

LSC Use Only

Number: \_\_\_\_\_  
Action: \_\_\_\_\_  
Date: \_\_\_\_\_

UWUCC Use Only

Number: 31  
Action: \_\_\_\_\_  
Date: \_\_\_\_\_

*approved  
2/12/91*

**CURRICULUM PROPOSAL COVER SHEET**  
University-Wide Undergraduate Curriculum Committee

**I. Title/Author of Change**

Course/Program Title: MG 330 Production and Operations Management  
Suggested 20 Character Course Title: Production and Operations Management  
Department: Management and Marketing  
Contact Person: Dr. Manmohan Chaubey

**II. If a course, is it being Proposed for:**

- Course Revision/Approval Only
- Course Revision/Approval and Liberal Studies Approval
- Liberal Studies Approval Only (course previously has been approved by the University Senate)

**III. Approvals**

<u><i>Stephen W. Osh</i></u> Department Curriculum Committee	<u><i>[Signature]</i></u> Department Chairperson
<u><i>Stephen W. Osh</i></u> College Curriculum Committee	<u><i>Robert C. Long</i></u> College Dean *

_____ Director of Liberal Studies (where applicable)	_____ Provost (where applicable)
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\*College Dean must consult with Provost before approving curriculum changes. Approval by College Dean indicates that the proposed change is consistent with long range planning documents, that all requests for resources made as part of the proposal can be met, and that the proposal has the support of the university administration.

**IV. Timetable**

Date Submitted to LSC: _____	Semester to be implemented: <u>Fall 1991</u>	Date to be published in Catalog: <u>Fall 1991</u>
to UWUCC: _____		

**IV. DESCRIPTION OF CURRICULUM CHANGE**

**I. Catalog Description**

**MG 330      Production and Operations Management**

3 credits  
3 lecture hours  
0 lab hours  
(3c-01-3sh)

**Prerequisites:** MA 214, MA 121, Jr. Standing,  
College of Business or approved major.

**Corequisties:** none

Study of the process of converting an organization's inputs into outputs whether in goods producing or service industries. Provides an overview of concepts, tools, and techniques used in management of production and operations function in organizations.

### Course Syllabus

#### I. CATALOG DESCRIPTION

MG 330      Production and Operations Management

3 credits  
3 lecture hours  
0 lab hours  
(3c-01-3sh)

Prerequisites: MA 214, MA 121, Jr. Standing,  
College of Business or approved major.  
Corequisites: none

Study of the process of converting an organization's inputs into outputs whether in goods producing or service industries. Provides an overview of concepts, tools, and techniques used in management of production and operations function in organizations.

#### II. COURSE OBJECTIVES

Students will learn what every manager should know about the management of production and operations in organizations. More specifically, the course objectives are:

1. Students will learn about the concept and management of quality as competitive advantage. Use of quality circles, and Deming's and Juran's theories of quality management.
2. Students will study the approaches to product design, capacity planning and selection of appropriate technology.
3. Students will learn techniques of facility planning, selecting facility location and layout, and application of network analysis to project management.
4. Students will learn theories and methods of job design work measurement, and aggregate planning.
5. Students will learn the models and techniques of inventory management, material requirement planning, including JIT and "Kanban" methods.

**III. COURSE OUTLINE**

**A. Introduction (2 lectures)**

Overview of POM techniques and applications in manufacturing and services; systems approach to OM; Interactions and integration of OM with other functional areas; Strategic importance of OM.

**B. Quality Management (4 lectures)**

What is quality? Customer vs. producer orientation; Cost of poor quality; Quality as competitive advantage; Preventing quality problems; How to achieve excellence in quality-- Deming, Juran, etc; How the Japanese do it? Quality circles; Total quality control.

**C. Product Design and Process Selection (3 lectures)**

Manufacturing and Service sectors; Team approach to product design; Quality and product liability considerations; Product design & development sequence; Process selection and process flow analysis; Operational classification of services; Trade off presented by service-system design matrix.

**D. Managing Technology (4 lectures)**

Manufacturing technologies-- Automation, Flexible manufacturing; Service sector technologies-- Electronic fund transfer, On-line data bases, Electronic mail, Integrated communication and information systems, Bar codes; Computer Aided Design and Manufacturing; Managing Technological Change.

**E. Capacity and Forecasting (2 lectures)**

Definition of capacity; Estimating capacity for manufacturing and services; Systems approach to capacity determination; Dependence of capacity planning on accurate forecasting; Qualitative and quantitative forecasting techniques; Capacity decisions--when, where, and how much.

**F. Facility Location (3 lectures)**

Current trends in location; Qualitative and quantitative factors in location decisions; Quantitative techniques for location decision including heuristic approaches for service location decisions.

**G. Facility Layout (3 lectures)**

Facility layout considerations such as machine interference, bottlenecks, safety, flexibility, etc.; Types of layout including process layout, product layout, fixed layout, cellular manufacturing layout, and hybrid layout; Assembly line design and balancing; Material handling systems.

**H. Waiting Line Models (2 lectures)**

Discussion of various simple waiting line models and their applications in the areas such as capacity and resource planning, facility layout, service facility design.

**I. Job Design and Work Measurement (3 lectures)**

Human-machine interaction and its effects on product and process design; Job design strategies; Ergonomics and human factors considerations; Work measurement and time studies; Predetermined time standards (PMTS); Work sampling; How the Japanese do it? Emphasis on group vs. emphasis on individual.

**J. Project Management (4 lectures)**

Application of network models to project management; Critical Path Method; Program Evaluation and Review Technique; Time estimates and practical problems; Computer solutions to network problems.

**K. Aggregate Planning (2 lectures)**

Overview of medium-range aggregate planning; Parameters for the planning process; Planning strategies; Criteria for selecting aggregate plans; Mathematical models for aggregate plans--linear programming, linear decision rule (LDR), etc.

**L. Inventory Management (3 lectures)**

Concept of lot-sizing; Cost of ordering and holding inventory, and cost of shortage; Basic economic order quantity (EOQ) model and its variations; Probabilistic inventory models; Safety stock determination; Periodic review systems.

**M. Material Requirement Planning (MRP) (4 lectures)**

Purpose and philosophy of MRP; Components of MRP including bill of material (BOM), master production schedule (MPS), inventory status file; Computerized MRP.

**N. JIT System (3 lectures)**

What is JIT? "Kanban"; Comparison of JIT (Pull System) with MRP (Push System); Enforced problem solving; JIT as manufacturing philosophy.

**IV. EVALUATION METHODS**

The final grade for the course will be determined as follows:

- 60% Tests. Three tests (including final) consisting of multiple choice, true-false, completion, short answers, and/or essay.
- 25% Problem assignments, written case analyses and in-class discussions, quizzes, and/or exercises.
- 15% Research Paper and/or Project: Each student will complete a written report on a topic approved by the instructor. The report will be graded both on content and mechanic. The student, with the approval of the instructor, may opt for a project designing a part of the production or operations system for an organization. All completed work will be due by the day of the last class.

**V. REQUIRED TEXTBOOKS SUPPLEMENTAL BOOKS AND READINGS**

Textbook: Karajewski, L. J. and L. P. Ritzman, Operations management: Strategy and Analysis, (2nd edition), Readings, Mass.: Addison-Wesley Publishing Company, 1990.

Readings: Handouts will be provided. Other readings may be assigned.

**VI. SPECIAL RESOURCE REQUIREMENTS**

Computer hardware and softwares needed for analysis will be provided through the PC lab.

**VII. BIBLIOGRAPHY**

"America's Best Managed Factories," Fortune, May 28, 1984

Amstead, B.J., P.E. Oswald, and M.L. Bergman, Manufacturing Processes, (7th edition).

Buffa, E.S., and J.G. Miller, Production-Inventory Systems: Planning and Control, (3rd edition).

Collier, D.A., Service Management: The Automation of Services.

Hays, R.H., and S.C. Wheelwright, Restoring Our Competitive Edge: Competing Through Manufacturing.

Juran, J.M., and F.M. Gryna, Quality Planning and Analysis.

Makridakis, S., S.C. Wheelwright, and V.E. McGee, Forecasting: Methods and Applications.

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Martin, C.C., Project Management: How to Make It Work.

Nadler, Gerald, Work Design.

Porter, M.E., Competitive Advantage: Creating and Sustaining Superior Performance.

Schmenner, R.W., Making Business Location Decisions.

Schonberger, R.J., Japanese Manufacturing Techniques.

Vollman, T.E., W.L. Berry, and D.C. Whybark, Manufacturing Planning and Control Systems.

Weist, J.D., and F.K. Levy, A Management Guide to PERT/CPM.

**COURSE ANALYSIS QUESTIONNAIRE**

**A. DETAILS OF THE COURSE**

- A1 This course will be a required Business Administration Core course in all undergraduate degree programs in the College of Business or for minor in Business Administration. This course may also be taken by students in approved non-business majors. The course is not intended for inclusion in the Liberal Studies program.
- A2 As a result of this course, the status of MG/QB 360, Management and Production Concepts, and MG 311, Human Behavior in Organizations, will be reevaluated as part of the Business Administration Core.
- A3 This course will be offered as a mixture of lecture-discussion, case analysis, exercises, and projects as is typical of many of the survey courses in our program.
- A4 This course has not been offered before. Part of its content are covered both in MG 360 and QB 360 (Management and Production Concepts).
- A5 This course will not be a dual level course.
- A6 This course can not be taken for variable credits.
- A7 Similar courses are offered at several institutions of higher education. Course syllabi from similar courses at the following universities are attached.

Illinois State University: Production Management.  
 Pennsylvania State University: Operations Management.  
 Stanford University: Production/Operations Management.  
 University of Michigan: Production/Operations Management.  
 Washington University: Operations System Design.  
 Western Illinois University: Introduction to Operations Management.

- A8 The contents of this course are required by the American Assembly of the Collegiate Schools in Business (AACSB), the business accreditation body, as the common body of knowledge. Due to the large amount of material and the importance of the subject matter, it cannot be adequately covered as part of existing courses.

**B. INTERDISCIPLINARY IMPLICATIONS**

- B1 This course will be taught by one instructor.
- B2 Additional or corollary courses, now or later, are not needed.



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- B3 This course does not overlap with any other course at IUP outside the College of Business. For overlap with MG 360 and QB 360, see A4 above.
- B4 If the course is approved for students in the School of Continuing Education, seats for such students will be provided on a contingency basis.

**C. IMPLEMENTATION**

C1 Resources needed to teach this course:

- \* No new faculty are needed to teach this course.
- \* Current classroom and ocomputer lab space is adequate for this course.
- \* Computer software needed for this course will be covered through the Department budget.
- \* The departmental resources are sufficient to cover the needed supplies.
- \* Library resources are adequate for this course.
- \* No travel funds will be needed for this course.

C2 No grant funds are needed to provide resources for this course.

C3 This course will be offered every semester, each year.

C4 Eight (8) to ten (10) sections of this course will be offered each semester.

C5 Each section will accomodate thirty-five to forty students. The need for individual attention for case analysis and exercises restrict the number of students in each section.

C6 The business school accreditation body (AACSB) does set standards for appropriate student-teacher ratio in an institution. However, there are no such standards on an individual course by course basis.

C7 This course will be a part of the Business Administration core, required of all College of Business undergraduate majors. Due to other concurrent curriculum changes in the college of Business, this will not affect the free electives available to the majors. The requirement of this course will not affect the 124-credit program of students in the department or the College.

**D. MISCELLANEOUS**

No additional information is necessary.

COURSE SYLLABUS: OPMG 352  
INTRO TO OPERATIONS MANAGEMENT  
FALL 1989

*W. J. J. J. J.*

INSTRUCTOR: Ed Knod, Stipes 411; Phone: (309) 298-1451  
Hours: TTh 0845-0930 and 1215-1400

TEXT: Operations Management: Serving the Customer, 3d Ed.  
by R.J. Schonberger and E.M. Knod, Jr.,  
Business Publications, Inc., 1988. [ISBN 0-256-05834-2]

PREREQUISITES: None, except Junior Standing

<u>DATE</u>	<u>MATERIAL</u>
Aug 24	- Course Introduction and Administration
Aug 29 - Aug 31	- Operations Management: Redefining the word "Customer"; Some Principles for Operations; and Key Operations Management Elements [Ch 1 & 2] - Process Technology (Line vs. Staff; Automation; Robotics; Process Simplification) and People (Just how valuable is the human element in operations?) [Ch 3]
Sep 05 - Sep 07	- Demand Management and Order Processing: Discovering what's out there, and deciding how much of <u>and</u> what types of "it" we aim to provide; and getting the ball rolling to do so ... [ch 4]
Sep 12 - Sep 14	- Demand Forecasting Techniques ((1) Time Series: Pattern and "Patternless" Projections and (2) Associative Projections) Number-crunchers delight! [Ch 5]
Sep 19 - Sep 21	- Capacity Planning and Master Scheduling: Purpose and Focus (Capacity for actions and a schedule for the activities don't just happen, they result from considerable planning!) [Ch 6]
Sep 26 - Sep 28	- Production and Inventory Planning and Control (PIPC) System Overview {Recall: $P + C = M$ } - Variability and Inventory (Assets or Liabilities?) and Success Measures [Ch 7] - ** EXAM #1: 100 Points [Ch 1-7] SEP 28 **
Oct 03 - Oct 05	- Work-flow and Inventory Timing: JIT, MRP, Kanban, Micro-JIT, and buffer Stock [Ch 8]
Oct 10 - Oct 12	- Lot Sizing: Deciding How Many (GOAL: Lot Size = 1) [Ch 9] - Purchasing, Streamlining Vendor Lists, and Supplier Certification (Towards a Partnership Approach); Materials Management (Really a good idea?) [Ch 10]

- Oct 17 - Oct 19 - Continuous and Repetitive Operations: Streamlining is the Goal [Ch 11]
  - Kawasaki Motors Case (pp. 425-7)
  - Job and Batch Operations (Lead Time, Production Activity Control, and Accountability Reports) Goals: Simplify, Standardize & Streamline [Ch 12]
- Oct 24 - Oct 26 - Large Scale Operations: Projects and Limited-run-quantity, large-scale stuff, yep! [Ch 13]
- Oct 31 - Nov 02 - Quality: The OBTW, Oops!, Screwed that up!, issue
  - ... or, American business's great failure!
  - ... or, American education's great failure!
  - ... or, American government's great failure!
  - Management for Continuing Improvement (Ch 14-15) (The most important subject you'll study!)
- Nov 07 - Nov 09 - Quality (Continued)
  - \*\* EXAM #2: 100 Points [Ch 8-15] NOV 09 \*\*
- Nov 14 - Nov 16 - The Design/Operations Interface: Product Planning (Goals: Design for Quality, Producibility, Maintenance, and Simplicity) [Ch 16]
- Nov 21 - Nov 23 - Thanksgiving break: No Class
- Nov 28 - Nov 30 - Work Improvement, Standards, and Productivity; Fairness in the Necessary Quest for Productivity [Ch 17]
  - Facilities Deployment: Location, Layout, Handling & Transportation [Ch 18]
  - Maintenance Management: {Goal: Total Preventive Maintenance (TPM)} [Ch 19]
- Dec 05 - Dec 07 - Resource Assignment and the Waiting-Line Problem (Queuing Analysis and Monte Carlo Simulation) [Ch 20]
  - Operations Management Careers and Organizations; Concluding Comments [Ch 21]
- Dec 13 - Dec 14 - \*\* EXAM #3: 100 Points [Ch 16-21] \*\*
  - 1500 - 1600 for Section 41 { 9:30 TTh class} Dec 13
  - 1500 - 1600 for Section 42 {11:00 TTh class} Dec 14

**EXAM INFO:** Note that the schedule contains three exams, each worth 100 points. There are no other point-making opportunities in this course. All exam questions are multiple choice, worth two (2) points apiece. I do not believe in any "right-minus-some-fraction-wrong" scoring mumbo jumbo ... I look for correct answers; so a guess is a better "bet" than a blank (omitted) response. You have about 60 minutes for each exam. Missed exams may be made up during the second hour of your final exam time slot for this course. IF the student informs me (NLT class-time Dec 07) of an intention to sit for the make-up.

**GRADE SCALE:** I believe in some form of up-front guarantee, so I present the grade scale listed below. Any "scale slide" that occurs will be in the students' favor and of an unknown magnitude -- that is, unknown until I decide what it is to be, and I don't do that until the fat lady sings and I'm alone with my grade book. Guarantees are:

Your Point Total (YPT) = 269 Points or more	Grade: A
YPT = 239 thru 268 Points	B
YPT = 209 thru 238 Points	C
YPT = 179 thru 208 Points	D
YPT = 178 Points or less	F

**GENERAL COMMENTS:** Material is arranged with reading/study volume, your preparation for exams, and the semester schedule requirements in mind. You should strive to have material studied by the class period that it is listed (above). Due to my firm conviction that this book is "the whole truth and nothing but the truth," -- except where it isn't -- I will not stray too far from its version of Operations Management. Generally, I will cover or highlight problems in class of the types that I plan to ask on exams. As a minimum, you should be able to work problems like all of the solved problems in the text.

I do, on occasion, delve into the mysteries of contemporary heroism, buffoonery, and/or lunacy; our environment is replete with examples. I encourage you to ingest a considerable volume of general business news. Businessweek, The Wall Street Journal, Inc., and Fortune are much better for your "health" than are MTV, Hot Rod Mania, soap operas (Will Farnsworth discover Arabella's deep, dark secret?) and Harlequin romance novels (Will Arabella's secret be any of Farnsworth's damn business?). [As you can see, I'm not above trying to control your minds!]

I adhere to the philosophy that chronologically mature individuals are -- for the most part -- captains of their own destinies; responsible for their own successes and failures; and the product of their own decisions. WIU and I are not responsible for your class attendance or attentiveness to course detail; you are. You -- or your parents -- are not paying for a degree, the payment is for an opportunity for you to earn one. If you need additional practice on a technique, then assign yourself problems from the text and work them. Your exam grades are your feedback; they are your "early warning."

OPM 352  
FALL 1990

Instructor: Fred Smith

Office: Stipes 414P

Office Hrs: 5:30-6:30 Mon. & Wed. or convience of student  
(evenings)

Text: Schonberger and Knod  
Operations Management (Serving the Customer), Business  
Publications, Inc. 1988, 3rd Edition

Course Obiectives:

1. To better understand the function of operations management in the current firm.
2. To learn the language and terms currently in use for Operations Management.
3. To learn of the different areas that require entry level employees and know what will be required of them.
4. To learn of the different professional organizations and publications that are available.

Grading: There will be 4 tests of 100 points each (including the final) The final will not be comprehensive. In addition to these tests, there will be several 10 point quizzes that will be given during the semester. This is done to encourage class attendance. You will be allowed to drop one quiz grade. The balance of the quizzes will be added into the grade average. The final grade will be based on the following percentages. I reserve the right to scale the curve down if necessary. The curve will not be scaled up to your disadvantage.

90 - 100% = A  
 80 - 89% = B  
 70 - 79% = C  
 60 - 69% = D  
 Below 60% = F

4 Exams = 400 pts.

Quizzes = 10 pts each

Class PeriodClass Assignments

Aug 21st	-----	Intro & Chapter 1
Aug 28th	-----	Chapter 2
Sept 4th	-----	No Class
Sept 11th	-----	Chapter 3
Sept 18th	-----	Ch 4 & 5
Sept 25th	-----	Exam & Ch 6 & 7
Oct 2nd	-----	Ch 8 & 9
Oct 9th	-----	Chapter 10
Oct 16th	-----	Exam & Ch 11
Oct 23rd	-----	Ch 12 & 13
Oct 30th	-----	Ch 14 & 15
Nov 6th	-----	Exam & Ch 16
Nov 13th	-----	Chapter 17
Nov 20th	-----	No class (Break)
Nov 27th	-----	Ch 18 & 19
Dec 4th	-----	Ch 20 & 21
Dec 11th	-----	Final

Operations 352  
 Fall, 1989  
 Stipes 230  
 Section 43 - 8:00-9:15 TTh  
 Section 44 - 9:30-10:45 TTh

Instructor: Dr. Russell Morey, C.P.M., Professor of Management

Office: Stipes 407

Office Hours: 11:00-12:15 TTh  
 1:45-3:00 TTh  
 or  
 Convenience of student

Text: Gaither, Norman. Production and Operations Management. (The Dryden Press, 3rd Edition, 1987)

Grading: Each student will be required to successfully complete four 100 point exams (including the final). The final exam will not be comprehensive. Each exam will have 50 multiple-choice questions, each question worth 2 points. In addition, there will be a quiz every day as outlined below. Each quiz will be worth 10 points. The quiz format will be a combination of problems, multiple-choice questions, and essay questions.

The final grade of each student will be based on a percentage of total possible points as follows:

90-100%	= A	4 exams = 400 points
80-89%	= B	Quizzes = 10 points each
70-79%	= C	
60-69%	= D	
Below 60%	= F	

Course Policies:

1. There will be a ten (10) point quiz given each day throughout the semester. The quiz will be related to the associated text material and class discussion of the previous class period. During the semester, incentive plans (bonus points) will be integrated with the quizzes. There will not be any makeup quizzes including a person arriving late to class and missing a quiz. Quizzes will not be given the class period following a major exam - although everyone is expected to be in class to receive their exams.
2. Students are expected to remain in class until the class is dismissed. The only exception to this guideline is if the instructor has been notified prior to the class and the reason is justifiable. Studying for exams or other projects is not justifiable.
3. Each person is expected to take exams during the scheduled times and in the section for which they are registered. This also includes the final exam.

- 4. Each person is expected to bring a calculator and the appropriate text to class each day. Each person is also expected to bring a calculator to each exam.

Course Objective:

- 1. To develop an appreciation and understanding of the operations functions in current organizations. Many of these issues are discussed in major newspapers each week and month.
- 2. To develop an appreciation and understanding of the tools and techniques currently being used in operations management.
- 3. To become familiar with the nomenclature and concepts in operations management. This will hopefully enhance your ability to read and discuss effectively the current issues in business today.
- 4. To become familiar with the professional organizations and career opportunities in the field of operations management. This includes the opportunities in both manufacturing and nonmanufacturing organizations. As you continue to develop and mature, you should begin to evaluate those opportunities which are congruent with your career goals. A college course, for juniors and seniors, is an inexpensive way of beginning to make these decisions. This process should begin now.

Summary Comments:

This is not the easiest course you will ever have nor the most difficult. The key to being successful is to have the self-discipline of working with the course material each day. It only requires a little extra effort to be successful whether one is a student or an employee in an organization. This does, however, assume each of us has a positive and constructive attitude. Your instructor is not going to play games with you. Your instructor will work hard to present materials in a current and organized way. In return, you are also expected to work hard. A good class is a self-fulfilling prophecy: it is only as good as an instructor and students make it.



Class Assignments

Aug. 24	Introduction: Chapter 1
Aug. 29-31	OM Decisions & Forecasting Chapters 2-3
Sept. 5-7	Operations Strategy Chapter 4
Sept. 12-14	Exam
Sept. 19-21	Facilities Planning Chapters 5-6
Sept. 26-28	Facilities Planning & Capacity Planning Chapters 7-8
Oct. 3-5	Exam Inventory Management Chapter 9
Oct 10-12	Inventory Management Chapters 10-11
Oct. 17-19	Inventory Management Chapters 12
Oct. 24-26	Exam
Oct. 31-Nov. 2	Work Systems Design Chapter 13
Nov. 7-9	Quality Control Chapter 18
Nov. 14-16	Quality Control Chapter 14
Nov. 21-23	Thanksgiving Recess
Nov. 28-30	Project Management Chapter 15
Dec. 5-7	Maintenance Chapter 16
Dec. 11-15	Final Exams OM 352-43, Tues., Dec. 12, 8:00-9:50 OM 352-44, Wed., Dec. 13, 3:00-4:50

Reminder: The final exam will only include chapters 13-16.

Have a good and successful semester!

DEPARTMENT OF MANAGEMENT AND QUANTITATIVE METHODS  
COLLEGE OF BUSINESS  
ILLINOIS STATE UNIVERSITY  
Fall 1989

**COURSE:** MQM 227 - Production Management

**PREREQUISITES:** MQM 100 and MQM 220. Students must have met the prerequisites to remain in the class.

**TEXTBOOK:** Stevenson, William J., Production/Operations Management, Irwin, 1986.

**INSTRUCTOR:** Dr. Farzaneh Fazel

**TIME AND LOCATION:** Sec. 08 3:35 - 4:50 p.m. TR CVA 147

**OFFICE LOCATION:** WIH 305

**OFFICE HOURS:** 11:00 - 12:00 TR or by appointment

**OFFICE PHONE:** (309) 438-3883 Messages: 438-5701

**OBJECTIVES:**

To provide an understanding of the operations manager's responsibilities in service as well as manufacturing industries. To discuss the decision problems faced by an operations manager, and to demonstrate the application of qualitative and quantitative methods and analytic tools to decision making process.

**CRITERIA FOR EVALUATION:**

Course Grade - The course grade will be based on exam scores and class participation as follows:

Examination #1	30 points
Examination #2	30
Examination #3	30
Comprehensive Final Exam	43
Participation	7
Total	<u>140</u> points

Letter grades are only assigned at the end of the semester, when all course exams and participation points are determined.

<u>Point Range</u>	<u>Grade</u>
126 - 140	A
112 - 125.5	B
98 - 111.5	C
84 - 97.5	D
0 - 83.5	F

The above cutoff points may be slightly lowered, based on the class performance, at the end of the semester.

**NOTE:** NO MAKE-UP EXAMS WILL BE GIVEN. You must take the exams on the specified date and time.

**MATERIAL COVERAGE:**

Students are responsible for the subjects covered in the lectures, and all assigned textbook materials, even though they may not be completely covered in class. You can only skip the text materials which have been explicitly omitted by the instructor.

You are expected to: 1) initiate a discussion about the subjects you may not fully understand, 2) bring your textbook and a working calculator to class at all times, and 3) purchase a Compucard for solving some of the assigned homework problems on the microcomputers located in the Williams Hall Labs.

**HOMEWORK:**

You are required to do the homework which will be assigned on a regular basis, even though it will not be collected and graded. Some of the assigned problems will be discussed in class after the due date.

**PARTICIPATION:**

Participation is evaluated based on the following:

- a. attendance;
- b. being prepared for class, answering questions, and posing meaningful questions and comments related to the lectures and problems.

If you believe you have a reasonable excuse for missing a class, indicate that on a 3x5 index card and hand it to my assistant. Include the following information on the card:

- your name and Social Security number;
- section number;
- date on which class was missed;
- reason for missing the class.

**COURSE CALENDAR:**

<u>WEEK</u>	<u>DATE</u>	<u>TOPIC</u>	<u>ASSIGNMENT</u>
Week 1	Tues., Aug. 22 Thur., Aug. 24	Introduction POM	Ch. 1
Week 2	Tues., Aug. 29 Thur., Aug. 31	POM and Decision Making Linear Programming	Ch. 1 & 2 Sup. to Ch. 2
Week 3	Tues., Sep. 5 Thur., Sep. 7	LP Graphical Solution Computer Analysis of LP	Sup. to Ch. 2 Sup. to Ch. 2
Week 4	Tues., Sep. 12 Thur., Sep. 14	LP (continued) EXAM #1	Sup. to Ch. 2
Week 5	Tues., Sep. 19 Thur., Sep. 21	Forecasting Forecasting	Ch. 3 Ch. 3
Week 6	Tues., Sep. 26 Thur., Sep. 28	Forecasting Forecasting	Ch. 3 Ch. 3

Name: F. Fazel  
Course: MQM 227  
Fall 1989

COURSE CALENDAR: (Continued)

<u>WEEK</u>	<u>DATE</u>	<u>TOPIC</u>	<u>ASSIGNMENT</u>
Week 7	Tues., Oct. 3 Thur., Oct. 5	Capacity Planning Location Planning	Ch. 4 Ch. 5
Week 8	Tues., Oct. 10 Thur., Oct. 12	Transportation Methods EXAM #2	Sup. to Ch. 5
Week 9	Tues., Oct. 17 Thur., Oct. 19	Transportation Methods Transportation Methods	Sup. to Ch. 5 Sup. to Ch. 5
Week 10	Tues., Oct. 24 Thur., Oct. 26	Facilities Layout Facilities Layout	Ch. 7 Ch. 7
Week 11	Tues., Oct. 31 Thur., Nov. 2	Facilities Layout Facilities Layout: An Inter- national Perspective Film: "Hightech: Dream or Nightmare"	Ch. 7
Week 12	Tues., Nov. 7 Thur., Nov. 9	Aggregate Planning EXAM #3	Ch. 9
Week 13	Tues., Nov. 14 Thur., Nov. 16	Aggregate Planning Inventory Management	Ch. 9 Ch. 10
Week 14	Tues., Nov. 21 Thur., Nov. 23	Inventory Management NO CLASSES - THANKSGIVING HOLIDAY	Ch. 10
Week 15	Tues., Nov. 28 Thur., Nov. 30	Inventory Management Inventory Management	Ch. 10 Ch. 10
Week 16	Tues., Dec. 5  Thur., Dec. 7	MRP and Inventory Management: An International Perspective Film: "Stockless Production" MRP and JIT	  Ch. 11 Ch. 11
	Mon., Dec. 11	<u>FINAL EXAMINATIONS BEGIN</u>	

Section: 08, Day: Thur., Dec. 14, Time: 3:10 p.m.

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DEPARTMENT OF MANAGEMENT AND QUANTITATIVE METHODS  
COLLEGE OF BUSINESS  
ILLINOIS STATE UNIVERSITY  
Fall 1989

**COURSE:** MQM 227 - Production Management

**PREREQUISITES:** MQM 100, 220. Students must have met the prerequisites to remain in the class.

**TEXTBOOK:** Stevenson, William J., Production/Operations Management, Irwin, 1986.

**INSTRUCTOR:** Dr. Paul S. Park

**TIME AND LOCATION:** Sec. 01: 9:35 TR WIH 314  
Sec. 05: 12:35 TR WIH 21  
Sec. 07: 2:00 TR WIH 128

**OFFICE LOCATION:** WIH 204

**OFFICE HOURS:** 8:30 - 9:30, 11:00-11:30 TR and by appointment

**OFFICE PHONE:** 438-2165

**OBJECTIVES:**

MQM 227 is an introductory course concerned with the "production" or "operations" functions of an enterprise. The operations function is the goods or service producing activity in any enterprise, public or private, profit or non-profit. The basic mission of MQM 227 is to provide an understanding of how the design, operations and control of systems can most effectively provide goods and services. This understanding is important both for students who will go on to study operations management in greater depth and those whose career plans are in other areas. This course also provides the basic understanding of manufacturing systems in foreign countries, especially Japan.

**CRITERIA FOR EVALUATION:**

1st Midterm	100
2nd Midterm	100
Final	100
Quizzes	90
Class Participation	10
	<u>400</u>

No Make-up exams will be given. Students must take the exams on the specified date. No make-up quizzes will be given. Quizzes are usually given at the end of each topic. Each student should be prepared by bringing a calculator and pencil. Sometimes quizzes can be small projects using microcomputers. Eleven quizzes will be given throughout the semester and the best nine out of eleven quizzes will be counted.

**\*\* If a student misses more than four classes, they cannot pass this course.**

**COURSE CALENDAR:**

<u>WEEK</u>	<u>DATE</u>	<u>TOPIC</u>	<u>READING ASSIGNMENT</u>	<u>PROBLEM ASSIGNMENT</u>
Week 1	Tues., Aug. 22 Thur., Aug. 24	Introduction Decision Making Process	Chapter 1 Chapter 2	1,2,3,4
Week 2	Tues., Aug. 29 Thur., Aug. 31	Linear Programming Linear Programming	Chapter 2 Supplement	1,2,3,4 5,6
Week 3	Tues., Sep. 5 Thur., Sep. 7	Forecasting Forecasting	Packet	7-17,18-23 24,26,30,31
Week 4	Tues., Sep. 12 Thur., Sep. 14	Forecasting Forecasting		34,38,39
Week 5	Tues., Sep. 19 Thur., Sep. 21	Capacity Planning Review	Chapter 4	1,2,6,8
Week 6	Tues., Sep. 26 Thur., Sep. 28	1st Midterm Exam Facility Layout	Chapter 7 & Packet	
Week 7	Tues., Oct. 3 Thur., Oct. 5	Facility Layout Facility Layout		1-5 9,12,13
Week 8	Tues., Oct. 10 Thur., Oct. 12	Aggregate Planning Aggregate Planning	Chapter 9 & Packet	1,2,3,4,5 in Packet
Week 9	Tues., Oct. 17 Thur., Oct. 19	Inventory Management Inventory Management	Chapter 10	1,2,4,5,7 9-12,14-16
Week 10	Tues., Oct. 24 Thur., Oct. 26	Inventory Management Review		18,25,26,28
Week 11	Tues., Oct. 31 Thur., Nov. 2	2nd Midterm Exam MRP	Chapter 11 & Packet	2,4,5,6
Week 12	Tues., Nov. 7 Thur., Nov. 9	MRP MRP		7,8
Week 13	Tues., Nov. 14 Thur., Nov. 16	Scheduling Scheduling	Chapter 12	1,2,3 6,7,8,9
Week 14	Tues., Nov. 21 Thur., Nov. 23	NO CLASSES - THANKSGIVING HOLIDAY		
Week 15	Tues., Nov. 28 Thur., Nov. 30	Scheduling Project Management	Chapter 13	10,12,13 2,3,5
Week 16	Tues., Dec. 5 Thur., Dec. 7	Project Management Project Management		7,9,10 13,14
	Mon., Dec. 11	<b>FINAL EXAMINATIONS BEGIN</b>		
	Section: <u>01</u>	Day: <u>Tuesday, December 12</u>	Time: <u>7:50 a.m.</u>	
	Section: <u>05</u>	Day: <u>Thursday, December 14</u>	Time: <u>7:50 a.m.</u>	
	Section: <u>07</u>	Day: <u>Monday, December 11</u>	Time: <u>1:00 p.m.</u>	