

<b>Course</b>	<b>BUSN 6110 Operations and Project Management</b>	
<b>Term</b>	Summer 2008	
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<b>Catalog Description</b>	This is a course that focuses on the major managerial issues in manufacturing management and the tools that can be used to manage them. Special attention will be given to project management, including PERT, critical path scheduling, and time-cost models, in operations management and other business settings. The major operations management issues are quality management and control, capacity management, plant location, layout and design, production planning and scheduling, supply chain management, and inventory management. The analytical tools covered include queuing theory, statistical quality control, linear programming, and learning curves. Where appropriate, the use of operations management techniques in service and distribution organizations will be demonstrated.	
<b>Prerequisites</b>	BUSN 5760 Applied Statistics	
<b>Course Level Learning Outcomes</b>	<b>Outcome</b>	<b>Expectation</b>
	1. Students understand the role of OM in the firm and how the OM function must be integrated with other functions to ensure organizational success.	Students can describe the appropriate relationship between the goals of other functional areas (i.e. marketing) and analyze operational level conflicts between the goals of functional areas and recommend a constructive response.
	2. Students can utilize PERT analysis to plan, manage, and evaluate a large project.	Students can develop a PERT diagram, calculate the critical path, decide whether or not an activity should be crashed, and estimate the probability that the project will be completed on time.
	3. Students understand new product development processes.	Students can read the description of a new product development process and determine if it is up-to-date. If it is not up-to-date the student can recommend changes that will bring it up to date.
	4. Students know both the SPC and non-SPC approaches to the management of quality.	Students can develop an SPC (Statistical Process Control) chart and use it to evaluate the quality performance of an ongoing production process. The student can also describe how to use QFD (Quality Function Deployment), and Design for Manufacturability/Value Engineering in the managing of quality.

	5. Students understand both the strategic and plant level capacity planning issues.	Students can discuss the major determinants of long term production capacity. The students can also determine bottlenecks in the process and make recommendations for dealing with the bottlenecks. This will include determining if the capacity expansion of the bottleneck makes good profitability sense.
	6. Students understand the major determinants of facility location decisions and will know how to use factor rating models to assist in the decision.	Students can discuss the facility location decision process to include the major variables. The student will, given the necessary information, also be able to use factor rating to assist in the location decision.
	7. Students understand the basic issues involved in facility layout with an emphasis on assembly line-type manufacturing.	Student can balance an assembly line to meet the expected production volume and will be able to determine the maximum output of the assembly line. Students can also explain the impact of cycle time on production capacity.
	8. Students understand the basic issues involved in inventory management to include MRP.	Student can determine the general nature of the inventory management task once the basic competitive posture of the firm has been determined. Students can also use EOQ calculations to assist in the inventory decisions.
	9. Students understand the general process of production planning to include aggregate planning and plant scheduling.	Students can describe the production planning process from the initial sales estimate to the plant floor. Student can also apply Johnson's rule in scheduling the n-job on two machines problem.
<b>Materials</b>	Heizer and Render, <i>Operations Management 8th</i> , McGraw-Hill/Irwin. ISBN 0-13-155444-1  Text is available through MBS Direct Books at 1-800-325-3252 or <a href="http://www.mbsdirect.net">www.mbsdirect.net</a> . Checks and credit cards accepted.	
<b>Grading</b>	Exam 1	250 points
	Exam 2	250 points
	Assignments	200 points
	Project Paper	100 points
	Project Presentation	100 points

	<table border="1"> <tr> <td>Participation</td> <td>100 points</td> </tr> <tr> <td>Total</td> <td>1000 points</td> </tr> </table>	Participation	100 points	Total	1000 points	
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<p><b>Activities</b></p>		<p style="text-align: center;"><b><u>Grading Scale</u></b>  A = 90 - 100 %  B = 80 - 89  C = 70 - 79</p> <p><b>The GRADUATE catalog provides these guidelines and grading options:</b></p> <ul style="list-style-type: none"> <li>• <b>A/A-</b> Superior graduate work</li> <li>• <b>B+/B/B-</b> Satisfactory graduate work</li> <li>• <b>C</b> Work that is barely adequate as graduate-level performance</li> <li>• <b>CR</b> Work that is performed as satisfactory graduate work (B- or better). A grade of "CR" is reserved for courses designated by a department, involving internships, a thesis, practicums, or specified courses.</li> <li>• <b>F</b> Work that is unsatisfactory</li> <li>• <b>I</b> Incomplete work</li> <li>• <b>ZF</b> An incomplete which was not completed within one year of the end of the course. ZF is treated the same as an F or NC for all cases involving G.P.A., academic warning, probation, and dismissal.</li> <li>• <b>IP</b> In progress</li> <li>• <b>NR</b> Not reported</li> <li>• <b>W</b> Withdrawn from the course</li> </ul> <ul style="list-style-type: none"> <li>• Exams will be essay; time will be 90 minutes, open book (may contain basic problems).</li> <li>• Weekly Assignments will be assigned on a week to week basis; 20 assignments over the span of the course (10 points each).</li> <li>• Project Paper and Presentation-See the "Requirements for the Development of the Group Project" found in the "Additional Information" section of this syllabus. This will be a student group effort (3-4 students per group), which we will discuss during the first class meeting; Group Paper (100 points); Group Presentation (100 points).</li> <li>• Participation and Attendance-Required (100 points).</li> </ul>				
<p><b>Policy Statements:</b> <b>University Policies</b></p>		<p>University policies are provided in the current course catalog and course schedules. They are also available on the university website. This class is governed by the university's published policies. The following policies are of particular interest:</p> <p><i>Academic Honesty</i></p> <p>The university is committed to high standards of academic honesty. Students will be held responsible for violations of these standards. Please refer to the university's academic honesty policies for a definition of academic dishonesty and potential disciplinary actions associated with it.</p> <p><i>Drops and Withdrawals</i></p> <p>Please be aware that, should you choose to drop or withdraw from this</p>				

course, the date on which you notify the university of your decision will determine the amount of tuition refund you receive. Please refer to the university policies on drops and withdrawals (published elsewhere) to find out what the deadlines are for dropping a course with a full refund and for withdrawing from a course with a partial refund.

***Special Services***

If you have registered as a student with a documented disability and are entitled to classroom or testing accommodations, please inform the instructor at the beginning of the course of the accommodations you will require in this class so that these can be provided.

***Disturbances***

Since every student is entitled to full participation in class without interruption, disruption of class by inconsiderate behavior is not acceptable. Students are expected to treat the instructor and other students with dignity and respect, especially in cases where a diversity of opinion arises. Students who engage in disruptive behavior are subject to disciplinary action, including removal from the course.

***Student Assignments Retained***

From time to time, student assignments or projects will be retained by The Department for the purpose of academic assessment. In every case, should the assignment or project be shared outside the academic Department, the student's name and all identifying information about that student will be redacted from the assignment or project.

***Contact Hours for this Course***

It is essential that all classes meet for the full instructional time as scheduled. A class cannot be shortened in length. If a class session is cancelled for any reason, it must be rescheduled.

<b>Course Policies</b>	<p>This syllabus may be revised at the discretion of the instructor without the prior notification or consent of the student.</p> <p>Class meetings are to be treated as important business appointments. Because so much of the value of this course comes from class discussion, attendance is required. There are, of course, excusable absences. However, they will always be for reasons that are beyond your ability to control. Please talk to me about any absences.</p>	
<b>Weekly Schedule</b>	Week 1	<p>Introduction to Operations Management  Chapter 1-Introduction to the Field  Chapter 2-Operation Strategy in a Global Environment  Discussion will center on developing an understanding of competitiveness, the importance of developing an operational strategy in business, and review the primary topics in Operations Management.</p> <p>Weekly Assignments will be assigned on a week to week basis.</p>
	Week 2	<p>Quality  Chapter 6 - Managing Quality  Chapter 6S – Statistical Process Control  Discussion will cover total quality management, understanding and recognizing employee – customer – service quality issues, statistical process control, and the process of designing quality into the scope of operations management.</p> <p>Weekly Assignments will be assigned on a week to week basis.</p>
	Week 3	<p>Forecasting, Product Design, Process Strategy  Chapter 4-Forecasting (Read this chapter to understand concepts, not to be able to solve complex mathematical problems.)  Chapter 5 Design of Goods and Services  Discussion will cover various forecasting techniques used in the business setting. Also covered will be the design process including strategy, quality function, customer role, process characterization and planning format, including the pressures of technology, customer demands and ease of manufacture.  Chapter 7 - Process Strategy  Various strategies for process contingencies are discussed.</p> <p>Weekly Assignments will be assigned on a week to week basis.</p>
	Week 4	<p>Capacity Planning and Location Strategies  Chapter 7S – Capacity Planning  This Supplement will cover the capacity of the firm to</p>

		<p>produce its demand.  Chapter 8 – Location Strategies  Discussion will cover process planning, facility location models, capacity planning strategies, and production modeling.</p> <p>Weekly Assignments will be assigned on a week to week basis.</p> <p>EXAM #1 (Chapter Assignments from Weeks 1-4)</p>
	Week 5	<p>Facility Layout, Human Resources, and Job Design</p> <p>Chapter 9 – Layout Strategy  Different physical layouts for various functions will be studied.</p> <p>Chapter 10 Human Resources &amp; Job Design  Where do the people fit into all of this, and how do we design the job to fit the people?</p> <p>Weekly Assignments will be assigned on a week to week basis.</p>
	Week 6	<p>Supply Chain Management, Project Management</p> <p>Chapter 11 - Supply Chain Management  Discussion will cover supply chain management, purchasing and suppliers.</p> <p>Chapter 3 – Project Management  Discussion will cover project management including PERT and CPM.</p> <p>Weekly Assignments will be assigned on a week to week basis.</p>
	Week 7	<p>Inventory Management and Aggregate Planning</p> <p>Chapter 12 – Inventory Management  Chapter 13 -Aggregate Planning  Discussion will cover inventory management, MRP theory, and the impact on performance and on-going corporate strategy.</p> <p>Weekly Assignments will be assigned on a week to week basis.</p>
	Week 8	<p>MRP, ERP, Short Term Scheduling</p> <p>Chapter 14 – MRP and ERP  Discussion will concentrate on MRP, ERP, the difference between the two, and how they interrelate.</p> <p>Chapter 15 – Short Term Scheduling  Discussion will cover issues in scheduling in the short term.</p>

	<p>Weekly Assignments will be assigned on a week to week basis.</p> <p>EXAM #2 (Chapter Assignments from Weeks 5-8)</p>
<p>Week 9</p>	<p>Just in Time Inventory Methods</p> <p>Chapter 16 – Just in Time Discussion will cover the use of just in time methods as they relate to inventory control.</p> <p>Group Project Final Presentations (Papers Due)</p> <p>Course Wrap-up</p>
<p><b>Additional Information</b></p>	<p><b>Requirements for the Development of the Group Project</b> (200 Points Total; 100 points for Paper; 100 points for Presentation) Draft Due Week 5; Final Paper Due Week 9 (For help getting started, use the Textbook Table of Contents)</p> <p>This course covers a wide range of OM topics facing contemporary organizations. The purpose of the final study group project is to synthesize learning from the entire course and to apply academic theory to real-world practice.</p> <p>Study groups will develop their own organizational case study based on OM concepts from the course, text, and additional outside resources, as well as the collective experiences of the group. You may choose to analyze a particular problem or situation in an existing organization, or choose an OM topic and develop a hypothetical situation in a fictitious organization.</p> <p>The study group project consists of two parts: a written synopsis and an oral presentation. The entire class will benefit from the opportunity to synthesize OM theory and principles through analysis of each group's organizational case study.</p> <p><b>Written Synopsis (100 points):</b> The study group's written synopsis should be 7 full to 9 pages maximum, excluding the title page, resource page (not including any appendices). <b>Anything less than 7 full pages or more than 9 pages will not be accepted.</b> Your paper must contain the following components entered as headings in your paper (<b>Your paper will not be accepted if the following headings are not utilized in your paper—unacceptable means zero points; no partial credit</b>):</p> <p><u>Introduction</u> (10 pts)</p> <ul style="list-style-type: none"> <li>• Give background information.</li> <li>• What is the thesis, or main idea, of the case study?</li> <li>• What are the relevant key points about the <b>organization</b> (real or fictitious)?</li> <li>• What are the relevant key points about the <b>situation</b> (real or fictitious)?</li> </ul> <p><u>Analysis</u> (30 pts)</p>

- What is the situational analysis of the problem or issue?
- What are the causes/effects of the situation or problem?
- How did the problem evolve (over night or over time)?
- How can course concepts be applied to provide greater understanding of the situation?

Recommendations and Rationale (30 pts)

- How can the problem be solved?
- What specific recommendations can be made for improving the situation?
- How do we explain our rationale for these suggestions?
- How will these recommendations, if implemented, enhance organizational effectiveness?

**(Start the “Works Cited” section on the next page after the last page of your Recommendations and Rational.)**

Works Cited: (10 pts)

- Have you used proper APA or MLA format? Be sure to use the latest edition handbook that you choose. A great MLA Web site is <<http://owl.english.purdue.edu/owl/resource/557/01/>>.
- Another good MLA Web site is <[http://gorams.wssu.edu/wallr/mla\\_format](http://gorams.wssu.edu/wallr/mla_format)>.
- An excellent Web site for the APA style is <<http://owl.english.purdue.edu/owl/resource/560/01/>>.
- Use only one format style. Do not mix style formats (i.e., use only the MLA or use only the APA style guide when writing your paper.
- Be sure that you have given credit to the source of all borrowed information quoted directly or paraphrased in your own words.

Attention to style, format, and proper mechanics (20 pts)

- Are the key points clear and well organized?
- **Has the entire group proofread the final document that will be submitted?**
- **Is the document free of mechanical errors?**

**Oral Presentation (100 points):**

The 25-30 minute oral presentation/demonstration should involve the entire class and may use a variety of delivery styles, formats, and techniques. While the oral presentation/demonstration will no doubt contain the same info as the written synopsis, it should be remembered that the two parts of the project serve different purposes, involve different styles and skill sets, and are intended for different audiences (remember that the entire class is the audience of the presentation, not just the instructor).

Think about the following; then complete the introduction and the analysis. Follow this with the recommendations and rationale for the recommendations.

- Who is the audience, and what do they need to know about the problem, situation, organization, etc.?
- How can your group involve others in the analysis of the problem/situation and development of recommendations?

	<ul style="list-style-type: none"><li>• How can you ensure that lessons can be learned from your case study?</li></ul> <p>The following components must be clearly included in the Oral Presentation:</p> <ul style="list-style-type: none"><li>• Introduction &amp; Background Information (10 pts)</li><li>• Analysis (30 pts)</li><li>• Recommendations and Rationale for the Recommendations (30 pts)</li></ul> <p>Presentation skills (30 pts)</p> <ul style="list-style-type: none"><li>• Involve the audience and encourage participation.</li><li>• Allow opportunity for questions, critical thinking, and discussion.</li><li>• Avoid verbal interrupters (uhm's, ah's, etc.) distracting behaviors, mannerisms, or body language (reading notes word-for-word, turning back to audience to look at screen, minimizing eye-contact, "fidgeting," etc).</li></ul>
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