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 exams.* Mobile phones cannot be used as calculators.

Class Format: This course will be delivered in a **hybrid** format using a combination of face-to-face problem session meetings and online content. Face-to-face class sessions will be held, on MWF where with the exception of the first week, there will be a midterm every week (4 midterms).

*While hybrid course sections provide increased flexibility to students, they require a commitment to study via recorded lectures and other materials posted online regularly and in particular during a Summer session studying daily.*

Hence it is best (perhaps I should say you **must**) come prepared to class for an easy but very fast Summer class experience.

Exam dates & times: July 10, 19, 26, Aug 2, Final: August 7, 8-10:30am

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, and the problems and decisions a manager encounters and solution techniques along with 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 practice problems:** Students are expected to do all the suggested practice problems. Solving the problem sets are the best way to learn and prepare for the exams. Solutions to the suggested problems are provided.

**Suggested approach to studying and learning the materials covered in this section:**
The best approach is to pace your studying by following the schedule posted in canvas. That is, for a given date, for example July 1st, study the materials posted along with reading the corresponding parts of the text. Pause and rewind the recordings to fully capture the concepts, understand the question(s) being asked, and to solve the problem piece by piece.

For each main topic, such as “Linear Programming”, “Forecasting”, “Quality Control”; 
- The presentation (PowerPoint file) gives the overview of the subject matter.
- Several recordings explain the concepts and show step by step how to tackle problems
- Practice problems (and their solutions) are for you to practice after studying the materials.
- Practice exams (and answers) should give you a good idea the format of the exams and an opportunity to test yourself. However, they do not necessarily cover every problem/question style.

**Attendance Policy:** Students must attend all exams days.

Should a student miss an exam, 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 exam the within two school days. Students who miss more than one mid-term exam probably should drop the class.

Attending a wedding or other ceremonial events are not excusable absenteeism. Also, please let grandma and grandpa live another Summer 😊
**Class/Exam Cancellation:** In the event that I am unable to attend class or the University is closed unexpectedly, I will email an update detailing changes to the schedule, if any.

**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/Exam 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 exams.

**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 long (not 1.5 hour) and a cumulative optional final (2.5h). Final replaces the lowest of the first four exam grades. Exam reviews will take place during the last 30 minutes of the exam days. Exams are closed book and notes. Formulas will be provided for all exams. Bring a calculator (any kind) to exams.

Standard letter grading applies: 0-59 F, 60-69 D, 70-79 C, 80-89 B, 90-100 A.

**Grade Appeals Policy**
If you believe that the grade you received in an exam was in error, 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.

**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