MBAD 6141-U91 – Operations Management  
Course Outline  
Fall 2021

Instructor: Professor Moutaz Khouja  
Friday 351C  
704-687-7653  
mjkhouja@uncc.edu

Zoom:  https://uncc.zoom.us/my/mjkhouja?pwd=SFBBRjNzK1JITk5UOW5zODI6cEVnUT09

Office Hours: Office hours will be held on Zoom. I will be on Zoom:  
Wednesday, 1:00 pm-3:30 pm.  
Tuesday, 1:30 pm-4:00 pm,  
During these times you can join me on Zoom using the above URL.  
I will be available other times and you can schedule a time for us to meet. Please send me an email and we can schedule a meeting on Zoom.

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Important Information & Policies for Fall 2021 semester

Niner Nation Cares: All students must follow the updates and instructions related to Fall semester reopening posted on http://ninernationcares.uncc.edu and https://ninernationcares.uncc.edu/students. 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.

Face coverings in classrooms and labs: It is the policy of UNC Charlotte for the Fall 2021 semester that as a condition of on-campus enrollment, all students are required to properly wear CDC-compliant face coverings while in buildings including in classrooms and labs. Failure to comply with this policy in the classroom or lab may result in the student being asked to leave the classroom. If a student refuses to wear a mask and also refuses to leave the classroom, the student will be referred to the Office of Student Conduct and Academic Integrity for charges under the Code of Student Responsibility.

Absenteism during Covid-19: Students are expected to attend every class and remain in class for the duration of the session when it is safe to do so in accordance with university guidance regarding COVID-19. An absence, excused or unexcused, does not relieve a student of any course requirement. For absences related to COVID-19, please adhere to the following:

- **Do not come to class if you are sick.** Please protect your health and the health of others by staying home. Contact your healthcare provider if you believe you are ill.
- **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.

To return to class after being absent due to a COVID-19 diagnosis or due to a period of self-quarantine, students should submit an online request form to Student Assistance and Support Services (SASS). Supporting documentation can be attached directly to the request form and should be from a student's
health care provider or the Student Health Center, clearly indicating the dates of absences and the date the student is able to return to class. Instructors will be notified of such absences.

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.

**Student Support:** The details of student support resources available are provided at the following links.
- **Academic support:** [https://ninernationcares.uncc.edu/students/academic-support](https://ninernationcares.uncc.edu/students/academic-support)
- **Health support:** [https://ninernationcares.uncc.edu/health-support-services](https://ninernationcares.uncc.edu/health-support-services)

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**Class Format:**
This is a hybrid synchronous/asynchronous course. We will have a face-to-face class session every other week. The weeks in which we do not meet, recorded video lectures are posted for you on Canvas. The exact dates of face-to-face sessions are shown in the tentative class schedule at the end of this syllabus.

**Course Material:**

**Textbook (required):**

**Readings (Available on-line from Atkins Library):**

Other course materials including PowerPoint presentations, class notes, and lecture video recordings will be available on the course’s Canvas website at: [http://canvas.uncc.edu/](http://canvas.uncc.edu/).

**Laptop Computer:**
All quizzes will be administered during a face-to-face class session on Canvas which requires you to bring a laptop to every class session.

**Course Overview:**
Operations management is the study of how organizations transform, produce, and deliver value to the customer, client, or user of the product or service created by the organization. It involves the planning, organizing and management of resources to produce goods and services so as to meet the strategic goals of the organization. The operations (or production) function is an integral part of every organization; the well-trained MBA must be familiar with and conversant in the myriad issues arising in this functional area. This course is devoted to the study of the operations function – specifically, understanding how to manage the provision of goods and services both effectively and efficiently, as well as understanding how to improve processes so that they can fulfill (or surpass) the ever-increasing demands for higher levels of performance.

**Course Objectives**
The objectives of this course are:
i) to introduce the functional area of operations and to increase awareness of how operations interface with the other functional areas of an organization.

ii) to understand the strategic role of the operations function as a key factor in determining an organization’s ability to be competitive in global marketplace.

iii) to become familiar with the various challenges (issues and problems) that occur in the management of manufacturing and service operations, and understand the terminology, modeling, and methodology that arise in the handling and resolution of these challenges.

iv) to become familiar with recent technological advances that directly affect operations management.

**Class Web Site**

You are required to access regularly the Canvas class web site and in particular, before each class. In addition to containing helpful information, Canvas will be used to communicate information on assignments, changes to the syllabus, and other announcements of general interest.

**Diversity and Inclusion**

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.

**Grading**

The evaluation of student performance in the course will be based upon the following components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1) Class Participation (discussion of homework, readings)</td>
<td>10%</td>
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<tr>
<td>2) Graded homework</td>
<td>18%</td>
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<tr>
<td>3) Six quizzes at 12% each (a total of 7 will be administered)</td>
<td>72%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Class participation refers to: regular class attendance, contributing positively, regularly, and significantly to class discussion, being well-prepared for class, as well as the timely and careful completion of assigned homework and exercises. While some homework assignments will not be collected, other homework (shown in **bold** in the tentative course schedule) will be collected and graded. Graded homework should be submitted in a single file per assignment on Canvas. The course grade is based on a straight scale as follows:

- A: 90.0+
- B: 80.0 – Less than 90.0
- C: 70.0 – Less than 80.0
- U: Less than 70.0

Please note that **11:59 pm of October 22, 2021** is the deadline to withdraw from a course and retain others.

**Quizzes:**

All quizzes will be open book and notes. Quizzes are not cumulative, i.e., they cover only the material covered in the corresponding course unit. All quizzes will be given during a synchronous face-to-face class session during which I will be available for questions. Seven quizzes are scheduled on the dates shown in the tentative class schedule. The quiz with the lowest score will be dropped and the remaining six quizzes will be used in computing the final grade.

Students have to take quizzes during the scheduled times. All quizzes are scheduled for a duration of 70 minutes each. All quizzes will be taken on Canvas which requires you to bring a laptop to each class.
Make-up Policy:
Students are expected to take quizzes as scheduled. At most one make-up quiz will be granted for each student if you have a valid excuse (illness, work, etc.). You need to provide the relevant documentation to be allowed to take the makeup quiz.

Attendance:
You are expected to attend punctually all scheduled synchronous class sessions and are responsible for completing the work from all of the class meetings. Attendance will be counted towards class participation points. You are responsible for any material covered, announcements made, assignments passed out, and any other type of work you may miss during any absence from class. The exams may contain material that is not in the slides but was covered in the class.

Incomplete Grade Policy:
Receiving a grade of incomplete (“I”) is not based solely on a student’s failure to complete work or as a means of raising his/her grade by doing additional work after the grade report time. An incomplete grade can be given only when a student has a serious medical problem or other extenuating circumstance that legitimately prevents completion of required work by the due date. In any case, for a student to receive an 'I' grade, the student's work to date should be passing, he/she must have completed a significant portion of the course, and the student must provide proper written proof (e.g., a doctor's note) of the extenuating circumstances.

Grade Appeals Policy:
If you believe that the grade you received on an assignment or an exam was in error or unfair, you can appeal to the professor in writing within 7 calendar days after the grades are posted. The appeal should clearly state the reasons why you believe the grade to be unfair or the nature of the error. Overdue appeals will not be considered.

Academic Integrity:
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 his/her own work.

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.
Students are expected to report cases of academic dishonesty they become aware of to the course instructor who is responsible for dealing with them.

For this course, it is permissible to assist classmates in general discussions about the homework. 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 me to discuss the situation. 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. 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.

**Title IX Reporting Expectations**

UNC Charlotte is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these incidents, know that you are not alone. UNC Charlotte has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with civil protective orders, and more.

Please be aware that all UNC Charlotte employees, including faculty members, are expected to relay any information or reports of sexual misconduct they receive to the Title IX Coordinator. This means that if you tell me about a situation involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking, I am expected to report the information to the Title IX Coordinator. Although I am expected to report the situation, you will still have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.

If you wish to speak to someone confidentially, you can contact the following on-campus resources, who are not required to report the incident to the Title IX Coordinator: (1) University Counseling Center ([counselingcenter.uncc.edu](http://counselingcenter.uncc.edu), 7-0311); or (2) Student Health Center ([studenthealth.uncc.edu](http://studenthealth.uncc.edu), 7-7400). Additional information about your options is also available at [titleix.uncc.edu](http://titleix.uncc.edu) under the “Students” tab.

All students are required to abide by the UNC Charlotte Sexual Harassment Policy and the policy on Responsible Use of University Computing and Electronic Communication Resources. Sexual harassment, as defined in the UNC Charlotte Sexual Harassment Policy, is prohibited, even when carried out through computers or other electronic communications systems, including course-based chat rooms or message boards.
Accommodation for Disabilities:
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.

Religious Accommodation for Students Policy:
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).

Tentative Schedule:
Note: There are likely to be additional required readings that are not listed in the syllabus and that will also be assigned during the semester. It is important to check the class (Canvas) web site regularly to keep apprised of assigned articles and homework problems, as well as revisions to this syllabus.
### Tentative course schedule

1. **FTF**: designates face-to-face class sessions. **Asy**: designates asynchronous classes via recorded video.
2. Collected Homework is to be turned in as a single file per student on Canvas.

<table>
<thead>
<tr>
<th>Week Delivery Date</th>
<th>Reading</th>
<th>Subject</th>
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| **1** FTF 8/25     | Ch: 1 & 2 | Course Administration  
Introduction to Operations Management  
Competitiveness, strategy, and productivity |
|                    |         |         |
| **2** Asy 9/1      | Ch: 2 & 3 | Video Module 3.1  
Forecasting, Introduction and Measures of Accuracy  
Video Module 3.2  
Overview of Forecasting Methods  
Video Module 3.3  
Forecasting Methods – Time Series with No Trend and No Seasonality  
Video Module 3.4  
Time Series with a Trend and Regression Analysis |
|                    |         | Chapter 3: Problems 2, 7, 8, 18, 21 (MAD, MAE, MAPE), 25, 26 – Due 9/22 |
|                    |         | Chapter 3: Problems 4, 5, 22, 27 and 2 problems on Canvas |
| **3** 9/8 FTF      | Ch: 3  | Video Module 3.5  
Time Series Methods—Decomposition  
Video Module 3.6  
Causal/Associative Models-Simple Linear Regression  
Video Module 3.7  
Causal/Associative Models-Multiple Linear Regression  
Video Module 5.1  
Capacity Planning I  
Video Module 5.2  
Capacity Planning II |
|                    |         | Chapter 5: Problems 3, 4, - Due 10/06 |
|                    |         | Chapter 5: Problems 6, 7 |
|                    |         | Chapter 6: Problems 3, 5 |
| **4** Asy 9/15     | Ch: 3 & 5 | Video Module 6.1  
Overview of process selection & facility layout  
Video Module 6.2  
Product layout—line balancing  
Video Module 10.1  
Overview of quality control  
Video Module 10.2.1  
Statistical process control—Variables  
Video Module 10.2.2  
Statistical process control—Attributes |
|                    |         | Chapter 10: Problems 1, 2, 4, 7, 20, 24, 25– Due 10/13 |
|                    |         | Chapter 10: Problems 3, 8, 9, 12, 21, 22 |
| **5** FTF 9/22     | Ch: 3 & 5 | Video Module 10.3  
Process capability  
Video Module 12.1  
Overview of inventory management  
Video Module 12.2  
Types of inventory models--overview  
Video Module 12.2.1  
Continuous review models--EOQ |
<p>|                    |         | Chapter 12 (Chapter 13 in the 13th ed): Problems 2, 4,11, 13, 16, 26, 39, 40 – Due 11/04 |
|                    |         | Chapter 12 (Chapter 13 in the 13th ed): Problems 1, 3, 5, 8, 10, 14, 15, 19, 22, 27 a, 32, 34, 37, 41 |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Video Module 12.2.2</th>
<th>Continuous review models—EPQ</th>
<th>Details</th>
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<tbody>
<tr>
<td>9 10/20</td>
<td>Ch: 10 &amp; 12</td>
<td>Chapters 10 and 12: Problem Solving Quiz 3</td>
<td>Chapter 17: Problems 1b&amp;d, 7, 8, 10, 13– Due 12/1 Chapter 17: Problems 9, 12 (AON), 14, 16</td>
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<tr>
<td>10 10/27</td>
<td>Ch: 12</td>
<td>Video Module 12.2.3 Continuous review models—quantity discounts Video Module 12.2.4 Continuous review models—Safety stock Video Module 12.2.5 Periodic Review models—fixed time interval Video Module 12.2.6 Single-period (Newsvendor) model VM-Supplement to 12 Just-in-Time Inventory</td>
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<tr>
<td>11 11/3</td>
<td>Ch: 12</td>
<td>Chapters 12: Problem-solving Discussion of Article 3 Quiz 4</td>
<td>Chapter 18: Problems 1, 5, 7, 8, 10 – Due 12/13 Chapter 18: Problems 2, 3, 6, 13,</td>
</tr>
<tr>
<td>12 11/10</td>
<td>Ch: 17 &amp; 18</td>
<td>Video Module 17.1 Overview of project management and project networks Video Module 17.2 Critical path method—deterministic time estimates Video Module 17.3 Critical path method—probabilistic time estimates Video Module 17.4 Project crashing Video Module 18.1 Management of waiting lines—overview &amp; terminology</td>
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<td>13 11/17</td>
<td>Ch: 17 and 18</td>
<td>Chapters 17 and 18: Problem-solving Quiz 5</td>
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<td>11/24</td>
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<td>Thanksgiving break, no class</td>
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<tr>
<td>14 12/1</td>
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<td>Video Module 18.1 Arrival and service processes—poisson distribution Video Module 18.2 Arrival and service processes—exponential distribution Video Module 18.3 M/M/1 infinite population system Video Module 18.4 M/D/1 infinite population system Video Module 18.5 M/M/C infinite population system</td>
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<tr>
<td>15 12/8</td>
<td>Chapter 18: Problem solving Quiz 6</td>
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<tr>
<td>16 12/15</td>
<td>6:15-7:30 pm</td>
<td>Quiz 7</td>
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