Syllabus: Operations Management - MGMT 3453

Dillard College of Business Administration
Midwestern State University

Contact Information

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Course Materials

- Jacobs and Chase, Operations and Supply Management, 16th ed., McGraw-Hill, ISBN: 9781259666100.
  - Recommended.
- Patterson, Management Science Programs for the IBM Personal Computer, 3rd ed., Kendall-Hunt Publishing, ISBN: 0-7872-6792-9.
  - ***Required.**
  - ***Can be purchased from MSU Book Store.***
  - ***Or purchase online at Kendallhunt.com.***

Course Description

Study of concepts, issues, and techniques for systems of production. Development of a basic understanding of the manufacturing function in industry.

Course Prerequisites

Junior or Senior standing OR consent of Department Chair

Math 1203 OR Math 1233

Learning Goals

General Learning Goals

These general learning goals are among those established by the Dillard College of Business Administration. General learning goals represent the skills that graduates will carry with them into their careers. While assessing student performance in obtaining these general learning goals, Dillard College is assessing its programs. The assessments assist us as we improve our curriculum and curriculum delivery.

- Students will practice problem-solving and decision-making skills during in-class discussions.
    - Assessment will occur on both homework assignments and course examinations.
- Demonstrate a broad understanding of the functional areas of a business entity.
- Develop analytical and critical thinking skills.

Course-Specific Learning Goals

Upon completion of the course students will have a basic knowledge of and understanding of the following components, concepts, and applications.

- A general understanding of the basic concepts, issues, and techniques of production.
- Understand the conceptual foundations of cost, volume, and profit analysis. Analysis from a capacity planning and supply chain management perspective.
- Analyze various goods and service sector issues as they relate to location analysis, facilities design, work measurement, and logistics in various production environments including product, process, and project layouts.
- Explore the role of various operations research tools, such as linear programming, PERT, break-even analysis, and transportation and inventory control models in the decision-making process.
- Analyze and compare the different prevailing operations theories, including lean manufacturing, just-in-time, total quality management, and the theory of constraints.

Course Policies

Attendance

If a student misses a regularly scheduled exam, the student must immediately notify the instructor of his/her intention to schedule a make-up exam. There is no other recourse available for a missed exam in the class. The exam dates are tentative and subject to change.

Students are required to attend every scheduled class session. Each unexcused absence that exceeds six (four in summer school) will result in a two-point deduction in the end-of-semester average grade.

Unexcused absences are defined as follows:

1. A student fails to attend class and has no approved documentation for the absence.
2. A student arrives after the class roll is taken, which will generally be recorded no earlier than 10 minutes after the scheduled start time for the class.
3. A student leaves the classroom before the class session is dismissed.

Excused absences for university-related activities, medical reasons, and traffic-related incidents must be supported by appropriate documentation.

Electronics

No electronic devices are allowed in the class. This includes computers, phones, headphones, etc. If such devices are observed during class, the student will be asked to leave the classroom which will be recorded as an unexcused absence.

Other Related Policies

If a student misses a regularly scheduled exam, the student must immediately notify the instructor of his/her intention to schedule a make-up exam. There is no other recourse available for a missed exam in the class. The exam dates are tentative and subject to change.

Syllabus Change Policy

This syllabus is a guide for the course and is subject to change.

Campus Policies

Academic Integrity

With regard to academic honesty, students are referred to the "Student Honor Creed" of Midwestern State University Undergraduate Catalog.

Americans with Disabilities Act

This class follows the guidelines suggested by Disabilities Support Services for those students who qualify for disability services. See Midwestern State University Undergraduate Catalogue, Services for Students with Disabilities.

Campus Carry Statement

Senate Bill 11 Handgun Policy -Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Areas excluded from licensed concealed carry are appropriately marked, in accordance with state law (Penal Code 30.06 signage). Please note, open carry of handguns, whether licensed or not, and the carrying of all other firearms (rifles, shotguns, etc.), whether open or concealed, are prohibited on campus. For more information regarding campus carry, please refer to the University's webpage at: MSU Texas Campus Carry.

Obligation to Report Sex Discrimination under State and Federal Law

Midwestern State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. State and federal law require University employees to report sex discrimination and sexual misconduct to the University's Office of Title IX. As a faculty member, I am required to report to the Title IX Coordinator any allegations, personally observed behavior, or other direct or indirect knowledge of conduct that reasonably may constitute sex discrimination or sexual misconduct, which includes sexual assault, sexual harassment, dating violence, or stalking, involving a student or employee. After a report is made, the office of Title IX will reach out to the affected student or employee in an effort to connect such person(s) with resources and options in addressing the allegations made in the report. You are also encouraged to report any incidents to the office of Title IX. You may do so by contacting:

Laura Hetrick

Title IX Coordinator

Sunwatcher Village Clubhouse

940-397-4213

laura.hetrick@msutexas.edu

You may also file an online report 24/7.

Should you wish to visit with someone about your experience in confidence, you may contact the MSU Counseling Center at 940-397-4618. Visit our website for more information on the University's policy on Title IX or sexual misconduct.

Grading and Evaluation:

Homework Problems

Each is a requirement of the class. You are required to complete 12 of the 17 assignments. Each homework assignment must be turned in on time. All homework is due within two weeks of the completion of lectures (one week for the summer semester) related to the homework topics, with the exception of homework assigned at the end of the semester. Due dates for end-of-semester homework will be announced. A one-point deduction from the semester average will be calculated at the end of the semester for each missing or late homework assignment.

Grades

Grades will be determined on the basis of the total points earned on four 100-point exams, the 100-point comprehensive final, and any missing or late homework assignments. A calculator may be allowed for exams and quizzes. The calculator must be a regular hand-held calculator or the desktop calculator for online exams.

Letter grades will be given according to the following scale:

- A 450-500 points (90% and above)
- B 400-449 points (80%-89%)
- C 350-399 points (70%-79%)
- D 300-349 points (60%-69%)
- F below 300 points (< 60%)

***Note: The results of your exams and homework will be posted periodically on D2L. Semester grades will be reported through normal University channels with no exceptions.**

Homework Assignments

Number	Assignment
1	Beta Manufacturing (Handout)
2	Problem 2 (Handout)
3	Clutch Engineering (Handout)
4	Location Problem I (Break-even) (Handout)
5	Location Problem 2 (Break-even) (Handout)
6	Problem I (Handout)
7	Problem 2 (Handout)
8	Page 366, Problem 8 Textbook
9	Pert Problem (Handout)
10	Page 734, Problem 4 Textbook
11	Page 733, Problem 3 Textbook
12	Billy Frank Haywood Problem (Handout)
13	EOQ Problem 1(Handout)
14	EOQ Problem 2(Handout)

Number	Assignment
15	Simulation Run 1(Handout)
16	Simulation Run 2(Handout)
17	Simulation Run 3(Handout)

Note: Homework assignments for this class are located on the Dillard server drive Y. These files may be accessed on D2L and in the Dillard computer labs on the first and third floors (146, 306, 324 and 335).

Steps to access documents:

- Computer Icon
- Coursework(Y)
- Mike Patterson
- homeworkdocuments
- opshomeworkmaster.doc

You are provided with a set of blank documents for homework. If you lose your homework copies, these may be downloaded from the computer lab server on drive Y:\coursework\MikePatterson\homeworkdocuments\opshomeworkmaster.doc and also on D2L.

Homework assignments should be e-mailed to my graduate assistant at the following e-mail address: patterson.homework@msutexas.edu

Software: The recommended software for newer computers with 32 and 64-bit operating system is: mgmtsci.exe

How to hide and unhide files

Course Schedule

Week	Operations Management
1	• Syllabus ops • Introduction
2	• Introduction (cont.) • Break-even analysis
3	• Break-even analysis (cont.) • ***Homework: problems 1-3**
4	• ***Exam 1: 02/11** • Capacity
5	• Capacity • Location

Week	Operations Management
6	• Location • Global solutions • Film: Global Solutions • ***Homework: problems 4-7**
7	• Patterns of layout • ***Exam 2: 03/06**
8	• Ford • *Film: 100 years Henry Ford Assembly 100 seconds* • Work measurement • Pert
9	• Linear programming • ***Homework: problems 8-9**
10	• Production inventory control • ***Homework: problems 10-12** • Populations
11	• ***Exam 3: 04/08** • MPS
12	• MPS • EOQ reorder
13	• EOQ reorder • MRP • ***Homework: problems 13-14** • The Goal • *Film: The Goal* • ***Homework: problems 14-17**
14	• ***Exam 4: 05/01**
15	• Just in Time • *Film: Push or Pull* • Drdreming14points • *Film: Deming* • JimSinegal • *Film: Jim Sinegal Costco*

Final Exam	• **8am Class**
	  ○ **05/15 at 8am in room 129**
	• **930am Class**
	  ○ **05/13 at 8am in room 129**

Homework Check Figures

Homework	Figures
1 Part I A	BE$ = 90,000
2	Contribution = .70 BE $ = 60,000
3 Part I	BE Units >21,000 & <22,000
3 Part II	BE Units > 24,000 & <25,000
4 Part I	IP >30,000 & <35,000
4 Part II	IP > 130,000 & < 140,000
5 Part I	200 Best Outside City, 300 Best Inside City
5 Part II	IP between 200 & 300
6	Payoff 6,350
7	Payoff 7,851
8	Expected Completion = 26.83
9	Expected Completion = 39
10	Payoff .68, B 1.846, A .538
11	Payoff 2140
12	Payoff = 416.875
13	ROI = 1.38 (138%)
14	Payoff .124 (12.4%)
15	Cumulative Cost between 75,000 & 85,000
16 & 17	Answers will vary and should go down & then up