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: HYBRID
Hybrid courses have been described as "the most prominent instructional delivery solution” since they provide the ever-growing and increasingly diverse academic world with the flexibility of online learning along with valuable collaboration achieved through face-to-face student-instructor interaction.

In Spring 2017 face-to-face (F2F) class sessions will be held mostly on Tuesday of each week, with a few exceptions. Self-study days will be marked on the course schedule as SELF STUDY and will be identified throughout the semester based on the nature and pace of the current material on “canvas.uncc.edu”.

Note that the exams are typically on Thursdays.

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, the problems and decisions a manager encounters and solution techniques 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 face-to-face lectures and exam. Class attendance is highly correlated with learning the material and earning a good grade. 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) from fellow students.

**Class Cancellation:** In the event that I am unable to attend class or the University is closed unexpectedly, assume the material will be moved forward to the next meeting.

**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.

**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, 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 ~1h) 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) = 400
Mini-quizzes: 4 points ea. x 5 = 20

**Example:**
Exam grades 80, 80, 80, 0, 68 \(\rightarrow\) 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 or a mini-quiz 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) 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.

**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.

**Important Dates:**
First day of class for OPER 3100: Jan 10
Spring break: Mar 6-11
Last day to drop a course with a "W": Mar 20
Last day of class for this section: May 2

**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

**Project Management** – Chap 4
Problems: 2, 4, 6, 8, 9

**Forecasting** – Chap 18
Problems: 2, 3, 11, 12, 14, 20, 21

**Sales and Operations Planning** – Chap 19
Problems: 4, 5

**Inventory Management** – Chap 20
Problems: 3, 6, 12, 14, 17, 18, 21, 24

**Materials Requirements Planning** – Chap 21
Problems: 3, 4, 5, 6, 7, 8, 9

**Workcenter Scheduling** - Chap 22
Problems: 4, 5, 6, 7, 8, 9, 14, 15

**Statistical Quality Control** – Chap 13
Problems: 3, 4, 6, 7, 8, 9, 11, 13