Summer 2014 Course Plan

Operations Analysis & Quality Improvement
(32.512.071/072)

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Location: Health and Social Sciences Building (HSS), 113 Wilder St.
(UMass Lowell South Campus)

This course teaches a multi-disciplinary approach to operations analysis, process redesign and quality improvement in health care. We focus on the tools and processes used for improving work performance and patient safety in a variety of health care organizations.

Course Objective

Students learn the following:

- The history, development and principles of quality improvement in health care;
- How quality improvement processes have been used in various health care settings;
- The tools and processes used in quality improvement;
- How to structure and implement a quality improvement program; and
- How to collect, analyze and interpret quality improvement data
Textbooks

Four textbooks are required for this course:

Teaching Approach

The course is taught on a “blended” basis, with both face-to-face and “synchronous” online classes. For each class you will be responsible for:

- **Textbook Reading Assignment.** For each class, you will be reading chapters from one or more of the four textbooks.

  The reading assignments are not optional. You will get so much more out of the course if you prepare adequately for our time together. I encourage you to read assignments three times, preferably at different sittings. First, read the assignment quickly to get an overall perspective on what is covered and how the information is organized. Second, read the assignment slowly and carefully for comprehension. Third, quickly read the assignment once more, and highlight key points.

Face-to-Face Classes

The class meets six times on Tuesday evenings from 5:30 to 8:30 PM. You have reading assignments for every class, including the first.

- **Tools Reading Assignment.** Chapter 5 (about 400 pages long) in *The Quality Toolbox* provides an almost encyclopedic compendium of quality improvement tools. As seen on pages 8-12 of *The Quality Toolbox*, the author groups these tools into six categories according to how they are used. For each class, after the first one, you will review the tools included in one of five categories. Since each category includes a great many tools, you should focus
on tools that you think most useful or important. During each class, selected students may be asked to report on one of the tools in that week’s category.

- **Team Exercise.** After the first face-to-face class, we will use or apply The Quality Toolbox tools to address a known health care “quality” problem. Depending upon class size, two or more students will develop a team exercise and direct/facilitate the team exercise in class. The “Team Leaders” will take responsibility for structuring the problem, sharing background materials as appropriate (in advance) and then leading the team exercise. Whatever problem the team chooses, it must involve information and experience that everyone shares, so that all students can contribute to the exercise. For each team exercise, another student/s will be designated as “Reporters.” The Reporters will take notes and prepare a memorandum summarizing the exercise and findings; and this memorandum will be distributed to all students prior to the subsequent face-to-face class meeting.

The face-to-face classes will be recorded if possible and the recordings will be available from the class web site.

**Online Blackboard Collaborate Classes**

The class meets four times on Tuesday evenings from 7:00 to 10:00 PM. You will have reading assignments for each online class as indicated on the Online Class Calendar.

- **Written Responses.** Prior to each online class, you are asked to answer discussion question(s) in writing and post your response to Blackboard, the course’s web site. Your postings will be available for review and comment by the entire class. It is expected and required that all students read and comment on their fellow students’ responses prior to that week’s online class. By utilizing this approach to learning your comprehension of and perspective on quality issues, methods and improvements will be greatly enhanced. Chronically late postings will be subject to grade reductions.

- **Individual Online Power Point Presentation on Quality Improvement.** Each student will make a 10-15 minute special presentation by sharing information on relevant quality improvement resources or experiences. This presentation could focus on any of the following: (1) a quality-related website (e.g., www.iom.org, www.patientsafety.org, www.asq.org, www.ahrq.gov), (2) a process improvement or quality project in which you have participated OR one that you have researched, (3) a quality-related book.
The online classes will be conducted using Blackboard Collaborate, an Internet-based communications facility accessed through Blackboard. To use Blackboard Collaborate you will need a computer microphone and speaker or head set. A noise cancelling microphone is strongly recommended.

If you are not available to participate in an online class, you must listen to the archived recording on your own schedule and prepare a one-page report reflecting upon the class discussion and what you learned from that discussion. The archived class recordings will be available on Blackboard.

**Grading:** Grades will be calculated using the following point system:

- 30 points - Class Participation
- 20 points - Team Exercise
- 40 points - Discussion Board Postings
- 10 points - Individual Presentation

Each discussion board posting will be graded on a 10 point scale which includes both points for your posting as well as your commentary on other student posts. All postings are due at midnight on the due date listed in the course plan. Unless pre-approved, you will be penalized for late submittals.

**Attendance:** Since this summer semester is condensed, it is strongly advised that you do not miss a single class. If you miss more than one Online or any Face-to-Face class, your grade for the entire course will be reduced. ANY class absence must be pre-approved to be considered an excused absence.

Final grades will be assigned as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>GPA Equivalent</th>
<th>Numeric Range</th>
<th>Grade</th>
<th>GPA Equivalent</th>
<th>Numeric Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
<td>&gt;100</td>
<td>B-</td>
<td>2.7</td>
<td>80-82</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td>93-100</td>
<td>C+</td>
<td>2.3</td>
<td>77-79</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>90-92</td>
<td>C</td>
<td>2.0</td>
<td>73-76</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>87-89</td>
<td>C-</td>
<td>1.7</td>
<td>70-72</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>83-86</td>
<td>F</td>
<td>0.0</td>
<td>&gt;60</td>
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</tbody>
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**Plagiarism** (whether from published sources, unpublished sources or the Internet) is absolutely not allowed in preparation of written assignments. A first offense will mean a letter reduction in your grade for the entire course; a second offense will result in your failing the course. It is incumbent on you (the student) to learn and understand what is meant by plagiarism and act accordingly. I encourage you to read [http://en.wikipedia.org/wiki/Plagiarism](http://en.wikipedia.org/wiki/Plagiarism). No extenuating circumstances will be allowed, and no second chances will be given. If I find that so much as a single sentence is copied without attribution (even if a word or two is changed), the above sanctions will be applied.
# Face-to-Face Class Calendar

<table>
<thead>
<tr>
<th>Class Date</th>
<th>Reading Assignments</th>
<th>Quality Toolbox Assignment</th>
</tr>
</thead>
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| May 20     | IHQM: Chapters 1 and 2  
QT: Chapters 1, 2 and 3  
BP: Foreword, Introduction Chapter 1 |  |
| June 3     | IHQM: Chapters 5 and 6  
BP: Chapters 4 and 5 | QT: Project Planning & Implementing Tools |
| June 17    | BP: Chapter 7  
UPS: Chapters 1, 2, 3 and 4 | QT: Idea Creation Tools |
| June 24    | IHQM: Chapter 9  
BP: Chapter 8  
UPS: Chapters 5, 6, 7 and 8 | Guest Speaker:  
Phyllis Fabello, Director  
Musculoskeletal Practices at Core Physicians, Exeter Hospital |
| July 8     | IHQM: Chapter 10  
BP: Chapter 10  
UPS: Chapters 13 and 14 | QT: Cause Analysis Tools |
| July 22    | UPS: Chapters 18, 19, 20, 21 and 22 | QT: Evaluation & Decision-Making Tools |

**Abbreviations:**
- QT: Quality Toolbox
- IHQM: Introduction to Healthcare Quality Management
- BP: The Best Practice
- UPS: Understanding Patient Safety
# Online Collaborate Class Calendar

<table>
<thead>
<tr>
<th>Class Date</th>
<th>Reading Assignments</th>
<th>Discussion Question</th>
<th>Assignment Due Date</th>
</tr>
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</table>
| May 27     | IHQM: Chapters 3 and 4  
QT: Chapter 4  
BP: Chapters 2 and 3 | On p. 72 in BP the chapter concludes with a quote regarding the availability of tools to measure healthcare quality. Name, describe, and explain the purpose, usefulness and value of at least three tools you’ve learned about in this course. | May 25 |
| June 10    | IHQM: Chapters 7 and 8  
BP: Chapter 6 | Write about your personal experience as a team member (academic, work, sports, etc…). Did you learn anything in Chapt 7 that allows you to reflect upon your team participation differently? | June 8 |
| July 1     | BP: Chapter 9  
UPS: Chapters 9, 10, 11, and 12 | Describe what type of errors you learned about in UPS chapters 9 – 12, why they occur and how they can be prevented. Choose one from each chapter to discuss in detail. | June 29 |
| July 15    | IHQM: Chapter 11  
BP: Chapter 11  
UPS: Chapters 15, 16, and 17 | What did you learn about the culture of healthcare organizations this week? What is the culture like at your workplace; is it conducive to change and quality improvement projects? | July 13 |

QT: Quality Toolbox  
IHQM: Introduction to Healthcare Quality Management  
BP: The Best Practice  
UPS: Understanding Patient Safety