

Course	BUSN 6110 - Operations and Project Management	
Term	Summer 2009	
Instructor	Name: Gary Sample Phone: 501-843-5784 (home) 501-490-7376 (work) 501-658-1110 (cell) Email: gsample@webster.edu or gary.sample@georgfischer.com	
Catalog Description	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.	
Prerequisites	BUSN 5760 Applied Statistics	
Course Level Learning Outcomes	Outcome	Expectation
	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 SQC and non-SQC approaches to the management of quality.	Students can develop an SQC chart and use it to evaluate the quality performance of an ongoing production process. The student can also describe how to use QFD, VA, vendor analysis and Value Engineering in the managing of quality.

	<p>5. Students understand both the strategic and plant level capacity planning issues.</p>	<p>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.</p>
	<p>6. Students understand the major determinants of facility location decisions and will know how to use factor rating models to assist in the decision.</p>	<p>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.</p>
	<p>7. Students understand the basic issues involved in facility layout with an emphasis on assembly line-type manufacturing.</p>	<p>Student can balance as assembly line to meet the expected production volume will be able to determine the maximum output of the assembly line. Students can also explain the impact of cycle time on production capacity.</p>
	<p>8. Students understand the basic issues involved in inventory management to include MRP.</p>	<p>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.</p>
	<p>9. Students understand the general process of production planning to include aggregate planning and plant scheduling.</p>	<p>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.</p>
<p>Materials</p>	<p><i>Operations & Supply Management</i>, Jacobs, Chase & Aquilano, 12th edition, ISBN 0077228936.</p> <p>Please be aware when purchasing your textbooks that the International versions of the text may differ from the Domestic (North American) version required for your course.</p> <p>You can access the Virtual Bookstore at http://www.mbsdirect.net/webster or call MBS Direct at 800-325-3252 and give your school name, site or program, and course number.</p>	

<p>Grading</p>	<p>Course Requirements:</p> <table border="0"> <tr> <td>1. Class Discussions</td> <td>20%</td> </tr> <tr> <td>2. Examinations (Mid Term & Final)</td> <td>40%</td> </tr> <tr> <td>3. Group Term Project & Presentation</td> <td>40%</td> </tr> </table> <p>% of Grade</p> <p>Grading Scale 93-100 A 90-92 A- 87-89 B+ 83-86 B 80-82 B- 70-79 C 0-69 F</p> <p>The GRADUATE catalog provides these guidelines and grading options:</p> <p>A/A– Superior graduate work B+/B/B– Satisfactory graduate work C Work that is barely adequate as graduate-level performance CR 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. F Work that is unsatisfactory I Incomplete work ZF 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. IP In progress NR Not reported W Withdrawn from the course</p>	1. Class Discussions	20%	2. Examinations (Mid Term & Final)	40%	3. Group Term Project & Presentation	40%
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<p>Activities</p>	<p>Homework: The intent is to have each student attempt to master problem solving skills related to Operations & Supply Management.</p> <p>Exams: The intent is to demonstrate knowledge of the subject and problem-solving skills learned in homework.</p> <p>Group Paper: To demonstrate the ability to understand and analyze business cases in a group environment.</p> <p>Class Discussions: To discuss your perspective against other professionals, and students in the class to get different points of view.</p>						
<p>Policy Statements: University Policies</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.</p>						

The following policies are of particular interest:

A student may submit their term paper to the On-Line Writing Center in St. Louis by email and have a coach make suggestions/corrections. It is up to the student to allow sufficient time (generally 7-10 days) for this process to be utilized and still turn in the term paper on the assigned date. Go to

<http://www.webster.edu/acadaffairs/asp/wc/online.html>

Academic Honesty

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.

Drops and Withdrawals

Please be aware that, should you choose to drop or withdraw from this 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, all students are expected to be in class and prepared to begin on time. All pagers, wireless phones, or other electronic devices must be turned off, or switched to vibrate, when you enter the classroom.

Disruption of class, whether by latecomers, noisy devices, or 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.

	<p>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.</p> <p>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.</p>
<p>Course Policies</p>	<p><i>Please Note: Students must notify the office if they wish to DROP or WITHDRAW from a course. It is not sufficient to tell your instructor. Cancellation of an enrollment is subject to Tuition Refund Deadlines and Policies as outlined in the Graduate Studies Catalog.</i></p> <ol style="list-style-type: none"> a. Course Goal: the goal of the course is to increase effectiveness of future business managers and provide a basis of understanding of fundamental concepts in logistics. b. Introduction to the Course: The course applies the principles of adult learning through classroom-oriented participation to provide a comprehensive understanding of logistics management theories. The focus is on providing the student with an exposure to the synergistic effect that logistics disciplines have on the success/lack of success of a business. Students are provided some fundamental abilities to help recognize a material management problem, defining it, and developing a solution that will be based upon sound proven management techniques. This is a developmental course to provide each individual a basis for growth rather than emphasizing some specific techniques. c. Term Paper: Each student will be assigned to a group of up to five members for the purpose of writing / presenting a group project for the course. The objective of this project is to tie together the topics of the course and to place the role of operations management in perspective relative to other business functions. A written outline is due by Week Five and the written paper & presentation will be given in Week Nine. d. Homework: Answer the "Questions and Problems" at the end of each chapter. All homework answers are individual effort, 80% answer from the text and 20% analytical, if applicable.

<p>Week 1:</p>	<p>Chapter 1 Introduction to the Field (pp. 4-18) Chapter 2 Operations and Supply Strategy (pp. 22-31) Chapter 2A Linear Programming Using the Excel Solver (pp.37-52) Chapter 3 Project Management (pp. 59-77) Assignment Questions: <u>Page 19</u> #1, 5, 10 & 11 <u>Page 31-32</u> #1, 3, 8 & 9 Problems: <u>Page 32</u> #1 & 4 <u>Page 53</u> #1 <u>Page 82-83</u> #2, 3 & 5</p>
<p>Week 2:</p>	<p>Chapter 4 Product and Service Design (pp. 93-110) Chapter 5 Strategic Capacity Management (pp. 122-135) Chapter 5A Learning Curves (pp. 143-153) Chapter 6 Process Analysis (pp. 160-178) Chapter 6A Job Design and Work Measurement (pp. 187-200) Assignment Questions: <u>Page 136</u> #3 & 6 <u>Page 154</u> #3 & 4 Problems: <u>Page 137</u> #1 <u>Page 155-156</u> #2, 4 & 8</p>
<p>Week 3:</p>	<p>Chapter 6 Process Analysis (pp. 160-178) Chapter 6A Job Design and Work Measurement (pp. 187-200) Chapter 7 Manufacturing Processes (pp. 206-213) Chapter 7A Facility Layout (pp. 221-241) Assignment Questions: <u>Page 180</u> #1 & 3 <u>Page 201</u> #1 & 2 <u>Page 215</u> #3 <u>Page 245</u> #1 Problems: <u>Page 180-181</u> #2 & 3 <u>Page 202</u> #2 & 6 <u>Page 215-216</u> #3 & 6 <u>Page 246</u> #3</p>
<p>Week 4:</p>	<p>Chapter 8 Service Processes (pp. 256-271) Chapter 8A Waiting Line Analysis (pp. 277-286) Chapter 9 Six Sigma Quality (pp. 308-323) Chapter 9A Process Capability & SPC (pp. 329-346) Assignment Questions: <u>Page 272</u> #1, 3 & 5 <u>Page 300</u> #3 & 6 <u>Page 323</u> #1, 4 & 7 <u>Page 348</u> #3 Problems: <u>Page 272</u> #4 <u>Page 301</u> #5, 7 & 9 <u>Page 323</u> #2 <u>Page 348-350</u> #1, 2, 7 & 9</p>
<p>Week 5:</p>	<p>Mid Term Exam Chapter 10 Supply Chain Strategy (pp.358-377) Chapter 11 Logistics and Facility Location (pp. 384-397) Assignment Questions: <u>Page 378</u> #1, 2 & 8 <u>Page 398</u> #1 & 2 Problems: <u>Page 378</u> #1 <u>Page 398-399</u> #2 & 3</p>

<p>Week 6:</p>	<p>Chapter 12 Lean Manufacturing (pp. 403- 419) Chapter 13 Operations Consulting and Reengineering (pp. 426-443) Chapter 14 Enterprise Resource Planning Systems (pp. 455-465) Chapter 15 Demand Management and Forecasting (pp. 467-500)</p> <p>Assignment Questions: <u>Page 419-420</u> #1, 3, 11 & 12 <u>Page 443</u> #1 & 3 <u>Page 465</u> #3 <u>Page 505</u> #1, 6 & 8 Problems: <u>Page 420</u> #1 <u>Page 444</u> #4 <u>Page 506-509</u> #2, 8 & 17</p>
<p>Week 7:</p>	<p>Chapter 16 Aggregate Sales and Operations Planning (pp. 516-535) Chapter 17 Inventory Control (pp.545-574) Chapter 18 Material Requirements Planning (pp.589-612) Chapter 19 Scheduling (pp. 623-642)</p> <p>Assignment Questions: <u>Page 537-538</u> #1, 2 & 6 <u>Page 578</u> #1, 2, 4 , 9 & 10 <u>Page 614</u> #1, 2 & 3 <u>Page 643-644</u> #1, 2 & 8 Problems: <u>Page 538</u> #3 <u>Page 578-580</u> #3, 10, 14 & 16 <u>Page 614</u> #2 & 3 <u>Page 644-645</u> #1, 3 & 5</p>
<p>Week 8:</p>	<p>Group Term Project Paper & Presentation Due</p>
<p>Week 9:</p>	<p>Final Exam</p>
<p>Additional Information</p>	<ul style="list-style-type: none"> • Webster University’s online library, <i>Passports</i>, is available through http://library.webster.edu, you will need to use your student ID to access the databases. • Students who are discovered cheating or committing plagiarism will be awarded a failing grade for the course, and may be subject to discipline or dismissal. www.turnitin.com is a tool Webster University uses to assist faculty in identifying plagiarism. • Grades are available online by visiting www.webster.edu, select Registration and Online Services. You will need to provide your student number and password to access your online information.
<p>Approved by</p>	<p>Michael Hostetler, Faculty Coordinator, 3-9-2009</p>