

SYLLABUS SUMMER 2008
BA 5519 OPERATIONS MANAGEMENT

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WEBSITE: <http://bloch.umkc.edu/forecast/>

ASSIGNMENTS: <http://bloch.umkc.edu/forecast/ba519/syllabus/assignments.html>

Do not print out the total assignment page as it will frequently change.

Textbook

R.B. Chase, F. Robert Jacobs, N.J. Aquilano, **Operations Management for Competitive Advantage**, (11th Ed.), Richard D. Irwin, Inc., 2006

The Context of this Class: World Class Competitiveness – individually and collectively.

“For too long, argues Zakaria, America has taken its many natural assets — its research universities, free markets and diversity of human talent — and assumed that they will always compensate for our low savings rate or absence of a health care system or any strategic plan to improve our competitiveness. ‘That was fine in a world when a lot of other countries were not performing,’ argues Zakaria, but now the best of the rest are running fast, working hard, saving well and thinking long term. ‘They have adopted our lessons and are playing our game,’ he said. If we don’t ... start thinking strategically about how to improve our competitiveness, he added, ‘the U.S. risks having its unique and advantageous position in the world erode as other countries rise.’

Source: Thomas L. Friedman, NY Time, May 21, 2008.

<http://www.nytimes.com/2008/05/21/opinion/21friedman.html?em&ex=1211688000&en=7b8b78c1ac ea3d6c&ei=5087%0A>

Course Description

The study and application of the models, methods, and computer based systems of OM. Managerial approaches to planning, scheduling, and controlling product and service productivity, cost, time, quality, production, inventory and supply chains are studied. ERP Systems, Lean/JIT, Lean/Six Sigma, Total Quality Management, Time Based Competition /QR, Supply Chain Management, e-commerce, and other contemporary topics in OM are introduced in this survey course. The course studies both product and service oriented organizations for general applicability.

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

Objectives

Students will understand the strategic role of OM in modern enterprises and its contributions to organizational effectiveness and efficiency including return on investment, profit, costs, quality, speed, flexibility, service, and greenness.

Students will understand and apply POM concepts, models, and systems in improving costs, quality, speed, flexibility, service, and greenness.

Students will develop skills through completing homework assignments, problem sets, and tests.

Grading Options

Your course grade will be determined from two tests and a final examination.

| Option I | Weights | Option II | Weights |
|----------|---------|-----------|---------|
| Test I | 40% | Test I | 20% |
| Test II | 40% | Test II | 40% |
| Final | 20% | Final | 40% |
| | 100% | | 100% |

Option I applies to everyone. In order to qualify for Option II, certain assignments must be completed. Assuming you qualify for Option II, then that option maximizing your grade will be used for you individually.

Further explanation of options: Under Option II your first test will be weighted less and the cumulative final examination will be weighted more as shown above. I will calculate your grade using all options for which you qualify, then the highest grade will be selected as your course grade. You should hedge your grade in this class by doing the assignments sufficiently well to qualify for Option II.

Qualifying for Option II

To qualify for Option II you must complete all regular homework assignments with a grade of S or better and have a grade of E for at least 60% of those regular homework assignments (i.e., 6 out of 10 regular assignments must be an E). Specifically, you qualify for Option II by completing a homework notebook as specified at: <http://bloch.umkc.edu/forecast/ba519/syllabus/homeworknotebooks.doc>.

Class Procedures

You are urged to participate in class lectures and discussions and are expected to have studied the scheduled topic before each class.

It is impossible to discuss all the material of a period; therefore, those who have not prepared most of the material prior to class 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-teacher relationships, the most conclusive result has been the importance of student effort toward the learning goal.

Your commitment to this course consists of 4-9 hours per week over and above the time spent in the classroom (note: in summer terms, this is 4-9 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 4-9 hours per week.

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; unless announced otherwise, 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 whether given to me in hard copy or emailed before class. 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. Homework assignments do not have to be perfectly completed if they are particularly difficult; however, the extent of your effort should be clear in your submission.

I have noted that at times some students copy homework from their classmates immediately before or during class. This is inconsistent with our purposes, and when this copying is presented as being original work, it is dishonest. When homework is typed, then handwritten notes made 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.

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 linked on the assignment page.

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 two or more people in this class so that if you have to be out of town or miss a class, you have someone to call or email 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 an unexcused absence, your course grade will be reduced by one-half letter grade (e.g. from B to B- or even C to C-). You are responsible for attendance. I will not warn you of your lack of attendance. Bureaucratically, a grade reduction will be made after finals. 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 when applicable.

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 given above in this syllabus.

WEBSITE and POWERPOINT Lecture Notes

There are copies of PPT lectures and past tests available to you through the assignment page. It is suggested that you periodically download these. Many of these lectures are in a powerpoint format and past tests are either msword or ascii files.

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 do I**

think that you should 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, 3-6-slides per page seems to work fine.

The powerpoint lecture notes are copyrighted by McGraw Hill-Irwin and myself, thus, they are to 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. LEAN/JIT 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 | LINK TO ASSIGNMENTS |
|---------------|--------------|--|--|
| 1 | JUN 10 | INTRODUCTION TO COURSE LEARNING CURVE | <u>PREFACE C&A</u> |
| 2 | 10 | PRODUCTION/OPERATIONS MANAGEMENT HISTORY OF POM | <u>CHAP 1</u> |
| 3 | JUN 12 | OPER. STRATEGY AND COMPETITIVENESS | <u>CHAP 2</u> |
| 4 | 12 | PROJECT MANAGEMENT | <u>CHAP 3</u> |
| 5 | JUN 17 | PROCESS ANALYSIS | <u>CHAP 5</u> |
| 6 | 17 | PROCESS ANALYSIS | <u>CHAP 5</u> |
| 7 | JUN 19 | MANUFACTURING PROCESS SELECTION | <u>CHAP 6</u> |
| 8 | 19 | SERVICE PROCESS SELECTION AND DESIGN | <u>CHAP 7</u> |
| 9 | JUN 24 | STATISTICAL QUALITY CONTROL | <u>CHAP 8 SUPP</u> |
| 10 | 24 | SPECIFICATIONS VS PROCESS VARIATION | <u>CHAP 8 SUPP</u> |
| 11 | JUN 26 | QUALITY MANAGEMENT FOCUS ON 6 SIGMA | <u>CHAP 8</u> |
| 12 | 26 | SUPPLY CHAIN MANAGEMENT EOPS Electronic Operations Management | <u>CHAP 10</u> |
| 13 | JUL 1 | TEST 1 | <u>REVIEW</u> |
| 14 | JUL 3 | STRATEGIC CAPACITY MANAGEMENT DECISION ANALYSIS | <u>CHAP 11</u> |
| 15 | 3 | LEAN PRODUCTION JUST-IN-TIME SERVICES | <u>CHAP 12</u> |
| 16 | JUL 8 | FORECASTING MOVING AVERAGES & EXPONENTIAL SMOOTHING | <u>CHAP 13</u> |
| 17 | 8 | FORECASTING SIMPLE SEASONAL MODELS | <u>CHAP 13</u> |
| 18 | JUL | FORECASTING | <u>CHAP 13</u> |

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|----|--------|--|-------------------------|
| | 10 | FORECASTING TRACKING SIGNALS AND ERROR STATISTICS ADVANCED APPLICATIONS | |
| 19 | JUL 10 | AGGREGATE SALES AND OPERATIONS PLANNING | CHAP 14 |
| 21 | JUL 15 | INDEPENDENT DEMAND INVENTORY CONTROL-I EOQ & QTY DISCOUNTS | CHAP 15 |
| 22 | JUL 15 | INDEPENDENT DEMAND INVENTORY CONTROL-II STATISTICAL INVENTORY MANAGEMENT | CHAP 15 |
| 23 | JUL 17 | INDEPENDENT DEMAND INVENTORY CONTROL-III ADVANCED APPLICATIONS | CHAP 15 |
| 24 | JUL 17 | DEPENDENT DEMAND INVENTORY CONTROL MRP - MATERIAL REQ. PLAN. ERP SYSTEMS - MPS - CRP | CHAP 16 |
| 25 | JUL 22 | ENTERPRISE RESOURCE PLANNING | CHAP 16 |
| 26 | JUL 22 | OPERATIONS SCHEDULING JOB SHOP SCHEDULING CRITICAL RATIO, I/O CONTROL | CHAP 17 |
| 27 | JUL 24 | PROJECT COMPLETION | REVIEW |
| 28 | JUL 24 | THEORY OF CONSTRAINTS | CHAP 18 |
| 29 | JUL 29 | REVIEW AND COURSE EVALUATION | REVIEW |
| 30 | JUL 31 | TEST 2 AND FINAL EXAM | 6:00 – 8:30 PM |
| | | | |

Academic Calendar for UMKC: <http://www.umkc.edu/registrar/acal.asp#s2007>

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 this semester.

USING the OM WEBSITE

First note that this website is: <http://bloch.umkc.edu/forecast/>.

All files in this site will be either be htm, text files, MSWORD for windows, *.xls, *ppt. Note however, that either text files or MSWORD will be used for most documents except xls (excel) and ppt (PowerPoint) files. In some cases *.wk1 files will be on the website, these files are completely compatible with Excel.

Good Luck.

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.

