

PLEASE READ THIS MEMORANDUM OF UNDERSTANDING THOROUGHLY BY JANUARY 15TH, 2008

**COURSE NUMBER: MBA 607-51
COURSE TITLE: THE OPERATIONS FUNCTION
SEMESTER: SPRING 2008 (First Session)
MEMORANDUM OF UNDERSTANDING (MU)**

PLACE

Class sessions will be held in 204 Joseph M. Bryan School of Business and Economics.

TIME

2:00 p.m. to 3:15 p.m. on Tuesdays and Thursdays.

FACULTY MEMBER

Vidyaranya B. Gargeya

E-Mail: VBGARGEY@UNCG.EDU

Department of Information Systems and Operations Management

437, Joseph M. Bryan School of Business and Economics

Phone Numbers: (336) 334-4990 (Work) (336) 334-4083 (Fax) (336) 545-9263 (Home)

APPOINTMENT TIME

3:30 p.m. to 4:30 p.m. on Tuesdays and Thursdays. You are encouraged to stop in during office hours to talk about any problems or suggestions you may have concerning the course, careers, benefits of advanced courses in operations management, or things in general. If you want to talk to the professor and find the appointment hours to be inconvenient, feel free to schedule any other appointment time.

CATALOG DESCRIPTION OF THE COURSE

The course examines design, operation, and control of organizations. Procedures and quantitative techniques to analyze and critique present operations and develop improved operations are presented.

DESCRIPTION OF THE COURSE

The course is an introduction to the managerial processes underlying operations management in both service-providing and goods-producing organizations. Specific topics to be covered include process design, capacity planning, facilities location and design, application of forecasting in operations, aggregate planning, inventory management, and quality management. To the extent relevant and feasible, the material presented will include ethical and global issues, the influence of political, social, legal, and regulatory, environmental, technological issues, and the impact of demographic diversity with respect to the operations of the organization. The topics will be integrated using a systems approach to the operations of an organization.

READING MATERIALS

Ritzman, L. P. and Krajewski, L. J. (2003). Foundations of Operations Management. Upper Saddle River, NJ: Pearson Education, Inc. ISBN # 0-13-008521-9.

The book can be purchased at the UNCG Bookstore (at the Elliott University Center). **Please make sure there is a CD-ROM attached to the book.** Students should read the required materials prior to attending each class session. Students should also become familiar with the OM Explorer software on the CD, and the text website: www.prenhall.com/ritzman. Students should have the reading materials for each class session.

PRE-REQUISITE COURSES

MBA 600 (Business Statistics). For a student to do well in the MBA 607 course, it is not just adequate if the student has taken the Business Statistics course. It is more important that the student be thorough with the MBA 600 material, such as Probability, Normal Distribution, etc. It is the responsibility of the student to prepare himself/herself adequately in these areas. The concepts and principles covered as part of the MBA 600 course will not be covered in MBA 607. However, the applications of these principles to the operations function will be dealt with the MBA 607 course. Certain quantitative topics will be introduced in MBA 607, but quantitative techniques for their analysis will be developed in the Management Science (MBA 618) course. The Global Operations Strategy (MBA 627) course will include concepts learned in the MBA 607 course; however the emphasis will be on strategic implications for the firm.

GRADING

The course grade is based on two in-class written exams, and a term paper (done individually or in groups of two students per group). Grades are based on the following "absolute" scale (i.e., there will not be any "curving").

	<u>Points</u>	<u>Date</u>
First Written Case Analysis	25	January 31 st , 2008 (Due)
First in-class written exam	50	February 5 th , 2008 (75 minutes)
Second Written Case Analysis	25	February 12 th , 2008 (Due)
Second in-class written exam	50	February 19 th , 2008 (75 minutes)
Term paper	100	February 26 th , 2008 (Due)
Third in-class written exam	50	February 28 th , 2008 (75 minutes)

TOTAL	300	

A \geq 270; A- \geq 260; B+ \geq 250; B \geq 240; B- \geq 230; C+ \geq 220; C \geq 210; F < 200.

IN-CLASS WRITTEN EXAMS

Each in-class written exam (of 75 minutes duration) will include five short answer questions (i.e., multiple choice, true/false, and brief discussion questions) and two problems (which will involve computations). The exam content will be drawn from the text book, vignettes, video films, and class discussions using the objectives listed in the schedule of sessions as a general guideline. The in-class exams are closed-book, and closed-notes.

RE-EXAMINATION POLICY

As a rule, re-examinations will not be held. Absence from the in-class written examinations due to illness, summons to jury duty, or any other compelling reason should be backed by the appropriate documents (e.g., medical certificate, etc.) in order to qualify for a re-examination. If possible, meet/talk with the professor before missing the examination to discuss the circumstances.

WITHDRAWAL DATE

The last date to drop the course without academic penalty is February 8th, 2008 (Friday). However, students in the Full-Time Day MBA who withdraw cannot continue their studies with the cohort group and may have to join the next cohort group in the following year.

MINI-CASE ANALYSIS

Each student is to submit a written analysis two mini-cases provided in the Case section of the CD-ROM of the text book. Unless otherwise instructed, the individual should take on the role of a manager who has been assigned to review the issue(s) of concern or interest to the firm which are presented within the case. The written analysis is his/her report and recommendations on that/those issue(s) paying particular to the questions that are asked at the end of each case. Many of the marks beyond a "passing score" depend on the student's ability to go beyond the "average" solution/answer and provide innovative perspectives, approaches, or solutions. If you need to make assumptions to accomplish this, feel free to do so and appropriately incorporate them in your written analysis. Discuss the issues in detail.

Students should work on this written analysis on an individual basis (and not as a group). Individuals should neither seek nor receive help from friends and family in completing this written analysis. The written analysis should be typed (maximum 12 point size lettering), double-spaced on 8.5" by 11" paper, and appropriately paginated. No minimum or maximum length is specified, although the written analysis should not typically exceed 5 pages in length. Individuals are requested to refrain from repeating the details provided in the case (just to fill up space) in their written analysis. That is, individuals are requested to cover the topics thoroughly, but efficiently. Do not add verbiage for the sake of length. Feel free to include diagrams, or other types of illustrations in your written analysis. Oversized charts or drawings should be folded to fit the rest of the paper. References should be appropriately cited in the written analysis. In preparing the written analysis, write from an objective view, in third person. Do not use the words "I", "We", or "You". Use subheadings to correspond with specific issues posed for the individual case. It should be noted that appropriate credit will be given for those individuals who are in a position to integrate their analysis with readings presented outside the case. The written analysis will be graded on organization, thoroughness (depth and breadth of coverage of material), insight of analysis, and written communication skill. The questions that need to be addressed are given at the end of the mini-case. Each student should attest to the statement that "I HAVE ABIDED BY THE ACADEMIC HONOR POLICY ON THIS ASSIGNMENT" on a separate cover page of the mini-case analysis assignment. The cover page should also include the number and title of the course, title of the paper, and name(s) of student(s). The individual mini-case analyses are to be submitted at 2:00 p.m. on the respective dates as per the following schedule. Late submissions will not be accepted.

<u>Mini-Case Number</u>	<u>Title of Mini-case</u>	<u>Due Date</u>
1	Jo�e's Authentic Mexican Restaurant	January 31 st , 2008
2	Fitness Plus, Part A	February 12 th , 2008

TERM PAPER

Each student team (consisting of two students) is to write a paper relating one of the following topics to the Longwood Elastomers in Wytheville, VA:

- 1) Plant Level Performance Measures
- 2) Quality Management
- 3) Product Design
- 4) Managing Technology
- 5) Long Range Capacity Planning
- 6) Facility Layout
- 7) Work Design (Machine and Human Interaction)
- 8) Supply Chain Management
- 9) Inventory Management
- 10) Aggregate (Medium Range Capacity) Planning
- 11) Master Scheduling and Materials Requirements Planning
- 12) Lean (Just-in-Time) Systems

For facilitating a better understanding of the subject matter being studied, a plant tour to the Longwood Elastomers facility (in Wytheville, Virginia) is being arranged from 10:00 a.m. to 2:00 p.m. on February 1st, 2008 (Friday). It will be a day-long trip on a bus. The bus will be leaving the Bryan Building at 7:00 a.m. on that day. The plant tour is a compulsory requirement for the course. The paper would entail a good review of the literature (at least 8 to 10 relevant articles and books) on that subject and an analysis of that aspect as it relates to that organization. The review of the literature could be based on articles published in Production and Inventory Management Journal, Journal of Operations Management, International Journal of Operations & Production Management, Quality Progress, Industrial Management & Data Systems, and other relevant journals. A one-paragraph abstract (which includes the title of the paper, specific topic from the course, how the topic relates to Longwood Elastomers and a short bibliography) should be submitted to the faculty member at the beginning of the class period on January 22nd, 2008. A list of questions/issues for the visit should be submitted to the professor at the beginning of the class period on January 29th, 2008. For preparing the set of issues/questions, feel free to obtain some information about Lonwood Elastomers from the <http://www.longwood-elastomers.com/home.html> website. The following outline should be used for the term paper: Abstract, Introduction, Review of the Literature (including a summary/framework of how you plan to relate the subject matter to Longwood Elastomers in the fifth section of the paper), Details of the Organization, Findings (as they relate to the framework presented in the third section of the paper), Conclusions, and References. In addition to analyzing the topic as it exists in the organization, the paper should make recommendations for improvement in the concluding section. In general, the paper should be written from the point of view of an objective management consultant, who is writing for an audience that is familiar with the principles, concepts, decision/problem areas, and techniques of managing operations (at the level of MBA 607), but is not familiar with the specific organization being analyzed.

Each student team is encouraged to develop the outline of each section of the paper as we progress through the course. This approach will not only reinforce your learning in preparation for exams, but also distribute the work associated with the term paper more evenly over the semester. Feel free to discuss your term paper with the faculty member as it is being developed. The paper should be typed (maximum 12 point size lettering), and double-spaced on 8.5" by 11" paper. No minimum or maximum length is specified, although the papers are typically 15 to 25 pages long. Cover the topics thoroughly, but efficiently. Do not add verbiage for the sake of length. Include diagrams, photos, sketches, or other types of illustrations that will clarify your presentation. Citations should appropriately referenced at the end of the paper, and pages, tables, figures should be appropriately numbered. Excellent papers will be entered into the 2008 APICS Student Paper Competition.

The term paper will be graded on organization, thoroughness, insightfulness of analysis/recommendations, and written communication skill. It is highly recommended that a project management approach be taken for ensuring the timely completion of the paper. The term paper is to be submitted at the beginning of the session on February 26th, 2008. Late submissions will not be accepted. Each student/member of the group should attest to the statement that "I/WE HAVE ABIDED BY THE ACADEMIC HONOR POLICY ON THIS ASSIGNMENT" on a separate cover page of the term project assignment. The cover page should also include the number and title of the course, title of the paper, and name(s) of student(s).

PEDAGOGIC APPROACH

Lectures, video films, and situation vignettes will be used. The "lecture" sessions will rely on the "Socratic" method to the extent possible. All students are expected to attend each class session. If a student misses a specific class session, it is her/his responsibility to cover the topics so missed. Material covered in a previous class will not be repeated in a subsequent class. The schedule of sessions on the memorandum of understanding (MU) contains a listing of topics and assignments to be covered in the respective sessions. For a better understanding of the course content, each student should prepare for the topics and assignments (listed in the MU) prior to the appropriate class session. Each student should be prepared to discuss the assigned readings for each class session. On an individual basis, each student may wish to work on the problems and questions and turn it in for checking by the professor. That would improve the effectiveness and efficiency of your learning process in a seven-week module. This would also certainly assist you in preparing better for the

course and exams. The assigned questions given in the MU are only representative of the type of questions that can be expected on the exams. The list of questions is not an exhaustive one. The MU is a general plan for the course; deviations may be necessary.

TECHNOLOGY APPLICATIONS

There would be some coverage of technological advances relating to the operations function in the course.

ETHICAL PERSPECTIVES

There would be minimal coverage of the ethical issues as they relate to the course.

GLOBAL PERSPECTIVES

The global environment and its impact on operations is being felt more and more in the current economy. There would be some coverage of these global perspectives in this course.

POLITICAL, SOCIAL, LEGAL, ENVIRONMENTAL, AND REGULATORY ISSUES

Political, social, legal, environmental, and regulatory issues, to the extent applicable, will be covered in this course. It is anticipated that the coverage would be minimal.

IMPACT OF DEMOGRAPHIC DIVERSITY

There would be minimal coverage of this issue in the course.

COGNITIVE COURSE OBJECTIVES

Upon completing the course, the student should be able to:

- 1) Differentiate between productivity, effectiveness, efficiency, and other performance measures for operations management in manufacturing and service organizations.
- 2) Explain the factors that make a service operation more difficult to manage as compared to a manufacturing operation.
- 3) Compare and contrast the different types of conversion systems (i.e., project, job shop, mass production, and continuous process) in manufacturing and service organizations.
- 4) Use project management techniques to execute a project.
- 5) Develop and use a process control chart for managing quality.
- 6) Understand the role played by total quality management in manufacturing and service organizations.
- 7) Explain the meaning of economies of scale and economies of scope in terms of gaining a competitive advantage.
- 8) Distinguish between long range, intermediate range, and short range capacity planning in operations management in manufacturing and service organizations.
- 9) Identify the factors that influence the location of service and manufacturing facilities.
- 10) Identify the important aspects and issues related to facility design decisions in manufacturing and service organizations.
- 11) Understand the role of a forecasting system in the operations of an organization.
- 12) Describe the typical objectives and constraints in the aggregate planning problem related to both manufacturing and service organizations.
- 13) Differentiate the inventory management concerns between dependent demand items and independent demand items in manufacturing and service organizations.

- 14) Compare and contrast a Manufacturing Resource Planning (“MRP II” or “Push”) system and a Just-In-Time/Total Quality Management (“JIT/TQM” or “Pull”) system.
- 15) Discuss the role of Enterprise-wide Resource Planning (ERP) Systems in organizations in general, and supply chain/network management in particular.
- 16) Acquire a thorough understanding of the inter-relationships between the operations function and other functional areas (such as marketing, finance, etc.) in order to effectively participate in a multi-functional task force in an organization for meeting specific corporate, business unit, and functional objectives from an operations standpoint.

BIOGRAPHIC SKETCH OF FACULTY MEMBER

Vidyaranya B. Gargeya is a Professor in the Department of Information Systems and Operations Management Department in the Joseph M. Bryan School of Business and Economics at the University of North Carolina at Greensboro. He holds a bachelor's degree in Chemical Engineering from Andhra University, Visakhapatnam (India), a Post Graduate Diploma in Management from the Indian Institute of Management, Bangalore, and a Ph.D. in Business Administration from Georgia State University. He has considerable work experience as an engineer and manager in the petroleum industry. Dr. Gargeya has taught at the University of Strathclyde (Glasgow, Scotland), Fachhochschule-Ludwigshafen (Germany), University of Hartford, Georgia State University, and the Jamnalal Bajaj Institute of Management Studies, University of Bombay (India). His teaching and research interests include Operations Management, Global Operations Strategy, Total Quality Management, Supply Chain Management, and Service Operations Management. He has published in journals such as *Journal of Operations Management*, *Technovation*, *Transportation Research (Part E)*, *The Journal of the Textile Institute*, *Business Process Management Journal*, *International Journal of Production Research*, *Omega*, *International Journal of Quality and Reliability Management*, *Case Research Journal*, etc. Dr. Gargeya served on the Board of Examiners of Malcolm Baldrige National Quality Award and the North Carolina Awards for Excellence and has also consulted with Fortune 500 companies.

SCHEDULE OF SESSIONS

SESSION #	DATE	TOPICS AND ASSIGNMENTS
1	1/15	<p>PLEASE READ THE MEMORANDUM OF UNDERSTANDING</p> <p>INTRODUCTION TO OPERATIONS MANAGEMENT Chapter 1 (Competing with Operations). Chapter 2 (Process Management): Problems 5 and 6 (Extra problems given in Supplement A on CD-ROM, Problems 1-11). Video Film: Manufacturing Processes (10 minutes).</p>
		<p>WORK ON YOUR OWN! 1) Describe the main elements of an “Operations Systems” model (also identified as the “Operations and Processes” model on page 3 of the text book).</p>
		<p>WORK ON YOUR OWN! 2) What are the primary differences between manufacturing and service operations?</p>
		<p>WORK ON YOUR OWN! 3) Give examples of Engineering-to-Order, Make-to-Stock, Assemble-to-Stock, Make-to-Order, and Assemble-to-Order Operations.</p>
		<p>WORK ON YOUR OWN! 4) Compare and contrast the different conversion processes (i.e., project, job shop, mass production, and continuous process).</p>
		<p>WORK ON YOUR OWN! 5) Be prepared to calculate the break-even volume for a process.</p>

SESSION #	DATE	TOPICS AND ASSIGNMENTS
2	1/17	<p>MEASURES OF PERFORMANCE Chapter 1 (Competing with Operations, pp. 7-8). Video Film: U. S. Postal Service (6 minutes).</p> <p>WORK ON YOUR OWN! WORK ON YOUR OWN!</p> <ol style="list-style-type: none"> 1) What is the most simple and general form of the "productivity" formula? 2) Differentiate between a partial measure of productivity (such as labor productivity or machine productivity), multifactor productivity, and total factor productivity. 3) Explain the difference between productivity, effectiveness, and efficiency. 4) Briefly describe the "Journey to Excellence" Model. 5) By making use of the facts presented in the video film on the U. S. Postal Service, identify the inputs and outputs of the system. Does the system represent a manufacturing or service operation? What is the productivity of the system being described in the film? 6) How might one construct a productivity index for the Joseph M. Bryan School of Business and Economics?
3	1/22	<p>SUBMISSION OF ABSTRACT OF TERM PAPER</p> <p>PROJECT MANAGEMENT Chapter 3 (Managing Project Processes): Problems 1-3. Mini-Case: The Pert Studebaker Case.</p> <p>WORK ON YOUR OWN! WORK ON YOUR OWN!</p> <ol style="list-style-type: none"> 1) Understand the importance of project management. 2) Identify the three fundamental objectives in managing projects. 3) Differentiate between Gantt charts and networks. 4) What is the difference between Activity-On-Node and Activity-On-Arrow networks? 5) Given the requisite information, be prepared to develop an Activity on Node or Activity on Arrow network, identify the critical path(s) for a project, and discuss mechanisms for "crashing" a project. 6) Be prepared to discuss (with calculations, diagrams, etc.) the "The Pert Studebaker Case" given in the Cases Section of the CD-ROM of the text book.

SESSION #	DATE	TOPICS AND ASSIGNMENTS
4	1/24	<p>QUALITY Chapter 5 (Quality): Problems 7, 9, 11, and 12. Video Film: Quality (10 minutes).</p> <p>WORK ON YOUR OWN! 1) How would you define the quality for a product and/or a service? 2) Describe the tenets/facets of Total Quality Management as they relate to Motorola, Zytec, and Hewlett-Packard as seen in the video film on “Quality”. 3) Identify briefly the contributions of Deming, Juran, and Crosby in the quality movement.</p> <p>WORK ON YOUR OWN! 4) Distinguish between ISO 9000 process and the Malcolm Baldrige National Quality Award.</p> <p>WORK ON YOUR OWN! 5) Discuss the roles of cause/effect diagrams, Pareto Charts, Process Flowcharts, Process Capability Indices in quality management.</p> <p>WORK ON YOUR OWN! 6) Describe acceptance sampling. Why is it used? Could it be used in services? 7) “Acceptance sampling is a thing of the past. We need to conduct 100% inspection to ensure Zero Defects.” Take a position and defend.</p> <p>WORK ON YOUR OWN! 8) Describe Statistical Process Control. Why is it used? How can it be used in services? 9) Be prepared to develop process control charts for attributes and variable measurements and understand the situations under which further investigation is required.</p>
5	1/29	<p>SUBMISSION OF QUESTIONS/ISSUES LIST FOR TERM PAPER</p> <p>MANAGING TECHNOLOGY FOR ENHANCING OPERATIONS Chapter 4 (Managing Technology).</p> <p>WORK ON YOUR OWN! 1) Discuss the role of product technology, process technology, and information in improving operations within organizations.</p> <p>LONG RANGE CAPACITY PLANNING Chapter 6 (Capacity): Problem 10 (Extra problems given in Supplement A on CD-ROM, problems 18-22).</p> <p>WORK ON YOUR OWN! 1) What is the definition of capacity (as defined by the Census Bureau)? 2) differentiate between output and capacity. Distinguish between volume economy, capacity economy, and technology economy.</p> <p>WORK ON YOUR OWN! 3) Explain the concepts of “capacity leading demand” (Expansionist Strategy as described on page 164 in the text book) and “capacity lagging demand” (Wait-And-See Strategy as described on page 164 in the text book).</p> <p>WORK ON YOUR OWN! 4) Be prepared to solve a long-range capacity planning problem using the decision tree model.</p>

SESSION #	DATE	TOPICS AND ASSIGNMENTS
6	1/31	<p>FIRST MINI-CASE ANALYSIS ON “JOSE’S AUTHENTIC MEXICAN RESTAURANT” DUE</p> <p>FACILITY LOCATION Chapter 7 (Location and Layout, pp. 203-219): Problems 1-9.</p> <p>1) What are the macro-level factors in locating facilities? 2) What are some of the micro-level factors in site selection? 3) What are factors would influence the location of a bank, and a paper mill? 4) Be prepared to solve facility location problems using the weighted scores method, load-distance method (center of gravity method), and break-even analysis.</p>
	2/1	LONGWOOD ELASTOMERS TOUR
7	2/5	FIRST IN-CLASS WRITTEN EXAM (75 MINUTES)
8	2/7	<p>FACILITY LAYOUT Chapter 7 (Location and Layout, pp. 219-237): Problems 18, 19, and 26.</p> <p>WORK ON YOUR OWN! WORK ON YOUR OWN! WORK ON YOUR OWN! WORK ON YOUR OWN! WORK ON YOUR OWN!</p> <p>1) Differentiate between product and process layout. 2) What are the primary advantages and disadvantages of a cellular layout (also called as Hybrid Layout on page 222 in the text book)? 3) What is cycle time? What is its role in designing an assembly line? 4) Understand the relationship between production rate and cycle time of a line. 5) Be prepared to develop a precedence diagram, balance a line, and compute its cycle time. 6) What is the significance of “Efficiency Balance” in an assembly line?</p>

SESSION #	DATE	TOPICS AND ASSIGNMENTS
9	2/12	<p>SECOND MINI-CASE ANALYSIS ON “FITNESS PLUS, PART A” DUE</p> <p>AGGREGATE PLANNING Chapter 11 (Aggregate Planning and Scheduling): Problems 1-5.</p> <p>WORK ON YOUR OWN!</p> <ol style="list-style-type: none"> 1) Go through Examples 11.1 (Level Strategy also called as Constant Capacity and Constant Output Strategy), 11.2 (Chase Strategy also called as Variable Capacity and Variable Output Strategy), and Mixed Strategy discussed on pages 373-374 of the text book. 2) How are forecasting, aggregate planning, master scheduling, materials requirements planning, and operations control tied together? What are the implications of an inaccurate forecast on the planning and scheduling process? 3) What is the objective function in the aggregate planning problem? Why does the problem exist? What is the typical planning period and planning horizon used in the aggregate planning problem? 4) Is the aggregate planning problem long range, medium range, or short range in nature? Please give an explanation for your conclusion. 5) What are the three typical strategies available for a manager in developing an aggregate production plan, i.e., what are the controllable variables? 6) What are the typical costs affected by the aggregate production plan? 7) What are the specific characteristics of industries where the three extreme strategies could be applied? 8) Be prepared to develop an aggregate plan. Also, be prepared to compute the total cost using the three strategies for a given aggregate planning problem.
10	2/14	<p>SUPPLY CHAIN MANAGEMENT Chapter 8 (Supply Chain Management).</p> <p>WORK ON YOUR OWN!</p> <ol style="list-style-type: none"> 1) What are the characteristics of an efficient and responsive supply chains? 2) Describe how outsourcing works? Why would a firm want to outsource? 4) What are the important components of a global supply chain/network? <p>INTRODUCTION TO INVENTORY MANAGEMENT Chapter 10 (Inventory Management, pp. 323-330).</p> <p>WORK ON YOUR OWN!</p> <ol style="list-style-type: none"> 1) Identify the different ways inventories are created (identified as different types of inventory on pages 327 and 328 in the text book). 2) What are the different types of inventory in manufacturing, sales and service, and warehousing/retailing organizations? <p>WORK ON YOUR OWN!</p> <ol style="list-style-type: none"> 3) Discuss ABC Classification of inventory. What purpose does it serve? 4) What are safety stock and service level? How are they related? 5) What are cycle counting and physical inventory? What purpose do they serve? 6) What are the two fundamental questions in developing an inventory policy?

SESSION #	DATE	TOPICS AND ASSIGNMENTS
11	2/19	SECOND IN-CLASS WRITTEN EXAM (75 MINUTES)
12	2/21	<p>INVENTORY MANAGEMENT SYSTEMS FOR INDEPENDENT DEMAND Chapter 10 (Inventory Management, pp. 331-357): Problems 2-12.</p> <p>WORK ON YOUR OWN!</p> <ol style="list-style-type: none"> 1) Given the required data, be prepared to compute the Economic Order Quantity, the Reorder Point, and Total Cost in a perpetual ordering system. 2) Understand the relationship between the annual inventory holding cost fraction for each item and the annual inventory holding cost for each item. 3) Given the required data, be prepared to compute the Economic Order Interval (i.e., the time between orders), and the quantity to be ordered at a given point in time in a periodic ordering system. 1) Distinguish between perpetual and periodic inventory systems for independent demands items. How do these two systems relate to the concepts of "continuous review" and "periodic review"? Which one is event triggered and which one is time triggered? Which of the two systems requires more careful monitoring? 2) Describe a hybrid system of managing inventories.
13	2/26	<p>SUBMISSION OF TERM PAPER</p> <p>INVENTORY MANAGEMENT SYSTEMS FOR DEPENDENT DEMAND (MATERIALS REQUIREMENTS PLANNING --- MRP) Chapter 12 (Resource Planning): Problems 4-8.</p> <p>WORK ON YOUR OWN!</p> <p>WORK ON YOUR OWN!</p> <p>WORK ON YOUR OWN!</p> <ol style="list-style-type: none"> 1) Differentiate between independent and dependent demand inventory. 2) What is a Material Requirements Planning system? 3) What are the primary inputs and outputs in a MRP analysis? What are the objectives of an MRP system? 4) What is the meaning of "planned order release" and "planned order receipt" in an MRP system? 5) What is the significance of low level coding in developing an MRP. 3) Be prepared to develop a Material Requirements Plan. <p>MANUFACTURING RESOURCE PLANNING (MRP II) AND JUST-IN-TIME OPERATIONS SYSTEMS Chapter 13 (Lean Systems).</p> <p>WORK ON YOUR OWN!</p> <p>WORK ON YOUR OWN!</p> <p>WORK ON YOUR OWN!</p> <p>WORK ON YOUR OWN!</p> <ol style="list-style-type: none"> 1) What are the disadvantages or limitations in adopting a JIT system? 2) Is JIT more applicable to repetitive manufacturing or job shop operations? 3) What is a "KANBAN" system? What are its salient features? 4) Compare and contrast a "push" system and a "pull" system.

SESSION #	DATE	TOPICS AND ASSIGNMENTS
14	2/28	THIRD IN-CLASS WRITTEN EXAM (75 minutes)
