	CP: Hewlett-Packard: Deskjet Printer (A) CP: Hewlett-Packard: Deskjet Printer (B) CT: Ch. 12 CT: Ch. 13
Week 12 Nov. 9		

Course Wrap-Up Exam #2

Note: <u>CT</u> denotes item available in the text, <u>CP</u> denotes item available in course packet, <u>CW</u> denotes item available on course webpage.