OPER 3100 Operations Management

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Text and Materials:
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.
(3) Bring a calculator to each class. Space permitting laptop computers are also allowed in the class except during exams.

Class Format: Flipped
This course will be delivered via the “flipped classroom” approach while meeting twice a week in the classroom (just Google “flipped classroom”). I have extensive postings for each topic most of the class time will be spent on solving problems and answering questions. So, it is very important that students come to class having read the relevant parts of the text and worked out problems via the posted videos.

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.

**Suggested problems:** Students are expected to do all the suggested problems. Solving the problem sets are the best way to learn and prepare for the exams. Solutions to the suggested problems are provided.

**Class preparation:** The easiest way to earn a good grade is to use the class notes/presentation as your guide while reading the relevant chapter/section of the textbook prior to each class session. Then, organize your notes and/or work out a couple of problems after the class, preferably the same day.

**Attendance Policy:** Students must attend all exams and highly recommend attending the mini-quizzes.

**Class Cancellation:** In the event that I am unable to attend class or the University is closed unexpectedly, since all materials are online, the course will proceed as scheduled. If the class cancellation or university closure 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."

**Class Conduct:** Disruptive behavior includes but is not limited to, side conversations between two or more students during lecture, unnecessary comments that add no value to class, and any activities that negatively impact the ability of other students to learn and/or listen in class. Disruptive behavior will not be tolerated. I have in the past and will in the future (if necessary) amend the syllabus and grading policy to penalize individuals that exhibit disruptive behavior.

All electronic & telecom equipment such as mobile phones, iWatches, gWatches, beepers, etc. must be kept silent and tucked away (in a bag, briefcase or pocket) during the lecture.
**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.

**Grading:**
Four mid-terms (each ~50min) and a cumulative final (2.5h); The lowest 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

**Example:**
Exam grades 80, 80, 80, 68, 0 \( \rightarrow \) 308 / 400 = 77 (without mini quizzes “C”)
Mini-quizzes 0, 4, 4, 0, 4 \( \rightarrow \) 12 so 308 + 12 = 320 / 400 = 80 \( \rightarrow \) “B”

Exams are closed book and notes. Formulas will be provided for all quizzes and exams. I will review the exam only once and in class. Absent students forfeit their chance to review their exam. Therefore, it is very important that all students are present during these reviews.

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 (must 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.

The instructor may ask students to produce identification at examinations.

**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](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.)

**Miscellaneous:**
The instructor reserves the right to change the course outline, and the course contents. There will be no extra credit offered for any student during the semester.
The instructor will keep all exams (mandated for assessment of learning purposes).

**Important Dates:**
First day of class for OPER 3100: Aug 20  
Fall break: Oct 7-8  
Last day to drop a course with a "W": Oct 21  
Last day of class for this section: Dec 3

**Academic Calendar:** [http://registrar.uncc.edu/printable-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