UNIVERSITY OF WEST FLORIDA
COURSE SYLLABUS

COURSE: MAN 6511 Operations Management Problems

INSTRUCTOR: Dr. June Wei Email: jwei@uwf.edu

REQUIRED MATERIALS FOR COURSE:


PREREQUISITE:

QMB 6305 - Quantitative Methods for Business (which, in turn, has prerequisites of basic calculus and basic statistics), or equivalent for either requirement. If you do not have the prerequisites, it is your responsibility to drop this course.

COURSE DESCRIPTIONS:

Operations Management Problems is intended to provide a basic background in problems and opportunities encountered by managers in contemporary production and operations management. These will include, but not be limited to, issues concerning such management areas as

- The planning and control of whatever productive activity comprises the business of the enterprise,
- The location and layout of the facility from which the production or service activity is accomplished,
- The design of the productive facility from both a machine and human viewpoint,
- The design of the activity to be accomplished by the humans in the system, and
- The improvement of all of these areas.

The operational difficulties inherent in the above areas involve the efficient and effective use of both hard and soft inputs to the process; i.e., the use and management of people as well as of equipment. Thus, part of the course is qualitative; part quantitative.

Ancillary to the major topic of "production and operations management" will be other subsidiary topics and questions of almost equal importance. These will be addressed as an integral part of the discussion of the subject matter throughout the course wherever applicable, and include such questions and issues as

- Are there any ethical issues that constrain the manager's conduct of the business, or solution of the problem? Are these issues peculiar to our own domestic operating methods and value systems or are they generic ethical
issues appropriate to decision making in any country of operation?

- Are there any international/global issues entering into the decision process? These may include such items as use of people, the management of people, currency issues, time differences, cultural differences, and a host of other issues.

- From where does/will the manager get the information needed to make the decision? This may include the information that allows the manager to make the decision directly, or the information needed to use some quantitative technique as an aid to decision making.

It is expected you will take account of at least the above issues in any discussion or any written analysis of cases, exams, or other assigned work wherever applicable.

**COURSE OBJECTIVES:**

Many firms have demonstrated that operations management can be an effective competitive weapon and, in conjunction with well-conceived marketing and financial plans, these firms have made major penetrations into markets worldwide. This course is designed to address the key operations and logistical issues in service and manufacturing organizations that have strategic as well as tactical implications. The specific objectives include:

- To understand the role of operations management in the overall business strategy of the firm.
- To understand the interdependence of the operating system with other key functional areas of the firm.
- To identify and evaluate the key factors and the interdependence of these factors in the design of effective operating systems.
- To identify and evaluate a range of tools appropriate for analysis of operating systems of the firm.
- To identify and evaluate comparative approaches to operations management in a global context.
- To understand the application of operations management policies and techniques to the service sector as well as manufacturing firms.

The sessions are designed to promote student participation through the discussion of current events in the business world as they relate to operations management.

**METHOD OF OPERATING THE COURSE:**

Most of the class meetings will be delivered online via e-learning. There will also be partial face-to-face meetings for discussions on problems and presentations. The midterm and final exams will be proctored exams.

The course will be partially team based. Because of the wide variety of backgrounds of those enrolled in the course, you may wish to select your team members very carefully. That is, some students will have had an undergraduate course in production and operations management, some will have had a course in the use of management science/operations research techniques, some will have an extensive background in accounting and finance, some will have had none of these, etc. If there are areas in which you feel your background is less than sterling, you should try to select team members whose backgrounds are complementary to your own.

Teams of no more than four (4) and [preferably] no fewer than (3) persons will be selected by means of voluntary association at the beginning of the course. The purpose of the team is to
(a) help its members study and learn;
(b) prepare team projects/cases and share in the presentation of executive briefings of these to the class;
(c) collaborate on exercises during class periods; and,

To enhance team members' desires to contribute to team effort, there will be peer performance evaluations within teams at the end of the semester for the portion of the course involving teamwork. These will affect team members' grades, to the extent noted in COURSE GRADING below.

Generally, students are not allowed to use laptop computers in the class meetings since it will create distractions for other students in the classroom.

**COURSE GRADING:**

There will be two exams. The mid-term exam will be at roughly the midpoint of the course. The final exam is not intended to be a comprehensive one, but must of necessity build upon some information covered by the previous exam. These two exams may have a wide variety of requirements, from quantitative questions based on text material, to qualitative questions based on text material, to both qualitative and quantitative questions based on content from cases, to opinion questions whose awarded points will be determined on how well you respond and defend your response, to ???? Material will be made available to you in varying forms throughout the term to assist you in preparation for class. In addition, there is a fairly comprehensive set of materials on the CD that is an integral part of your text materials.

Final grades will be based on grade cuts that are close to traditional lines (90 - 100 = some version of an A, etc.). The final course grade will be calculated from performance in all areas of the class. Thus, outstanding performance on one portion of the class cannot be used to offset abysmal performance in another part, except in strictly mathematical calculation.

Graded homework and quizzes will be available as soon as they are graded. Quizzes, homework, and tests will be graded as quickly as practicable. The grade from the class will be computed based on a variety of opportunities to excel. These may include tests, quizzes, homework, and case analyses prepared and presented by teams and individually.

All extensive responses handed in for the duration of the course will be done at a professional level and will be accomplished on Microsoft Word and Excel. The term "professional level" means that, if applicable, the paper will have a well-laid-out title page, a table of contents showing headings and page numbers, major headings throughout the paper, proper pagination, proper references, will have been proofread, will have properly constructed sentences, and will be neat. Failure to adhere to these rules will result in a paper that is unacceptable and will not be graded. This will result in a grade of Incomplete for the course rather than a loss of the percent of the grade as noted in the grading scheme.

For each assignment in the course, class members will be informed of the expectations, whether it is to be an individual or team effort, and the form of the expected response. If you have doubts, please ask for clarification.

**GRADING METHOD:**

The final grade for the course will be computed as follows:
<table>
<thead>
<tr>
<th>ITEM</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Term Exam</td>
<td>30</td>
</tr>
<tr>
<td>Final Exam</td>
<td>35</td>
</tr>
<tr>
<td>Portfolio Paper</td>
<td>25</td>
</tr>
<tr>
<td>Case analyses/presentation, quizzes, assignments, and Class</td>
<td>25</td>
</tr>
<tr>
<td>Participation/Attendance as seen by Instructor</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
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**POSITION ON MISSED WORK:**

Miss class at your own risk. Any missed homework, test, or quiz can hurt your final grade. Once homework is assigned and the due date and time are announced, it is your responsibility to turn it in on time. You will not be reminded of the due homework. When submitted electronically, the time and date stamp on the e-learning drop box will determine its timeliness. It is your responsibility to use a standard word processing, spreadsheet, or other package so I can open it.

Consistently late homework will adversely impact your grade. With a valid reason for missing homework, you can make it up. It is intended this will be an exceptional situation. Your Friendly Instructor will be the final arbiter of whether or not your reason for missing homework is valid. Homework turned in after it has been discussed in class and/or handed back to the class, graded, will be given zero credit, no matter what the reason for its being late. It is the student's responsibility to take the initiative to make up any missed work. Make-up arrangements must be made at or before your next class attendance after your absence, and the makeup work must be turned in no later than two weeks after you have received the assignment.

In general, it is assumed students are taking their Master's degree course work seriously. This connotes they will be present, prepared, and ready to contribute at each class meeting. In areas where an individual or group may have particular expertise (by prior course work or work experience), it is expected the knowledge will be shared with the rest of the class. Each person will have a special viewpoint on the class content. It is expected he or she will share that viewpoint with the entire class; thus, will not break out in an independent discussion with one other classmate while the class is discussing the material.

It is particularly important that everyone will have read the material to be discussed, and will have attempted representative problems prior to class so class discussion can address difficulties that are common to some specific technique, etc.

**CONDITION OF HOMEWORK/QUIZZES/TESTS:**

The classes you take are considered to be training for your work in industry in more ways than just the techniques you learn from the class. Anything you turn in for tests, quizzes, or homework will be expected to be in such a condition that you would be proud to turn it in to your boss on the job. This assumes

- It will be legible. If it cannot be read, you get no credit for it.
- It will have your name on it. Anything without a name will be immediately round-filed.
- Homework turned in consisting of multiple sheets will be **numbered**.
- As noted earlier, **lengthy** word responses to homework of any kind must be done on some kind of word
processor and printed with a readable ribbon, adequate toner, etc.

- All answers to quantitative problems will be justified; i.e., you must show how you arrived at your answer. Unjustified answers will be given zero points. NOTE THIS APPLIES TO TESTS AS WELL AS TO HOMEWORK! In addition, when you have arrived at an answer, please indicate it in some way, whether it is by underline, circle, arrow, labeled "answer", or ??

As mentioned previously, an integral part of the operation of any business is the ethics of the workers and managers. Thus, the class will be conducted in an ethical manner. There will be opportunities to utilize material in the library or on the Internet for one or more assignments in the course. Anything turned in for credit that is obtained from another source must be referenced properly. This, of course, also pertains to material that is merely paraphrased. If it is the work of someone else, it must be referenced.

Be sure you understand the rules. If it is a quote, putting a reference at the end of the passage is not sufficient. It must be enclosed in quote marks or an acceptable indication given that it is a direct quote. If you merely change a couple of words in a sentence, which is not sufficient to remove the responsibility of letting the reader know you really copied someone else’s work. Failure to reference properly will result in a failing grade for the assignment and referral to the proper committee on student conduct with a charge of plagiarism. APA has been adopted as the style of choice for the portfolio projects. The rules for referencing Web/Internet material are continually being developed. For such materials, please provide at least the complete site and web page address where you found the material (the http//www-------- or other type of standard address).

NOTE: This does not mean you give me a copy of the home page of the source. I want a copy of the page where you found the actual content you used. You may use a shortened version of the Web address in the body of the paper or homework, as long as you have the complete reference in your references at the end of the paper or homework, and at the top of the page you printed out.

RESOURCES:

Computers have changed in the last forty or so years from being a business tool available primarily to the largest and richest companies to a fairly inexpensive necessity for operation and competition. Accordingly, it may be necessary for students to use a computer for a few designated assignments in this course. For aspects of some case analyses, the computer becomes a virtual necessity. While it is likely that most or all of you have access to a computer at home and/or at work, the OWCC/UWF computer lab has word processing, data base, spreadsheet, and quantitative methods software available for your use. In addition, the eDesktop provides free software for your use anywhere as long as you have Internet connection.

POSSIBLE WEB RESOURCES:

If you find errors in the addresses, or find that some of the Web addresses are no longer valid, please let me know. As I am sure you know, Web pages appear and disappear at will.

MAXIMAL SOFTWARE, INC., has a free student version of their MPL software and a free on-line tutorial for that software. You may access it and download it at www.maximal-usa.com and try out the software and the tutorial. The student version is fully functional.

ISO 9000 ONLINE contains links to a number of different ISO 9000, QS 9000, and ISO 14000 Web pages and also has a line to the ISO 9000 Web directory, a sourcebook developed by the North American Trade Bureau.
http://home.pi.net/~cbon/qiso.html

MANUFACTURING ENGINEERING LABORATORY at NIST helps make U.S. manufacturing more competitive by facilitating the development and application of measurements, standards, and infrastructure technology.  http://www.mel.nist.gov/melhome.html

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH) is part of the Center for Disease Control and Prevention.  Among other activities, NIOSH researches and makes recommendations to prevent work-related injuries and illnesses.  http://www.cdc.gov/niosh/homepage.html

AMERICAN CUSTOMER SERVICE INDEX  Maintained by The National Quality Research Center at The University of Michigan, the ACSI provides an economic indicator of customer satisfaction based on those customers' experiences with goods and services.  Performance data allows comparisons of providers within economic sectors.  http://acsi.asq.org

APICS: THE EDUCATIONAL SOCIETY FOR RESOURCE MANAGEMENT  The site is maintained by APICS to support its members and provide general information on advances in global manufacturing processes, supply chain management, production and inventory management, and professional training in these and related areas.  http://www.apics.org

AMERICAN SOCIETY FOR QUALITY  The Milwaukee-based American Society for Quality (ASQ) maintains this site for its members and as a general source of quality management and assurance techniques and materials.  http://www.asq.org

INSTITUTE OF INDUSTRIAL ENGINEERS PAGE  This site, maintained by the Institute of Industrial Engineers (IIE) to support its members, offers source information on productivity, process design and improvement, manufacturing technologies and advances.  http://iienet.org

ISO 14000 INFORMATION CENTER  Maintained by the International Organization for Standardization in Geneva, the site offers resources for development, implementation, and maintenance of an Environmental Management System.  Related news articles are offered as well.  http://iso14000.com

MCGRAW-HILL/IRWIN OM CENTER  This site is maintained by McGraw-Hill/Irwin under the direction of Prof. Byron Finch for general support of Operations Management and related disciplines. The site also contains an excellent set of virtual plant tours illustrating many OM Principles in action.  http://mhhe.com/business/opsisci/pom

NIST BALDRIGE NATIONAL QUALITY PROGRAM  The National Institute of Standards and Technology (NIST) site describes the Malcolm Baldrige National Award program, its history, and offers brief vignettes of winners since the Baldrige Award was first bestowed in 1988.  http://quality.nist.gov

EPA POLLUTION PREVENTION PROGRAM  The site describes the U.S. Environmental Protection Agency's Pollution Prevention (P2) program. Information about P2 programs and practices, technical assistance, and environmental awareness may be found.  http://www.epa.gov/p2

MATERIAL TO BE COVERED:

For each text chapter and supplement to be discussed, you should try to work a variety of problems representative
of the chapter material. Your ability to successfully work these representative problems will indicate that you have roughly the level of quantitative knowledge needed for successful completion of the course. In general, the quantitative techniques are \textbf{ancillary} to the overall material. \textit{Your mastery of the techniques to the point where you can apply them and gain solutions to similar, but different, problems, then draw qualitative conclusions from your answers, is very important.} Other indicators, of course, are your performance on homework problems and questions assigned to be turned in, and your ability to work the sample practice exam [again successfully] under semi-testing conditions.

Notices of meetings of local professional groups (e.g., SME, IIE, APICS, et al) will be announced for your possible interest in attending. Meetings and speaker names for the monthly meetings of the Gulf Coast Economics Club will also be announced. If possible, plant tours will be arranged with a broad definition of the word "plant" being used.

\textbf{CLASS SCHEDULE:}

The class schedule will be roughly as follows, subject to juggling depending on progress. Any significant deviations to the schedule (i.e. EXAMS, etc.) will be announced in advance so as minimize surprises.

\textbf{COURSE OUTLINE AND CLASS CALENDAR}

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPICS</th>
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<tbody>
<tr>
<td>1</td>
<td>Course Introduction and Overview. Ch. 1. Competing with Operations.</td>
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<tr>
<td>2</td>
<td>Ch. 2. Project Management. Ch. 3 Process Strategy.</td>
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<tr>
<td>3</td>
<td>Ch. 4. Process Analysis.</td>
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<tr>
<td>4</td>
<td>Ch. 5. Process Performance and Quality.</td>
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<td>5</td>
<td>Ch. 6. Capacity Planning.</td>
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<td>6</td>
<td>Ch. 7. Constraint Management.</td>
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<tr>
<td>7</td>
<td>Ch. 8. Lean Systems.</td>
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<tr>
<td>8</td>
<td>MidTerm</td>
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<tr>
<td>9</td>
<td>Ch. 9. Supply Chain Design. Ch. 10. Supply Chain Integration.</td>
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<tr>
<td>10</td>
<td>Ch. 11. Location.</td>
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<td>11</td>
<td>Ch. 12. Inventory Management.</td>
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<td>12</td>
<td>Ch. 13. Forecasting.</td>
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<tr>
<td>14</td>
<td>Ch. 15. Resource Planning.</td>
</tr>
<tr>
<td>15</td>
<td>Case Study Discussions and Course Wrap-up</td>
</tr>
<tr>
<td>16</td>
<td>Final Exam</td>
</tr>
</tbody>
</table>

\textbf{HOLIDAYS (classes suspended)}

| Labor Day |
| Veteran's Day |
| Thanksgiving Holidays |
| Martin Luther King's Birthday |
| Spring Vacation |
| Memorial Day |
| Independence Day |
SPECIAL NEEDS:

Students are expected to inform the instructor within the first week of the course term of any personal circumstances that may require special consideration in meeting course requirements or adhering to course policies. Students with special needs who require specific examination-related or course-related accommodations should contact Director of Disabled Student Services, dss@uwf.edu, (850) 474-2387. Disabled Student Services will provide the student with a letter for the instructor that will specify any recommended accommodations.

UWF HONOR CODE – EXPECTATIONS FOR ACADEMIC CONDUCT:

As members of the University of West Florida academic community, we commit ourselves to honesty. As we strive for excellence in performance, integrity—both personal and institutional— is our most precious asset. Honesty in our academic work is vital, and we will not knowingly act in ways which erode that integrity. Accordingly, we pledge not to cheat, nor to tolerate cheating, nor to plagiarize the work of others. We pledge to share community resources in ways that are responsible and that comply with established policies of fairness. Cooperation and competition are means to high achievement and are encouraged. Indeed, cooperation is expected unless our directive is to individual performance. We will compete constructively and professionally for the purpose of stimulating high performance and standards. Finally, we accept adherence to this set of expectations for academic conduct as a condition of membership in the UWF academic community.

Approved UWF Faculty Senate, May 10, 1991