THE UNIVERSITY of NORTH CAROLINA GREENSBORO
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SCM 302
OPERATIONS MANAGEMENT

BRYAN SCHOOL OF BUSINESS & ECONOMICS
INFORMATION SYSTEMS AND SUPPLY CHAIN MANAGEMENT

SPRING 2017 | Bryan 128 | MW. 2:00 - 3:15 PM. | 1/18/17 to 5/10/17

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Office hours**:**
Schedule An Appointment
*Email 3 preferred slots
Mon. – Fri.

Walk-Ins:
Mon. 12:30 PM – 1:30 PM
Mon. 5:00 PM – 6:15 PM
Wed. 3:30 PM – 4:30 PM

Course Description Survey of the operations functions of organizations with emphasis on the design and control decisions. Qualitative and quantitative problem-solving methods used to enhance managerial competence in the operations function.

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

Required Materials

- **The required text Operations Management (12th edition) by Heizer and Render**.
- **MyOMLab is required** to complete online assignments.
- Options for acquiring these required materials as a bundle or purchased separately:
  1. UNCG Custom text based on 12th Edition packaged with MyOMLab Software for approximately $164. The custom text only includes chapters we use, making it less expensive upfront but the bookstore will not buy back custom text.
  2. National book package includes full 12th Edition bundled with MyOMLab Software for approximately $312.90. Book store should buy back the text. Check with them on buy-back price.
  3. 12th Edition e-text with MyOMLab software from Pearson for approximately $115. Option for a print upgrade to loose-leaf edition for additional $55.
  4. Purchase a used copy or rent 12th Edition, 11th Edition, or 10th Edition of the text from an outside source. Buy MyOMLab software through Pearson. Price for software only is about $65.

- **You may access the e-text and MyOMLab on a trial basis for 14 days**. This is a **good option if you are waiting on financial aid** but also allows you to evaluate if e-text will work for you. It is important to **access MyOMLab within two days of the first class meeting**!
- **Please follow instructions available on Canvas for how to register for MyOMLab through Canvas**. This will integrate the two systems for you. You should NOT need the course ID (ratcliffe47452) if you follow these steps correctly. Email the instructor with any questions.
- ***Access to Learning Catalytics is also required,** which comes free with purchase of MyOMLab and e-text. If you do not purchase the e-text, Learning Catalytics costs about $12.

Introduction

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). P/OM 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.

Operations management, while it has effectively existed since people first organized efforts toward productive tasks, has become a defined body of knowledge since the managerial revolution beginning in the early twentieth century. P/OM has its roots in a number of areas of study, such as industrial engineering, inventory management, operations research, 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 and increase productivity in our organization?
- Are we having quality problems with our heart surgeries?
- Where should we locate our new central distribution facility at Polo Ralph Lauren?
- What route should a caseworker follow in handling his/her caseload?
- How many iPads should we carry in December's inventory?
- How many Honda lawnmowers will we sell next year?
- Should we locate a new facility in Mexico? Should we sell our manufacturing facility in Asheboro?
- Should we make the components ourselves or should we outsource that to a supplier in China?
- Can we afford to automate our production process at Brayton Furniture? Can we afford NOT to?

General Course Objectives

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

1) Provide a basic understanding of the P/OM function and its relationship to the rest of the organization.
2) 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.
3) Provide an opportunity to apply some of the tools and techniques used for P/OM problems.

Cognitive Course Objectives: Upon completing the course, the student should be able to:

1) **Differentiate** productivity, effectiveness, efficiency, and other OM performance measures
2) **Explain** factors that make a service operations more difficult to manage than manufacturing.
3) **Compare** and **contrast** the different types of conversion systems (i.e., project, job shop, batch flow, line flow, and continuous flow processes).
4) **Use** project management techniques to plan a project.
5) **Develop** and **use** a process control chart for managing quality.
6) **Understand** the role played by total quality management in organizations.
7) **Distinguish** between long, intermediate, and short range capacity planning in OM
8) **Discuss** the role of logistics in operations management.
9) **Understand** the role of a forecasting system in the operations of an organization.
10) **Explain** the role of strategic sourcing in the procurement of materials for OM
11) **Describe** the typical objectives and constraints in the aggregate planning problem related to both manufacturing and service organizations.
12) **Differentiate** inventory management concerns for dependent & independent demand items.
13) **Understand** the value and importance of various Lean Systems/Total Quality Management ("JIT/TQM" or "Pull") systems and techniques.
14) **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 emphasize real-world applications:

1. Textbook readings, articles, videos and quizzes which help you prepare the material.
2. Class sessions emphasizing discussion of real-world applications, team activities and simulations, and lab time to work computational exercises.
3. Homework problems to reinforce computational exercises.
4. A team facility tour project

In general, the course assumes the average student will NOT become an operations specialist, but does need to know the role of operations management in order to be successful in business regardless of the position. 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 course work.

Performance Evaluation & Grading – Your numerical score for the course will be determined by the following point distribution. All items within a group equally weighted unless otherwise noted.

	Weight	**Due**	**Notes**
Exams (3)	48%	**Exam 1**: 2/15-2/16 **Exam 2**: 3/22-3/23 **Exam 3**: 4/19-4/20	Multiple choice section in class. Computation section opens at 8:00 PM, due by 11:59 PM next day.
Term Project Team Assignments	10%	**Sign-up** by 1/20 **Top 3** by 1/27 **Visit scheduled** by 2/17 **Presentations**: 4/24, 4/26, 5/1	See Canvas for details on each checkpoint
Team Project Individual	14%	**5/10. 12-3 PM**	Final exam: essay questions related to facility tour visit
Homework (6)	12%	Fridays at 5:00 PM	2 attempts. Tip: "Help me solve this", videos of worked problems.
Online Quizzes (13, drop lowest)	12%	Before class at 1:30 PM. Most due on Mon., some due on Wed.	3 attempts. 18 questions, 20 min. Read ahead. Article + Video.
Course Contribution	4%	Real-time assessments at start of and throughout each session.	A few other assignments graded for completion are added to this group. See Canvas for details.
Total	100%		

Your letter grade for the course will be determined from your numerical score and the following table. You may increase your course grade above your course average with strong class participation.

Grade Distribution	**A**	**A-**	**B+**	**B**	**B-**	**C+**	**C**	**C-**	**D+**	**D**	**D-**	**F**
	93%	90%	88%	83%	80%	78%	73%	70%	68%	65%	63%	<63%

Facility Tour Presentation & Final Exam

Each team (4 or 5 students) will tour a facility and give a presentation to the class on one of the dates listed above addressing how the design and functions of the facility support its operations strategy. Your facility tour presentation should be professional and emphasize the operations strategy for the company, process flow within the facility, and recommendations on how to improve the facility's operations. Each team will submit the slides for its presentation as PPT or PDF via Canvas. Additional details are given on Canvas.

The Final Exam will be an individual assignment comprised of essay questions asking you to apply various course topics to the facility you visited and its parent organization. The Final exam is given in-class during the final exam time listed above and will be completed on paper. The questions will be a sample from a list

of potential exam questions provided in advance. Some questions may be common to all students while others will be randomly assigned and differ from one student to the next. The exam is closed note, closed book, and closed computer. The only authorized resource is a pen or a pencil. You will complete your responses by writing them in the space provided on the paper provided to you

The facility tour presentation and final exam will be graded for how well you applied the course topics to the facility and its parent company. If a student does not attend a facility tour, he/she shall not receive credit for the facility tour team presentation or the individual facility tour analysis final exam.

Exams - Exams will be a combination 2 sections: 1) timed in-class section emphasizing conceptual understanding, multiple choice and short answer. 2) online computational section. You must attend the scheduled multiple choice section of the exam during class on the date indicated in the syllabus.
There are only two excuses that will allow a make-up exam:

- A note from a physician in the case of an illness
- A note from Academic Advising in the case of other problems.
- In either case, you must if at all possible notify the instructor prior to missing an exam.

Graded Homework – Students must complete six online homework assignments in MyOMLab. Homework sets help you practice the required computational skills for the exams. You may collaborate with other students or ask questions about the homework during office hours. No late assignments will be accepted. You are allowed two attempts on each homework assignment. The highest score will be recorded.

Online Quizzes: Students are required to complete 13 online quizzes in MyOMLab. The quiz for a given topic is due before the topic is covered in class to encourage you to prepare the materials in advance and test your understanding of the fundamentals of the unit. This allows us to use time in class to emphasize discussion of real-world applications, team simulations and activities, and computational practice problems. You are typically allowed 20 minutes to complete 18 quiz questions so it is important that you prepare the materials before starting your attempt. No late assignments will be accepted. Your lowest Quiz grade will be dropped. You are allowed three attempts on each online quiz. The highest score will be recorded.

Course Contribution & Attendance: Course contribution includes being prepared for class meetings, contributing to in-class discussion, engaging with the material outside of class; and supporting the learning of other students. You may be called upon at any time to share your perspective, work with other students, or respond to a question. You are encouraged to attend office hours and email the instructor with questions and insights. Course contribution is essential because: 1) discussion about a business situation is most fruitful with multiple perspectives; 2) articulating your thoughts and questions demands that you be clear and precise; 3) it promotes critical thinking and maximizes your learning efficiency. Constructive participation and effective communication are vital business skills in any organization.

Course contribution will be evaluated in 3 primary ways.

1. Real-time individual assessments given in-class using Learning Catalytics (LC). LC is software similar to iClicker which works with your smart devices and laptops. It comes free with purchase of the e-text and costs about $12 otherwise. LC questions may be asked at the start of or throughout the session to keep you engaged and assess class retention.
2. Team exercises, group activities, and discussion during class.
3. Periodic self and peer evaluations where students assess each team member's contributions.

Providing constructive feedback to peers is an important business skill to practice for any organization. Your team will be asked to provide constructive feedback to each other team regarding their facility tour presentations. ***Each student must complete 2 peer evaluations to provide feedback to his/her teammates and the instructor*** *regarding how the work for the project was shared among team members***.** Failure to

provide constructive feedback to classmates when asked will result in a penalty to your contribution score. If peer evaluations and instructor observations from class indicate that a student did not contribute an equal share of the work on the team project, the student's project score may be penalized.

Class Attendance: To be a strong participant in the class, a student must attend class regularly. Class attendance alone does not guarantee a good participation score.

- Attendance is crucially important when guest speakers or other students are presenting.
- Non-class use of laptops, phones and tablets is prohibited and is a distraction for you and those around you. Please review the faculty student guidelines below for more information on expectations for appropriate use of technology in the classroom. The instructor reserves the right to dismiss you from the course if you continue unapproved use of technology-enabled devices during class meetings after a warning.
- The instructor should be notified in advance if you have to miss a class. You are responsible for learning the missed materials, but the instructor will help you stay on track.
- **The professor reserves the right to drop a final grade one letter if above 4 unexcused absences.**

Technology Applications: Students will be expected, whenever possible, to use appropriate information technology in completing assignments. Most commonly, you may find it helpful to use MS Excel to solve computational problems. Discussion of the impact of emerging technology on the Operations function will be a component of this course.

Ethical Perspectives: Specific coverage of ethical issues in operations decisions is limited.

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 & Environmental Perspectives: Will be discussed as they apply to sustainable operations, location decisions made by operations managers and the resulting challenges.

Academic Integrity Policy: You must abide by the UNCG Academic Integrity Policy on all assignments (papers, tests, quizzes etc.) that are part of this course. Failure to abide will result in the appropriate consequences. 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: http://www.uncg.edu/bae/faculty_student_guidelines.pdf

Syllabus Revisions: The faculty member reserves the right to modify the syllabus if necessary. Any such modification will be announced via Canvas, the course Learning Management System.

Class Schedule

Summary of Class Schedule: A summary of topics, assignment due dates, and exam dates is provided in Canvas under *Syllabus* (and copied below*)*. **The schedule is tentative**; some areas may take longer while others may finish more quickly. A summary of upcoming assignments and due dates is available in the *Assignments* section. Lectures, assignments, and exam are also seen under your *Calendar* for the course. To review details of any lecture, assignment, or exam, simply clink on the hyperlink provided in the *Syllabus, Assignments,* or *Calendar* sections of Canvas.

Date	**Details**	
Wed Jan 18, 2017	OPERATIONS AND PRODUCTIVITY	2pm to 3:15pm
Fri Jan 20, 2017	Ungraded Quiz - Operations & Productivity	5pm
	Update Canvas Profile. Sign-up for Team	due by 11:59pm
Mon Jan 23, 2017	Quiz 01 - Operations Strategy	due by 1:30pm
	OPERATIONS STRATEGY	2pm to 3:15pm
	Student Information & Goals	due by 11:59pm
Wed Jan 25, 2017	Quiz 02 - Location Strategies	due by 1:30pm
	LOCATION STRATEGIES & GLOBALIZATION	2pm to 3:15pm
Fri Jan 27, 2017	Identify Top 3 Sites & Submit Plan for Completing Project	due by 11:59pm
Mon Jan 30, 2017	Quiz 03 - Process Strategies	due by 1:30pm
	PROCESS STRATEGIES & CAPACITY MANAGEMENT	2pm to 3:15pm
Wed Feb 1, 2017	Quiz 04 - Layout Strategies	due by 1:30pm
	LAYOUT STRATEGIES	2pm to 3:15pm
Fri Feb 3, 2017	HW 1 - Location & Cost-Volume Analysis	due by 5pm
Mon Feb 6, 2017	Quiz 05 - Forecasting	due by 1:30pm
	FORECASTING	2pm to 3:15pm
Wed Feb 8, 2017	FORECASTING	2pm to 3:15pm
Fri Feb 10, 2017	HW 2 - Forecasting	due by 5pm
Mon Feb 13, 2017	CAPACITY MGMT	2pm to 3:15pm
	Checkpoint 1	2pm to 3:15pm
Wed Feb 15, 2017	INVENTORY MGMT	2pm to 3:15pm
	Exam 1 - multiple choice	due by 2:30pm
Thu Feb 16, 2017	Exam 1 - computation	due by 11:59pm
	Exam 1 Bonus	due by 11:59pm
Fri Feb 17, 2017	Team Peer Evaluation #1	due by 11:59pm
	Visit Scheduled, Agenda & Presentation Outline	due by 11:59pm
Mon Feb 20, 2017	Quiz 06 - Inventory	due by 1:30pm
	INVENTORY MGMT	2pm to 3:15pm
Wed Feb 22, 2017	INVENTORY MGMT	2pm to 3:15pm
Fri Feb 24, 2017	HW 3 - Inventory Mgmt	due by 5pm
Mon Feb 27, 2017	Quiz 07 - Aggregate Planning	due by 1:30pm
	AGGREGATE PLANNING	2pm to 3:15pm
Wed Mar 1, 2017	AGGREGATE PLANNING	2pm to 3:15pm
Fri Mar 3, 2017	HW 4 - Aggregate Planning	due by 5pm

Mon Mar 6, 2017	Quiz 08 - MRP / ERP	due by 1:30pm
	MRP	2pm to 3:15pm
Wed Mar 8, 2017	Quiz 09 - Supply Chain Mgmt	due by 1:30pm
	SUPPLY CHAIN MGMT	2pm to 3:15pm
Mon Mar 20, 2017	Checkpoint 2	2pm to 3:15pm
	SUPPLY CHAIN MGMT	2pm to 3:15pm
Wed Mar 22, 2017	Lab: Supply Chain Mgmt	2:30pm to 3:15pm
	Exam 2 - multiple choice	due by 2:30pm
Thu Mar 23, 2017	Exam 2 - computation	due by 11:59pm
	Exam 2 Bonus	due by 11:59pm
Mon Mar 27, 2017	Quiz 10 - Quality Mgmt	due by 1:30pm
	QUALITY & SPC	2pm to 3:15pm
Wed Mar 29, 2017	QUALITY & SPC	2pm to 3:15pm
Mon Apr 3, 2017	QUALITY & SPC	2pm to 3:15pm
Wed Apr 5, 2017	Quiz 11 - Lean Operations	due by 1:30pm
	LEAN OPERATIONS	2pm to 3:15pm
Fri Apr 7, 2017	HW 5 - SPC	due by 5pm
Mon Apr 10, 2017	Quiz 12 - Project Mgmt	due by 1:30pm
	PROJECT MANAGEMENT	2pm to 3:15pm
Wed Apr 12, 2017	PROJECT MANAGEMENT	2pm to 3:15pm
Fri Apr 14, 2017	HW 6 - Project Mgmt	due by 5pm
Mon Apr 17, 2017	Quiz 13 - Sustainability	due by 1:30pm
	CHECKPOINT 3	2pm to 3:15pm
	SUSTAINABILITY	2pm to 3:15pm
Wed Apr 19, 2017	LAB: LEAN OPERATIONS	2pm to 3:15pm
	Exam 3 - multiple choice	due by 2:30pm
	Case Study - Farm to Fork	due by 11:59pm
Thu Apr 20, 2017	Exam 3 - computation	due by 11:59pm
	Exam 3 Bonus	due by 11:59pm
Sun Apr 23, 2017	Team Project Presentation	due by 11:59pm
Mon Apr 24, 2017	Team Project Presentations	2pm to 3:15pm
Wed Apr 26, 2017	Team Project Presentations	2pm to 3:15pm
Fri Apr 28, 2017	Sustainability Assessment	due by 11:59pm
Mon May 1, 2017	Team Project Presentations	2pm to 3:15pm
Tue May 2, 2017	Extra Credit Memo - Sustainability Film Series	due by 11:59pm
	Facility Tour Self & Peer Evaluations	due by 11:59pm
	Student End of Course Assessment	due by 11:59pm
Wed May 10, 2017	Final Exam	12pm to 3pm
	Final Exam - Facility Tour Individual Analysis	due by 3pm