# **OPER 3100 – Operations Management**

## [Spring 2017 Section 091]

## **Instructor Information**

Name Office Contact Office Hours

Xin Liu 341A, Friday Building xliu43@uncc.edu Mon 2:00pm-5:00pm; Weds 3:30pm-5:30pm

## **TA Information**

Name Office Contact Office Hours

Manasa, Puli

## **General Information**

#### **Course Description**

Operations management involves the integration of numerous activities and processes to produce products and services in a highly competitive global environment. World class performance in operations, i.e., in product design, manufacturing, engineering, and distribution, is essential for competitive success and long term survival. This course considers operations from a managerial perspective. We consider key performance measures of operations as well as important concepts for improving the performance of operations along these dimensions. At the end of the course, students will have a fair understanding of the role production/operations management plays in business processes. Emphasis is given both to familiarization of various production processes and service systems and to quantitative analysis of problems arising in the management of operations.

#### **Student Learning Objectives**

Following completion of the course, students will be able to do the following:

- Describe the operations function in an organization and the key aspects of operations management decision making.
- Appropriately use both qualitative and quantitative forecasting methods and assess the performance.
- Explain why quality is important and the consequences of poor quality.

- Explain how control charts are used to monitor a process and the concepts underlying their use. Solve typical problems.
- Explain what a supply chain is and know the issues and strategies in the supply chain management.
- Describe basic inventory models and solve typical inventory problems.
- Explain how master production schedule requirements are translated into material requirements for lower-level items.
- Discuss scheduling needs organizations & describe specific scheduling tools & approaches that can be used.
- Describe the benefits and challenges facing the business analytics in supply chain management.

## **Course Material**

#### Textbook

Operations and Supply Chain Management, 14th edition, by Chase and Jacobs, McGraw-Hill/Irwin.

#### Moodle 2

All lecture notes, practice exam questions, solutions, grades, and updated information regarding the class will be posted on Moodle 2. You may access UNCC Moodle 2 from your 49er Express or direct access at: https://moodle2.uncc.edu/. It is each student's responsibility to check Moodle 2 frequently and report anything that does not match your own record (e.g., missing or wrong grade) within SEVEN calendar days since the date the information was posted.

#### Other

Bring a calculator to each class

## **Course Evaluation**

#### • Suggested Homework Problems

There are <u>suggested</u> homework assignments. The purpose of homework assignments is to provide learning reinforcement and promote class preparations. You will find that the homework provides excellent learning feedback and is a confidence-building tool. The assignments will also help with your preparation for the exams. <u>You do not need to turn in homework.</u> Solutions to the practice homework problems will be posted on Moodle 2. Please study each solution carefully.

#### Exams and Grading

All exams will be in-class and closed-book/closed-note. For each exam, the instructor will provide a sheet of relevant equations, formulas and Tables. Scantron forms and a calculator are required for each exam.

Plan now for the following dates: Feb. 6 (Exam1), Mar. 13 (Exam 2), Apr. 9 (Exam 3) and May 1 (Exam 4). The performance criteria are weighted as follows:

Component	Weight
Extra Credits	2% (Attendance & Participation)
Exams	100% ( each 25%)

The final letter grade will be calculated based on the following scale: A: 90% and above; B: 80-89.9%; C: 70-79.9%; D: 60-69.9%; F: Below 60%.

#### **Course Policies**

#### • Attendance and Participation

- Because class time is our most precious and inelastic resource, please come to every class prepared and actively participate in the discussion and activities. Attendance will be taken each class. Class participation refers to the regular class attendances, contributions positively, regularly, and significantly to class discussions, and being well-prepared for classes. Class participation consists of voluntary contributions and occasional cold calls, usually to provide answers and opinions to questions. If you feel uncomfortable with being called on in class, please let me know in advance so that we can agree on an alternative mode of interaction.

#### Communication

- Outside the class, I will be communicating with you via Moodle and email. Make sure you check your email
  and access your Moodle account regularly. I will not be responsible for you missing on any information
  communicated via Moodle and email regarding the course.
- Please use my email address specified in the beginning of the syllabus for electronic communication. I will reply you within 24 hours usually. Please include a subject, your name and your section number, when emailing me.

#### Make-up Exam Policy

- <u>NO MAKE-UP EXAMS</u> will be given unless students obtain <u>prior permission</u> from the professor and provide official documents. An unexcused absence from an exam will result in a grade of zero for that exam. At most <u>ONE</u> make-up exam will be granted for each student.

#### Grade Appeals

- If you believe that the grade you received on an exam was in error or unfair, you can appeal to me in writing *within 7 calendar days* of its return to the class.

## **University Policies**

#### • Student Conduct

- As a program that helps to create business and government leaders, the College of Business has an obligation to ensure academic integrity is of the highest standards. Standards of academic integrity will be enforced in this course.
- University regulations will be strictly enforced in all cases of **academic irregularities**, **cheating or plagiarism** or any variations thereof. Students assume full responsibility for the content and integrity of the academic work they submit. The guiding principle of academic integrity shall be that a student's submitted work, examinations, reports, and projects must be that of the student's own work.
- All UNCC students have the responsibility to be familiar with and to observe the requirements of The UNCC Code of Student Academic Integrity (see the Catalog and also http://integrity.uncc.edu/). This code forbids cheating, fabrication or falsification of information, multiple submission of academic work, plagiarism of written materials and software projects, abuse of academic materials (such as Library books on reserve), and complicity in academic dishonesty (helping others to violate the code). Additional examples of violation of the Code include:
- Representing the work of others as your own.
- Using or obtaining unauthorized assistance in any academic work.
- Giving unauthorized assistance to other students.
- Modifying, without instructor approval, an examination, paper, record, or report for the purpose of obtaining additional credit.
- Misrepresenting the content of submitted work.
- For this class, it is permissible to assist classmates in general discussions of computing techniques. General advice and interaction are encouraged. Each person, however, must develop his or her own solutions to the assigned homework and laboratory exercises. Students may not "work together" on graded assignments. Such collaboration constitutes cheating, unless it is a group assignment. A student may not use or copy (by any means) another's work (or portions of it) and represent it as his/her own. If you need help on an assignment, contact your instructor or the TA, not other classmates.
- Any further specific requirements or permission regarding academic integrity in this course will be stated by the instructor, and are also binding on the students in this course.
- Students who violate the code can be punished to the extent of being permanently expelled from UNCC and having this fact recorded on their official transcripts. The normal penalty is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases, the course grade is reduced

- to "F." If you are unclear about whether a particular situation may constitute an honor code violation, you should meet with the instructor to discuss the situation.
- If you do not have a copy of the code, you can obtain one from the Dean of Students Office.
- Students are expected to report cases of academic dishonesty they become aware of to the course instructor who is responsible for dealing with them.
- Feel free to discuss the definition of cheating and/or plagiarism with me if you are unclear on these terms or have questions about the acceptability of a particular type of action.

#### • Use of Computing Resources Policy

- For the purposes of the course you will be given access to a variety of computing resources. These resources are to be used only for the purposes of this course. Intentional or grossly negligent disruptive and/or illegal use of the resources will result at a minimum in a loss of access privileges and a failing grade for the course. Further action will be taken as necessary. All University Policies on the use of Computing Resources apply.

#### Accommodations or Disabilities

- In compliance with the Americans with Disabilities Act (ADA), all qualified students enrolled in this course are entitled to "reasonable accommodations." Please notify the instructor during the first week of class of any accommodations needed for the course.

#### • Diversity

The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socioeconomic status.

#### • Incomplete Grades

- Students will not be given an incomplete grade in the course without sound reason and documented evidence as described in the Student Handbook. In any case, for a student to receive an incomplete, he or she must be passing the course and must have completed a significant portion of the course.

#### Course Changes

- The instructor reserves the right to make any necessary changes to the course content, schedule, and policies. Changes will be announced in class and will also be posted online and communicated via email.

#### • Religious Accommodations

- The instructor will observe University Policy 409 (https://legal.uncc.edu/policies/up-409) on matters of religious accommodation. Please note that the procedure prescribed by this policy requires a notice to the instructor prior to the census date of the semester (typically the tenth day of instruction).

## **Course Schedule**

#### Course outline is tentative and the instructor has the right to change it.

This study plan will help you regulate the course work load over the semester. Following the study plan will ensure that you don't miss out on anything.

Week	Date	Торіс	Chapter	
Week 1	1/9	Introduction	Ch1	
		Productivity and Process capacity	Ch2-Productivity, notes	
Week 2	1/16	Manufacturing Processes	Ch7	
		Facility Layout	Ch8	
Week 3	1/23	Service Processes	Ch9	
		Project Management	Ch4	
Week 4	1/30	Project Management	Ch4	
		Exam Review		
Week 5	<mark>2/6</mark>	Exam 1	Ch1,Productivity and Process capacity,4,7,8,9	
		Six Sigma Quality	Ch12	
Week 6	2/13	Process Capacity & SPC	Ch13	
		Process Capacity & SPC	Ch13	
Week 7	2/20	Forecasting	Ch18	
		Forecasting	Ch18	
Week 8	2/27	Forecasting	Ch18	
		Exam Review	Ch12,13,18	
Week 9		Spring Recess – No classes		
Week 10	3/13	Exam 2	Ch12,13,18	
		Sales and Operations Planning	Ch19	

Week 11	3/20	Sales and Operations Planning	Ch19
		Inventory Management	Ch20
Week 12	3/27	Inventory Management	Ch20
		Inventory Management	Ch20
Week 13	4/3	Review	
Week 14	<mark>4/9</mark>	Exam 3	Ch19,20
		MRP	Ch21
Week 15	4/17	MRP	Ch21
		Scheduling	Ch22
Week 16	4/24	Scheduling	Ch22
		Exam Review	
Week 17	<mark>5/1</mark>	Exam 4	Ch21,22