OPER 3100 Operations Management

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Text and Materials:
(1) Operations and Supply Chain Management, 15th Edition, Chase and Jacobs, McGraw Hill ISBN-13: 978-1259666100. (14th edition will also work). Used copies are widely available on the Internet.

(2) Presentations (PowerP), *recorded lectures*, *practice problems and solutions* are already posted on Canvas. Updated or new posts will be marked accordingly. It's each student's responsibility to check Canvas daily and report anything that does not match your own record within three calendar days since the date the information was posted.

Class Format: ONLINE
The class is online and follows the flipped classroom approach (started in Harvard). Flipped format means that students are expected to have reviewed, studied the materials posted for the class session, prior to the online zoom class session for mostly Q/A. Online (zoom) sessions will be also be used for mini-quizzes, which will generally require students to download a one-page word document, answer the questions on it, then upload the same document. After the mini-quiz is completed, I will review it.

Exams will be multiple choice and typically 50-60 mins long. I will post solutions to the exams after the exams are completed.

Suggested approach to studying: The easiest way to learn the materials and earn a good grade is to use the power point presentation file for each topic (chapter) as your guide while reading the relevant chapter/section of the textbook. **Then, begin watching the recordings in the order they are posted in canvas.** While doing so:
- Pause the video right after a given problem statement
- Do your best to work out the problem
- When stuck advance the video slowly and partially and keep trying to work it out

When you work out all the "practice problems" for a given topic then take the practice exams. Although they are shorter than the actual exams, they give you a very good idea about what to expect and whether you are ready or not to make a good grade in the exam.

Attendance Policy: Students must attend all exams and highly recommend attending the mini-quizzes. Please note the dates for the exams and mini-quizzes on your calendars.

Practice problems: Students are expected to do all the practice problems. Solving the problem sets are the best way to test yourselves and prepare for the exams. Solutions to the practice problems are provided.

Grading:
Four mid-terms (each ~50-60 min) and a cumulative final (2.5h); The <u>lowest</u> of the five exams will be dropped.
Five mini-quizzes (~10 min) each worth 4 points. Points earned from mini-quizzes will go towards extra-credit.

Exams: 100 points ea. x 4 (best of five) = 400
Mini-quizzes: 4 points ea. x 5 =   20
<u>Example</u>:
      Exam grades 80, 80, 80, 68, 0 → 308 / 400 = 77 (without mini quizzes "C")
      Mini-quizzes 0, 4, 4, 0, 4 → 12 so 308 + 12 = 320 / 400 = 80 → "B"

Formulas will be provided for all quizzes and exams.

Should a student miss an exam as a result of missing a class, that student will receive a grade of zero. In the event that the excuse is approved (<u>must</u> provide proper documentation, e.g., doctor's note, accident report, speeding ticket copy and a selfie with the officer would be a nice touch) then the student will take the make-up within three school days. Students who miss more than one mid-term exam should drop the class otherwise will be given an F. There will be no make-ups for missed mini-quizzes.

Catalog Description:
OPER 3100. Operations Management. (3) Prerequisites: MATH 1120, STAT 1220, ACCT 2121, 2122; ECON 2101, 2102; INFO 2130; junior standing. Introduction to and development of the management functions in manufacturing and non manufacturing organizations. A systems approach to the organizational environment, the basic operating functions, problems and decisions a manager encounters along with the solution approaches, and models. Computer applications are included where appropriate.

General Objectives: The operations function involves managing the activities and resources necessary to make products and/or provide services. Therefore it is a basic function that must be performed in all business organizations. Management of operations in today's business environment usually involves significant computer usage and mathematical and statistical modeling. This class provides a working understanding of the models and techniques useful in operations management. The foundation for such an understanding will be built by examining selected problem areas and widely recognized modeling approaches to dealing with them.

Student Learning Objectives:
- *Students will demonstrate the ability to apply forecasting models and measure forecasting accuracy.*
- Students select and apply appropriate inventory models for various inventory management systems
- Students schedule projects using critical path method and project evaluation and review technique
- *Students will demonstrate the ability to use materials requirements planning to plan production.*

Class Cancellation: This is quite unlikely but can happen. In the event that I am unable to attend the Q/A sessions, since all materials are online, the course will proceed as scheduled. If it is on an exam or mini-quiz date, they will be postponed to next feasible class day and the schedule on canvas will be updated accordingly.

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."

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.

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 2 calendar days after the grades are posted. The appeal should clearly state the nature of the error. Overdue appeals will not be considered.

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 (see university calendar for the applicable census date.)

Academic Calendar: http://registrar.uncc.edu/printable-calendar

Course Outline
Detailed topics, course notes, recorded lectures, handouts, changes in the schedule, etc. are all available via Canvas.
Introduction to the Operations and Supply Chain Management - Chap 1

Linear Programming Appendix A
        Problems: 3, 4, 5, 6, two more from another source

Project Management – Chap 4
        Problems: 5, 7, 8, 10, 12

Forecasting – Chap 18
Problems: Problems: 6, 7, 15, 18, 22, 28

Sales and Operations Planning – Chap 19
Problems: 8, 9, 14

Inventory Management – Chap 20
Problems: 11, 12, 15, 17, 21, 24, 25, 28, 35, 38

Materials Requirements Planning – Chap 21
Problems: 11, 12, 13, 14, 15, 16, 17

Workcenter Scheduling - Chap 22
Problems: 8, 9, 12, 14, 24

Statistical Quality Control – Chap 13
Problems: 3, 5, 6, 7, 8, 9, 10, 12, 13

Important notes:
• 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.
• This syllabus may be subject to some changes during the semester after adequate advance notice to students.