Office of Off-Campus Academic Programs  
College of Applied Sciences and Arts  
Southern Illinois University Carbondale

COURSE SYLLABUS

HCM 410-3: Operations Management and Quality Improvement in Health Care  
(03.08.16)

Instructor: James R. Oberhofer  
2415 Lark Drive  
Colorado Springs, CO 80909  
(719) 598-2208  
e-mail: ober1canob@q.com

Faculty Contact: I encourage students to contact me, as needed, at any time. Contact via e-mail is preferred, but telephone contact at the above number, after 6:00 P.M. mountain time, can be attempted.

COURSE DESCRIPTION:

Examines the applications of operations management in the framework of health care organizations. Focus will be placed on supply chain and inventory management, forecasting, queuing models, and capacity planning. Determinants to achieve quality management in health care facilities will be explored. Utilizes analytical methods of systematic monitoring and evaluation and the application of quality improvement initiatives. Includes impact on quality of accreditations, credentialing, liability, and governmental regulations. Not for graduate credit.

PREREQUISITES: UCC Math, HCM 365 and an approved statistics course. Restricted to SAH majors/minors.

TEXTBOOK: McLaughlin, D., Olson, J.R. (2012), Healthcare operations management, (2nd ed.)  
Chicago, IL: Health Administration Press. ISBN978-1-56793-444-1

COURSE OBJECTIVES:

At the end of the course, students should be able to:

1. Understand the importance of operations management in healthcare settings.
2. Apply the basic tools for project management.
3. Acquire the fundamental techniques for managing quality.
4. Know how to determine the optimal capacity of a healthcare organization.
5. Master the quantitative skills to manage supply chains and inventory.
6. Use computer software, such as Microsoft Excel, to forecast the demand for materials.
7. Apply any necessary statistical tools to manage patient flows.
8. Learn how to choose the location of a health care facility.

COURSE OUTLINE:

<table>
<thead>
<tr>
<th>Topics</th>
<th>Percentage of Time</th>
</tr>
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<tbody>
<tr>
<td>I. Project Management</td>
<td></td>
</tr>
<tr>
<td>A. The critical path methods</td>
<td>20%</td>
</tr>
</tbody>
</table>
B. Program evaluation and review techniques

II. Quality Management 25%

A. Definition of quality
B. Total quality management (TQM) approach
C. Six Sigma
D. Control charts
E. Other toolkit of quality management

III. Queuing models and capacity planning 20%

A. Queuing system characteristics
B. Measures of queuing system performance
C. Typical infinite-source models
D. Model Formulations

IV. Supply chain management 25%

A. Definition of supply chain in health care
B. Supply chain management issues for healthcare providers
C. Inventory management models
D. Forecasting techniques

V. Facility location choices 10%

A. Cost-Profit-Volume (CPV) analysis
B. Factor rating models
C. Multi-attribute methods

COURSE DELIVERABLES:
Assignments, Exams, Projects

GRADING SCALE:
See below; based on total point accumulation.

LEARNING/ASSESSMENT METHOD(S):
Pre and Post Tests, Exams, Attendance, and Final Grade Point Accumulation

TENTATIVE SCHEDULE

Day 1 Introduction, overview of course, the challenge and the opportunity, history of performance improvement and evidence. Read Chs. 1-3
March 19, ‘16
Pre Test, in class.
Discussion questions or other assignments, in class.

Day 2 Strategy and the balanced scorecard and project management. Read Chs. 4-5
March 20, ‘16
Discussion questions or other assignments, in class
Exam One (Chapters 1-5 ) and addendum chapters.

Cyber Day On this Sunday, various discussion topics will be posted on D2L, and your participation in these discussions are required, in order to keep the University in compliance with VA guidelines of meeting every other week in order to receive VA benefits. These discussions are also opportunities to earn additional points. Additional details will be provided in class on Weekend One.
April 3, ‘16
Day 3  April 16, ’16
Tools for problem solving and decision making, statistical think and problem solving, and quality management (focus on Six Sigma).

Discussion questions or other assignments, in class.
Newspaper article presentations and other research is due by 8:24 AM

Read Chs. 6-8

Day 4  April 17, ’16
The lean experience and simulation.

Discussion questions or other assignments, in class.
Newspaper article presentations and other research is due by 8:24 AM
Exam Two (Chapters 6-10) and addendum chapters.

Read Chs. 9-10

Day 5  April 30, ’16
Process improvement and patient flow, scheduling and capacity management, and supply chain management.

Discussion questions or other assignments, in class.
Newspaper article presentations and other research is due by 8:24 AM

Read Chs. 11-13

Day 6  May 1, ’16
Improving financial performance with operations management and holding the gains.

Discussion questions or other assignments, in class.
Exam Three (Chapters 11-15) and addendum chapters.
Post Test

Read Chs. 14-15

Course Requirements/Grading Criteria:

The following weighing system will be used in determining final grades:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Class attendance and participation</td>
<td>60 pts.</td>
<td>17%</td>
</tr>
<tr>
<td>Introduction Sheet and Picture posted on D2L</td>
<td>10 pts.</td>
<td>3%</td>
</tr>
<tr>
<td>Pre and Post tests (Post test for points)</td>
<td>30 pts.</td>
<td>8%</td>
</tr>
<tr>
<td>*Participation in virtual discussions/chat on D2L probably on April 3, 2016- details to follow.</td>
<td>30 pts.</td>
<td>8%</td>
</tr>
<tr>
<td>** Concept Research, Newspaper Article Review, and/or End of Chapter discussion questions or other in class assignments.</td>
<td>60 pts.</td>
<td>17%</td>
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<td>Exam’s One, Two and Three (58, 56, and 46 points respectively)</td>
<td>160</td>
<td>46%</td>
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350 potential points

* We will meet in class on March 19-20, April 16-17, and April 30 / May 1. On Sunday, April 3, various discussion topics will be posted on D2L, and your participation in these discussions is required, in order to keep the University in compliance with VA guidelines of meeting every other week in order to receive VA benefits. These discussions are also opportunities to earn additional points. Additional details will be provided in class on Weekend One.

**End of chapter discussion questions and/or mini assignments are given to enhance knowledge and awareness. Please note that most of these assignments will be completed in class, thus, if you have to miss a class for any reason, it is important that you contact me prior to your absence to obtain an alternate assignment, otherwise credit cannot be given. Please refer to the “End of Chapter Discussion Questions” paper for a comprehensive listing of discussion questions. Note that I might periodically deviate from these questions and assign other assignments.

Grades will be based on the following curve:

<table>
<thead>
<tr>
<th>Points Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>320 to 350</td>
<td>A</td>
</tr>
<tr>
<td>290 to 319</td>
<td>B</td>
</tr>
<tr>
<td>260 to 289</td>
<td>C</td>
</tr>
<tr>
<td>230 to 259</td>
<td>D</td>
</tr>
<tr>
<td>Below 230</td>
<td>F</td>
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Other Information:

Attendance: I know that there may be times when a student cannot attend class, and I will be more than happy to work with a student should that occasion arise. However, I would request that students contact me prior to their absence so that alternate arrangements can be made to complete assignments that might be due during their absence. It is always acceptable to hand in assignments ahead of time, but handing in work late is problematic, so please make arrangements with me in order to avoid unnecessarily losing points. Regrettably, if you are not in class, for whatever reason, you cannot earn the attendance points, and a late assignment is a missed assignment. Please note that there will be no opportunities for submitting late work or for extra credit work.

Incomplete (INC): An INC is assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments. Students are required to apply, in writing, to the faculty member for an INC within two weeks of the last class day of the course. Students are also required to contact the instructor by phone, e-mail, or FAX to inform the instructor that they (the student) will miss the last class weekend and will be requesting an INC. This contact will not replace the written request. Students who fail to inform the instructor and fail to request the incomplete in writing will receive the grade earned for the course or a WF, whichever is most appropriate.

Safety Instructions:

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency. If you are located on a military installation, and depending on the type emergency a senior military member may take control of the situation and direct you on the action to take. Please follow their instructions and do as asked. Similarly, if you are at a community college, their security personal may arrive and take control of a situation, please follow their instructions as well.

Academic Dishonesty:

Students may be subject to disciplinary proceedings resulting in an academic penalty or disciplinary penalty for academic dishonesty. Academic dishonesty includes, but is not limited to, cheating on a test, plagiarism, or collusion.

ADA Statement for Students Requiring Special Accommodations:

As per 504 of the Vocational Rehabilitation Act of 1973 and the American Disabilities Act (ADA) of 1990, if accommodations are needed, inform the instructor or program advisor as soon as possible.

Spring 2016 Syllabus Attachment: