| Course Information | § Course: Health Care Quality and Performance Improvement (90-818)
§ Offering: Mini 2 Fall 2014 (Section A2/B2, 6 units)
§ Location: HBH 1004
§ Section A2 Time: Monday 6:00 – 8:50 pm
§ Section B2 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: Priya Gandhi
§ Email: psgandhi@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

- 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 teambuilding
- 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><strong>Evaluation Method</strong></th>
<th><strong>In-class Assignments (10%)</strong></th>
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</thead>
<tbody>
<tr>
<td>Every class meeting, each student will receive an in-class assignment sheet with a few questions. The questions will emphasize the importance of reflection in the learning process, and will be based on the course material discussed that day. This sheet must be handed in to the TA at the end of class. Completion of the daily in-class assignment will count for attendance. If you submit an acceptable excuse prior to missing class, you will receive half credit.</td>
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<td><strong>Scoring:</strong></td>
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<td>2 – Attended class/demonstrated effort on in-class assignment</td>
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<td>1 – Excused absence/poor effort on in-class assignment</td>
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<td>0 – Unexcused absence</td>
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| **Homework Assignments (30%)** |
| Three homework assignments will be posted on Blackboard, each is worth 10%. A hard copy must be submitted to the TA at the beginning of class when the homework is due. |

| **Performance Improvement Group Project (40%)** |
| 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.

**Deliverables:**
- Project Charter (10%)
- Final Report (30%)
- Statement of Contribution

**Performance Improvement Project Presentation (10%)**
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 development and use of the evaluation tool will be an integral part of the learning experience.

**Class Participation (10%)**
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.

<table>
<thead>
<tr>
<th>Grading Scale</th>
<th>A+ 99.0-100%</th>
<th>B+ 88.0-90.9%</th>
<th>C+ 78.0-80.9%</th>
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<tbody>
<tr>
<td>A 94.0-98.9%</td>
<td>B 84.0-87.9%</td>
<td>C 74.0-77.9%</td>
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<tr>
<td>A- 91.0-93.9%</td>
<td>B- 81.0-83.9%</td>
<td>C- 71.0-73.9%</td>
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The grade of A+ is reserved for truly exceptional performance.

**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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<tbody>
<tr>
<td>Class #1</td>
<td>Course Overview</td>
<td>Read week #1 readings on blackboard including:</td>
<td>Introductions</td>
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<tr>
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<td>Current Condition of Quality in Health Care</td>
<td>Commonwealth Fund Mirror Mirror Report</td>
<td>Individual goals and knowledge assessment</td>
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<td>Global Perspective</td>
<td>Gapminder website</td>
<td>Observe video and do a current condition drawing in teams</td>
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<td>US Perspective</td>
<td>(Links on blackboard)</td>
<td>Presentation and discussion of current condition drawings</td>
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<td>Local Perspective</td>
<td>Commonwealth Fund Report-Prospective</td>
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<td>Your Perspective</td>
<td>WHO Report</td>
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<td>IOM Definition of Quality</td>
<td>Executive Summary IOM Report Crossing the Quality Chasm</td>
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<td>Why industrial models for health care quality?</td>
<td>Thompson-Reflection Article</td>
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<td>Lean concepts and tools</td>
<td><strong>Take survey on survey monkey link</strong></td>
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<td>A3</td>
<td><strong>Review projects on Blackboard; teams will choose project during class</strong></td>
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<td>A3 Thinking</td>
<td><strong>Project</strong></td>
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<td>Project</td>
<td><strong>Project and Team Assignment</strong></td>
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<td>Project and Team Assignment</td>
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<td>A deeper look at finding your current condition (A3)</td>
<td>Lyons and Ericson-How to Fix a Flawed Process</td>
<td>Master A3 Concept Discussion</td>
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<td>Master A3 concept</td>
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<td>Problem List Development from Master A3</td>
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<td>14 Principles</td>
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<td>Develop subA3</td>
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<td>The 4 Rules of work design</td>
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<td>Value stream Map Exercises</td>
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<td>Observation</td>
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<td>Value Stream Map of First Do No Harm Part One</td>
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<td>Interview</td>
<td></td>
<td>Do No Harm Part Two</td>
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<td><strong>Project</strong></td>
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<td>Discussion: application of the 14 Principles and the 4 Rules of Work Design</td>
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<td>Confidentiality and respect</td>
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<td>A3 process</td>
</tr>
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<td>Project timeline review</td>
<td></td>
<td>RCA</td>
</tr>
<tr>
<td>Class #3</td>
<td><strong>Lean Concepts and Tools #2</strong></td>
<td>McGlynn, E. (1997) Six Challenges in Measuring the Quality of Health Care</td>
<td><strong>Project Development:</strong></td>
</tr>
<tr>
<td></td>
<td>Current Condition Drawings</td>
<td>Gawande</td>
<td>Initial problem definition</td>
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<td>Process Mapping</td>
<td>IOM Report Executive Summary</td>
<td>Background research regarding your organization</td>
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<td>Value Stream Mapping</td>
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<td>Meet with your point person at your project organization</td>
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<td>Examples</td>
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<td>AD project</td>
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<td>Action plan for next steps</td>
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</tbody>
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**Project Development:**
- Initial problem definition
- Background research regarding your organization
- Meet with your point person at your project organization
- Action plan for next steps
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|                | • ELFHCC VSM  
|                | § 5S  
|                | § Kanban  
|                | § Muda  
|                | § Root Cause Analysis RCA Tools  
|                | § Quality Measurement In Health Care  
|                | § Statapult  
|                | • Project Charter Due  
|                | § Kotter (2006) Leading Change  
|                | § Senge Article  
|                | § Reason Article  
|                | § Silence kills Report  
|                | § Dialogue Heals Report  
|                | § Homework #2 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 #4        | § 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  
|                | § Nembhard article  
|                | § Gwande  
|                | § Homework #3 Due  
|                | § Project Development:  
|                | • Complete planned experiment for change  
|                | • Continue measurement and rapid frequent problem solving cycles as appropriate  
| Class #5        | § 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?  
| Class #6 (Only Monday class meets) | § Project development  
|                | § Bring any existing project materials to class  
|                | § Project Development:  
|                | • Each group will have opportunity to work in class  
| Class #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)  
|                | § Project Presentations  
|                | § Final Project Report Due  
|                | § Statement of Contribution Due  
| Finals Week     | Presentations  

Class #7 (Only Monday class meets)
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 Final Presentation. 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 final exam time period during Finals week. The order of presentations will be provided closer to that time.