

SYLLABUS FALL 2008
DSOM 5519 OPERATIONS MANAGEMENT

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Textbook

F. Robert Jacobs and R.B. Chase, **Operations and Supply Management**, (12th Ed.), Richard D. Irwin, Inc., 2009

MHID 0077228936, ISBN-13 9780077228934 **OR from the UMKC Bookstore JACOBS-CHASE (0390659274) PRODUCTION OPERATIONS MANAGMENT (CUSTOM) (cost about \$88).**

Course Description

The study and application of the models, methods, and computer based systems of production and operations management. Managerial approaches to planning, scheduling, and controlling cost, time, quality, production, inventory, and distribution are studied. ERP Systems, Just-In-Time, Six Sigma, Total Quality Management, Supply Chain Management, e-commerce, and other contemporary topics in operations management are introduced in this survey course. The course studies both product and service oriented organizations for general applicability.

Prerequisites: Actg. 5517, BA 5501, DSOM 5508 or equivalents. Students must possess these prerequisites or they MAY be dropped from class.

Objectives

You will appreciate and understand the strategic role and function of Production/Operations Management (POM) in modern enterprises and its contributions to organizational effectiveness and efficiency such as return on investment, profit, costs, quality, speed, flexibility, and service.

You will understand and apply POM concepts, models, and systems in improving organizational performance through improvements in productivity, processes, quality, forecasting, inventory management, and scheduling.

You will be able to apply and evaluate different strategic and tactical approaches to improving organizations through problem sets and tests

Grading Options

Your course grade will be determined from two tests, a Project, and a cumulative final examination. Option I will be used in determining your course grade unless you qualify for Options II OR III.

Option I Weights	Option II^(a) Weights (drops one test)	or Option III Weights
Class Participation 10%	10%	10%
Test I 20%	Test I 0% OR 20%	Test I 0 or 30%
Test II 20%	Test II 0% OR 20%	Test II 0 or 30%
Project 25%	Project 30%	Project 30%
Cumu. Final 25%	Cumu. Final 40% ^(b)	Cumu. Final 30%
100%	100%	

As shown above, the Project cannot be dropped in the grade calculation.

In order to qualify for Options II and III, certain homework assignments must be completed and/or special classes must be attended. Assuming you qualify for Options II and III, then that option maximizing your grade will be used for you.

Further explanation of options: Under Options II and III the cumulative final examination will be weighted more heavily as shown in the Cumulative Final row.

To calculate your grade under Option II, take each test score (e.g., a .85 on a test) times its weight (e.g., .30 for Test I). Do this for each test and add these products and then divide by the sum of the weights. This will be your test percentage (Test%) for the course. After the Final Exam percentage is known, then simply multiply the Test% times (1-Cumulative Final Weight) and add this to Final% times (Cumulative Final Weight). Here is an example: A student scores 65%, 85%, and 90% on tests I, II, and Project respectively.

Here is the calculation of her best overall test percentage under Option II where it is clear that Test I is to receive a 0% weight instead of .25:

Option II Calculation: Best Test Percentage = $(0 \cdot .65 + .30 \cdot .85 + .30 \cdot .90) / (.30 + .30) = .875$

Option III Calculation: Best Test Percentage = $(.00 \cdot .65 + .33 \cdot .85 + .33 \cdot .90) / (.00 + .33 + .33) = 0.875$

Option I Calculation: If you do not turn in written homework assignments, then here is your grade under Option I

Test Percentage = $(.25 \cdot .65 + .25 \cdot .85 + .25 \cdot .90) / (.25 + .25 + .25) = 0.80$

Again, I will calculate your grade using all options for which you qualify, then the highest grade will be selected as your course grade.

Qualifying For Options I and II.

Homework received on time will be graded either E for Excellent, S for Satisfactory, or U for Unsatisfactory – homework will be accepted and graded only once, the first time it is received. To Qualify for Options II and III you must complete 90% of all regular homework assignments on time with a grade of S or better and have a grade of E for at least 50% of those regular homework assignments (i.e., 5 out of 10 regular assignments must be an E). Late homework will be reduced by

one-half a grade (a late S will be graded S-, a late E will be graded an S). **Late homework should be avoided and will not qualify for an E under Option III.**

Class Procedures

You are urged to participate in class lectures and discussions and are expected to have studied the scheduled topic before each class. Only after comprehension of the reading assignments should homework be completed.

It is impossible to discuss all the material of a period; therefore, those who have not prepared most of the material prior to the period will not do as well as those who prepare for each class. One of the most important variables in determining your attainment towards any goal is your effort. Of all the studies and research on learning-student-instructor relationships, the most conclusive result has been the importance of student effort toward the learning goal.

Your commitment to this course consists of 6-9 hours per week over and above the time spent in the classroom (note: in summer terms, this is 6-9 hours per period!). A trivial effort spent on homework assignments will result in trivial rewards. A reasonable effort extended towards completion of homework will result in an acceptable course grade. Your guidelines of reasonable effort have been given as 6-9 hours per week.

Class Participation^{a)}

“Class participation in this course: Class attendance is required and students are encouraged to contribute to class discussions. Participation is the key to a lively class. 10% of the course grade will depend upon contributions to our class sessions. Class participation provides the opportunity to practice speaking and persuasive skills, as well as the ability to listen. Comments that are vague, repetitive, unrelated to the current topic, disrespectful of others, or without sufficient foundation will be evaluated negatively. What matters is the quality of one's contributions to the class discussion, not the number of times one speaks.

Guidelines for Evaluating Participation

Outstanding Contributor: Contributions in class reflect exceptional preparation. Ideas offered are always substantive, provide one or more major insights as well as direction for the class. Challenges are well substantiated and persuasively presented. If this person were not a member of the class, the quality of discussion would be diminished markedly.

Good Contributor: Contributions in class reflect thorough preparation. Ideas offered are usually substantive, provide good insights and sometimes direction for the class. Challenges are well substantiated and often persuasive. If this person were not a member of the class, the quality of discussion would be diminished.

Adequate Contributor: Contributions in class reflect satisfactory preparation. Ideas offered are sometimes substantive, provide generally useful insights but seldom offer a new direction for the discussion. Challenges are sometimes presented, fairly well substantiated, and are sometimes persuasive. If this person were not a member of the class, the quality of discussion would be diminished somewhat.

Non-Participant: This person says little or nothing in class. Hence, there is not an adequate basis for evaluation. If this person were not a member of the class, the quality of discussion would not be changed.

Unsatisfactory Contributor: Contributions in class reflect inadequate preparation. Ideas offered are seldom substantive, provide few if any insights and never a constructive direction for the class. Integrative comments and effective challenges are absent. If this person were not a member of the class, valuable air-time would be saved.^{»a)}

a) Source: http://www.brown.edu/Departments/Italian_Studies/dweb/pedagogy/particip-assessm.shtml

Homework Assignments

Homework assignments will be assigned regularly with the objective of providing you the opportunity of testing your understanding of current concepts and topics. Homework sets are an integral part of fulfilling the course objectives; homework will be collected and graded regularly.

Homework Requirements

Homework is due at the beginning of the class period in which it is due. Only homework that has been typed or very neatly written will be acceptable for an S or E. **In addition, your name, date, assignment number, and chapter number are to appear in the upper right hand corner of the first page of the homework assignment.** Finally, homework pages should be secured properly with either a staple or paper clip. **Homework that does not conform to these requirements will not receive an E.** If the homework assignment requires a considerable number of Greek or math symbols, then these can be handwritten into the printed pages.

I have noted that many times some students copy homework from their classmates immediately before or during class. This is inconsistent with our purpose, and when this copying is presented as being original, it is dishonest. To preclude such behavior, homework should be neatly typed. I encourage you to make handwritten notes or corrections on your neatly typed homework during lectures or discussions. When the homework is typed, then handwritten notes during class are clearly part of the in-class learning process and are encouraged. You will not be penalized for handwritten notes on your homework assignments. Again, homework is to be typed prior to class. **If you prefer to very neatly handwrite your assignments, then turn your homework in at the beginning of class.**

You will be tested upon comprehension of the homework as well as the other concepts introduced in the textbook, class discussions, and lectures. **Tests are rigorous!** Those who have not been doing their homework will find that the scheduled tests very adequately measure their knowledge. Be forewarned that trivial efforts result in trivial rewards. Copies of past tests are on the internet at <http://bloch.umkc.edu/forecast/ba519/tests/>.

It is highly recommended that you work together in groups if possible. Also, very early in the semester, you should get the telephone number of several people in this class so that if you have to be out of town or miss a class, you have someone to call for assignments. In addition, ask your classmate to collect handouts when you are not at class.

Do not regularly submit homework assignments or papers using email attachments or any other way in which I must printout your homework or papers. Such procedures are not as reliable in format and layout.

Attendance

Class attendance will be taken regularly and when you miss too many classes, it will be used in determining your grade. Unless you receive approval from me beforehand, when you miss the 7th class (4th class in the Summer) because of excused or unexcused absences, you will receive 0% for class participation. You are responsible for attendance. I will not warn you of your lack of attendance. Bureaucratically, the grade reduction will be made. In the past, students who have not attended regularly have done poorly in the course.

Grading Procedures

The following percentage breakpoints will be used to determine your course letter grade as well as a letter grade on each test.

Final Course Letter Grades

95--100 A
91--94 A-
88--90 B+
80--87 B
77--79 B-
74--76 C+
69--73 C
65--68 C-
55--64 D
Less than 55 F

Homework and Project Letter Grades

100 A+
97 A
92 A-
89 B+
84 B
78 B-
75 C+
72 C
67 C-
62 D
55 F

The highest grade on a test will be determined by me; however it often equals the highest number of points correct by one or more students. Your final course grade percentage will be calculated using the formula on page 1 of the syllabus.

WEBSITE and POWERPOINT Lecture Notes

I have copies of my lectures and past tests available to you on my website. I suggest that you periodically download these. Many of my lectures are in a powerpoint format and past tests are either msword or ascii files. You should download the lectures of a day immediately prior to studying that material.

If you do not own powerpoint, then you can print off copies of these in our computer laboratory. However, note that the CD attached to your textbook has a powerpoint reader on it. **In no case should you print out one slide per page. If you are using our computer laboratory then you should print out 3 to 6-slides per page, be sure to request pure black and white output without any builds. At home you might print 2 to 3 slides per page if you so desire, 6-slides per page seems to work fine.**

The powerpoint lecture notes are copyrighted by McGraw Hill-Irwin and myself, thus, they are to be used only in the context of your degree program at UMKC.

"If you have any questions about a disability or desire accommodation under the Americans with Disabilities Act, please contact the Office of Disabled Student Services, 235-1083."

OPERATIONS MANAGEMENT BODY OF KNOWLEDGE (THIS COURSE IS A SUBSET OF THE FOLLOWING TOPICS)

I. INTRODUCTION AND OVERVIEW OF OPERATIONS MANAGEMENT

- A. INTRODUCTION TO PRODUCTION AND OPERATIONS MANAGEMENT
- B. PRODUCTIVITY AND WORLD CLASS COMPETITIVENESS
- C. PRODUCT/SERVICE DESIGN AND PROCESS PLANNING
- D. TECHNOLOGY MANAGEMENT

II. CONCEPTS OF QUALITY MANAGEMENT – SIX SIGMA AND TQM

- A. CONCEPTS OF STATISTICAL CONTROL
- B. STATISTICAL QUALITY CONTROL
- C. SIX SIGMA AND TOTAL QUALITY MANAGEMENT
- D. CONTROLLING PRODUCTIVE SYSTEMS
- E. TOTAL EMPLOYEE INVOLVEMENT

III. MANAGERIAL PLANNING AND CONTROL CONCEPTS AND METHODS

- A. FORECASTING
- B. LINEAR PROGRAMMING WITH SIMPLEX
- C. FACILITY LOCATION AND LAYOUT
- D. SIMULATION METHODOLOGY
- E. PROJECT MANAGEMENT PERT/CPM
- F. QUEUING ANALYSIS

IV. COMPUTER BASED PLANNING AND CONTROL SYSTEMS AND METHODS

- A. SUPPLY CHAIN MANAGEMENT
- B. AGGREGATE PRODUCTION PLANNING
- C. MASTER PRODUCTION SCHEDULING

- D. DISTRIBUTION REQUIREMENTS PLANNING
- E. FINISHED GOODS INVENTORY MANAGEMENT
- F. MATERIALS REQUIREMENTS PLANNING
- G. OPERATIONS SEQUENCING AND SCHEDULING
- H. ERP SYSTEMS - INTEGRATED PLANNING, EXECUTION, AND CONTROL SYSTEMS

V. HUMAN RESOURCE MANAGEMENT

- A. TOTAL EMPLOYEE INVOLVEMENT
- B. WORK METHODS, WORK MEASUREMENT, AND JOB DESIGN
- C. LEARNING CURVES

VI. CURRENT TOPICS IN P/OM

- A. SUPPLY CHAIN MANAGEMENT
- B. ENTERPRISE RESOURCE PLANNING SYSTEMS
- D. JUST-IN-TIME DISTRIBUTION SYSTEMS (LEAN PRODUCTION)
- C. NEW PRODUCT DEVELOPMENT METHODS
- D. WORLD CLASS COMPETITIVENESS
- E. TECHNOLOGY MANAGEMENT
- F. EMPLOYEE INVOLVEMENT PROGRAMS - PEOPLE MANAGEMENT
- G. INNOVATION AND ENTREPRENEURSHIP

SCHEDULED TOPICS

PERIOD	DATE	TOPIC READING	ASSIGNMENTS
1	AUG 24	INTRODUCTION TO COURSE LEARNING CURVE	PREFACE C&A
2	AUG 26	PRODUCTION/OPERATIONS MANAGEMENT HISTORY OF POM	CHAP 1
3	AUG 31	OPER. STRATEGY AND COMPETITIVENESS	CHAP 2
4	SEP 2	PROJECT MANAGEMENT	CHAP 3
5	SEP 9	PRODUCT DESIGN	CHAP 4
6	SEP 14	PROCESS ANALYSIS	CHAP 6
7	SEP 16	MANUFACTURING PROCESSES	CHAP 7
8	SEP 21	SERVICE PROCESSES	CHAP 8
9	SEP 23	STATISTICAL QUALITY CONTROL	CHAP 9 TECH NOTE
10	SEP 28	SPECIFICATIONS VS PROCESS VARIATION	CHAP 9 TECH NOTE
11	SEP 30	PROCESS CAPABILITY ANALYSIS	CHAP 9 TECH NOTE
12	OCT 5	SIX SIGMA	CHAP 9
13	OCT 7	TEST 1	REVIEW
14	OCT 12	STRATEGIC SOURCING	CHAP 10
15	OCT 14	LOGISTICS	CHAP 11
16	OCT 19	LEAN AND JUST-IN-TIME	CHAP 12

17	OCT 21	FORECASTING - I MOVING AVERAGES & EXPONENTIAL SMOOTHING	CHAP 15
18	OCT 26	FORECASTING – II	CHAP 15
19	OCT 28	FORECASTING - III TRACKING SIGNALS AND ERROR STATISTICS ADVANCED APPLICATIONS	CHAP 15
20	NOV 2	SALES AND OPERATIONS PLANNING	CHAP 14
21	NOV 4	INDEPENDENT DEMAND INVENTORY CONTROL-I EOQ & QTY DISCOUNTS	CHAP 17
22	NOV 9	INDEPENDENT DEMAND INVENTORY CONTROL-II STATISTICAL INVENTORY MANAGEMENT	CHAP 17
23	NOV 16	INDEPENDENT DEMAND INVENTORY CONTROL-III ADVANCED APPLICATIONS	CHAP 17
24	NOV 18	TEST II	REVIEW
25	NOV 23	DEPENDENT DEMAND INVENTORY CONTROL MRP - MATERIAL REQ. PLAN. ERP SYSTEMS - MPS - CRP	CHAP 18
26	NOV 30	ENTERPRISE RESOURCE PLANNING	CHAP 18
27	DEC 2	OPERATIONS SCHEDULING JOB SHOP SCHEDULING CRITICAL RATIO, I/O CONTROL	CHAP 19
28	DEC 7	THEORY OF CONSTRAINTS	CHAP 20
29	DEC 9	REVIEW AND COURSE EVALUATION	REVIEW
30	DEC 14	CUMULATIVE FINAL EXAM PLUS MATERIAL SINCE TEST II	5:45-7:45 PM

Academic Calendar for UMKC: <http://www.umkc.edu/registrar/acal.asp#fs2009>

Final Exam Schedule: http://www.umkc.edu/registrar/exam.asp#Fall_2009

Missing a Test/Final

If because of illness or an important circumstance beyond your control you are unable to take a test when specified in the syllabus you should contact me immediately. If you receive permission from me to delay a test, then you will either have to drop that test (it will automatically become your dropped test) or you will have to take that test during finals week. Under no circumstances can a test be taken earlier than scheduled. International travel to return home earlier than the end of semester is not an acceptable reason for missing the final examination. If for some important reason you are unable to take the final examination at the time specified by the University than you will have to take an incomplete in the course and take the final examination sometime during the next semester, possibly at the end of the next semester.

Missing More than One Test

If you miss more than one test (including the final examination), then you will automatically be scheduled to take that test during the following semester – thereby receiving an incomplete during this semester.

GENERAL CLASS POLICIES

The following guidelines are provided to make your learning experience at UMKC and in this course as enjoyable and enriching as possible. Significant time and effort have been expended on my part to make your time and effort in this class as productive, purposeful, and, I hope, enjoyable as possible. If you have sufficient time to devote to this class, then I believe you will feel, after completion of the course, that we have both been successful in this endeavor.

ATTENDANCE --Students are responsible for class attendance.

--Excessive absences adversely affect grades, 7 excused or unexcused absences results in loss of one letter grade in the course grade.--All students are responsible for class assignments and class lecture materials regardless of attendance. Call a classmate. Your work schedule may require you to travel, in such cases you are responsible for getting assignments from classmates. Class sizes and the many absences of those who work preclude me from routinely giving out individual assignments. Please help and be helped by a fellow classmate in collecting handouts, taking notes, and recording homework assignments.

EXAMS--All exams will be taken on the scheduled date unless a prior arrangement is made with the instructor.

--Exams will cover the assigned materials and class lecturers.

--DO NOT MISS SCHEDULED EXAMS!!

--IF A STUDENT MISSES A SCHEDULED EXAM, HE OR SHE MAY HAVE TO TAKE THE EXAM NEXT SEMESTER AND RECEIVE AN INCOMPLETE GRADE OR MAY HAVE A LARGER PERCENTAGE OF HIS OR HER COURSE GRADE DETERMINED FROM THE FINAL. IN NO CASES WILL MAKE-UP FINALS BE GIVEN. A STUDENT MISSING THE FINAL WILL RECEIVE AN INCOMPLETE AND WILL BE REQUIRED TO TAKE THE FINAL NEXT SEMESTER.

WRITTEN ASSIGNMENTS, PROBLEMS, PROJECTS, REPORTS, ETC.

--As in "real life", written assignments are expected when due. --Late assignments will be penalized two (2) points per calendar day --Assignments submitted by mail are received when postmarked and received by Professor Stephen A. DeLurgio

Bloch School of Business Administration

UMKC

Kansas City, Missouri 64110

--All pages of assignments must be secured together (stapled or clipped), and the earned grade will be penalized for the failure of the pages to be secured.

--All written assignments must be done in good English style and grammar, and must be **LEGIBLE!!**

--Papers that already have been used in other classes can not be used in this class without prior knowledge of both teachers of said classes. Dual submittals of identical papers or papers which have contents which are significantly related must be approved prior to submittal. To submit the same or similar papers for different classes is a form of academic dishonesty and will be penalized as discussed below.

--All quoted material in any paper must be shown in full quotation marks and fully cited with appropriate footnotes or references.

--Under no circumstances can one "borrow" or use the works of others without full and open disclosures and credit for the sources of the information. To use others written or creative works with out giving full credit to the author is academic dishonesty. See the note below for the possible consequences of Academic Dishonesty.

--Students completing major or minor papers for courses should use a consistent and acceptable style sheet for all papers submitted. In almost all cases I will provide you with a handout of the acceptable style sheet of the class. When none is provided, you can assume that the style sheets used in other courses will be acceptable. In all cases, your papers should be well structured, coherent, cohesive, without significant misspellings, well documented with footnotes or references, inclusive of a cover page (with name, address, and phone number), introduction, problem statement, in depth discussion, results (where appropriate), summary and conclusion, and bibliography.

DROPPING THIS CLASS--Any student may drop this course at any time with a passing grade (WP) if three conditions are met: 1) the drop occurs before final exam week (or before the day of final exams in the summer term); 2) the student can still theoretically pass the course at that point in time; and 3) the student receives my permission to "drop".

A REMINDER ABOUT UNIVERSITY POLICY ON SCHOLASTIC HONESTY - UMKC assumes that all students are enrolled to learn; therefore, any cheating is basically at variance with the purposes of both the student and this institution. Any dishonesty detected in a course (including during examinations or in submitting plagiarized material) may result in an "F" grade in the course and may be cause for dismissal or suspension.

MAKE UP WORK--At times some students mistakenly believe that additional work can be given in order for that student to increase his or her grade. In no circumstances can individual make-up assignments be given in order to increase ones grade. My syllabus clearly defines the criteria used to assess a student's grade in this course. This criterion is used for all students except those with prior approval who must miss a scheduled examination.

FINAL NOTE--All major papers, projects and final exams will be retained by the instructor; physical possession of papers and projects by the instructor in no way affect legal rights and future use by the student authors in any subsequent application; however, any student who wants a personal copy of a project or paper should make a copy prior to submittal.

--These papers and materials will be retained up to and including the end of the eighth (8) week of the next academic term. Therefore, all questions about final grades or papers, etc., must be settled by that time.