


Course	BUSN 6110 Operations and Project Management
Term	Spring 2-08 Thursdays 20 March to 15 May 2008
Instructor 	Name: Roger E. Pigeon Phone: 760-438-0935 Email: rpigeon@webster.edu
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	<p style="text-align: center;">Outcome Expectation</p> <p>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.</p> <p>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.</p>

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.

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, 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.

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.

Materials	<p>Required Texts:</p> <ul style="list-style-type: none"> • <i>Operations Management, 9th Edition.</i> By William Stevenson. Publishers: McGraw-Hill Irwin (ISBN-13: 978-0-07304191-9 or ISBN 10: 0-07-304191-2) • <i>Team Member Guide 2007/8, Capstone’s Foundation’s Business Simulation</i> by Management Simulations, Inc. 540 Frontage Road, Suite 3270 Northfield, IL 60093, (888) 472-7554 <p>(Note: School staff will provide you with a copy upon registration and you can also download a copy from CAPSIM.COM website once you register.)</p>										
Grading	<table border="0"> <tr> <td>• Midterm Exam</td> <td style="text-align: right;">25%</td> </tr> <tr> <td>• Final Exam</td> <td style="text-align: right;">25%</td> </tr> <tr> <td>• Critical Thinking Assignments</td> <td style="text-align: right;">25%</td> </tr> <tr> <td>• Capstone Foundation Business Simulation</td> <td style="text-align: right;"><u>25%</u></td> </tr> <tr> <td>• Total</td> <td style="text-align: right;"><u>100%</u></td> </tr> </table> <p>The GRADUATE catalog provides these guidelines and grading options:</p> <ul style="list-style-type: none"> • A/A– Superior graduate work • B+/B/B– Satisfactory graduate work • C Work that is barely adequate as graduate-level performance • F Work that is unsatisfactory 	• Midterm Exam	25%	• Final Exam	25%	• Critical Thinking Assignments	25%	• Capstone Foundation Business Simulation	<u>25%</u>	• Total	<u>100%</u>
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Activities	<p>Normal class activities will be a combination of lecture, discussions on economic articles and research assignments, Capstone Foundation Decision Analysis, and discussion of Critical Thinking assignments, and midterm and final exam.</p> <p>NOTE: Discussion Questions, Readings and/or Critical Thinking Exercises will be answered, completed and submitted at the end of each class session.</p>										
Policy Statements: University Policies	<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>Academic Honesty</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>Drops and Withdrawals</p> <p>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</p>										

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, The Department for the purpose of academic assessment will retain student assignments or projects. 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.

<p>Course Policies</p>	<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>
<p>Weekly Schedule</p>	<p>Week 1</p> <ul style="list-style-type: none"> • Course Overview and Objectives • Assign and Explain; Capstone’s Foundation Operations Management Business Simulation, discussion topics and “critical thinking” assignments • Explain Foundation Practice Round • Chapter 1 Introduction to Operations Management • Chapter 2 Competitiveness, Strategy, and Productivity • Critical Thinking Exercises: Chapter 1 page 32 and Chapter 2 page 58 <p>NOTE: All assigned discussion topics, readings and critical thinking exercises will be answered, completed and <u>submitted</u> at the end of each class session.</p> <hr/> <p>Week 2</p> <ul style="list-style-type: none"> • Chapter 3 Forecasting • Chapter 4 Product and Services Design • Chapter 5 Strategic Capacity Planning for Products and Services • Critical Thinking Exercises: Chap 3 page 112, chap 4 page 160 and chap 5 page 200. • Analyze Foundation Simulation <u>Practice Round</u> <hr/> <ul style="list-style-type: none"> • Week 3 • Chapter 6 Process Selection and Facility Layout • Chapter 7 Design of Work Systems • Chapter 8 Location Planning and Analysis • Critical Thinking Exercises: Chapter 6, 7 & 8 • Analyze Foundation Simulation <u>Round 1</u> <hr/> <p>Week 4</p> <p>Chapter 9 Management of Quality Chapter 10 Quality Control Critical Thinking Exercises: Chapter 9 and Chapter 10 Analyze Foundation Simulation <u>Round 2</u> Review for Midterm Exam</p>

Week 5

- **Midterm Exam**
 - **Analyze Foundation Simulation Round 3**
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Week 6

- **Chapter 11 Supply Chain Management**
 - **Chapter 12 Inventory Management and Scheduling**
 - **Chapter 13 Aggregate Planning**
 - **Critical Thinking Exercises: Chapters, 11, 12 & 13**
 - **Analyze Foundation Simulation Round 4**
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Week 7

- **Chapter 14 JIT and Lean Operations**
 - **Chapter 15 Scheduling**
 - **Chapter 16 Supply Chain Management**
 - **Critical Thinking Exercises: Chapters 14, 15 & 16**
 - **Analyze Foundation Simulation Round 5**
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• **Week 8**

- **Chapter 17 Project Management**
 - **Chapter 18 Management of Waiting Lines**
 - **Critical Thinking Exercises: Chapters 17 & 18**
 - **Analyze Foundation Simulation Round 6**
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• **Week 9**

- **Final Exam**
- **Analyze Foundation Simulation Final Round 7**

Additional Information

Required Course Activity: (IMPORTANT)

The Capstone Foundation Management Simulation is a required component of BUSN 6110. This is to ensure that all Webster University MBA students have a common, high quality integrative experience in their last semester of their program of studies. Capstone is a dynamic business simulation that runs the entire nine weeks of the course. This web-based simulation, located at www.capsim.com brings together all of the primary functions of business (i.e. production, forecasting, marketing, pricing, fiancé, human resources and labor negotiations, distribution, trend analysis) and combines it within a competitive framework that teaches strategic thinking, and “strategy” as competitive movement and counter-movement.

CAPSTONE FOUNDATION BUSINESS SIMULATION GAME ROUNDS:

The purpose of the Capstone Foundation Business Simulation Game is to test alternative actions of an operating business in a competitive environment without incurring costs or the risk of implementing them in a real setting. Most strategic decisions, especially crucial ones, are made after consultation with key executives and colleagues in an atmosphere of committee deliberations and discussion.

Each team manages and analyzes their own 100 million-dollar Capstone Company and develops and implements strategic concepts. The management team will make decisions about various aspects of an assigned company's management for a given period of "simulated time". The simulation is played over several simulated years to maximize the firm's objectives. The objectives are, of course, achieved much more systematically and successfully by considering and applying concepts previously developed in prior MBA courses. There will be 1 practice round and 7 real rounds (decisions) in this simulation exercise.

Students are REQUIRED to register for the simulation (a \$39.99 fee) and to carefully read the student TEAM MEMBER GUIDE by the first week of class. These materials and further directions will be discussed in class.

Web site: www.capsim.com

YOUR SIM ID INDUSTRY NUMBER FOR REGISTERING IS: F22762

NOTE: UPON REGISTERING FOR THIS COURSE, THE STAFF SHOULD PROVIDE YOU WITH A COPY OF CAPSTONE'S “FOUNDATIONS TEAM MEMBER GUIDE 2007/8” AND THE COURSE SYLLABUS AND YOU CAN ALSO DOWNLOAD THE GUIDE FROM THE CAPSIM WEBSITE.

ATTENDANCE POLICY

Because of the extent of material to be covered in this nine-week class, it is important that you come well prepared. Students are responsible for all information given during the class instruction. Absences will adversely affect your grade.

Students absent for two classes will not receive a passing grade nor receive credit for the course.

The instructor without the notification or consent of the students may revise this syllabus.

Your Electronic Reserve Class web site is:

<http://ereserves.webster.edu/coursepage.asp?cid=86>

Password is: SD6110S108