UNIVERSITY OF WEST GEORGIA  
Operations Management  
MGNT 3615


II. OFFICE HOURS: Monday and Wednesdays, 8:00-11:30 a.m., and 3:15-4:30 p.m.

III. COURSE DESCRIPTION AND COGNITIVE OBJECTIVES:  
This is junior/senior level course designed to expose the student to the operational aspects of the firm. Upon completing this course, the student should be able to:
1. Apply appropriate quantitative techniques to a variety of operations-oriented problems and provide accurate analysis. (BBA 2, BBA 4, BBA 6)
2. Demonstrate the ability to apply basic principles of operations management to real world situations. (BBA 6)
3. Describe the overall production/operations management process and understand its function and relationship to other areas. (BBA 4)
4. Understand and solve problems related to policy, product, process, plant, and operations decisions. (BBA 2, BBA 4)

IV. TIME COMMITMENT:  
Students carrying a course load of 11-18 hours are considered full-time. The rationale behind this designation is that 11-18 hours of course work is a FULL-TIME commitment. For each semester hour spent in class each week, students should expect to spend an average of 2 to 3 hours outside of class reading, doing assignments, studying, etc. Thus a 12-hour course load is expected to require 24 to 36 hours of outside work in addition to the 12 hours spent in class for a total time commitment of 36 to 48 total hours per week.

As a 3-hour course, students should expect to commit a total of 9 to 12 hours per week to this course including both in-class and out-of-class time. It is likely that a commitment of less time than this will result in sub-optimal outcomes. If your current schedule does not allow for a commitment of 9-12 hours you should consider dropping this course.

As you need to comprehend both the conceptual and quantitative aspects of the subject matters in MGNT3615, and to assure successful passing of this course you need to:

(1) Allocate at least 3 hours for each class contact, to study and do the assignments for this course.
(2) Read the course material prior to its being discussed in class.
(3) Work on all assigned home-work to the best of your ability and be prepared to work out the assignments in class. You will not be penalized for incorrect solutions; however, your lack of attempt to do the assignments will affect your final grade.

V. ATTENDANCE:

The exams for this course will be based on material we cover in class and the assigned problems from the book. Thus, it is in your best interest to attend each class session so that your notes are complete and so that you get a sufficient understanding of the quantitative problems that will be assigned to you. I will take class attendance at exact scheduled class start each day. If you are not in class when I call roll or if you leave early, you will be counted as absent. You will be allowed Three (3) absences during this course without penalty. If you have more than eight (8) absences, you may be dropped from this course by the instructor and receive a grade of “F”. Students with perfect attendance record will have a bonus of one point added to their final grade.

VI. GRADING:

There will be three exams scheduled in equal intervals throughout the semester. Each exam will
test the materials covered from the previous test up to the date before the test. The student’s grade will be principally determined by the three scheduled exams weighted as:

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<th>Test Type</th>
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<tr>
<td>Highest scored test</td>
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<td>2nd high scored test</td>
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**Classroom Rules:**

- Do not engage in private discussions with others while someone else is speaking.
- No food, drinks, or tobacco products are allowed in the classroom at any time.
- No programmable calculators, cell phones, computers, PDA’s, or other electronic equipment are permitted during testing periods. The “hat rule” will be enforced during all exams (baseball caps or brimmed hats must be removed or turned backwards).
- Cell phones must be silenced and placed out of sight in your pocket / purse /backpack during class.

**Academic Honesty Policy:**

Lying, cheating, stealing, or engaging in plagiarism in pursuit of one’s studies is a violation of academic honesty policy at UWG and will not be tolerated (Please read the university’s catalog for the official statement on academic integrity and plagiarism). Students are responsible for understanding plagiarism. In general, plagiarism is defined as the use of intellectual material produced by another person without acknowledging its source.

The following are some examples of what is considered plagiarism:

* Copying of passages from works of others into an assignment, paper, discussion board posting, without acknowledgment.
* Cutting/pasting information available on the web or online databases.
* Using the views, opinions, or insights of another without acknowledgment.
* Paraphrasing another person's characteristic or original phraseology, metaphor, or other literary device without acknowledgment.

**NOTE:** Violations of the academic honesty policy may result in expulsion from the University.

**Extra Credit**

At this time, the only extra credit scheduled for this course is points earned through attendance. Specifics are outlined in the course attendance policy.

**Turning in the Same Work for Two Classes**

You are not allowed to turn in work completed for another class for credit in this class. For example, you cannot write one paper and turn it in for credit in two different classes.

**VII. GENERAL COURSE DESCRIPTION:**

Operations Management is concerned with the design of operating systems and with the development of organizational planning and control processes for managing them. Operating systems comprise those elements of an organization that do productive work, i.e., turn inputs into outputs. They consist of the transformation processes that create the goods and services that an organization supplies to its environment.
The basic approach to be followed in the course is simply that of studying the important problems confronting operations managers and the decision processes by which these problems are resolved. In doing so, we will be attempting to build an integrated view of the problems and of the approaches taken to them. In the course, there is also a great deal of emphasis on the understanding and design of management control systems associated with operations problems.

The field of Operations Management evolved from production, or manufacturing management and the basic concepts and methodologies to be presented were developed primarily for manufacturing operations. The effectiveness of this knowledge is well known; productivity in our manufacturing industries exceeds that achieved in most other industries. Operations Management, however, does not focus entirely on manufacturing problems and methodologies. The course integrates and generalizes this knowledge to facilitate its utilization for developing productive non-manufacturing operations as well.

**Current Challenges:**

Changes in social values, an improved ability by managers to utilize an ever-expanding technology, depletion of readily available natural resources, and changes in our economic structure are among the forces creating important and difficult challenges for those concerned with the design and management of operating systems. Environmental constraints and the depletion of readily available resources require improved use of technology if society is to maintain desired productivity levels. In addition, many organizations are finding their success to be increasingly dependent upon the capabilities of their operating systems. If firms are to meet customer demands successfully, the operations function must do more than just operate efficiently and conserve resources. Operations must also improve quality, provide greater variety in its products, introduce product and process innovations rapidly, and do all this with shorter lead times and improved return on investments. Operations management must thus develop system capabilities that improve the value of products and services as well as utilize resources efficiently.

**Operations Management Concepts in the Services:**

The shift in occupational mix from the goods producing industries (agriculture, mining, and manufacturing) into service activities such as marketing, transportation, finance, education, government and the arts that is occurring is permitted by high productivity in the production of goods and materials. A large proportion of the population is no longer needed for the task of producing basic goods for society. If we are to have increasing freedom in choice of goals, we must maintain within the service sector our ability to improve productivity. It is thus important that we be able to transfer the concepts, methodologies and skills that created high productivity in processing goods to the service industries. The degree to which the methodologies of production management can be readily transferred depends in part upon the characteristics of the service activities. If the tasks are performed repetitively, have predictable requirements and high volume, and can be separated in both time and space from the user, utilization of existing methodology is more readily accomplished. Even if these conditions are not closely met, however, the philosophy, concepts, and problem solving approaches of Operations Management provide a useful framework for designing and managing more effective service operations.
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<tr>
<th>WEEK OF</th>
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<tr>
<td>M 8/22</td>
<td>INTRODUCTION AND ORIENTATION</td>
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<td>M 8/29</td>
<td>PRODUCTION AND OPERATIONS MGT</td>
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<td>PRODUCTIVITY,</td>
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<td>RELIABILITY</td>
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MGNT 3615 COURSE OBJECTIVES

1. Define the term production/operation management. What is the nature of the operations manager’s job?
2. Identify the three major functional areas of organization and describe how they interrelate.
3. Compare and contrast system operations and system design and give examples of each.
4. List five important differences between goods production and service operations; then list three important similarities.
5. List and briefly discuss a) some of the reasons for poor productivity and b) some ways of improving it.

7. Explain what we mean by terms such as reverse engineering, design for manufacturing, and manufacturability.
8. List some of differences between service design and product design.
9. Define reliability, perform simple reliability computations, and suggest possible ways of improving reliability.

11. Discuss ways of defining and measuring capacity: design, effective, and actual output.
12. Describe the determinants of effective capacity.
13. Describe and/or give an example of designing flexibility, taking a “big picture” approach, dealing with capacity “chunks”, in developing capacity alternatives.

15. Describe the 5 different types of processing: continuous (2), intermittent (2), and project; Indicate the kinds of situations in which each would be used.
16. List the primary advantages and limitations of both product and process layouts.
17. What is the goal of line balancing? What happens if a line is unbalanced?
18. How are manufacturing and nonmanufacturing location decisions similar? Different?
19. Identify typical factors, which contribute to the national, regional, community, and site selection decisions.
20. What is factor rating and how does it work?

22. Define the term quality. Explain why quality is important, and consequences of poor quality.
23. Discuss the 4 determinants of quality.
24. List various costs associated with quality.
25. What are the steps involved in planning and control of quality? (Be used Mattel’s toy example)
26. Contrast the modern approach to quality with the “inspection” approach.
27. Discuss the philosophies of four quality gurus.

30. Explain how control charts are used to monitor a process, and the concepts that underlie their use.
31. Briefly explain the purpose of each of control charts: x-bar, range, p-chart, and c-chart.
32. Explain type I and type II errors
33. Contrast acceptance sampling and process control.

35. Give a general description of PERT/CPM techniques and define the terminologies, i.e. node, event, path, slack, critical path, crash....
36. Identify the steps involved in network construction.
37. List the kinds of information that a CPM analysis can provide.

39. Explain what aggregate planning is and how it is useful.
40. List some of the ways we can influence supply, and demand.
41. Identify the variables that decision makers have to work within aggregate planning and some of the strategies they can use: pure, mix, level production, and demand chase.
42. Define the term inventory, and list the major reasons for holding it.
43. Contrast independent and dependent demand and name techniques for solving each.
44. Describe the A-B-C approach and explain how it is useful.
45. Discuss the objectives of inventory management.
46. Construct the basic EOQ model and solve typical problems.
47. Discuss why we can depend on EOQ while values of D, S, and H are at best, educated guesses?

50. Describe the inputs, outputs, and nature of MRP processing.
51. Explain how requirements in a master schedule are translated into material requirements for lower-level items.
52. Explain the benefits and limitations (requirements) of MRP.

55. Explain what is meant by the term "Just-in-time" production system.
56. Describe the philosophy behind JIT.
57. List each of the key elements of a JIT system and explain its importance.
58. List the benefits of JIT systems.
59. Explain pull and push systems of production. Which one is JIT based on?