

## MGT 307 – OPERATIONS MANAGEMENT

Fall 2012

Section .01W, CRN: 80523

Section .03W, CRN: 82620

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**Course Description:** This course is an introduction to the concepts, principles, problems, and practices of operations management. Emphasis is on managerial processes for effective operations in both goods-producing and service-rendering organization. Topics include operations strategy, process design, capacity planning, facilities location and design, forecasting, production scheduling, inventory control, quality assurance, and project management. The topics are integrated using a systems model of the operations of an organization. Prerequisites: Junior standing, MATH 141 or 175, GBUS 302, GBUS 128 or IET 101.

### Course Objectives:

1. Students will demonstrate an understanding of the essential terminology, concepts, and problem solving of operations management design decisions including operations strategy, product design, process selection, facility layout, capacity and locations, and supply-chain management.
2. Students will demonstrate an understanding of the essential terminology, concepts, and problem solving of operating decisions including measuring and improving productivity, quality management and control, inventory and resource management, scheduling, sequencing, and project management.
3. Students will develop an understanding of the historical as well as contemporary contexts of goods producing and service providing organizations.

### Course Texts:

David Collier and James Evans. **OM<sup>3</sup>**, 2012 Edition Student Package Edition. Upper Saddle River, NJ: South-Western Cengage Learning, 2012. ISBN-13: 978-0-538-47913-4. Text only: ISBN-13: 978-0-538-47915.8.

Henry Ford. **Today and Tomorrow**. Boca Raton, FL: CRC Press, 2003. ISBN-13: 978-0-915299-36-2. This book may be found through online sources like [www.Amazon.com](http://www.Amazon.com) or [www.barnesandnoble.com](http://www.barnesandnoble.com). Also, it may be available in other editions through used book sources. Be careful when buying from unknown sources.

### Course Grading:

Calculation of the final grade will be based on two criteria. The traditional approach is:

|                                 |      |
|---------------------------------|------|
| Lesson Assignment (six lessons) | 75%  |
| Two Exams                       | 25   |
| Total                           | 100% |

The normal grading scale of 90% for an A, 80% for a B, 70% for a C, etc. will be applied.

### Lesson Assignments:

Six lesson assignments will be provided during the term. Each Lesson Assignment will include three components: a text chapter homework component, an activities component, and a Henry Ford readings assignment and discussion component.

1. The lesson written assignment or text chapter homework from each chapter in the lesson will include chapter questions, problems, and other short assignments designed to supplement the chapter topics. A problem quiz, if given, may also be included in this portion of the lesson. This part of the Lesson Assignment will be worth 65 to 70% of the lesson assignment grade depending on the nature and difficulty of the assignment.
2. The Lesson Activity will be a small research topic or an additional related topic to the chapter materials or an application of the concepts or problems in the chapter(s). The part of the assignment will be about 15 to 20% of the Lesson Assignment grade depending on the amount of work and degree of difficulty.
3. The Henry Ford Reading assignment will include two types of work. A writing assignment from the readings book, **Today and Tomorrow** by Henry Ford and discussions relating to Henry Ford readings included in the lesson but not included as a writing assignment.

The proportion of the grades for the three elements of each lesson will be 60% to 65% for the questions and problems portion, and 15 to 20% for the lesson activity, and 15 to 20% for the Henry Ford Readings assignment.

The lesson assignments will be open according to the schedule in this syllabus. Lesson assignments will be open for about three weeks with overlapping opening and closing dates. This is done to provide students more flexibility in scheduling their work and life. However, students should not postpone beginning a lesson when it opens. They should attempt to complete it ahead of the due date so that they can begin the next lesson when it opens.

Late work, if accepted, will receive a significant reduction in the scoring. In general, the highest grade that late work can receive is determined based on the lowest score attained by those who turned the assignment in on time. Students would need to provide some advanced notice and, perhaps, documentation to receive consideration for their late work to be included.

**Henry Ford Reading Assignments:** This portion of the lesson assignment will include a written assignment over one or two of the readings assigned for the lesson. This assignment is based on Henry Ford's book, **Today and Tomorrow**, the readings book for this class. The book is organized as a collection of twenty-four papers by Mr. Ford. Some topics do not really match the modern **OM** text, but many of the concepts from Ford's book may still be relevant. The instructor has tried to match selected articles/chapters with text topics where appropriate.

For this assignment student will read the required article/chapter and write a response, critique, or essay discussing the current relevance of Mr. Ford's ideas. Each paper submitted must be **at least 250 words and should not exceed 350 words**. Proper grammar and correct spelling will be evaluated in the grading process. These papers are **not** intended to be summaries of the articles but should reflect a serious consideration of the reading and what Mr. Ford was saying. While including very short paraphrase or summary statement from the article might be appropriate, longer quotations will reduce the content provided by the student and influence the grade negatively.

A response to the article/chapter might involve discussing how you feel about what you have read, what you agree or disagree with, etc. A critique will focus on an evaluation of the good and bad elements of the reading. The essay about appropriateness to today's context will address the extent to which Mr. Ford's ideas are still applicable today. This portion will be weighted at about twenty percent of the lesson grade.

**Exams:** Two exams will be used during the term. The First Exam will include chapters 1, 2, 3, 4, 5, 6, 7, 8, 10 and 11. The Second Exam will include chapters 9, 12, 13, 14, 15, 16, 17, and 18. These exams may be oriented toward terminology and concepts with an application orientation or they may use a case format. The first exam is tentatively scheduled for Friday, October 19, 2012. The second exam is tentatively scheduled for Friday, December 7, 2012.

### **Tentative Course Schedule**

Note that the lessons overlap with two lessons open at the same time during parts of the term. This is scheduled to provide more time for individual lessons and some flexibility to accommodate student schedules. The Lesson Assignments are due at 11:59 pm on the scheduled due date or closing date.

| <b>Lesson or Exam</b> | <b>Opening Date</b> | <b>Due Date/Exam Date</b> |
|-----------------------|---------------------|---------------------------|
| Lesson 1              | M, Aug 27           | Th, Sep 20                |
| Lesson 2              | M, Sep 10           | Th, Oct 4                 |
| Lesson 3              | M, Sep 24           | Th, Oct 18                |
| First Exam            |                     | F, Oct 19                 |
| Lesson 4              | F, Oct 19           | Th, Nov 8                 |
| Lesson 5              | M, Oct 29           | W, Nov 21                 |
| Lesson 6              | M, Nov 19           | Th, May 6                 |
| Second Exam           |                     | F, Dec 7                  |

### **Lessons/Topics**

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#### **Lesson 1: Introduction, Productivity, Strategy, and Competitiveness**

1. Introduction
  2. Value Chains
  3. Measuring Performance
  4. Strategy
- HF1. We Are Being Born into Opportunity  
 HF4. Are Profits Wrong?  
 HF7. What Are Standards?  
 HF9. Reaching Back to the Source?

## **Lesson 2: Product Design and Technology**

- 11. Forecasting
- 5. Technology
- 6. Product Design
- HF2. Is There a Limit to Big Business?
- HF5. It Can't Be Done
- HF10. The Meaning of Time
- HF11. Saving the Timber

## **Lesson 3: Process, Facility, and Capacity**

- 7. Process Design
- 8. Facility Layout
- 10. Capacity
- HF6. Learning by Necessity
- HF13. Wages, Hours, and the Wage Motive
- HF15. Educating for Life
- HF17. Making a Railroad Pay

**First Exam** (Chapters 1, 2, 3, 4, 5, 6, 7, 8, 10, and 11)

## **Lesson 4: Supply Chain, Inventory, and Resource Management**

- 9. Supply Chain
- 12. Inventory Management
- 13. Resource Management
- HF3. Big Business and the Money and Power
- HF12. Turning Back to the Village Industry
- HF21. What Is Money for?
- HF23. The Wealth of Nations

## **Lesson 5: TQM and Quality Control**

- 15. Quality Management
- 16. Quality Control
- HF14. The Meaning of Power
- HF16. Curing or Preventing
- HF18. The Air
- HF19. Farm Problems are Farm Problems

## **Lesson 6: Scheduling, Project Management, and Lean Operations**

- 14. Scheduling
- 17. Lean Operations
- 18. Project Management
- HF8. Learning from Waste?
- HF20. Finding the Balance in Life
- HF22. Applying Principles to Any Business
- HF24. Why Not?

**Second Exam** (Chapters 9, 12, 13, 14, 15, 16, 17, 18)

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**Format for Assignments:** Students are to use these format guidelines for all Lesson Assignment materials turned in during the semester. This includes the Chapter Assignments that are discussion questions, the Henry Ford Reading Assignments, and other assignments that are primarily text. For those assignments that include problem solutions or diagrams, strict adherence to the guidelines is not expected.

The word or page length, if any, is provided on each assignment. These usually suggest an approximate page length, like about three pages or about ten pages. These are provided to guide students in preparing their papers. However, preparing one page for a three page assignment or six pages for a ten page assignment will likely negatively impact the grade for that assignment. The word count for the Henry Ford Reading Assignments is mentioned above

Virtually all assignments must be turned in using the following format.

1. Typed, double-spaced
2. Times New Roman, 12 font (only)
3. One-inch margins on all sides: top, bottom, right and left
4. No headers or footers, except for a page number only (if desired)
5. No title page is needed, instead place your name on first line in left-hand corner (again, no headers) with a title for the assignment on the next line.
7. No underlines or *italics* (use **bold** for these requirements or preferences)
8. No special indentations or tabs
9. References should be complete (in that they can be used to find the source) and consistent. A complete reference will include author (if known), source (magazine, journal, website, etc.), date of publication (or retrieval), etc.

**General Notes about Class Activities and Media and Communications Requirements:**

This class is an online **class**. It is not intended to be an online correspondence course. Students are expected to participate in the variety of course activities in a timely matter. Although some assignments will provide for flexibility and will allow for students to work ahead, others will require activities within specific time constraints. Due dates for the chapter assignments and some other work will be overlapping to provide some level of staggering the activities. Students are expected to stay on schedule.

Late work is not acceptable. If accepted, grades will be reduced significantly for turning assignments in late. For most assignments students will be turning their assignments in using the eCollege Drop Box. Students should make sure they are able to use the eCollege functions for the work required including the drop box, discussion board and chat, Class Live Pro, etc. Although the instructor has not used Class Live Pro prior to this semester, some interaction with students is planned this term.

With respect to technology, to effectively use the Class Live Pro function, students should use and headset microphone. Faster internet connections will also improve performance. Some (actually most) of the assignments will involve problems, diagrams, and other information that is not easily presented in Microsoft WORD, EXCEL, or Powerpoint. The ability to scan some of this material may work better. Faxing some of this kind of work may also be done, but will

likely result in a delay in delivery and grading. For example, drawing a diagram on a standard sheet of paper, scanning that page, and uploading it into the drop box (or emailing it to the instructor) may make doing these assignments easier than "working them out using a WORD document." For the problems, students will be expected to "show their work," not merely give their answer. Likewise for diagrams, it is likely to be easier to scan them and send this file than it may be use the Draw function in most software. It is the student's responsibility to take appropriate actions to make sure they get their assignments done in an acceptable form.

Students are expected to produce work that is clear, easy to read, uses correct spelling and grammar, and follows the formatting guidelines for the assignments. These considerations will be included in the grading process.

In an online class, the student has to assume more responsibility for their own learning. They will have to read the material and in this class do the homework problems. Hence this course is designed and evaluated to reflect the greater responsibility that students must assume.

For some students, this course may require more work than normal. The assignments are developed with the idea in mind that students are not going to be attending a regular class plus the travel time associated with going to class. Also, the old saying of two to three hours of outside work for each hour in class was considered in developing the course. A part of this was the selection of a text that is not only significantly less expensive, but also has more concise and direct chapters than many traditional texts.

**Disability Statement:** The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

**Office of Disability Resources and Services  
Texas A&M University-Commerce  
Halladay Student Services Building  
Room 303 A/D  
Telephone: (903) 886-5150 or (903) 886-5835  
FAX: (903) 468-8148**

**Student Conduct Statement:** "All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." Students enrolled in on-line courses have the same rights and responsibilities as students in live-taught courses.

Refer to Student's Guide Book located at:

[www.tamu-commerce.edu/studentlife/guidebook.htm](http://www.tamu-commerce.edu/studentlife/guidebook.htm)

### **Comment on Academic Honesty**

There seems to be a belief among many that anything found on the Internet is free to use as one wishes. The "cut and paste" option also makes it quite tempting. However, information on the web must be properly cited just as you would any "hard copy" periodicals or books. Keep the following in mind:

1. It is generally not advisable to quote anything verbatim in a paper unless there is an overriding reason to do so, such as the use of a particular phrase or sentence that illustrates a point well and should not be changed. When you do quote directly, you must place the statement in quotes in addition to a footnote at the end of the quote (or for longer quotes, offset the quoted section). Not placing the statement in quotes implies that the wording is your own.
2. Simply changing a few words in a sentence (for example, "large" to "big") may alleviate the need for quotes (depending on how much you change), but it is not the best way to go. If you are not going to provide a direct quote, then the material should be stated in your own terms. Changing a couple of words implies laziness.
3. Every idea you get from another source must be cited. Placing 100 citations in a paper does not imply that the work is not original, but that you did a proper job of giving credit where it was due.
4. The real danger in a "cut and paste" approach to report writing is that you end up including a lot of information that is related to the topic about which you are writing, but does not really address what you are trying to say. Putting things in your own words allows you to focus your comments more effectively.
5. Material that would be considered to be common knowledge in the field (like the general strategic management model) would not likely require a citation.
6. Some papers may be graded using turnitin.com software. Any deviation from the guidelines concerning quotes and citations constitutes **plagiarism**, as it suggests that you are trying to submit someone else's work and creativity as your own. If you have any questions, please let me know.

Plagiarism represents disregard for academic standards and is strictly against University policy. Plagiarized work will result in an **"F"** for the course and further administrative sanctions permitted under University policy. Guidelines for properly quoting someone else's writings and the proper citing of sources can be found in the APA Publication Manual. If you do not understand the term "plagiarism", or if you have difficulty summarizing or documenting sources,

Papers may be reviewed electronically by Turnitin.com or a similar resource.

## **RESEARCH STUDIES/HUMAN SUBJECTS**

Procedure A15.02

Texas A&M University-Commerce recognizes the need for investigation in which human beings may serve as research subjects. The University acknowledges and accepts its responsibilities for ensuring that the privacy, safety, health, and welfare of such subjects are adequately protected. All research, which involves any form of participation of human subjects, qualifies as human subject research. This includes certain survey research, research by students as well as by faculty and staff and both internally and externally funded research.

In order to comply with federal regulations as well as to conform to guidelines of the University's Institutional Review Board (IRB), the principal investigator should obtain approval of their research protocol from the IRB prior to any contact with human subjects.

If you are using humans in any of your research, contact your professor before proceeding with the research project. A determination will be made as to the need for IRB review and approval. Contact your professor for assistance.

Lesson Assignment Rubric

| <b>Criterion</b>                                                                                                                                                                                                                                                                                                                                             | <b>Unsatisfactory</b><br>C or < C<br>Less than 80%                                                                                                                                                                                                                                                | <b>Satisfactory</b><br>B<br>80 to 89%                                                                                                                                                                                                        | <b>Exceptional</b><br>A<br>90 to 100%                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Chapter Homework Assignment:</b><br>Chapter questions, problems, activities and quizzes                                                                                                                                                                                                                                                                   | Paper does not include satisfactory responses to the questions, correct answers to the problems or failure to include including showing the work process needed to solve the problems, failure to complete a satisfactory presentation to respond to lesson activity or topic mini-research items | Paper included satisfactory responses to the questions, good responses to the problems including showing the work process needed to solve the problems, satisfactory presentation to respond to lesson activity or topic mini-research items | Paper included outstanding responses to the questions, outstanding responses to the problems including showing complete work process needed to solve the problems, Outstanding presentation to respond to lesson activity or topic mini-research items |
| <b>Henry Ford Reading Assignment:</b><br>This assignment requires a response to a reading from the book, <b>Today and Tomorrow</b> . This response is more than a summary of the article and should include more insight into the topic, an application of the concepts of the article, or a discussion of the relevance of the concepts to modern business. | Paper tend to be more of a summary of the concepts and lacks a satisfactory understanding of the topic enough to provide an application of the topic to a management or business situation or discussion of the relevance to modern business                                                      | Paper demonstrates a moderate level of understanding of the topic, inclusion of application of the topic to a management or business situation, and/or a discussion of the relevance of the concepts to modern business.                     | Paper demonstrates an outstanding level of understanding of the topic, inclusion of application of the topic to a management or business situation, and/or a discussion of the relevance of the concepts to modern business.                           |
| <b>Writing and paper process issues:</b><br>Format using instructor's preferences from syllabus<br>Style (APA)<br>Organization<br>Use of headings<br>Use of tables, graphs, charts, maps, diagrams, etc when appropriate<br>Use of appendices when appropriate<br>Provide a list of references and/or use of endnotes where                                  | Paper fails to meet guidelines of the instructor and/or has numerous grammatical and spelling errors and demonstrates a lack of use of organizational and presentation methods that can enhance the reader's ability to understand the paper.                                                     | Paper follows instructor's guidelines presented in the syllabus, uses headings and other paper organizational methods to present the material. Paper has limited grammar mistakes, misspelled and misused words                              | In addition to following the instructor's format guidelines and providing reader-oriented organization, the paper has virtually no grammatical or spelling errors and includes outstanding use of appropriate tables, graphs, etc.                     |

|                                                                                                                                                                                                                                                                                                         |                                                                                                                                           |                                                                                                                                              |                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| appropriate to the assignment<br>Proper grammar<br>Spelling<br>Appropriate use of words                                                                                                                                                                                                                 |                                                                                                                                           |                                                                                                                                              |                                                                                                          |
| <b>Other specific instructions for the paper:</b><br>Page or word length (maximums, minimums, and range)<br>Due dates<br>Use of drop box, email, or other methods to turn the work in                                                                                                                   | Student fails to get the paper in on time or has not met other instructions of the assignment referring to page length, and other issues. | Paper is turned in on time using the appropriate procedure and has followed the guidelines for length.                                       | Paper is turned in on time using the appropriate procedure and has followed the guidelines for length.   |
| <b>Threaded Discussions:</b><br>Discussions topics for this assignment will relate to selected Henry Ford readings.<br>Posts should be original and unique, that is not be repetitive with other comments<br>Replies should be meaningful and provide discussion beyond the "I agree" kind of statement | Student failed to make acceptable posts or replies as contributions to this discussion.                                                   | Students should provide two unique, original posts of reasonable quality and two replies to the posts of other students for this assignment. | Student has demonstrated exceptional work with several high-quality, unique, original posts and replies. |

Appropriate use of words would include words that may not be caught by a spell checker but are incorrectly used. For example, using the word "aboard" when you mean "abroad" or using "then" when you are comparing something and should use "than".