

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
BRYAN SCHOOL OF BUSINESS AND ECONOMICS
DEPARTMENT OF INFORMATION SYSTEMS AND OPERATIONS MANAGEMENT

SCM 302 - Operations Management
Spring 2005
Sections 01 and 02
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Required Textbook is OperationsNOW.com (2nd edition) by Bryon J. Finch.
OperationsNow.com is available at the UNCG and other fine Bookstores.

INTRODUCTION

Operations Management is the process of converting resources into products. Resources may include materials, equipment, capital, and labor. Products may include manufactured goods or services. "Operations" is defined here as the set of activities directed toward the conversion of resources into goods and services. The "Management" of these resources and activities is called production/operations management (P/OM). Production/operations management is concerned with an almost unlimited spectrum of organized efforts -- from the manufacture of printed electronic circuit boards to the delivering of a social service by a local government; from the fast-food business to the health services industry. All of these involve activities directed toward the conversion of resources into products.

Production/operations management (P/OM) has, in effect, been in existence since man first organized his efforts toward productive tasks, such as hunting, farming, building and trading. More recently production/ operations management has become a defined body of knowledge since the managerial revolution beginning in the early twentieth century. Production/operations management has its roots in a number of areas of study, such as industrial engineering, materials/inventory management, manufacturing management, production scheduling, quality control, forecasting, etc. Examples of questions that are of concern in the field of P/OM are the following:

- How do we cut costs in our firm, and here at UNCG?
- How do we increase our workers' productivity in The Registrar's Office?
- Are we having quality problems with our heart surgeries?
- Where should we locate our new central distribution facility for Sara Lee?
- What route should a caseworker follow in handling his/her caseload?
- How many Beanie Babies should we carry in December's inventory?
- How many Honda lawnmowers will we sell next year?
- Should we work overtime in Asheboro or hire new production workers in Mexico to make more Dustbusters?
- Can we afford to automate part of our production process to make Snakelights?
- Can we afford not to automate part of our production process?
- Should we sell our manufacturing plant in Asheboro?

COURSE OBJECTIVES

We will be concerned with the decisions related to managing the production/operations function of any enterprise under the following general objectives:

1. Provide a basic understanding of the production/operations function of an organization, and how it relates to the rest of the organization.
2. Enable you to become familiar with the major decision areas of production/operations management and with some of the analytical and behavioral tools used to solve these problems.
3. Provide you with an opportunity to apply several kinds of problem solving methodologies to production/operations problems.
4. Expose you to actual examples of how different organizations manage the production/operations function.

The instructional methods used to achieve these objectives include:

1. Textbook reading, rereading and study.
2. Class lecture and review of textbook material.
3. Out-of-class suggested problem assignments from the textbook.
4. Out-of-class reading assignments and reports from sources other than the text, such as the Internet, Fortune, Business Week, etc.
5. Classroom discussion, student presentations, and participation.

Our major interest in this course is developing managerial competence in the operations function rather than in-depth expertise in operations technologies or analytical techniques. The analytical techniques will be used because they are needed to achieve managerial competence. We will attempt to achieve a balance between descriptive and analytical treatments of the subject areas since both are important.

COURSE POLICIES**1. GRADING** - The semester grade will be based on the following distribution of points:

Examinations 1, 2, and 3	300
Business Processes Report	10
Chapter Quizzes and Research Activities	90
Plant Tour Report	<u>100</u>
Total	500

Each individual student will write one Business Processes Report, summarizing your ISM280 Business Processes assignment. It will consist of a two page memo that summarizes your report, and refers at least five times to your (or a colleague's) completed ISM280 report - in specific places. The ISM280 report must be attached as an Appendix. This report is worth 10 points, and will be graded on content, writing skills and the effective use of an Appendix.

Each student will also write a series of additional memos on various Chapter Research Activities. Due dates will be posted on Blackboard. There will also be several Chapter Quizzes that will be given to the class as we begin study of certain chapters. These will be announced in class and on Blackboard. **You should read the chapter prior to coming to class.** Quizzes will not be given once students exhibit the ability to discuss the chapters. Quizzes will be worth 10 points, and Research Activities will be worth 5 points (and usually be about two to three pages in length). There will be a total of 100 points for this category.

Anyone earning 90% of the above 500 points will received at least a grade of A-. Anyone earning 80% of the 500 will receive at least a grade of B-. Anyone earning 70% of the 500 will receive at least a C-. A grade of D will be given to all earning between 65% and 69.9%. All others will receive a grade of F. In addition to this general guideline, any student missing more than four classes will lose 10 points from the overall semester average. Penalties become more severe as you miss more classes.

2. APPEALS

A student may appeal a grading decision within one week of the occurrence. You must send me a note (phone message, mail, email explaining your problem).

3. INSTRUCTOR'S RESPONSIBILITIES

- To provide the students with course policies.
- To be adequately prepared for covering course material during each class session.
- To conduct a full and informative class during each session.
- To provide a classroom environment conducive to student participation.
- To refrain from belittling students efforts.
- To review assignments handed in by students.
- To test students' knowledge of subject material.
- To administer an effective, equitable grading system.
- To refrain from giving students "busy" work.
- To be available for student's outside of class hours upon request.

4. STUDENTS' RESPONSIBILITIES

- To understand and follow course policies.
- To attend examinations or notify instructor in advance if absence is necessary (see "Examination Attendance").
- To attend class regularly, to arrive on time and not leave early, and avoid getting a "drink of water" during class.
- To hand in outside assignments on time as designated by instructor.
- To determine class session content in event of absence.
- To participate in class through questions, meaningful discussion, active listening and courteous respect for the comments of others.
- To keep the instructor informed on a timely basis of specific areas of satisfaction or dissatisfaction with the progress and content of the course.

5. EXAMINATION ATTENDANCE

There are strict rules related to attendance at the three examination sessions. You should notify me prior to missing the exam. If you notify me in advance, we can usually reschedule your exam. There are no acceptable excuses for NOT notifying me in advance

6. GUIDELINES FOR CONDUCT IN CLASS CONTRIBUTION

The instructor is not omniscient, nor is he infallible, nor is he always effective in explaining every topic clearly the first time. For this reason it is necessary for each student to take an active part in the conduct and presentation of the course. This contribution should take the form of the following: (1) soliciting further explanation from the instructor when a topic is not clearly explained; (2) contributing to course content by relating relevant personal experiences, anecdotes, etc.; (3) listening to the comments of others in the class; (4) challenging and questioning the remarks of the instructor or other students when appropriate. When participating observe rules of common courtesy. Try not to unconsciously or consciously dominate discussion. Above all, listen!

7. THIS COURSE WILL ALSO PLACE CERTAIN EMPHASIS ON THE FOLLOWING GENERAL CATEGORIES OF TOPICS:

Oral & Written Communications Content:

Oral and written communications for this course are addressed through the homework, class discussions, individual participation and the term project as detailed above.

Technology Applications:

This is addressed through the application of spreadsheets to aid in the decision-making process. Several different spreadsheet models are used at different points throughout the course. Students will be expected, whenever possible, to use appropriate information technology in the completion of assignments.

Ethical Perspectives:

Even though specific coverage of ethical issues is generally not done in this class, students will be made aware of the importance of ethical considerations in making location decisions. Our discussion here always includes the pros and cons of locating a new facility in say Mexico or Ghana or Germany.

Global Perspectives:

This course spends a great deal of time on worldwide competition, the Japanese development of JIT and its application by others, global supply chain management, and global manufacturing.

Demographic Diversity Perspectives:

This course discusses the cultural impacts on different work forces.

Political, Social, Legal, Regulatory & Environmental Perspectives:

The environmental perspective receives the greatest amount of emphasis, as companies focus operations on making better products, and part of being better is being environmentally sound.

8. Specific Areas of Concern

A) **Homeworks and Research Activities:** Many of our learning objectives revolve around quantitative materials. One of the best ways of learning quantitative materials is through in-class demonstrations and the use of homeworks. The instructor will always work a complete quantitative problem in class, and then assign a set of similar homework problems. However, this set will not be collected or graded. The instructor will be more than happy to see if you are doing the work correctly. Even though the assignments will not be collected, you are still responsible for the material covered in those assignments with regard to the exams. Homework is intended to be a major learning tool and again, the material is "fair game" for exam questions. Hence, I expect you to collaborate with other students (if you wish) and/or ask questions about the homework if questions exist. Answers will be made available via several methods. Questions about a homework set of problems can be asked at any time – in class or during office hours. The instructor may set aside a certain class time for discussion of all problems within the homework set – after consultation with the students! Research activities are focused on individual chapters; your write-up must be in the form of a memo that is at least two pages in length.

B) **Oral & Written Communications Content:** Plant Tour Report

Each student group (consisting of four, or less, students) is to write a paper analyzing the operations function of an organization (or part of a large one). You may need to interview line managers or staff personnel in the organization to obtain an understanding of the operations function and how it is managed. The interview process must include a visit to the facility where the operations (to be described in the term paper) are carried out. The paper should use the Operations Management (SCM 302) course outline as a guide in organizing the analysis. All major topics in the course outline that are applicable to the organization should be addressed, preferably in the order in which they appear in the outline. If some of the topics in the course are not applicable to the organization, the reasons for the same should be provided. The analysis should make use of the concepts presented in the course with respect to the various topics. Where appropriate, it should also draw upon concepts presented in the class and from the text, current journals and newspapers (such as the Fortune and The Wall Street Journal). If the organization deals with international suppliers or customers, then specific details of how the operations are different should be provided in the report.

In addition to analyzing the operations function as it exists in the organization, the paper should make one or two recommendations for improvement where appropriate. In general, the paper should be written from the point of view of an objective operations management professional, who is writing for an audience that is familiar with the principles, concepts, decision/problem areas, and techniques of operations management (at the level of SCM 302), but is not familiar with the specific organization being analyzed.

Each group is encouraged to develop the outline of each section of the paper prior to the visit to the organization. This approach will not only reinforce the learning in preparation for exams, but also distribute the work associated with the term project more evenly over the semester. Students should feel free to discuss the term paper project with the professor as it is being developed. The written paper should be typed (maximum 12 point size lettering), and double-spaced on 8.5" by 11" paper. No minimum or maximum length is specified, although the papers are typically 17 to 25 pages long. Cover the topics thoroughly, but efficiently. Do not add verbiage for the sake of length. Include diagrams, photos, or sketches that will clarify your presentation; a plant layout diagram and BOM/Bill of Services are required. The paper should be placed in a binder, with a Table of Contents and paginated. Write the paper from an objective standpoint; do not use the words "I", "We", or "You". Use subheadings to correspond with specific issues.

The term paper will be graded on organization, thoroughness, insightful of analysis/recommendations, process of executing the term paper assignment, and written communication skill. It is highly recommended that a project management approach (see Chapter 8 in our textbook) be taken for ensuring the timely completion of the project. The detailed procedure for completing the term project is given in a separate handout. During the semester, the faculty member would be seeking feedback on the progress of the term paper. Points on the term project will be deducted if the procedure described is not adhered to.

The term paper is to be submitted by 11AM on April 29th, 2005. Late submissions will not be accepted. Each member of the group should attest (with a signature) to the statement that "WE HAVE ABIDED BY THE ACADEMIC HONOR POLICY ON THIS ASSIGNMENT" on a separate cover page of the term project assignment. The separate cover page should also include the title of the assignment, course title and course number (including section number), and name of the student(s).

CLASS SCHEDULE (MWF Sections)

<u>Week of:</u>	<u>TOPIC:</u>	<u>ASSIGNMENT:</u>
1/10	Introduction to Operations Management Introduction to OperationsNow.com Profitability (January 14)	Course Syllabus Chapter 1 Chapter 2 (skip EVA, pg 47 and 54-6) READ pg 159-162!
1/17	<i>Martin Luther King Day (January 17)</i> Value, Strategy and Capabilities	Chapter 3 (skip 91-100)
1/24	Processes	Chapter 4 (skip 128-129)
1/31	Quality and Quality Tools	Chapter 6 (skip 197-99) Chapter 7 (skip 223-4+ & 230-231)
2/7	Homework Problems on Quality 2/9 - Review for Examination #1 Exam #1 on Friday, February 11	Business Processes Memo Due 2/9 9AM-10:20AM or 3PM-4:20PM
2/14	Timeliness	Chapter 8 (skip 266-268, 272-273)
2/21	Resource Planning	Chapter 9 (skip 328, 330-2, MSE)
2/28	Facilities	Chapter 15
3/7	<i>Spring Break</i>	
3/14	Applying Information Technology to Operations No Monday meeting; meet in Bryan 212 on Wednesday and Friday!!	
3/21	Work Force; No Monday meeting! Capacity (to be covered by Exam #3) <i>Spring Holiday (March 25)</i>	Chapter 16 (skip 611-616)
3/28	Homework Problems on Timeliness and Facilities 3/30 - Review for Examination #2 Exam #2 on Friday, April 2	9:30AM-10:50AM or 3PM-4:20PM
4/4	Capacity (continued) Inventory – Part A	Chapter 13 (skip 493-499, 503-4) Chapter 11A (Pages 396-414 only)
4/11	Inventory – Part A Inventory – Part B	Chapter 11B (Pages 418-430 only)
4/18	Inventory – Part B ABC Tax Firm and Capacity	Handout
4/25	Supply Chain Management Lean Systems Plant Tour Reports	Chapter 10 Chapter 12 Due April 29 (by 11AM)
5/2	Homework Problems on Inventory 5/3 (follows a MWF schedule) - Review for Exam #3 (Non-comprehensive Exam)	
Final Exam (Non-comprehensive, eighty minute exam) – You pick the time and date!!		
5/6 - 9am to 10:20am OR 5/6 – Noon to 1:20pm OR 5/7 – Noon to 1:20pm		