



UNC CHARLOTTE

BELK COLLEGE of BUSINESS

**OPER 3100 Operations Management – Spring 2021
Section 004**

Instructor

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Office: Friday 347

Office Phone: 704-678-1988

Office Hours: TBD, a Zoom link will be posted in Canvas.

Guest Speaker and Competency-Driven Activity Developer

Dr. Patrick Madsen, pmadsen@uncc.edu

Executive Director, University Career Center

Class Time: MW(F) 1:25pm – 2:15pm

Classroom: Online (Zoom link is posted in Canvas)

Note: Synchronous mode on MW and F is for asynchronous mode.

Catalog Description:

An introduction to, and development of, the management functions in manufacturing and non-manufacturing organizations. A system approach to the organizational environment, the basic operating functions, the problems and decisions a manager encounters and solution techniques and models. Computer applications are included where appropriate.

Note: As this is a 3-credit course, students are expected to work a minimum of 9 hours for this class each week (including class time).

Course Objectives:

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 while developing core competencies in problem solving valued by employers. Managerial approaches to planning, scheduling, and controlling service and product cost, time, quality, production, inventory, and distribution are examined. At the end of the course, students will have a good 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.

Primary Competencies: Critical Thinking, Technology Application

Secondary Competencies: Leadership

1. Describe the operations function in an organization and the key aspects of operations management decision making.
2. Build critical thinking competency by appropriately use both qualitative and quantitative forecasting methods and assess the performance.
3. Explain why quality is important and the consequences of inadequate quality.
4. Explain how control charts are used to monitor a process and the concepts underlying their use. Solve typical problems.
5. Explain what a supply chain is and know the issues and strategies in the supply chain management.
6. Build an understanding of key technological applications to describe basic inventory models and solve typical inventory problems.
7. Explain how master production schedule requirements are translated into material requirements for lower-level items.
8. Discuss scheduling needs organizations & describe specific scheduling tools & approaches that can be used.
9. Describe the benefits and challenges facing the business analytics in supply chain management.

Prerequisites: MATH 1120; STAT 1220; ACCT 2121, 2122; ECON 2101, 2102; INFO2130; Junior Standing.

Career Competencies

As students' progress through their education, there is an expressed need as described by employer reactions and recent reports by major research organizations to assist them in capturing learned non-cognitive skills into competencies that they can carry with them into the next phase of their career.

The core career competencies (<https://career.uncc.edu/competencies>) describe the requirements of a "career savvy" candidate. Your academic courses not only provide you with discipline specific content and knowledge, but also opportunities for you to practice these competencies transferable to all career paths and industries.

Critical Thinking (Problem Solving)

Analyze issues, think critically, make decisions, and overcome challenges. Obtain, interpret, and use knowledge, facts and, data to make decisions.

Communication

Articulate thoughts and ideas effectively and efficiently, using verbal, non-verbal, digital, and written methods.

Teamwork

Build collaborative relationships by valuing others and taking responsibility for your role within a team.

Technology Application

Select and use appropriate technology to solve problems and accomplish goals.

Leadership

Use interpersonal skills to coach, motivate, and develop others, recognizing their strengths to achieve common goals/shared vision.

Professionalism

Demonstrate responsible work habits (i.e. punctuality, accountability, workload management) while displaying integrity and ethical behavior (i.e. acknowledge and learn from mistakes).

Self-Awareness

Understand one's skills, strengths, experiences, and areas for improvement in order to explore career options, take the steps necessary to pursue opportunities, and understand how to advocate for personal and professional success.

Diversity, Equity, Inclusion

Value, respect, and learn from a variety of identities, characteristics, and experiences (that include, but are not limited to, ethnicity, citizenship, national origin, race, gender, age, sexual orientation, gender identity, disability, socioeconomic status, special abilities, political and social philosophy, and religion) by demonstrating inclusiveness and sensitivity.

Materials**Course Website**

Course materials including class presentations will be provided on the Course Canvas website at: <https://canvas.uncc.edu/>

Supplementary Materials: Presentations, recorded lectures, practice problems/solutions, grades, and updated information regarding the course will be posted in Canvas.

Students will be expected to self-study posted materials on Canvas prior to each class session. Topics will be introduced to students online in the form of presentations and lecture recordings, while class time will be reserved for the review of topic materials, working-out associated problems, questions and answers, and discussion. The curriculum covered in this course is largely quantitative in nature, therefore it is strongly recommended that students continuously practice problems related to the covered chapters to properly prepare for quizzes and examinations.

Textbook

Operations & Supply Chain Management, 15th Edition, Jacobs & Chase, 2018, ISBN: 9781259666100 (both printed and eBook are available at the UTCC Bookstore)

UNCC Bookstore page: <https://aux.uncc.edu/bookstore/textbooks>

Suggested problems from the textbook: Students are expected to complete all the suggested chapter problems. Practicing and solving the problem sets are the best way to learn and prepare for the exams. Solutions to the suggested problems will be provided.

Software

Microsoft Excel will be used to solve some problems in the textbook. The instructor will demonstrate the how-to in class and students are encouraged to use Excel in completing homework problems where applicable.

Download Office 365 ProPlus Education at <http://software.uncc.edu/>.

MS Excel is available in the UNCC Virtual Application system: <http://apporto.uncc.edu/>.

Syllabus

This document contains the policies and expectations established for this course. Be sure to read the entire syllabus carefully before continuing in this course. These policies and expectations are intended to create a productive learning atmosphere for all students. Unless you are prepared to abide by these policies and expectations, you risk losing the opportunity to participate further in the course. The standards and requirements set forth in this syllabus may be modified at any time by the instructor. Notice of such changes will be by announcement in class and/or by changes to this syllabus posted on the course Canvas website.

Grading and Assignments

The final course grade will be calculated based on the following scale: no additional rounding will occur.

| Letter Grade | Points |
|--------------|-------------|
| A | 900 or more |
| B | 800 - 899 |
| C | 700 - 799 |
| D | 600 - 699 |
| F | 0 - 599 |

Student performance in the course will be weighted as follows:

| Assignments | Submissions / Format | Points |
|--|---|--------------|
| Tests 5 @ 150 | Individual submission Canvas – online test | 750 |
| Three Fun Exercises (100, 100, and 50 points) | Group submission Canvas – file upload | 250 |
| Total | | 1,000 |

Tests: Five semester tests and a cumulative final will be administered. The lowest of the six tests grades will be dropped for a total of five test grades being used in the final grade calculation. Each test worth 150 points. Students may choose to take all six tests and drop the lowest. The cumulative final test is optional for any student with a course average greater than or equal to points. Any student with a course average below a C (less than 700 points) at the end of the semester is required to take the cumulative final.

Should a student miss an test as a result of missing a class, that student will receive a grade of zero for that test, by default that grade will be dropped, and the student will be required to take the cumulative final test. Make-up test accommodations will only be provided under rare circumstances and require proper documentation. Proper documentation may take the form of (1) a written notice from the Dean of Students office, (2) a medical excuse provided by a board-certified physician or comparable medical professional, or (3) a written excuse provided by a current university faculty/staff member. If an excuse is approved before the scheduled test date (proper documentation required) then the student will be scheduled to take the make-up test within three school days (M-F).

Fun Exercises: These exercises are group assignments. Students will form groups in the first two weeks of class in breakout rooms. The exercises are designed to help students develop critical career competencies, such as critical thinking, communication, and teamwork by integrating the knowledge from various topics covered in this class to solve real world problems. The detail and instructions of each exercises will be posted in Canvas. Grading criteria will be provided on the assignment page. These are high-stake assignments, to receive good grade on these, make sure your submissions are well thought-out and well-written.

Communication and Email Policy

Please use the email address specified above for electronic communication. Responses to student emails will typically occur within 24 hours or less. **When emailing the instructor or graduate assistants, proper subject lines containing your course and section number are required (Example: OPER 3100 004). Messages missing proper subject lines will be deleted for security reasons.**

General Policies

Attendance & Participation Policy: Students are expected to attend punctually all scheduled class sessions.

(including lectures, labs, quizzes, examinations and presentations), demonstrate civil behavior while in class, and to complete all of course requirements. Attendance may be taken at any time, during any class, via open-roll call or Poll-Everywhere. Class attendance is highly correlated with learning the material and performing well on the course assignments and examinations.

Note that (1) some topics discussed in the classroom are not covered adequately in the textbook, thus the instructor will present alternative approaches, and (2) historically, those who skip the class tend to make less than their target grades and (3) the instructor refuses to answer questions due to absenteeism. A student that misses a class is responsible for obtaining any needed information (e.g., notes, announcements, assignments, etc.) from fellow students.

Students are expected to contribute to the active class discussions.

Class Preparation: Students are expected to study the textbook and other posted materials (notes, presentations, etc.) **prior to each respective lecture.** Additionally, students must be prepared to intelligently contribute to active class discussions and answer questions related to the current topics.

Class Cancellation: If I am unable to attend class or the University is closed unexpectedly, assume the material will be moved forward to the next meeting unless otherwise specified.

Assignments Policy: This 3-credit course requires three hours of classroom or direct faculty instruction and six hours of out-of-class student work each week for approximately 15 weeks. Out-of-class work may include but is not limited to: required reading, library research, written assignments, and studying for quizzes and exams. **Late assignments are not accepted, no exceptions.**

You must complete each individual assignment/quiz on your own. Any sharing or collaboration between students will be considered a violation of the Academic Integrity Code and will result at a minimum in a grade of zero for the assignment with a possibility for further disciplinary action.

Academic honesty/integrity: THE UNC CHARLOTTE CODE OF STUDENT ACADEMIC INTEGRITY governs the responsibility of students to maintain integrity in academic work, defines violations of the standards, describes procedures for handling alleged violations of the standards, and lists the applicable penalties. The following is a list of prohibited conduct in that Code as violating these standards: A) Cheating; B) Fabrication and Falsification; C) Multiple Submission; D) Plagiarism; E) Abuse of Academic Materials; and F) Complicity in Academic Dishonesty. For more detail and clarification on these items and on academic integrity, students are strongly advised to read the current "UNCC undergraduate catalog."

The instructor may ask students to produce identification at examinations and may require students to demonstrate that graded assignments completed outside of class are their own work.

Religious Accommodation for Students: The University of North Carolina at Charlotte is committed to diversity, nondiscrimination and inclusiveness, and to supporting its students, regardless of religious affiliation or non-affiliation, in accordance with state and federal laws and regulations. As part of this commitment, the University makes good faith efforts to accommodate a student's religious practice or belief, unless such accommodation would create undue hardship. Details associated with this policy can be found by visiting <https://legal.uncc.edu/policies/up-409>.

Miscellaneous:

- The instructor reserves the right to change the course outline, and the course contents.
- There will be no extra credit offered for any individual student during the semester.
- The instructor will keep all exams; students are permitted to review during office hours.
- All electronic & mobile devices such as cell phones, laptops, tablets, etc. must be kept silent during lecture sessions and are not permitted at any time during exam periods.

Statement on 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 socio-economic status.

Disability Services Accommodations:

UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from Disability Services early in the semester. For more information on accommodations, contact the Office of Disability Services at 704-687-0040 or visit their office in Fretwell 230.

Adverse Weather Policies:

The University's Adverse Weather Policy (University Policy 701; <http://legal.uncc.edu/policies/up-701>) states that, without exceptions, the University is open unless the Chancellor (or Chancellor's delegate) announces that the University is closed. Faculty are required to follow the procedures outlined in the policy. The University's inclement weather number is 704-687-1900.

COVID-19 Related Information

Niner Nation Cares

All students must follow the updates and instructions related to Fall semester reopening posted on <http://ninerationcares.uncc.edu>. For your own health and safety and that of your friends and families, make sure to adhere to the health and safety guidelines posted on the above links. Please do not treat these guidelines lightly.

Absences Related to COVID-19

If you are sick: If you test positive or are evaluated by a healthcare provider for symptoms of COVID-19, complete this form to alert the University. Representatives from Emergency Management and/or the Student Health Center will follow up with you as necessary, and your instructors will be notified.

If you have been exposed to COVID-19 positive individuals and/or have been notified to self-quarantine due to exposure, complete this form to alert the University. Representatives from Emergency Management and/or the Student Health Center will follow up with you as necessary, and your instructors will be notified.

If you are absent from class as a result of a COVID-19 diagnosis or quarantine, please notify your instructor immediately and seek instructions to help you continue to make progress in the course. The specific instructions for this situation will be provided on a case-by-case basis. The final decision for approval of all absences and missed work is determined by the instructor.

P/N/H Option

Unlike previous semesters, there are no planned grading exceptions due to COVID-19.

Tentative Course Schedule (Refer to Detailed Schedule Available on Canvas)

| Week | Date | Day of Week | Mode | Topic | Assignment Due |
|------|------------------|---------------|----------------------------------|---|---------------------|
| 1 | 1/20/2021 | Wednesday | Synchronous, Zoom meeting | Course Introduction | |
| | 1/22/2021 | Friday | Asynchronous mode / Self-Study | Productivity, Process Analysis | |
| 2 | 1/25/2021 | Monday | Synchronous, Zoom meeting | Productivity, Process Analysis | |
| | 1/27/2021 | Wednesday | Synchronous, Zoom meeting | Project Management | |
| | 1/29/2021 | Friday | Asynchronous mode / Self-Study | Project Management | |
| 3 | 2/1/2021 | Monday | Synchronous, Zoom meeting | Project Management | |
| | 2/3/2021 | Wednesday | Synchronous, Zoom meeting | Project Management | |
| | 2/5/2021 | Friday | Asynchronous mode / Self-Study | Project Management | |
| 4 | 2/8/2021 | Monday | | Spring Recess - No Classes | |
| | 2/10/2021 | Wednesday | | | |
| | 2/12/2021 | Friday | | | |
| 5 | 2/15/2021 | Monday | Synchronous, Zoom meeting | Test 1 (Ch. 1, 2, 4) | Test 1 |
| | 2/17/2021 | Wednesday | Synchronous, Zoom meeting | Process Selection, Facilities Layout, and Service Process | |
| | 2/19/2021 | Friday | Asynchronous mode / Self-Study | Process Selection, Facilities Layout, and Service Process | Blue Ocean Strategy |
| 6 | 2/22/2021 | Monday | Synchronous, Zoom meeting | Process Selection, Facilities Layout, and Service Process | |
| | 2/24/2021 | Wednesday | Synchronous, Zoom meeting | Forecasting | |
| | 2/26/2021 | Friday | Asynchronous mode / Self-Study | Forecasting | |
| 7 | 3/1/2021 | Monday | Synchronous, Zoom meeting | Forecasting | |
| | 3/3/2021 | Wednesday | Synchronous, Zoom meeting | Forecasting | |
| | 3/5/2021 | Friday | Asynchronous mode / Self-Study | Forecasting | |
| 8 | 3/8/2021 | Monday | Synchronous, Zoom meeting | Test 2 (Ch. 7, 8, 9 (partial), 18) | Test 2 |
| | 3/10/2021 | Wednesday | Synchronous, Zoom meeting | Aggregate Sales Planning | |

| Week | Date | Day of Week | Mode | Topic | Assignment Due |
|------|------------------|---------------|----------------------------------|--|----------------------|
| | 3/12/2021 | Friday | Asynchronous mode / Self-Study | Aggregate Sales Planning | |
| 9 | 3/15/2021 | Monday | Synchronous, Zoom meeting | Aggregate Sales Planning | |
| | 3/17/2021 | Wednesday | Synchronous, Zoom meeting | Inventory Management | |
| | 3/19/2021 | Friday | Asynchronous mode / Self-Study | Inventory Management | |
| | 3/22/2021 | Monday | Synchronous, Zoom meeting | Inventory Management | |
| 10 | 3/24/2021 | Wednesday | Synchronous, Zoom meeting | Inventory Management | |
| | 3/26/2021 | Friday | Asynchronous mode / Self-Study | Inventory Management | |
| | 3/29/2021 | Monday | Synchronous, Zoom meeting | Test 3 (19, 20) | Test 3 |
| 11 | 3/31/2021 | Wednesday | Synchronous, Zoom meeting | Materials Requirements Planning | |
| | 4/2/2021 | Friday | Asynchronous mode / Self-Study | Materials Requirements Planning | Operational Strategy |
| 12 | 4/5/2021 | Monday | Synchronous, Zoom meeting | Materials Requirements Planning | |
| | 4/7/2021 | Wednesday | Synchronous, Zoom meeting | Capacity Requirements Planning | |
| | 4/9/2021 | Friday | Asynchronous mode / Self-Study | Capacity Requirements Planning | |
| 13 | 4/12/2021 | Monday | Synchronous, Zoom meeting | Test 4 (21) | Test 4 |
| | 4/14/2021 | Wednesday | Synchronous, Zoom meeting | Quality Management - Six Sigma Quality | |
| | 4/16/2021 | Friday | Asynchronous mode / Self-Study | Quality Management - Six Sigma Quality | |
| 14 | 4/19/2021 | Monday | Synchronous, Zoom meeting | Process Capability & Statistical Quality Control | |
| | 4/21/2021 | Wednesday | Synchronous, Zoom meeting | Process Capability & Statistical Quality Control | |
| | 4/23/2021 | Friday | Asynchronous mode / Self-Study | Process Capability & Statistical Quality Control | |
| 15 | 4/26/2021 | Monday | Synchronous, Zoom meeting | Process Capability & Statistical Quality Control | |

| Week | Date | Day of Week | Mode | Topic | Assignment Due |
|------|-----------------|---------------|--|--|-------------------------------------|
| | 4/28/2021 | Wednesday | Synchronous, Zoom meeting | Process Capability & Statistical Quality Control | |
| | 4/30/2021 | Friday | Asynchronous mode / Self-Study | Lean and Sustainable Supply Chains | |
| | 5/3/2021 | Monday | Synchronous, Zoom meeting | Test 5 (12, 13, 14) | Test 5 |
| | 5/5/2021 | Wednesday | Synchronous, Zoom meeting | Buffer | Quality Control and Management Plan |
| 16 | 5/7/2021 | Friday | The date follows the Registrar Office's final exam schedule. | Optional Final - cumulative | |
| | 5/10/2021 | Monday | | | |
| | 5/12/2021 | Wednesday | | | |
| 17 | 5/14/2021 | Friday | | | |
| 18 | 5/17/2021 | Monday | Academic Year ends Grades due at Noon | | |