OPER 3100 - Operations Management

Course Outline - Spring 2015

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Office Hours: Monday 6:00 – 6:30 pm (Before the class)
Additional time available by appointment

Other course materials including copies of presentations will be provided on the Course Moodle2 website at: https://moodle.uncc.edu/login/index.php

Cases and Readings: Campus Wedding (A) and (B), Adapted from a case originally written by Professor D.C. Whybark, University of North Carolina, Chapel Hill. Available on-line from Course Moodle2 website at: https://moodle.uncc.edu/login/index.php

Course Description: 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 integration of numerous activities and processes to produce products and services in a highly competitive global environment. Therefore it is a basic function that must be performed in all business organizations. World class performance in operations, i.e., in product design, manufacturing, engineering, and distribution, is essential for competitive success and long term survival of the organization.

This course considers operations from a managerial perspective. We consider key performance measures of operations as well as important concepts for improving the performance of operations along these dimensions. Managerial approaches to planning, scheduling, and
controlling service and product cost, time, quality, production, inventory and distribution are examined. At the end of the course, students will have a fair understanding of the role production/operations management plays in business processes. Emphasis is given both to familiarization of various production processes and service systems and to quantitative analysis of problems arising in the management of operations.

**Course Objectives:**

1. Describe the operations function in an organization and the key aspects of operations management decision making.
2. Appropriately use both qualitative and quantitative forecasting methods and assess the performance.
3. Explain why quality is important and the consequences of poor quality.
4. Explain how control charts are used to monitor a process and the concepts underlying their use. Solve typical problems.
5. Explain what a supply chain is and know the issues and strategies in the supply chain management.
6. Describe basic inventory models and solve typical inventory problems.
7. Explain how master production schedule requirements are translated into material requirements for lower-level items.
8. Discuss scheduling needs organizations & describe specific scheduling tools & approaches that can be used.
9. Describe the benefits and challenges facing the business analytics in supply chain management.

**Course Syllabus:**

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<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Textbook Chapters</th>
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<tbody>
<tr>
<td>1</td>
<td>01/12</td>
<td>Introduction and Productivity Measurement</td>
<td>Chapter 1 and Chapter 2 (Productivity Measurement)</td>
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<td></td>
<td>01/19</td>
<td>Dr. Martin Luther King Holiday</td>
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<tr>
<td>2</td>
<td>01/26</td>
<td>Project Management</td>
<td>Chapter 4</td>
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<tr>
<td>3</td>
<td>02/02</td>
<td>Project Management; and Manufacturing Processes</td>
<td>Chapter 4 and Chapter 7</td>
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<tr>
<td>4</td>
<td>02/09</td>
<td>Manufacturing Processes; and Facility Layout</td>
<td>Chapter 7 and Chapter 8</td>
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<tr>
<td>5</td>
<td>02/16</td>
<td>Facility Layout; and Service Processes</td>
<td>Chapter 8 and Chapter 9</td>
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<td></td>
<td>02/23</td>
<td>Exam 1</td>
<td>Chapters 1, 2, 4, 7, 8 and 9</td>
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<tr>
<td>6</td>
<td>03/02</td>
<td>Quality Management (Six Sigma Quality)</td>
<td>Chapter 12</td>
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<tr>
<td></td>
<td>03/09</td>
<td>Quality Management; and Statistical Quality Control</td>
<td>Chapter 12 and Chapter 13</td>
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<tr>
<td></td>
<td>Date</td>
<td>Title</td>
<td>Chapters</td>
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<td>8</td>
<td>03/16</td>
<td>Lean and Sustainable Supply Chains</td>
<td>Chapter 14</td>
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<td>9</td>
<td>03/23</td>
<td>Global Sourcing and Procurement; and Forecasting</td>
<td>Chapter 16 and Chapter 18</td>
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<td>10</td>
<td>03/30</td>
<td>Forecasting</td>
<td>Chapter 18</td>
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<td>11</td>
<td>04/06</td>
<td>Forecasting; and Sales and Operations Planning</td>
<td>Chapter 18 and Chapter 19</td>
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<td>12</td>
<td>04/13</td>
<td>Sales and Operations Planning; and Inventory Management</td>
<td>Chapter 19 and Chapter 20</td>
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<td>13</td>
<td>04/20</td>
<td>Inventory Management</td>
<td>Chapter 20</td>
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<td>14</td>
<td>04/27</td>
<td>Materials Requirements Planning</td>
<td>Chapter 21</td>
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<tr>
<td>15</td>
<td>05/04</td>
<td>Exam 2 (non-cumulative) and make-up Exams</td>
<td>Chapters 18, 19, 20, and 21</td>
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**Grading Policy:**

Following letter grades will be used:

- **A**: 90.0 - 100
- **B**: 80.0 - 89.99
- **C**: 70.0 - 79.99
- **D**: 60.0 - 69.99
- **F**: 59.99 AND BELOW

Student performance in the course will be weighted as follows:

- Exam 1: 25%
- Exam 2: 30%
- Exam 3: 30%
- Online Quizzes: 10%
- Participation: 5%

**Examinations:**

There will be three exams for the course. All exams will be in-class and closed-book/closed notes. For each exam, instructor will provide a sheet of relevant equations, formulas and tables. Scantron forms and a calculator are required for each exam.

Exams are non-cumulative. Plan now for the following dates: Feb. 23 (Exam 1), March 30 (Exam 2), and May 4 (Final Exam and Make-up Exams). The exams will be given as scheduled in the
syllabus during the class period. Typical duration of the exams will be 1.5 hours while the final exam may have duration of 2 hours.

**Make-up Exam Policy:**
At most **ONE** make-up exam will be granted for each student. Makeup exams will be given only on the **final exam date**. If you have a valid excuse (illness, work, emergency, etc.) **with documentation**, you will be able to take the makeup exam.

**Suggested Homework Problems:**
There are five **suggested** homework assignments. The purpose of homework assignments is to provide learning reinforcement and promote class preparations. You will find that the homework provides excellent learning feedback and is a confidence-building tool. The assignments will also help with your preparation for the exams. **You do not need to turn in homework.** Solutions to the practice homework problems will be posted on Moodle 2. Please study each solution carefully. Students are expected to do all the suggested problems, since the effort expended in the assignment is usually reflected in performance on the exams.

**Quizzes:**
There are nine quizzes. **Each quiz will only be available on Moodle 2 for a specific time period.** If you miss the time, you will get a grade of zero for that quiz. One lowest quiz may be dropped. Quizzes account for **10%** of overall grade.

**Participation:**
Participation refers to: regular class attendance; contributing positively, constructively, regularly, and significantly to class discussion; being well-prepared for class, as well as the timely and careful completion of assigned homework and exercises by collaborating within your groups. While some homework assignments will not be collected, other homework (shown in the table above) and cases will be collected and graded. Keep the instructor informed about your absences and any issues regarding class participation, well in time.

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

**Class Conduct:**
Disruptive behavior includes but is not limited to, side-bar 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 the class. Disruptive behavior will not be tolerated. If necessary, the instructor will amend the syllabus and grading policy to penalize individuals that exhibit disruptive behavior. Please keep all electronic and telecom equipment such as cell phones, beepers, etc. on "silent" mode during class.

**Extra Credit Work:**
There will be **NO EXTRA CREDIT** work offered for any student during the semester. Please do not depend on any extra credit opportunities to improve your grade later in the semester.
General Policies:

**Student Academic Integrity:**
Integrity is amongst the core values of the Belk College of Business. Students are responsible for knowing and observing the UNC Charlotte Code of Student Integrity ([http://legal.uncc.edu/policies/up-407](http://legal.uncc.edu/policies/up-407)). All work on exams and quizzes is to be done on an *individual basis*. This may also be extended to certain assignments and will be specified as such in class. There is always the possibility and temptation to consult with someone who has had the course (or class) previously or to consult case/class notes or project reports from another section or from a previous year or semester or that might be available on the internet. This practice is **strictly prohibited** under all circumstances and unequivocally constitutes a violation of the **Code of Student Integrity**. Obviously, group projects involve cooperative effort. Everyone however, is **required** to contribute to the effort for this class, and individual contributions will be evaluated through group peer review and participation score.

**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.

**Withdrawal from Class:**
The administration of this institution has set deadlines for withdrawal from any college-level courses. These dates and times are published in that semester’s course catalog. Administration procedures must be followed. It is the student’s responsibility to handle withdrawal requirements from any class. In other words, the instructor cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.

**Incomplete Grade:**
As per university policy, incomplete grades will be granted when a student who is otherwise passing has not, due to circumstances beyond his/her control, completed all the work in the course. The missing work must be completed by the deadline specified by the instructor or during the next semester (fall or spring) in residence, but no later than 12 months after the term in which the I was assigned, whichever comes first. If the I is not removed during the specified time, a grade of F, U or N as appropriate is automatically assigned. The grade of I cannot be removed by enrolling again in the same course.

**Disclaimer:**
The schedule and assignments in this course are subject to change in the event of extenuating circumstances or at instructor’s discretion.