**Course Information**

- **Course:** Health Care Quality and Performance Improvement (90-818)
- **Offering:** Mini 2 Fall 2017 (Section A2 6 units)
- **Location:** HBH 1006
- **Section A2 Time:** Thursday 6:00 – 8:50 pm

- **Instructor:** Mimi Falbo
- **Phone:** 412-427-1887
- **Email:** mimi@mimifalbo.com
- **Office Hours:** By appointment only

- **Teaching Assistant:** Allison Bartee
- **Email:** abartee@andrew.cmu.edu
- **Office Hours:** TBD

**Prerequisites**

90836 – Health Systems

**Description**

This course provides an overview of the current state of the quality movement in Health Care. A public health perspective as well as an individual perspective will be considered from both a U.S. and international view. Relevant history, current gurus, landmark publications, theories, tools, and environmental factors will be discussed. We will explore the cost/quality connection and analyze the complex forces that shape or hinder the transformation of health care from the current state to a person-centered quality-focused Health Care System. We will learn to use industrial models to improve processes in the health care industry. The concepts and skills needed to create a work environment where these tools can be utilized will also be explored.

**Course Materials**

There is no required textbook for this course. All required readings will be posted on Blackboard at least one week in advance of them being due.

*Optional textbook:*


**Course Policies & Expectations**

Students are expected to attend each class having read the required readings for that week. All deliverables must be handed in at the beginning of the class in which they are due. Additional policies regarding absences from class, grading, and assignments are outlined in this syllabus.

**Learning/Course Objectives**

- Describe the current condition of health care from a global, national, local and individual perspective
- Discuss the complex interrelationships among the factors affecting national, local, and global health
- Discuss the history of the quality movement in health care including the contributions of significant publications and individuals
- List the major regulatory agencies influencing health care quality and describe their contribution
- Explain the complex forces influencing the current health care delivery system
- Identify and utilize resources available to evaluate and improve quality in health care
- Discuss definitions, theories, methods, tools, and systems commonly utilized in quality improvement efforts in health care and other industries
- Identify the major barriers to improvement in health care quality and methods to overcome them

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- Formulate and implement an improvement project as team leader or team member
- Utilize an A3 to solve a problem:
  - Define the problem and the business case
  - Utilize tools to clearly define and focus the need
  - Define a focus narrow enough to work
  - Define the actionable data collection needed
- Clearly describe the current condition
  - Utilize observation skills
  - Draw the current condition utilizing process maps, diagrams and other tools
  - Add pertinent actionable data
- Clearly describe the target condition
- Make and implemented an action plan
- Show rapid frequent problem-solving cycles
- Collect and display appropriate metrics
- Show evidence of use of data to solve problem and use tools correctly to get to Target Condition
- Show evidence of engagement of those doing the work in designing the work
- Show evidence of reflection and learning
- Demonstrate understanding of the rules of work design and show examples of application
- Demonstrate knowledge of the 14 principles
- Show understanding of the 5S process
- Demonstrate ability to engage a team and teach the problem-solving method through example
- Utilize and display data to demonstrate progress
- Demonstrate understanding of basic coaching, change theory and team building
- Discuss the components of a healthy work environment and methods of measurement
- Utilize an A3, a process map and a value stream maps to solve a problem
- Discuss the patient safety movement in the context of performance improvement and quality
- Discuss high reliability organizations and how it relates to patient safety and quality improvement
- Show understanding of the effect of current policies, payment systems and regulatory agencies on quality

<table>
<thead>
<tr>
<th>Evaluation Method</th>
<th>Homework Assignments (30%)</th>
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<tbody>
<tr>
<td></td>
<td>One Homework assignment will be posted on blackboard and will be due at the beginning of the 3rd class. A hard copy must be submitted to the TA at the beginning of class when the homework is due and an electronic copy</td>
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<thead>
<tr>
<th>Performance Improvement Group Project (55%)</th>
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<tbody>
<tr>
<td>Each student will have the opportunity to learn and use Lean process improvement tools and principles in a real situation. Students will participate with a team of their peers to work on an improvement project in a local healthcare organization. Students will gain beginning proficiency in the use of Lean tools, team building skills, and change principles. Each student will be assigned the same grade as their group, based on the Project Charter and Final Report, with additional adjustments made based on the Statement of Contribution deliverable. Additional information can be found on the final page of this syllabus.</td>
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<table>
<thead>
<tr>
<th>Deliverables:</th>
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<tbody>
<tr>
<td>Project Charter (15%)</td>
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<tr>
<td>Final Report (45%)</td>
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<tr>
<td>Statement of Contribution</td>
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<tr>
<th>Performance Improvement Project Presentation (10%)</th>
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<tr>
<td>Each student will participate in the presentation of their Process Improvement Project. All students will participate in grading these presentations. Each student’s presentation grade will be based on the evaluation by their peers as well as the instructor’s evaluation. The</td>
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</table>
development and use of the evaluation tool will be an integral part of the learning experience.

**Class Participation (5%)**
The class is highly interactive and emphasizes action-learning concepts necessary in a learning organization. Students are expected to read the assigned text before coming to class, and participate actively in class discussions.

**Grading Scale**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
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<th>Range</th>
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<tbody>
<tr>
<td>A+</td>
<td>99.0-100%</td>
<td>B+</td>
<td>88.0-90.9%</td>
<td>C+</td>
<td>78.0-80.9%</td>
</tr>
<tr>
<td>A</td>
<td>94.0-98.9%</td>
<td>B</td>
<td>84.0-87.9%</td>
<td>C</td>
<td>74.0-77.9%</td>
</tr>
<tr>
<td>A-</td>
<td>91.0-93.9%</td>
<td>B-</td>
<td>81.0-83.9%</td>
<td>C-</td>
<td>71.0-73.9%</td>
</tr>
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</table>

The grade of A+ is reserved for truly exceptional performance.

**Grading Rubric:**

<table>
<thead>
<tr>
<th>Component</th>
<th>% Final Grade</th>
<th>Novice</th>
<th>Competent</th>
<th>Proficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Participation</td>
<td>5</td>
<td>Minimal participation in class discussion and learning activities 2 or more un-excused absences (0-1 Points)</td>
<td>Participates in all class discussions and learning activities showing interest and ability to relate information to quality project No unexcused absences (2-3 Points)</td>
<td>Participates in all class discussion at a level of asking questions and expanding and applying learning No more than one excused absence (4-5 Points)</td>
</tr>
<tr>
<td>Homework</td>
<td>35</td>
<td>Not completed in a timely manner Does not show incorporation of class topics and readings (0-12 Points)</td>
<td>Completed in a timely fashion Shows good integration of reading with classroom topics and/or application to project (13-24 Points)</td>
<td>Completed in a timely fashion Shows understanding of the reading in relation to project and classroom topics Able to develop an integrated and innovative approach to a problem (25-35 Points)</td>
</tr>
<tr>
<td>Project/project charter and Report</td>
<td>50</td>
<td>Steps to Project as outlined are not completed in a timely manner Does not participate fully in team sessions Paper does not meet all criteria (0-17 Points)</td>
<td>Project Steps completed as outlined Participates as a team leader or team member during team sessions Spends time with team and at site adequate to achieve project completion Paper meets criteria (17-34 Points)</td>
<td>Project Steps completed on time Participates as a team leader or team member and completes all team assignments as agreed by team Interacts in a positive manner with site Contributions to team move project to successful completion Paper exceeds criteria (34-50 Points)</td>
</tr>
<tr>
<td>Project Presentation</td>
<td>10</td>
<td>Not present for final presentation (0-3 Points)</td>
<td>Presents an adequate portion of final project</td>
<td>Presents portion of final project showing knowledge of all project work and how</td>
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### Plagiarism and cheating notice

Plagiarism and other forms of academic misrepresentation are taken extremely seriously. Misrepresentation of another’s work as one’s own is widely recognized as among the most serious violations. The violation is clearly flagrant when it occurs as plagiarism on a required paper or assignment or as cheating on an examination, regardless of whether it is a take-home or in-class examination. The punishment for such offenses can involve expulsion from the program. There are many other ways in which a violation can occur.

*Academic Dishonesty:* Students are expected to maintain the highest ethical standards inside and outside the classroom. Cheating on exams and term papers (i.e. plagiarism and unauthorized collaboration) is obviously discouraged and will be treated appropriately. The usual penalty for violations is a failing grade for the particular assignment in question; however, in some instances, such actions may result in a failing grade for the course.

*These descriptions and timelines are subject to change at the discretion of the Professor.*

*Additional readings may be posted on Blackboard or handed out in class one week prior to date required.*
<table>
<thead>
<tr>
<th>Course Outline</th>
<th>Topic</th>
<th>Required Pre-Work</th>
<th>In Class Work</th>
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</thead>
</table>
| Class #1 October 26 | ▪ Course Overview  
▪ Current Condition of Quality in Health Care  
▪ Global Perspective  
▪ US Perspective  
▪ Local Perspective  
▪ Your Perspective  
▪ IOM Definition of Quality  
▪ Why industrial models for health care quality?  
▪ Lean concepts and tools  
▪ A3  
▪ A3 Thinking  
▪ Project  
▪ Project and Team Assignment | ▪ Read week #1 readings on blackboard including:  
▪ Commonwealth Fund Mirror Mirror Report  
▪ Gapminder website  
▪ (Links on blackboard)  
▪ Commonwealth Fund Report-Prospective  
▪ WHO Report  
▪ Executive Summary IOM Report Crossing the Quality Chasm  
▪ Thompson-Reflection Article  
▪ Review projects on Blackboard; teams will choose project during class | ▪ Introductions  
▪ Individual goals and knowledge assessment  
▪ Observe video and do a current condition drawing in teams  
▪ Presentation and discussion of current condition drawings  
**Project Development:**  
▪ Group project selection  
▪ Team leader selection  
▪ Start a draft A3  
▪ Make and assign project action steps for Week 1 |
| Class #2 November 2 | Lean Concepts and Tools #1  
▪ A deeper look at finding your current condition (A3)  
▪ Master A3 concept  
▪ 14 Principles  
▪ The 4 Rules of work design  
▪ Observation  
▪ Interview  
**Project**  
▪ Confidentiality and respect  
▪ Lyons and Ericson-How to Fix a Flawed Process | ▪ Current Condition Drawing Review  
▪ Master A3 Concept Discussion  
▪ Problem List Development from Master A3  
▪ Develop subA3  
▪ Value stream Map Exercises  
▪ Value Stream Map of First Do No Harm Part One  
▪ Do No Harm Part Two  
▪ Discussion: application of the 14 Principles and the 4 Rules of Work Design  
▪ A3 process  
▪ RCA  
▪ Block Factory  
**Project Development:**  
▪ Initial problem definition  
▪ Background research regarding your organization  
▪ Meet with your point person at your project organization  
▪ Action plan for next steps |
| Class #3 November 9 | Lean Concepts and Tools #2  
▪ Current Condition Drawings  
▪ Process Mapping  
▪ Value Stream Mapping  
▪ Examples | ▪ McGlynn, E. (1997) Six Challenges in Measuring the Quality of Health Care  
▪ Gawande | **Project Development:**  
▪ Refinement of Problem definition  
▪ Background-Why is it important-completed |
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|                | • AD project  
|                | • ELFHCC VSM  
|                | • 5S  
|                | • Kanban  
|                | • Muda  
|                | • Root Cause Analysis RCA Tools  
|                | • Quality Measurement In Health Care  | • IOM Report Executive Summary  
|                |       | • **Project Charter Due** | • Plan for understanding the current condition.  
|                |       |                      | • Interviews? Go and See?  
|                |       |                      | • Observations?  
|                |       |                      | • Timing?  
|                |       |                      | • Data collection  
|                |       |                      | • Measurement exercise |
| Class #4  
| November 16  | • Patient Safety and Quality  
|              | • Culture to support Improvement  
|              | • Magnet Research  
|              | • Healthy Work Environments  
|              | • Learning Organizations  
|              | • Senge  
|              | • Team Building  
|              | • Rules of Engagement  
|              | • Change Theory  
|              | • Coaching Mindset  
|              | • Safety Culture  
|              | • Just Culture  
|              | • Silence kills  
|              | • Crucial Conversations  | • Kotter (2006) Leading Change  
|              |       | • Senge Article  
|              |       | • Reason Article  
|              |       | • Silence kills Report  
|              |       | • Dialogue Heals Report  
|              |       | • **Homework due** | Project Development:  
|              |       |                      | • Five whys and the root cause of the problem  
|              |       |                      | • Process map or value stream map started if appropriate  
|              |       |                      | • Describing the target condition  
|              |       |                      | • Defining measurement  
|              |       |                      | • Assigning a method for measurement in the action plan  
|              |       |                      | • Experiment for change planned |
| Class #5  
| November 23  | No class Thanksgiving  |       | |
| Class #6  
| November 30  | Implementation Barriers  
|              | • Innovation and Quality  
|              | • Culture  
|              | • Class Discussion and Activity  
|              | • Discussion of culture and team functionality-your team and your host team  
|              | • How is it affecting the project?  | • Nembhard article  
|              |       | • Gwande  | Project Development:  
|              |       |                      | • Complete planned experiment for change  
|              |       |                      | • Continue measurement and rapid frequent problem solving cycles as appropriate |
| Class #7  
| December 7   | • History of the Quality Movement  
|              | • The Quality Timeline  
|              | • Main Theories and Gurus  
|              | • External Influences on Quality  
|              | • Finances  
|              | • Regulation  
|              | • Regulatory agencies  
|              | • Medical-legal  
|              | • Review and concept integration (video)  | **Presentation Due**  | Project Development:  
|              |       |                      | • Complete A3 process and share learning with your partners at your site  
<p>|              |       |                      | Present Project to class |</p>
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<td>Finals Week December 14</td>
<td>Final Project Report Due Statement of Contribution Due</td>
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**Performance Improvement Project Information and Deliverables**

**Project Deliverables:**
- Project Charter – Each group is expected to submit a Project Charter including the following components. Please note that an initial meeting with the client is necessary to complete this document.
  - Client Information
  - Check-in Expectations
  - Project Description
  - Resources Needed
  - Proposal Draft
    - Background/Executive Summary
    - Goal and Significance
    - Objectives
    - Methods
    - Project/Implementation Timeline
  - Team Biographies
- Final Report – Each group is expected to submit an in-depth Final Report at the time of their Final. The report should include an A3 form filled out as an attachment.
  - Background
  - Project Goal
  - Project Methodology
  - Current Condition – should include a map of the workflow (similar to A3 format)
  - Problem
    - Target Condition
  - Analysis
  - Recommendations
  - Implementation Plan
  - Future Process Evaluation
  - Lessons Learned

- Statement of Contribution – Each student must submit the Statement of Contribution form (available on Blackboard) outlining their contribution to the project, and what each of their team members did over the course of the project. This is required and should be handed in at the time of the Project Report. All statements will remain anonymous. Minor grade adjustments will be based off of the collective statements.

**Final Presentation:** Each group will be presenting during the allotted time period during. The order of presentations will be provided closer to that time.