Course Syllabus
SCMS 4510-001 – Operations Planning and Control
Spring Semester, 2016
3.0 Credit Hours

(Last updated: 12/10/2015)

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Class Meetings:  Tuesday/Thursday 7:10-8:35PM in FCB-267
Office Hours:  Tuesday/Thursday 3:45-5:15PM and by appointment

Course Overview

This course expands on the concepts learned in SCMS351 (previously ISDS351) – Operations Management, and describes the use of planning and control systems to manage material flows and capacities in operations. Topics covered include demand management, forecasting, sales & operations planning, master production scheduling, material requirements planning, capacity management, production activity control, and inventory management. Operations planning and control is an integrative function in business that is critical in linking the planning activities in many areas of the business, including marketing, operations, finance, and human recourses, etc.

Pre-Requisites:

SCMS351 – Operations Management

During this course, the instructor will constantly refer to materials covered in SCMS351, and a good understanding of SCMS351 is necessary for success in this course. However, all problems in quizzes or exams are entirely based on materials covered in the current course.

Required Texts:


Given the nature of this course, these texts are absolutely necessary for a student's success. If you want to save some money, get used copies.
**Location of Course Materials:**

All course materials, including lectures notes, online quizzes, grades, and announcements, etc., are located on the eCourseware website (https://elearn.memphis.edu).

Lecture notes are provided in PDF format instead of PPT format. Students can print out the notes with however many pages per sheet as they want. For a few topics, students are required to print out large copies of certain slides to use for in-class exercises. Slides with calculation details are provided for topics 3 to 8. These are for review purposes and I don’t recommend that you print them out, or they would consume a lot of paper. Watermarks are placed in these slides in a way that won’t affect regular review.

**Course Objectives:**

By successfully completing this course, students will be able to:

1. Describe the need to learn about the various functions in operations planning and control to better manage manufacturing or service systems.
2. Show how qualitative and quantitative forecasting techniques can be used in long-term and short-term demand determination.
3. Construct a reasonable sales and operations plan using different strategies.
4. Develop master production schedules using different lot-sizing approaches, and determine available-to-promise quantities.
5. Construct a material requirements plan for a specific master production schedule.
7. Understand how various order sequencing rules and theory of constraints scheduling can be used to improve the performance on the shop floor.
8. Develop quantitative models to manage independent demand inventory systems.

**Fogelman College: Learning Outcomes for Your Degree**

This course is designed to help you to meet the overall learning objectives for the BBA degree offered by the Fogelman College. You should take the time to become familiar with the overall learning objectives as a student in the BBA program (http://www.fcbeassessment.net/LearningOutcomes/BBADegreeLearningOutcomes.pdf)

**Professor’s Expectations of Students:**

In general, you should assist the instructor in creating a positive, supportive environment for learning by staying engaged in the course and actively participating in all class discussions.

**Student’s Expectations of the Professor:**

In my role as your instructor, there are certain things you can expect from me including: well-organized and engaging learning experience, response to emails within 2 business days, and feedback on all work submitted within 7-10 calendar days.
Grading and Evaluation Criteria

Over the semester, you will have a variety of opportunities to earn points towards your overall letter grade in this course. This section of the syllabus describes the assessed work you will be doing and how overall letter grades will be computed.

Summary of Graded Activities:

Your overall grade for the semester is based on how well you perform on a mixture of formal activities including tests, quizzes, etc. Points earned on the assessed activities will be distributed as follows:

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nine out of ten quizzes (9 @ 12pts each)</td>
<td>108</td>
</tr>
<tr>
<td>Exam 1</td>
<td>40</td>
</tr>
<tr>
<td>Exam 2</td>
<td>30</td>
</tr>
<tr>
<td>Exam 3</td>
<td>30</td>
</tr>
<tr>
<td>Exam 4</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>238</strong></td>
</tr>
</tbody>
</table>

Any concern about any grade item, including extra credits, must be raised within one week following posting of the grades. So don’t wait until after the final exam to talk about your scores on previous grade items.

Quizzes:

There are ten quizzes that are taken online in eCourseware. Topics 1 and 2 share one quiz, and each of the following topics has one or two quizzes. Each quiz comprises 12 multiple-choice or True/False problems that are randomly selected from a larger pool of problems. The problems are one point each. Hints are given on some problems. Upon submission of your answers, the system will instantly report your grade as well as the correct answer to all the questions. Explanations are given on certain problems. Up to two attempts are allowed on each quiz, and the grade is the higher attempt. At the end of the semester, the nine highest scores from the ten quizzes are taken to calculate your course grade. In other words, you have the chance to do poorly on one quiz or even miss one quiz without affecting your course grade.

Quiz schedule is listed in the course schedule which is attached at the end of this syllabus. Each quiz will be open for seven consecutive days, from 12:00AM on the first day to 11:59PM on the last day of the scheduled period. Be aware that the days the quizzes are available may fall on weekends or holidays. There is no time limit on an attempt. Mark your calendar so that you do not miss any quiz. One beauty of online quizzes is that even if you are out of town you can still take them. If you want to wait until the last day or even the last few hours to take the quiz, be aware that you are taking the risks of possible internet connection problems, illness, or not being able to submit your answers in time, etc. Attempts that are not submitted in time will not be graded. If you missed a quiz, you should refrain from asking me to reopen it for you unless you can provide written evidence for really extreme situations such as being hospitalized during the entire time that the quiz was open. If you want to have a look at the questions just for learning purposes, see whether any other student in the class is willing to share his/her record with you.
Quiz problems are very similar to exam problems and are a good resource to use while preparing for the exams. Students are encouraged to use the textbooks, lecture notes, and other resources when taking the quizzes. Quiz problems are not discussed in class, and questions should be asked after a quiz is closed.

Exams:
Each of the four exams is on selected chapters; none of them is comprehensive. Each exam comprises some multiple-choice questions which are one point each, and a few essay or calculation questions. Exams are open-book and open-notes. Students should bring their own calculators, pencils and erasers. Cell phones and computers of any type are forbidden and must be off the table in exams.

Makeup exams are available only to students with excused absences that are due to illness or participation in university authorized activities, and should be arranged at least two business days before the scheduled exam time. To arrange a makeup exam, these students must bring written documentation from their doctor or university official indicating the reason for the absence. In case of an emergency on the exam day, I need to be notified within four hours of the scheduled exam. Otherwise, a zero will be assigned. Regardless of the excuses, students who miss more than 30% of classes according to the attendance record are not allowed to take makeup exams. Makeup exams might be different from regular exams.

In order to start the exam on time, you must be seated at least 3 minutes before the class time on an exam day. Coming in late is very disruptive, and therefore as a penalty, one point is taken out of the exam score for every minute a student is late for the exam. This rule also applies to makeup exams, including those scheduled for students with disability. In addition, students should bring a photo ID, preferably the student card, for identity verification purpose.

Lectures:
Lectures are interactive in the sense that a constant questioning process takes place with responses expected. To be successful in learning the concepts, you must be actively engaged in the material. To help make in-class note-taking easier, print out the lecture notes and bring them to class. In addition, please bring a calculator and work out the exercise problems when asked, which will greatly help you understand the material. Videos illustrating real-world applications for some concepts will also be shown throughout the semester.

Extra Credits:
Extra credits might be assigned based on student attendance and participation in class discussion. Extra credit quizzes might also be given. All extra credits contribute to the numerator but not the denominator in calculating grade percentages. All extra credit opportunities are open to all students and no special opportunity will be provided to specific students. Extra credits can’t be made up even with excused absences.
Final Course Grades:

A student's grade percentage is calculated by dividing the total points earned (including possible extra credits) by 238, rounded to the second decimal place. The final course grade will be assigned according to the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>95.00%</td>
</tr>
<tr>
<td>A</td>
<td>90.00%</td>
</tr>
<tr>
<td>A−</td>
<td>87.00%</td>
</tr>
<tr>
<td>B+</td>
<td>83.00%</td>
</tr>
<tr>
<td>B</td>
<td>80.00%</td>
</tr>
<tr>
<td>C+</td>
<td>73.00%</td>
</tr>
<tr>
<td>C</td>
<td>70.00%</td>
</tr>
<tr>
<td>C−</td>
<td>67.00%</td>
</tr>
<tr>
<td>D</td>
<td>60.00%</td>
</tr>
</tbody>
</table>

I reserve the right to lower the cutoff points, leading to higher grades, but I will never raise these cutoff points. After the final course grades are assigned, I won't raise a student's grade to the next level no matter how close his/her percentage is to the next cutoff point (e.g., 0.01%).

All the extra credits mentioned above are open to all students. There is no other way for a student to raise his/her grade. I have to be fair to all students so I can't give any specific student any special opportunity to improve his/her grade.

At any time during the semester, a “percentage so far” grade item in eCourseware shows the ratio of your total earned points to total points so far. Keep a close eye on it if you have a target grade in mind. After the final grades are assigned, nothing can be done to raise your grade. Things like these are not justifications for a better grade: you have to graduate by a specific time, you have to have a certain grade to stay in a specific program, you have taken this course for three times, or you have worked very hard and attended every class, etc. Please don’t even bother asking me to raise your grade with these or other “reasons”. It will only put me in a very hard situation if you request more than what the policies allow, and eventually I will reject all these requests because I have to be fair to all students. Please keep in mind that what determines your grade is your performance rather than my decision.

Schedule of Activities:

Please refer to the last page of this syllabus for the course schedule.

Final Exam Schedule:

The final exam for this class will be scheduled according to the Registrar's academic calendar website (http://www.memphis.edu/registrar/calendars/index.php). It is on 5/3, 7:00–9:00PM in the same classroom.

Course Policies

E-MAIL:

All students are required to maintain and access their University of Memphis (@memphis.edu) email account. You will receive all official course correspondence at this email account. Any inability to receive incoming mail in a timely fashion (e.g., not regularly checking your email, having a “full mailbox” condition, etc.) is the student’s responsibility.
Attendance:
Student attendance is expected. A seating chart will be used for the instructor to better recognize students. From the second class meeting on, you are expected to take a fixed seat.

The roll might be taken occasionally without previous notice, and extra credits be assigned accordingly. The roll could be taken at any point of time during the class period, and students who are not there at that time are regarded absent. It is the responsibility of the students to make every effort to catch up on what was missed due to absence. Due dates of all class requirements can be found in this syllabus, so please don’t ask me about it every time you miss a class. However, students should notify me in a timely manner of any issue that could seriously affect their performance, such as missing exams.

Adding / Dropping:
If you have questions about adding or dropping classes, please refer to this page on the Registrar’s website (http://www.memphis.edu/ugcatalog/acad_reg/attendance.php).

Academic Integrity:
The University of Memphis has clear codes regarding cheating and classroom misconduct. Expectations for academic integrity and student conduct are described in detail on the website of the Office of Student Conduct website (http://www.memphis.edu/studentconduct/). Students are expected to be aware of these guidelines and to conduct themselves accordingly. In this course, cheating on exams and roll-taking is especially intolerable. Any student involved in these activities could get a lower or even failing grade. If you have any questions about academic integrity or plagiarism, you are strongly encouraged to review the Fogelman College’s Website on Academic Integrity (http://www.memphis.edu/fcbe/students/integrity.php).

Participation:
To be successful in this course as a student, you must stay active and involved throughout the entire semester. Students are encouraged to actively participate in class discussion by asking questions, answering questions, or sharing personal work experience that is relevant to the topic being discussed. Extra credits might be assigned based on participation in class discussion, which is evaluated based on quality instead of quantity.

Classroom or Online Behavior:
All participants in the course should be considerate of the other course participants and treat them (as well as their opinions) with respect. The class will operate under the assumption that any and all feedback offered is positive in nature and that the intentions of the person providing feedback are strictly honorable. Insensitivity in this area will not be tolerated. If you have any questions about this, you should review the Fogelman College’s Netiquette website (http://www.memphis.edu/fcbe/students/netiquette.php).

In this course, please pay special attention to the following items:

- Please be punctual to class and don’t start packing up before class is over.
- Laptop computers can only be used for note-taking in class; cellphones and earphones are forbidden.
• Any disruptive behavior could lead to a lower or even failing final grade.

**Syllabus Changes:**

The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both notification and nature of changes on the course bulletin board.

**Student Services**

Please access the FCBE Student Services page [http://www.memphis.edu/fcbe/students/services.php](http://www.memphis.edu/fcbe/students/services.php) for information about:

- Students with Disabilities
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students
- Technical Assistance
# Course Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic #</th>
<th>Jacobs chapter</th>
<th>Stevenson chapter</th>
<th>Topic/activity</th>
<th>Quiz #</th>
<th>Quiz open date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/19</td>
<td></td>
<td></td>
<td></td>
<td>Syllabus &amp; introduction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/21</td>
<td>1</td>
<td>1</td>
<td>Stevenson</td>
<td>Manufacturing planning and control</td>
<td>1</td>
<td>1/27 – 2/2</td>
</tr>
<tr>
<td>1/26</td>
<td>2</td>
<td>2</td>
<td></td>
<td>Demand management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/28, 2/2, 2/4, 2/9, 2/11</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Forecasting</td>
<td>2</td>
<td>2/5 – 2/11</td>
</tr>
<tr>
<td>2/6, 2/12, 2/18</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>Sales and operations planning</td>
<td>4</td>
<td>2/24 – 3/1</td>
</tr>
<tr>
<td>2/16</td>
<td></td>
<td></td>
<td></td>
<td>Exam 1 (Topics 1, 2, 3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/17 &amp; 2/23</td>
<td>5</td>
<td>5</td>
<td>11</td>
<td>Master production scheduling</td>
<td>5</td>
<td>3/2 – 3/8</td>
</tr>
<tr>
<td>3/1 &amp; 3/3</td>
<td>6</td>
<td>6</td>
<td>12</td>
<td>Material requirements planning</td>
<td>6</td>
<td>3/4 – 3/10</td>
</tr>
<tr>
<td>3/15</td>
<td></td>
<td></td>
<td></td>
<td>Exam 2 (Topics 4, 5, 6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/29 &amp; 3/31</td>
<td>8</td>
<td>8</td>
<td></td>
<td>Production activity control</td>
<td>8</td>
<td>4/1 – 4/7</td>
</tr>
<tr>
<td>4/5</td>
<td></td>
<td></td>
<td></td>
<td>Exam 3 (Topics 7, 8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/7, 4/12, 4/14, 4/19, 4/21 &amp; 4/26</td>
<td>9</td>
<td>11</td>
<td>13</td>
<td>Inventory management</td>
<td>9</td>
<td>4/15 – 4/21</td>
</tr>
<tr>
<td>5/3, 7:00-9:00PM</td>
<td>10</td>
<td></td>
<td></td>
<td>Exam 4 (Topic 9)</td>
<td></td>
<td>4/27 – 5/3</td>
</tr>
</tbody>
</table>

Note:
1. Course schedule is tentative and subject to minor revision depending on class progress.
2. The chapters in boldface are the major sources of the corresponding lecture notes.
3. Each quiz is open at 12:00AM on the first day and close at 11:59PM on the last day of the scheduled period.
4. In topic 3, Quiz2 ends at forecasting techniques for levels, and Quiz3 starts from forecasting techniques for trends.
5. In topic 9, Quiz9 ends at EOQ models, and Quiz10 starts from EPQ models.
6. There are no classes on 3/8 & 3/10 – Happy Spring Break!