University of North Carolina at Greensboro
Bryan School of Business and Economics
Department of Information Systems and Supply Chain Management

SCM-302 Spring 2019, Section 06

OPERATIONS MANAGEMENT
Syllabus

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1.0 General Information

START DATE:
January 14, 2019

PLACE AND TIME:
This is an on-line “blended learning” course. There are no regularly scheduled “face-to-face” class sessions.

The blended learning approach incorporates standard e learning with added WebEx Virtual Meeting sessions on a regular weekly schedule (See Section 3.0). WebEx Sessions will be recorded. This will provide access for students unable to participate in “live” sessions.

WebEx sessions will be used to present / clarify course concepts and allow opportunity for sharing and dialogue between the Professor and Participants. Participation either “in-person” or through “recordings” is encouraged.

The professor can be contacted by e-mail and will be available for phone or WebEx meetings as required. These will be set up by e-mail at mutually convenient times.

FACULTY MEMBER:
Mr. Doug Parkes
E-Mail: dgparkes@uncg.edu
Department of Information Systems and Supply Chain Management
Virtual Office hours by appointment

REQUIRED COURSE MATERIALS:
The following text and on-line resources are required for this course:

- Required Textbook is Operations Management (12th edition) by Heizer and Render. You have several options for acquiring the text. Three are offered by the UNCG Bookstore. You only need to select one of these. We try to offer some flexibility with Text Selection to meet financial needs. All three of the options are fine – just purchase one of them.
• The most expensive is the Pearson Hard Bound text. It is great as a reference as it includes even interesting other chapters beyond what we will cover. The Book Store has a buy back option for it.

• The SCM-302 Bundle is a Paper Bond Customized Text. It only includes the chapters we will cover. The Book Store will not buy these back.

• The e-text has full access to all chapters included in the Hard-Bound Edition. With this option, you can later acquire a loose-leaf version of the text if you want.

• All three packages include access to MYOMLab. This is Mission Critical. If were to decide to purchase a used text from somewhere (some people might) then MYOMLab Access will need to be purchased as well through Pearson.

• Of course, you can also purchase the text and MYOMLab together directly from Pearson.

• Then just you can also purchase a used version of the text or rent it from another vendor but then you will need to purchase MYOMLab from Pearson separately as well.

• You may access the e-text and the MyOMLab on a trial basis for 17 days. You could then determine if the e-version will work for you. However, if you do not purchase access before the trial period expires you will not have access and this will be a major problem!

• Instructions for purchase / registration for MYOMLab will be posted on the Canvas Site for The Class. You will be provided a Course ID that must be used in that process. Course id. parkes95113.

Important: When you register please use the same Name and eMail for MYOMLab as is listed in Canvas. The spelling of your name should be exactly the same (capitalization and lower case and all else).
BRIEF DESCRIPTION OF THE COURSE:
This course presents a survey of the operations functions of organizations with emphasis on the
design and control decisions. This includes a study of the qualitative and quantitative problem-
solving methods used to enhance managerial competence in the operations function.

CREDITS:
3.0 credit hours

PREREQUISITES:
Junior standing; ISM 110; ACCT, BADM, CARS, ENTR, FINC, INTB, ISSC, MKTG, or STHP

INTRODUCTION TO TOPICS COVERED:
Operations Management is the process of converting resources into products. Resources may
include materials, equipment, capital, and labor. Products may include manufactured goods or
services.

"Operations" is defined here as the set of activities directed toward the conversion of resources
into goods and services. The "Management" of these resources and activities is called
production/operations management (P/OM). Production/operations management is concerned
with an almost unlimited spectrum of organized efforts -- from the manufacture of printed
electronic circuit boards to the delivering of a social service by a local government; from the
fast-food business to the health services industry. All of these involve activities directed toward
the conversion of resources into products.

Production/operations management (P/OM) has, in effect, been in existence since man first
organized his efforts toward productive tasks, such as hunting, farming, building and trading.
More recently production/operations management has become a defined body of knowledge
since the managerial revolution beginning in the early twentieth century. Production/operations
management has its roots in a number of areas of study, such as industrial engineering,
materials/inventory management, manufacturing management, production scheduling, quality
control, forecasting, etc. Examples of questions that are of concern in the field of P/OM are:

- How do we reduce costs in our organization, and here at UNCG?
- How do we increase our workers' productivity in The Registrar's Office?
- Are we having quality problems with our heart surgeries?
- Where should we locate our new central distribution facility at Ralph Lauren?
- What route should a caseworker follow in handling his/her caseload?
- How many iPhones should we carry in December's inventory?
- How many Honda lawnmowers will we sell next year?
- Should we work overtime in Asheboro or hire new production workers in Mexico to make
  more Dustbusters?
- Should make the components ourselves or should we outsource that to a supplier in China?
- Can we afford to automate part of our production process to make more office furniture at
  Brayton Furniture?
- Can we afford not to automate part of our production process?
- Should we sell our manufacturing plant in Asheboro?
GENERAL COURSE OBJECTIVES

The following basic objectives represent important learning goals of the course organization and content:

- Provide a basic understanding of the production/operations function of an organization and its relationship to the rest of the organization.
- Provide a basic understanding of the major decision areas, support systems, and tools used to solve the problems and provide decision-making information for production/operations management.
- Provide an opportunity to apply some of the tools and techniques used for production/operations management problems.

COGNITIVE COURSE OBJECTIVES:

On completion of the course, students should be able to:

- Differentiate between productivity, effectiveness, efficiency, and other performance measures for operations management.
- Explain the factors that make a service operation more difficult to manage as compared to a manufacturing operation.
- Compare and Contrast the different types of conversion systems (i.e., project, job shop, batch flow, line flow, and continuous flow processes).
- Use project management techniques to plan a project.
- Develop and use a process control chart for managing quality.
- Understand the role played by total quality management in organizations.
- Distinguish between long range, intermediate range, and short-range capacity planning in operations management.
- Identify the factors that influence the location of service versus manufacturing facilities.
- Identify the important aspects and issues related to facility design decisions.
- Discuss the role of logistics in operations management.
- Understand the role of a forecasting system in the operations of an organization.
- Explain the role of strategic sourcing in the procurement of materials for operations management.
- Describe the typical objectives and constraints in the aggregate planning problem related to both manufacturing and service organizations.
- Differentiate the inventory management concerns between dependent demand items and independent demand items.
- Understand the value and importance of various Lean Systems/Total Quality Management ("JIT/TQM" or "Pull") systems and techniques.
- Discuss the role of Enterprise-wide Resource Planning (ERP) Systems in organizations in general, and supply chain/network management in particular.
- Describe how operational and supply chain processes enable firms to deliver sustainable products and services to the marketplace.
INSTRUCTIONAL METHODOLOGY:
The methods employed to achieve these objectives will vary, but include:
- Textbook reading.
- WebEx sessions highlighting critical textbook material.
- Homework Problems and Multiple-Choice Quizzes.
- Team Project – Company Tour (Virtual or In-Person) with Report of Findings

In general, the overall focus for this course assumes the average student will NOT become an operations specialist, but does need to know the role of the operations manager in order to be successful in his/her own job in business, regardless of what that may be. For those of you who may wish to pursue additional courses in operations management toward a possible career in the area, this course serves as an important introduction to subsequent, more detailed course work.

Attendance: This is a virtual learning experience with addition of optional WebEx Sessions to assist students in the learning process. WebEx Sessions will be recorded for those unable to attend.

PERFORMANCE EVALUATION AND GRADING:
The following criteria will apply to the grading of assignments.

Grading Scale (%)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>A+</td>
<td>95.00+</td>
</tr>
<tr>
<td>A</td>
<td>93.00-94.99</td>
</tr>
<tr>
<td>A-</td>
<td>90.00-92.99</td>
</tr>
<tr>
<td>B+</td>
<td>87.00-89.99</td>
</tr>
<tr>
<td>B</td>
<td>83.00-86.99</td>
</tr>
<tr>
<td>B-</td>
<td>80.00-82.99</td>
</tr>
<tr>
<td>C+</td>
<td>77.00-79.99</td>
</tr>
<tr>
<td>C</td>
<td>73.00-76.99</td>
</tr>
<tr>
<td>C-</td>
<td>70.00-72.99</td>
</tr>
<tr>
<td>D+</td>
<td>67.00-69.99</td>
</tr>
<tr>
<td>D</td>
<td>63.00-66.99</td>
</tr>
<tr>
<td>D-</td>
<td>60.00-62.99</td>
</tr>
</tbody>
</table>

Grading Percentages:
The course grade will be calculated using the following weights:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MyOMLab Online Quizzes</td>
<td>20%</td>
</tr>
<tr>
<td>MyOMLab Homework Problems</td>
<td>20%</td>
</tr>
<tr>
<td>MyOMLab Exams</td>
<td>45%</td>
</tr>
<tr>
<td>Team Project</td>
<td>15%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>
COURSE ASSIGNMENTS:

**MYOMLab Quizzes**: Students are required to complete online quizzes in MyOMLab. Quizzes are based on material from the textbook and are intended to test your understanding of the fundamentals of operations management.

**MYOMLab Homework** – Students are required to complete online homework assignments in MyOMLab. Homework assignments are usually complex computation problems similar to examples in the text. *Important note: Whenever there is a Homework Assignment, the Professor has also created a similar Practice Homework Assignment that is optional but recommended. Practice Homework assignments show as Graded in MYOMLab but the Professor does not transfer these grades to Canvas and thus performance does not count on the Semester Grade.*

**MYOMLab Exams** - Exams will be a combination of multiple-choice question and computational problems similar to the ones used for weekly quizzes and homework assignments. All exams will be given during scheduled time periods on the dates indicated on the syllabus.

*Important note: Whenever there is an Exam, the Professor has also created a similar Practice Exam Assignment(s) that is optional but recommended. Practice Exams show as Graded in MYOMLab but the Professor does not transfer these grades to Canvas and thus performance does not count on the Semester Grade.*

**Company Tour**: This assignment is a team project. Each team (4-8 members) will complete a physical or virtual tour of a company and write a Report summarizing key findings. The Professor will provide a high-level Project Plan and Microsoft Word Template for each stage of the assignment.
GENERAL COURSE ELEMENTS:

Written Communication
Communications skills are critical to success in the dynamic and diverse global business environment. This course places emphasis on the ability to analyze information and present recommendations in clear, well-written responses. Team Project activities and report submissions are used to evaluate student progress. WebEx sessions provide a venue for interpersonal interaction but are not mandatory.

Technology Applications: Students will be expected, whenever possible, to use appropriate information technology in completing assignments. Discussion of the impact of emerging technology on the Operations function will be a component of this course.

Corporate Social Responsibilities (Sustainability and Ethical Perspectives): Various CSR topics and applications to specific companies and their processes will be covered.

Global Perspectives: Discussion of the impact of global operations and the challenges it poses for managers will be covered in this course.

Demographic Diversity Perspectives: This course will not specifically address this issue.

Political, Social, Legal, Regulatory and Environmental Perspectives: These will be discussed as they apply to location decisions made by Operations Managers and how they pose challenges for Operations Managers.

ACADEMIC INTEGRITY POLICY: You must abide by the UNCG Academic Integrity Policy on all assignments (papers, projects, tests, quizzes etc.) that are part of this course. Failure to abide will result in appropriate consequences as spelt out in the policy. See http://sa.uncg.edu/handbook/academic-integrity-policy/

FACULTY / STUDENT GUIDELINES:
The Bryan School has develop a set of guidelines on student behavior and expectations in and out of the classroom as well as what you should expect of me as faculty member. I will encourage you to read through those guidelines by the end of the first week of class. Here is a link to the .pdf file for those guidelines. See:

2.0 Bryan School of Business Mission & Links to Course Objectives

The Bryan School of Business and Economics’ Mission Statement

In the Bryan School of Business and Economics, we create and disseminate knowledge about the theory and practice of business. In addition to our courses and research, we accomplish this through hands-on projects, global experiences, and outreach to the community. Our work produces principled leaders and exceptional problem solvers who have a global perspective, an innovative mindset, a broad understanding of sustainability, and a commitment to improve the organizations in which they work and the communities in which they live.

Student Learning Goals

Each program within the Bryan school has separate learning goals as listed with the degree program. The essential components of a professional education in business (excluding the B.S. and B.A. in Economics, the B.S. in Consumer, Apparel, and Retail Studies and the B.A. in Sustainable Tourism and Hospitality) include common courses for breadth and opportunities for advanced work for depth in the various business disciplines. These core business programs share the following common learning goals:

1. Students will implement the various steps of the critical thinking process, supported by the appropriate use of analytical and quantitative techniques, to formulate recommendations for subsequent decision-making.
2. Students will apply appropriate ethical standards when making recommendations for business decision-making.
3. Students will evaluate business decisions in the context of sustainability goals, balancing environmental, social, and economic needs, conditions, and potential decision impacts.
4. Students will formulate appropriate strategies, in the context of global issues and forces, to improve business performance in the world economy.
5. Students will explain the roles of innovation and innovation management in achieving successful business strategies, decisions, and performance.
6. Students will be able to plan, schedule, contribute to, and lead projects.

Impact of this Course on the Program Student Learning Goals

Upon successful completion of Operations Management (SCM302), students will have met the Student Learning Goals on sustainability (#3 above). Students will also meet various components of the Critical Decision-Making (#1), Ethical Management (#2), Global and Multicultural (#4), and Collaboration, Communication, and Knowledge-Integration (#6) Goals.
3.0 Course Schedule

(Note: adjustments may need to be made during Semester. Chapter References are numbered according to the 12th Edition of the Text. Other versions may number differently but Chapter Titles are included)

Week of January 14:
Module 01: Operations Productivity & Strategy in a Global Environment
Operations Management 12th Ed: Chapter 1 and 2
WebEx Session: Mon. 7:00 - 8:00 pm

Week of January 21:
Module 02: Project Management
Operations Management 12th Ed: Chapter 3
WebEx Session: Mon. 7:00 - 8:00 pm

Week of January 28:
Module 03: Forecasting
Operations Management 12th Ed: Chapter 4
WebEx Session: Mon. 7:00 - 8:00 pm

Week of February 4:
Module 04: Design of Goods and Services / Sustainability
Operations Management 12th Ed: Chapter 5
WebEx Session: Mon. 7:00 - 8:00 pm

Week of February 11:
Exam #1 (Comprehensive: Modules 01 – 04)

Week of February 18:
Module 05: Managing Quality
Operations Management 12th Ed: Chapters 6
WebEx Session: Mon. 7:00 - 8:00 pm

Week of February 25:
Module 06: Process Strategy and Capacity Management
Operations Management 12th Ed: Chapter 7
WebEx Session: Mon. 7:00 - 8:00 pm

Week of March 4:
Spring Break
March 2 – March 10
No WebEx or Module Content Covered

Week of March 11:
Module 07: Location Strategies
Operations Management 12th Ed: Chapter 8
WebEx Session: Mon. 7:00 - 8:00 pm
Week of March 18:
Module 08: Layout Strategies
Operations Management 12th Ed: Chapters 9
WebEx Session: Mon. 7:00 - 8:00 pm

Week of March 25:
Module 09: Supply Chain Management
Operations Management 12th Ed: Chapter 11
WebEx Session: Wed. 7:00 - 8:00 pm

Week of March 25 Continued:
Exam #2 (Comprehensive: Modules 05 – 09)

Week of April 1:
Module 10: Inventory Management
Operations Management 12th Ed: Chapter 12
WebEx Session: Mon. 7:00 - 8:00 pm

Week of April 8:
Module 11: Aggregate Planning and S&OP
Operations Management 12th Ed: Chapter 13
WebEx Session: Mon. 7:00 - 8:00 pm

Week of April 15:
Module 12: Material Requirements Planning (MRP) and ERP
Operations Management 12th Ed: Chapter 14
WebEx Session: Mon. 7:00 - 8:00 pm

Week of April 22:
Module 13: JIT and Lean Operations and Exam #3 Review
Operations Management 12th Ed: Chapter 16
WebEx Session: Mon. 7:00 - 8:00 pm
Final Written Report Due for Virtual Company Tour April 28.

Week of April 29:
Exam #3 (Comprehensive: Modules 10 – 13)
4.0 Course Governance and Expectations

PREAMBLE – OUR COMMITMENT
The administration, faculty, staff, and students of the Bryan School of Business and Economics at UNCG are committed to professional and ethical behavior in all areas of their academic and professional lives. The principles and expectations established in this document and the addendums encompass many aspects of professional behavior and integrity. It is not an exhaustive list, since change is part of life both inside and outside the university.

This set of Guidelines constitutes a statement of values and expectations; concerns and issues are still best addressed by conversations between the individual faculty member and student. If further discussions are necessary, please contact the faculty member’s Department Head.

EXPECTATION OF ALL LEARNING COMMUNITY MEMBERS
The first sentence of the UNCG Student Code of Conduct is: “Members of the UNCG community respect fundamental principles for ensuring a campus environment conducive to peaceful and productive living and study. These principles include five values: honesty, trust, fairness, respect, and responsibility.” All university members (students, faculty, and staff) have a responsibility to uphold these five values, and this is true in the Bryan classroom environment and related academic activities.

EXPECTATIONS OF STUDENTS
Students in the Bryan School must conform to all existing principles found in UNCG’s Academic Integrity Policy and the Student Code of Conduct. Further details may be found at the following sites: "http://academicintegrity.uncg.edu/complete/" and "http://studentconduct.uncg.edu/policy/code/" The attached addendum lists specific expectations of students regarding the learning process and environment at the Bryan School.

EXPECTATIONS OF FACULTY
Faculty in the Bryan School must conform to all existing UNCG codes and policies, and their teaching roles are of particular relevance to these Guidelines (see "http://provost.uncg.edu/faculty/h_section4.asp" for further details). The attached addendum lists specific expectations of faculty regarding the learning process and environment at the Bryan School.

Footnote 1: This document does not constitute a binding contract between students and the University.

Footnote 2: Portions of these Guidelines were modeled after the Professional Standards developed by the College of Business at Illinois State University. We thank them for their contributions!