SCM-302 Spring 2021, Section 05

OPERATIONS MANAGEMENT
Syllabus

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1.0 General Information

START DATE:
January 18, 2021

END DATE:
April 28, 2021

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 Zoom Virtual Meeting sessions on a regular weekly schedule (See Section 3.0). Zoom Sessions will be recorded. This will provide access for students unable to participate in “live” sessions.

Zoom 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 Zoom meetings as required. These will be set up by eMail at mutually convenient times.

FACULTY MEMBER:
Mr. Doug Parkes
E-Mail: deparkes@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 (13th edition) by Heizer and Render. The ETExText with MYOMLab Access is offered by the UNCG Bookstore.

To enhance your learning experience and provide affordable access to the right course materials, this course is part of an inclusive access model called First Day. You can easily access the required materials for this course at a discounted price and benefit from single sign-on access with no codes required in Canvas. To access your materials, login to Canvas, click on your course, and click into your course materials. Accept the license agreement/privacy policy if prompted. That's it!

The UNCG Cashier's Office will bill you at the discounted price as a course charge for this course.

It is NOT recommended that you Opt-Out as these materials are required to complete the course. You can choose to Opt-Out on the first day of class, but you will be responsible for purchasing your course materials at the full retail price and access to your materials may be suspended. Students have until the University add/drop date to “opt out”, currently set for January 22. For more information and FAQs, go to customercare.bncollege.com.
Buyer Beware:
- If you decide to not be part of The First Day program, you will need to purchase course materials separately. However, please note that the cost will likely be more expensive.
- Codes purchased from any third-party vendor are likely not to work. Many of the codes sold on Amazon Marketplace and similar are defective or already activated. This may cause you a delayed start to the semester.
  *Note that materials purchased outside of the Access Program and/or directly online from third party sites may not grant the access to the correct course materials and neither the bookstore nor Pearson can resolve any issues that may arise.
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.
- Zoom sessions highlighting critical textbook material.
- Homework Problems and Multiple-Choice Quizzes.
- Team Project – Case Analysis “Managing Risk to Global Supply Chains Covid-19 Crisis Analysis & Report

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 Zoom Sessions to assist students in the learning process. Zoom 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 (%)

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<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93.00+</td>
</tr>
<tr>
<td>A-</td>
<td>90.00-92.99</td>
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<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>
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<tr>
<td>C-</td>
<td>70.00-72.99</td>
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<td>67.00-69.99</td>
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<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:
- MyOMLab Online Quizzes.................. 20%
- MyOMLab Homework Problems......... 20%
- MyOMLab Exams ......................... 45%
- Team Project ......................... 15%
- Total .................................. 100%

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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. You must login and complete the scheduled exams during the scheduled time period. **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.

**Team Project** - This assignment will be a consulting team project. Each team of 4/5 individuals will complete a virtual tour of a company - The Fresh Connection, analyzing the company and its operational capacities. There will also be several Risk Management applications since the Fresh Connection company has recently had some supply chain delivery problems because of a coronavirus outbreak in China where several of their suppliers are located. A report template will be given to each of the teams, and this template must be used to summarize key findings with three different reports. The consulting team will be asked to deliver recommendations for improvement for the firm. The Professor will provide access to the company information for all students.
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. Zoom 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.

SCM 302 supports student learning in five different Student Learning Goals areas.

Critical Decision-Making (#1) - The course provides instructions and assessments for six major analytical and managerial problems. Students are required to analyze data, make a presentation of the important factors and numerical results, and provide a recommendation for management.

Ethical Management (#2) – The course discusses ethical management practices and actions in several different chapters within the text, and students analyze the ethical practices within their report on their virtual company.
Sustainability (#3) - The course devotes one chapter and one week of time to various Sustainability issues. We introduce the 3R’s and discuss how companies are improving CSR in different manners. Quiz used for assessment.

Global issues (#4) with a focus on operational planning/organizing/controlling in global/multicultural environments - The course and instructors consistently use international and foreign company examples as part of our continuous improvement and supply chain management chapters.

Communication and Team-Based Projects with a focus on managing and controlling projects (#6) - The course deploys a Business Case within the framework of a Business Simulation to explore Risk Management in the supply chain. The teams analyze the present competitive and operational status of the firm, and make recommendations for mitigation of Risk to the Organization. This activity is carried out in a collaborative virtual team environment.
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 18:
Module 01: Operations Productivity & Strategy in a Global Environment
Operations Management 12th Ed: Chapter 1 and 2
Zoom Session: Tues. 6:00 - 7:00 pm

Week of January 25:
Module 02: Project Management
Operations Management 12th Ed: Chapter 3
Zoom Session: Tues. 6:00 - 7:00 pm

Week of February 1:
Module 03: Forecasting
Operations Management 12th Ed: Chapter 4
Zoom Session: Tues. 6:00 - 7:00 pm

Week of February 8:
Module 04: Design of Goods and Services / Sustainability
Operations Management 12th Ed: Chapter 5
Zoom Session: Tues. 6:00 - 7:00 pm
Written Interim Report #1 Due Fresh Connection Risk Management February 14

Week of February 15:
Exam #1 (Comprehensive: Modules 01 – 04)

Week of February 22:
Module 05: Managing Quality
Operations Management 12th Ed: Chapters 6
Zoom Session: Tues. 6:00 - 7:00 pm

Week of March 1:
Module 06: Process Strategy and Capacity Management
Operations Management 12th Ed: Chapter 7
Zoom Session: Tues. 6:00 - 7:00 pm

Week of March 8:
Module 07: Location Strategies
Operations Management 12th Ed: Chapter 8
Zoom Session: Tues. 6:00 - 7:00 pm

Week of March 15:
Module 08: Layout Strategies
Operations Management 12th Ed: Chapters 9
Zoom Session: Tues. 6:00 - 7:00 pm
Week of March 22:
Module 09: Supply Chain Management
Operations Management 12th Ed: Chapter 11
Zoom Session: Tues. 6:00 - 7:00 pm
Written Interim Report #2 Due Fresh Connection Risk Management March 28

Week of March 29:
Exam #2 (Comprehensive: Modules 05 – 09)

Week of April 5:
Module 10: Inventory Management
Operations Management 12th Ed: Chapter 12
Zoom Session: Tues. 6:00 - 7:00 pm

Week of April 12:
Module 11: Aggregate Planning and S&OP
Operations Management 12th Ed: Chapter 13
Zoom Session: Tues. 6:00 - 7:00 pm
Final Written Report Due Fresh Connection Risk Management April 18

Week of April 19:
Module 12: Material Requirements Planning (MRP) and ERP
Operations Management 12th Ed: Chapter 14
Zoom Session: Tues. 6:00 - 7:00 pm

Week of April 26:
Module 13: JIT and Lean Operations and Exam #3 Review
Operations Management 12th Ed: Chapter 16
Zoom Session: Tues. 6:00 - 7:00 pm

Week of April 26:
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!