

**PubH 6765**  
**Continuous Quality Improvement Methods/Techniques**  
**Spring 2018**

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**Credits:** 3  
**Meeting Days:** Mondays  
**Meeting Time:** 6:00 pm – 8:30 pm  
**Meeting Place:** TBD  
**Instructor:** Tim Eiler, PMP, CSM, MBA; and James McCarthy, RN, MBA  
**Office Address:** Neither instructor has a campus address  
**Office Phone:** Tim Eiler: 612-327-1553  
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**Office Hours:** as negotiated

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**Document Change Log**

Change Effective Date	Change Author	Summary Description of Change

## **I. Course Description**

This course provides an overview of quality improvement (QI) in healthcare and public health settings. While QI has a long history in healthcare and is a central component of recent health reform efforts, it is also increasingly important in public health. It is now widely recognized that incorporating quality improvement in an organization's vision, mission and operations can enhance processes, improve outcomes and safety, manage costs, and provide a better experience. Regardless of setting or organization, the cornerstones of QI are: identifying and using data to prioritize opportunities and measure impact, setting goals based on evidence, and creating changes that result in improved care or service that are sustainable over time.

The course begins with an overview of the historical, theoretical, and conceptual background needed to develop the systems thinking skills necessary for effective QI. Students will be challenged to look for improvement opportunities and identify the impact of processes and systems on human performance.

The course will then focus on the methodology and approach to making improvements with discussions, lectures, readings and practice pertaining to the various stages of a QI project (problem identification, analysis, idea and solution generation, application and testing/piloting of ideas, P-D-S-A cycles, greater rollout of solutions, project management, change management, and sustainability).

With an eye toward translating theory into practice, this course will include practical steps and commonly used tools to apply theory and achieve desired outcomes. This includes discussion of data, measurement, analysis, and tactics to generate and elicit ideas, in order to translate ambiguity into usable information to help guide decision making.

Throughout the course, students will be challenged to look at the world through the QI lens and see ways to make innovative and effective changes that improve health and how we provide care.

## **II. Course Prerequisites**

There are no prerequisites for this course.

## **III. Course Goals and Objectives**

Upon completing this course, students will be able to:

1. Describe the history and background of quality improvement (QI) in health care.
2. Explain most commonly used QI models (e.g., Lean, Six Sigma, and Model for Improvement), their similarities and complimentary approaches, and specific differences with Quality Assurance and Research.
3. Apply CQI, Change Management, and Project Management methodologies, concepts, theories, and principals to issues and problems.
4. Summarize a strategy to identify, obtain, analyze, and use data to make improvements.
5. Demonstrate the A3 problem solving process.
6. Describe key QI, Project Management, and Change Management steps and methods in a QI project including problem identification, data gathering, planning, idea generation, testing, implementation, spreading, and sustaining QI initiatives.
7. Conduct a Root Cause Analysis.
8. Select and use tools appropriately that support concepts, theories and principles of QI.

#### **IV. Methods of Instruction and Work Expectations**

The general format of the course will consist of selected readings, videos and lessons to be completed before the designated classroom session. Classroom sessions will focus on synthesizing information reviewed outside of class and discussing practical application of the information. In addition to facilitated discussion questions, students are encouraged to bring forward relevant experiences, current events, and pose quality improvement questions or problems for discussion. Activities, assignments and projects are intended to provide greater understanding and practice with CQI theory, tools, and techniques.

Proactive and thoughtful participation in discussions is important in higher learning settings and collaborative learning is a key component of Quality Improvement. Quality Improvement also promotes working within groups and focusing on team success over individual accomplishments, as such, students are expected to work in groups to accomplish designated assignments.

Whenever possible, sources for learning (articles, videos etc.) have been included from various free and easily accessible locations. Quality Improvement promotes learning from the experience of others, and as such, sources may include YouTube videos, blog postings, and white papers from a wide variety of sources. There may also be times when searching for alternate or further information beyond what is provided in the course will be beneficial.

#### **V. Course Text and Readings**

In an effort to align with CQI concepts of reducing cost, and learning from others, there is no required text book. Readings are assigned each week. They are listed on the course schedule below and are available on the Moodle website.

## VI. Course Outline/Weekly Schedule

Topics and Objectives	Lecture Primer	Readings	Assignments and Activities	Optional readings
<p><b>Session 1 (September 10)</b></p> <p><b>Welcome and Introduction to CQI</b></p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>• Discuss thoughts and current understanding of CQI</li> <li>• Define QI</li> <li>• Explain why QI is important</li> <li>• Discuss the relationship between safety and CQI</li> <li>• Describe the Triple Aim and external forces that impact it</li> </ul> <p><b>The history of QI; Projects, Operations, and QI</b></p> <ul style="list-style-type: none"> <li>• Describe the history of QI</li> <li>• Describe how regulation and accreditation can both support and hinder QI efforts</li> <li>• Compare and contrast QI and Project management: value, triple/quadruple aim vs. triple/quadruple constraints, difference between (transformative) projects and operations, and the project management life cycle</li> </ul>				<p>No prep work required for this session. In class lecture will cover the below material:</p> <p><b>What is Quality Improvement?</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul> <p><b>History of QI</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul> <p><b>Projects Operations Q</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul>

<p><b>Session 2 (September 17)</b></p> <p><b>QI Models and QI vs. Research</b></p> <ul style="list-style-type: none"> <li>• Compare and contrast QI methodology, Lean, Six Sigma, Model for Improvement</li> <li>• Explain differences between QI methodology and project management</li> <li>• Differentiate between quality improvement, quality assurance, and research</li> <li>• Differentiate data for CQI vs. data for research</li> <li>• Identify role of IRB in health care and public health data collection</li> <li>• Describe PM methodologies: Lists and descriptions, Value and applicable situation for each</li> <li>• Define: Scope, Schedule, Budget, Customer Satisfaction</li> </ul>	<p><b>QI Methodologies</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul> <p><b>Project Management QI</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul>	<p><b>A Primer on Defining the Triple Aim</b>  <a href="http://www.ihl.org/communities/blogs/Documents/rsomgtae.4lc.1e880535-d855-4727-a8c1-27ee672f115d.33.pdf">http://www.ihl.org/communities/blogs/Documents/rsomgtae.4lc.1e880535-d855-4727-a8c1-27ee672f115d.33.pdf</a></p> <p><b>An Introduction to Lean Thinking</b>  <a href="https://www.youtube.com/watch?v=RxDw0Q_gVt0">https://www.youtube.com/watch?v=RxDw0Q_gVt0</a></p> <p><b>Six Sigma in Plain English</b>  <a href="https://www.youtube.com/watch?v=tj8Saa1Mbrl">https://www.youtube.com/watch?v=tj8Saa1Mbrl</a></p> <p><b>Project Management Introduction</b>  <a href="https://www.youtube.com/watch?v=9LSnINgIkQA">https://www.youtube.com/watch?v=9LSnINgIkQA</a></p> <p>And  <a href="https://www.youtube.com/watch?v=r5qFLd1u0XQ">https://www.youtube.com/watch?v=r5qFLd1u0XQ</a></p>		<p><b>The Triple Aim: Care, Health, and Cost</b></p> <p><a href="http://content.healthaffairs.org/content/27/3/759.long">http://content.healthaffairs.org/content/27/3/759.long</a></p> <p><b>Comparing Lean and Quality Improvement</b></p> <p><a href="http://www.ihl.org/resources/Pages/IIWhitePapers/ComparingLeanandQualityImprovement.aspx">http://www.ihl.org/resources/Pages/IIWhitePapers/ComparingLeanandQualityImprovement.aspx</a></p>
<p><b>Session 3 (September 24)</b></p> <p><b>QI Theories, Concepts, and Principles</b></p> <ul style="list-style-type: none"> <li>• Describe how the patient/customer is the center of all QI.</li> <li>• Recall common wastes and flows.</li> <li>• Differentiate between system thinking and process thinking.</li> <li>• Create a process flow map.</li> <li>• Explain the value and application of key QI concepts (such as: seeing the work happen where it happens, engaging those closest to the work to improve the work, letting data drive decision making, identifying root causes, making things visual)</li> </ul>	<p><b>Feedback Observations</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul> <p><b>Ideas</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul>	<p><b>Minnesota Department of Health, Public Health and QI Tool Box</b></p> <p>Flowcharts:  <a href="http://www.health.state.mn.us/divs/opi/qi/toolbox/flowchart.html">http://www.health.state.mn.us/divs/opi/qi/toolbox/flowchart.html</a></p> <p><b>The Importance of Going to the Gemba (read both of these in the order they are listed)</b></p> <ol style="list-style-type: none"> <li>1. <a href="https://www.jointcommission.org/jc_physician_blog/leading_improvement_go_to_the_gemba/">https://www.jointcommission.org/jc_physician_blog/leading_improvement_go_to_the_gemba/</a></li> <li>2. <a href="http://www.lean.org/shook/displayobject.cfm?o=1843">http://www.lean.org/shook/displayobject.cfm?o=1843</a></li> </ol>		

<p><b>Session 4 (October 1)</b></p> <p><b>QI Theories, Concepts, and Principles</b></p> <ul style="list-style-type: none"> <li>• Explain the value and application of key QI concepts (such as: just in time delivery, error and defect reduction through process build)</li> <li>• List benefits of standards</li> </ul>	<p><b>Concepts and error proofing</b> (Content from session 3, no new lecture primer for this session.)</p>	<p><b>Jidoka</b> <a href="http://leanmanufacturingtools.org/489/jidoka/">http://leanmanufacturingtools.org/489/jidoka/</a></p> <p><b>Andon:</b> <a href="http://www.shmula.com/about-peter-abilla/what-is-andon-in-the-toyota-production-system/">http://www.shmula.com/about-peter-abilla/what-is-andon-in-the-toyota-production-system/</a></p> <p><b>Poka Yoke (Mistake Proofing):</b> <a href="http://www.shmula.com/about-peter-abilla/what-is-poka-yoke/">http://www.shmula.com/about-peter-abilla/what-is-poka-yoke/</a></p> <p><b>Just in Time (JIT):</b> <a href="http://www.shmula.com/about-peter-abilla/what-is-just-in-time-manufacturing/">http://www.shmula.com/about-peter-abilla/what-is-just-in-time-manufacturing/</a></p> <p><b>St. Paul studies how whites, non-whites experience city; some findings eye-opening</b> (be prepared to discuss in class the application of concepts applied in article) <a href="http://www.twincities.com/2017/02/10/st-paul-studying-how-whites-minorities-experience-city-data-racial-equity-work-plan/">http://www.twincities.com/2017/02/10/st-paul-studying-how-whites-minorities-experience-city-data-racial-equity-work-plan/</a></p>		
<p><b>Session 5 (October 8)</b></p> <p><b>High Reliability Organizations and a culture of safety</b></p> <ul style="list-style-type: none"> <li>• Describe characteristics of high reliability organizations</li> <li>• Describe what is meant by a “just” approach to managing human behavior</li> <li>• Discuss the relationship between safety and CQI</li> </ul> <p><b>Cognitive errors</b></p> <ul style="list-style-type: none"> <li>• Define human factors that contribute to errors and mistakes</li> <li>• Differentiate human error, at-risk behavior, and reckless behavior</li> </ul>	<p><b>HRO Culture of Safety</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul> <p><b>Cognitive errors</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul>	<p><b>Just Culture: A Foundation for Balanced Accountability and Patient Safety</b> <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776518/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776518/</a></p> <p><b>High-Reliability Health Care: Getting There from Here</b> <a href="https://www.jointcommission.org/assets/1/6/Chassin_and_Loeb_09_13_final.pdf">https://www.jointcommission.org/assets/1/6/Chassin_and_Loeb_09_13_final.pdf</a></p> <p><b>Human Factors Engineering</b> <a href="https://psnet.ahrq.gov/primers/primer/20">https://psnet.ahrq.gov/primers/primer/20</a></p> <p><b>Understanding and Preventing Cognitive Errors in Healthcare</b> <a href="http://www.merckmanuals.com/professional/special-subjects/clinical-decision-making/cognitive-errors-in-clinical-decision-making">http://www.merckmanuals.com/professional/special-subjects/clinical-decision-making/cognitive-errors-in-clinical-decision-making</a></p> <p><i>And</i> <a href="https://www.youtube.com/watch?v=OXcGciywtgM">https://www.youtube.com/watch?v=OXcGciywtgM</a></p>	<p>High Reliability Organizations Industry or Organization Assessment due October 8, 6:00 pm. Be prepared to present and discuss. This is an individual assignment. You are encouraged to work in teams if desired. Details and Instructions available on Moodle.</p>	

<p><b>Session 6 (October 15)</b></p> <p><b>Project life cycle</b></p> <ul style="list-style-type: none"> <li>Define Project Management and Change Management</li> <li>Differentiate project life cycle phases and where QI, PM, and CM fit within the life cycle</li> <li>Identify benefits of good Project Management and Change Management that help with QI</li> </ul> <p><b>A3 problem solving</b></p> <ul style="list-style-type: none"> <li>Document a PDSA cycle utilizing the A3 problem solving process</li> </ul>	<p><b>Change Management, Project Management, Quality Improvement, Together</b></p> <ul style="list-style-type: none"> <li><a href="#">Presentation</a></li> <li><a href="#">Handouts.pdf</a></li> <li><a href="#">Transcript.pdf</a></li> </ul> <p><b>A3 Problem Solving</b></p> <ul style="list-style-type: none"> <li><a href="#">Presentation</a></li> <li><a href="#">Handouts.pdf</a></li> <li><a href="#">Transcript.pdf</a></li> </ul>	<p><b>Change Management</b>  <a href="http://www.strategy-business.com/article/rr00006?gko=643d0">http://www.strategy-business.com/article/rr00006?gko=643d0</a></p> <p>Including video on above page, also found at:  <a href="https://www.youtube.com/watch?v=PQ0doKfhecQ">https://www.youtube.com/watch?v=PQ0doKfhecQ</a>  And:  <a href="https://www.youtube.com/watch?v=k69i_yAhEcQ">https://www.youtube.com/watch?v=k69i_yAhEcQ</a></p> <p><b>The Hawthorne Effect</b>  <a href="http://www.economist.com/node/12510632">http://www.economist.com/node/12510632</a></p> <p><b>A3 Problem Solving Tool (Denver Health)</b>  <a href="https://www.youtube.com/watch?v=JaVMUoQBygE">https://www.youtube.com/watch?v=JaVMUoQBygE</a></p> <p><b>IHI Driver Diagram</b>  <a href="http://www.ihl.org/education/IHIOpenSchool/resources/Pages/AudioandVideo/Whiteboard9.aspx">http://www.ihl.org/education/IHIOpenSchool/resources/Pages/AudioandVideo/Whiteboard9.aspx</a></p> <p><b>Driver Diagrams</b>  <a href="#">PDF available on Moodle</a></p>	<p>Case Study 1 is due October 15, 6:00 pm. This is a group assignment. Details and instructions available on Moodle.</p>	<p><b>Project Triple (and more) Constraint (read in order)</b></p> <p><a href="http://whatis.techtarget.com/definition/triple-constraint">http://whatis.techtarget.com/definition/triple-constraint</a></p> <p><a href="http://iseman.com/eighth-constraint/">http://iseman.com/eighth-constraint/</a></p> <p><b>Learn How to Leverage the Powerful A3 Report</b></p> <p><a href="https://www.youtube.com/watch?v=UvffmfTh3A">https://www.youtube.com/watch?v=UvffmfTh3A</a></p>
<p><b>Session 7 (October 22)</b></p> <p><b>How do I know it is a problem?</b></p> <ul style="list-style-type: none"> <li>Describe how Value Stream Maps can be used to identify opportunities for improvement</li> <li>Explain elements of time in value stream maps and how they are used in QI</li> <li>Demonstrate strategies for converting data into information for CQI</li> <li>Develop Pareto charts, histograms and scatter plots</li> <li>Describe how Pareto charts, histograms and scatter plots can be used in a CQI project</li> <li>Develop a data collection strategy (collection, sample, frequency and duration)</li> </ul>	<p><b>Element of Time</b></p> <ul style="list-style-type: none"> <li><a href="#">Presentation</a></li> <li><a href="#">Handouts.pdf</a></li> <li><a href="#">Transcript.pdf</a></li> </ul> <p><b>Making Data Visual</b></p> <ul style="list-style-type: none"> <li><a href="#">Presentation</a></li> <li><a href="#">Handouts.pdf</a></li> <li><a href="#">Transcript.pdf</a></li> </ul>	<p><b>Minnesota Department of Health, Public Health and QI Tool Box</b></p> <p>Pareto Charts:  <a href="http://www.health.state.mn.us/divs/opi/qi/toolbox/pareto.html">http://www.health.state.mn.us/divs/opi/qi/toolbox/pareto.html</a></p> <p>Scatter Plot:  <a href="http://www.health.state.mn.us/divs/opi/qi/toolbox/scatter.html">http://www.health.state.mn.us/divs/opi/qi/toolbox/scatter.html</a></p> <p>Radar Chart:  <a href="http://www.health.state.mn.us/divs/opi/qi/toolbox/radar.html">http://www.health.state.mn.us/divs/opi/qi/toolbox/radar.html</a></p> <p><b>VSM Basics</b>  <a href="#">VSM Basics (available on Moodle)</a></p>	<p>Reflection 1 due October 22, 6:00 pm. This is an individual assignment. Details and instructions available on Moodle.</p>	

<p><b>Session 8 (October 29)</b></p> <p><b>Variation, targets, aims, goals and measures</b></p> <ul style="list-style-type: none"> <li>• Distinguish between common cause vs. special cause variation</li> <li>• Describe why understanding variation is important in order to understand human performance</li> <li>• Differentiate outcomes and process measures</li> <li>• Formulate Smart Goals</li> <li>• Create measures and indicators (outcome, process, balancing and structural)</li> <li>• Describe how to interpret data from control charts and run charts</li> </ul>	<p><b>Variations, Targets, Aims, Goals, and Measures</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul>	<p><b>Minnesota Department of Health, Public Health and QI Tool Box</b></p> <p><b>Control Charts:</b>  <a href="http://www.health.state.mn.us/divs/opi/qi/toolbox/controlchart.html">http://www.health.state.mn.us/divs/opi/qi/toolbox/controlchart.html</a></p> <p><b>What is Variation:</b>  <a href="https://www.isixsigma.com/tools-templates/variation/variation-root-all-process-evil/">https://www.isixsigma.com/tools-templates/variation/variation-root-all-process-evil/</a></p> <p><b>Understanding Variation</b>  <a href="http://www.saferpak.com/six_sigma_art1.htm">http://www.saferpak.com/six_sigma_art1.htm</a></p> <p><b>Seeking causes of variation</b>  <a href="https://www.isixsigma.com/tools-templates/variation/seeking-the-causes-of-variation/">https://www.isixsigma.com/tools-templates/variation/seeking-the-causes-of-variation/</a></p> <p><b>Science of Improvement: Establishing Measures</b>  <a href="http://www.ihl.org/resources/pages/howtoimprove/scienceofimprovementestablishingmeasures.aspx">http://www.ihl.org/resources/pages/howtoimprove/scienceofimprovementestablishingmeasures.aspx</a></p>	<p><b>Quiz:</b></p> <p>To cover concepts taught to date. You are welcome to use necessary resources. Due November 2, 11:59 pm.</p>	
<p><b>Session 9 (November 5)</b></p> <p><b>Creating the project and conducting an improvement event</b></p> <ul style="list-style-type: none"> <li>• Create project documents that define a project, problem statement, scope, and SMART targets</li> <li>• Discuss types of improvement events (RPIW, KE, Agile)</li> <li>• Explain the steps in an improvement event</li> </ul>	<p><b>Improvement Events</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Presentation</a></li> <li>• <a href="#">Handouts.pdf</a></li> <li>• <a href="#">Transcript.pdf</a></li> </ul>	<p><b>What's an RPIW? What's a Kaizen Event?</b>  <a href="https://www.youtube.com/watch?v=uXmmoawaScw">https://www.youtube.com/watch?v=uXmmoawaScw</a></p> <p><i>And</i>  <a href="https://www.youtube.com/watch?v=og6j761NyQ0">https://www.youtube.com/watch?v=og6j761NyQ0</a></p>		<p><b>SBAR</b></p> <p><a href="https://www.jointcommission.org/at_home_with_the_joint_commission/sbar_%E2%80%93_a_powerful_tool_to_help_improve_communication/">https://www.jointcommission.org/at_home_with_the_joint_commission/sbar_%E2%80%93_a_powerful_tool_to_help_improve_communication/</a></p>

<p><b>Session 10 (November 12)</b></p> <p><b>Analyze the problem</b></p> <ul style="list-style-type: none"> <li>Describe the Root Cause Analysis process</li> <li>Apply concepts of human factors and human decision making to RCA</li> <li>Gather and organize information for RCA</li> <li>Compare and contrast weak, intermediate and strong interventions</li> <li>Apply tools (flowcharts, timelines, Cause and Effect Diagrams and the 5 Why's) to the RCA process</li> <li>Compare RCA and FMEA</li> </ul>	<p>There is no lecture for this week</p>	<p><b>Minnesota Department of Health, Public Health and QI Tool Box</b> Cause and Effect Diagram (Fishbone): <a href="http://www.health.state.mn.us/divs/opi/qi/toolbox/fishbone.html">http://www.health.state.mn.us/divs/opi/qi/toolbox/fishbone.html</a></p> <p><b>Failure Modes and Effects Analysis (FMEA)</b> <a href="http://asq.org/learn-about-quality/process-analysis-tools/overview/fmea.html">http://asq.org/learn-about-quality/process-analysis-tools/overview/fmea.html</a></p> <p><b>Root Cause Analysis Overview</b> <a href="https://psnet.ahrq.gov/primers/primer/10/root-cause-analysis">https://psnet.ahrq.gov/primers/primer/10/root-cause-analysis</a></p> <p><b>Root Cause Analysis Toolkit</b> <a href="http://www.health.state.mn.us/patientsafety/toolkit/">http://www.health.state.mn.us/patientsafety/toolkit/</a> <i>Review, especially the RCA Process Handout, Graphic Organizers/diagrams, RCA Question Guides/Contributing Factors, Checklists/templates/agendas for review process, corrective actions/measurement sections</i></p>	<p>Case Study 2 is due November 12, 6:00 pm. This is a group assignment. Details and instructions available on Moodle</p>	<p><b>Root Cause Analysis Training for Health Care</b></p> <p><a href="https://www.youtube.com/watch?v=4bldoFN5a1g&amp;feature=youtu.be">https://www.youtube.com/watch?v=4bldoFN5a1g&amp;feature=youtu.be</a></p>
<p><b>Session 11 (November 19)</b></p> <p><b>Generating solutions and piloting and testing plans</b></p> <ul style="list-style-type: none"> <li>Identify Strategies to choose QI interventions</li> <li>Demonstrate tools to encourage creative thinking</li> <li>Develop future state</li> <li>Compare and contrast piloting/testing vs. slow planned rollout</li> </ul>	<p><b>Creativity and Idea Generation</b></p> <ul style="list-style-type: none"> <li><a href="#">Presentation</a></li> <li><a href="#">Handouts.pdf</a></li> <li><a href="#">Transcript.pdf</a></li> </ul>	<p><b>Agile (Scrum) in 10 minutes</b> <a href="https://www.youtube.com/watch?v=XU0lIRlyFM">https://www.youtube.com/watch?v=XU0lIRlyFM</a></p> <p><b>Benefits of Drawing</b> <a href="http://www.theatlantic.com/entertainment/archive/2015/07/doodling-for-cognitive-benefits/398027/">http://www.theatlantic.com/entertainment/archive/2015/07/doodling-for-cognitive-benefits/398027/</a></p> <p><b>Brainstorming (particularly #7)</b> <a href="https://designshack.net/articles/business-articles/10-tips-for-effective-creative-brainstorming/">https://designshack.net/articles/business-articles/10-tips-for-effective-creative-brainstorming/</a></p> <p><i>And</i> <a href="http://www.sparringmind.com/creative-thinking/">http://www.sparringmind.com/creative-thinking/</a></p>	<p>Root Cause Analysis is due November 19, 6:00 pm. This is a group assignment. Details and Instructions available on Moodle.</p> <p>Reflection 2 due November 19, 6:00 pm. This is an individual assignment. Details and instructions available on Moodle.</p>	

<p><b>Session 12 (November 26)</b></p> <p><b>Implementation, adoption, sustainability and spread of QI initiatives</b></p> <ul style="list-style-type: none"> <li>Describe Project Management Concepts and tools to support concepts</li> <li>Identify the necessary steps to effective project implementation</li> <li>Describe QI concepts that compliment PM concepts</li> <li>Discuss methods for developing and implementing change</li> <li>Identify the role of change management concepts</li> <li>Describe the concepts of sustainability and spread in QI</li> <li>Summarize the role of dashboards and similar tools</li> </ul>	<p><b>Implementation, Adoption, Sustainability, and Spread</b></p> <ul style="list-style-type: none"> <li><a href="#">Presentation</a></li> <li><a href="#">Handouts.pdf</a></li> <li><a href="#">Transcript.pdf</a></li> </ul>	<p><b>Work Breakdown Structure</b>  <a href="http://www.projectinsight.net/project-management-basics/project-management-schedule">http://www.projectinsight.net/project-management-basics/project-management-schedule</a> (WBS)</p> <p><b>Communications Plan</b>  <a href="https://www.youtube.com/watch?v=DUE2GqpZbpw">https://www.youtube.com/watch?v=DUE2GqpZbpw</a></p> <p><b>Using Dashboards to Communicate Project Status</b>  <a href="http://www.telerik.com/blogs/the-perfect-project-status-report">http://www.telerik.com/blogs/the-perfect-project-status-report</a></p> <p><b>Black Farmers Are Sowing The Seeds Of Health And Empowerment</b>  <a href="https://www.npr.org/sections/thesalt/2017/12/16/553748898/black-farmers-are-sowing-the-seeds-of-health-and-empowerment">https://www.npr.org/sections/thesalt/2017/12/16/553748898/black-farmers-are-sowing-the-seeds-of-health-and-empowerment</a></p>	<p>Human Centered Design is due November 26, 6:00 pm. This is an individual assignment. Details and Instructions available on Moodle.</p>	
<p><b>Session 13 (December 3)</b></p> <p><b>Connecting the Dots and Learning Organizations</b></p> <ul style="list-style-type: none"> <li>Identify common QI, PM, CM tools</li> <li>Utilize tools for leading effective project teams</li> <li>Recognize options for publication of QI work</li> <li>Create a method for tracking and using lessons learned</li> </ul>	<p><b>Connecting the Dots presented by Chardae Kimber</b></p> <ul style="list-style-type: none"> <li><a href="#">Presentation</a></li> <li><a href="#">Handouts.pdf</a></li> <li><a href="#">Transcript.pdf</a></li> </ul>	<p><b>Project Management Types/Comparisons</b>  <a href="http://www.brighthubpm.com/methods-strategies/67087-project-management-methodologies-how-do-they-compare/">http://www.brighthubpm.com/methods-strategies/67087-project-management-methodologies-how-do-they-compare/</a></p> <p><b>Project Lessons Learned</b>  <a href="http://www2.cdc.gov/cdcup/library/practices_guides/CDC_UP_Lessons_Learned_Practices_Guide.pdf">http://www2.cdc.gov/cdcup/library/practices_guides/CDC_UP_Lessons_Learned_Practices_Guide.pdf</a></p> <p><i>And</i>  <a href="https://www.youtube.com/watch?v=DBUqW_ek4hI">https://www.youtube.com/watch?v=DBUqW_ek4hI</a></p> <p><b>Publishing your work (explore the site)</b>  <a href="http://www.ihl.org/education/IHIOpenSchool/resources/Pages/Publications/default.aspx">http://www.ihl.org/education/IHIOpenSchool/resources/Pages/Publications/default.aspx</a></p>		
<p><b>Session 14 (December 10)</b></p> <p><b>Assignment sharing and catch up day</b></p>	<p>There is no lecture primer for this week</p>		<p>Application of methodology is due December 10, 6:00 pm. This is an individual assignment. This will require selecting a topic of your choice. Details and Instructions available on Moodle.</p>	

## Graded Assignments/Quizzes

Assignments help synthesize readings learnings and are and prep for class sessions and are important in contributing to discussions, therefore, it is expected that assignments be completed on their due date before class at 6:00 pm.

Late submissions will be penalized.

Assignments are designated group or individual grade. Collaboration on individual assignments is encouraged. Further details of assignments will be distributed in class and/or via the course Moodle site.

Assignments are subject to change and modification as the course progresses as needed to facilitate learning.

Week	Due Date	Assignment Name	Assignment Overview	Individual Assignment	Group Assignment	Points Value
5	October 8, 6:00 pm	High Reliability Organization	Investigate another industry that has a high amount of risk. Applying High Reliability Organization (HRO) principals,	X		20
6	October 15, 6:00 pm	Case Study 1	In your group, synthesize materials covered to date and complete an analysis of an assigned case.		X	50
7	March 25, 11:59pm	Reflection 1	Reflect on group dynamics for case study 1	X		30
8	November 2, 11:59 pm	Quiz	Covering content to date	X		30
10	November 12, 6:00 pm	Case Study 2	Synthesize materials covered to date and complete an analysis of an assigned case.		X	50
11	November 19, 6:00 pm	RCA	Conduct a Root Cause Analysis on an assigned case study		X	50
		Reflection 2	Reflect on group dynamics for case study 2	X		30
12	November 26, 6:00 pm	Human Centered Design	Create a future state utilizing Human Centered Design principals. This will require interviewing other individuals.	X		50
14	December 10, 6:00 pm	Application of methodology	Complete an analysis of an individually chosen case/topic and apply CQI methodology	X		50
<b>Total</b>						<b>360</b>

## VII. Evaluation and Grading

Assignment Description	Points
Individual assignments	210
Group assignments	150
<b>Total Points</b>	<b>360</b>

Percentage	Point total	Letter grade
93% - 100%	335 - 360	A
90% - 92.99%	324 - 334	A-
87% - 89.99%	314 - 323	B+
83% - 86.99%	299 - 313	B
80% - 82.99%	288 - 298	B-
77% - 79.99%	278 - 287	C+
73% - 76.99%	263 - 277	C
70% - 72.99%	252 - 262	C-
67% - 69.99%	242 - 251	D+
60% - 66.99%	216 - 241	D
0% - 59.99%	0 - 215	F

The University utilizes plus and minus grading on a 4.000 cumulative grade point scale in accordance with the following:

- A 4.000 - Represents achievement that is outstanding relative to the level necessary to meet course requirements
- A- 3.667
- B+ 3.333
- B 3.000 - Represents achievement that is significantly above the level necessary to meet course requirements
- B- 2.667
- C+ 2.333
- C 2.000 - Represents achievement that meets the course requirements in every respect
- C- 1.667
- D+ 1.333
- D 1.000 - Represents achievement that is worthy of credit even though it fails to meet fully the course requirements
- S Represents achievement that is satisfactory, which is equivalent to a C- or better.

**For additional information, please refer to:**

<http://policy.umn.edu/Policies/Education/Education/GRADINGTRANSCRIPTS.html>.

**Course Evaluation**

The SPH will collect student course evaluations electronically using a software system called CoursEval: [www.sph.umn.edu/courseval](http://www.sph.umn.edu/courseval). The system will send email notifications to students when they can access and complete their course evaluations. Students who complete their course evaluations promptly will be able to access their final grades just as soon as the faculty member renders the grade in SPHGrades:

[www.sph.umn.edu/grades](http://www.sph.umn.edu/grades). All students will have access to their final grades through OneStop two weeks after the last day of the semester regardless of whether they completed their course evaluation or not. Student feedback on course content and faculty teaching skills are an important means for improving our work. Please take the time to complete a course evaluation for each of the courses for which you are registered.

### **Incomplete Contracts**

A grade of incomplete "I" shall be assigned at the discretion of the instructor when, due to extraordinary circumstances (e.g., documented illness or hospitalization, death in family, etc.), the student was prevented from completing the work of the course on time. The assignment of an "I" requires that a contract be initiated and completed by the student before the last official day of class, and signed by both the student and instructor. If an incomplete is deemed appropriate by the instructor, the student in consultation with the instructor, will specify the time and manner in which the student will complete course requirements. Extension for completion of the work will not exceed one year (or earlier if designated by the student's college). For more information and to initiate an incomplete contract, students should go to SPHGrades at: [www.sph.umn.edu/grades](http://www.sph.umn.edu/grades).

### **University of Minnesota Uniform Grading and Transcript Policy**

A link to the policy can be found at [onestop.umn.edu](http://onestop.umn.edu).

## **VIII. Other Course Information and Policies**

### **Grade Option Change** (if applicable):

For full-semester courses, students may change their grade option, if applicable, through the second week of the semester. Grade option change deadlines for other terms (i.e. summer and half-semester courses) can be found at [onestop.umn.edu](http://onestop.umn.edu).

### **Course Withdrawal:**

Students should refer to the Refund and Drop/Add Deadlines for the particular term at [onestop.umn.edu](http://onestop.umn.edu) for information and deadlines for withdrawing from a course. As a courtesy, students should notify their instructor and, if applicable, advisor of their intent to withdraw.

Students wishing to withdraw from a course after the noted final deadline for a particular term must contact the School of Public Health Office of Admissions and Student Resources at [sph-ssc@umn.edu](mailto:sph-ssc@umn.edu) for further information.

### **Student Conduct Code:**

The University seeks an environment that promotes academic achievement and integrity, that is protective of free inquiry, and that serves the educational mission of the University. Similarly, the University seeks a community that is free from violence, threats, and intimidation; that is respectful of the rights, opportunities, and welfare of students, faculty, staff, and guests of the University; and that does not threaten the physical or mental health or safety of members of the University community.

As a student at the University you are expected adhere to Board of Regents Policy: *Student Conduct Code*. To review the Student Conduct Code, please see: [http://regents.umn.edu/sites/default/files/policies/Student\\_Conduct\\_Code.pdf](http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf).

Note that the conduct code specifically addresses disruptive classroom conduct, which means "engaging in behavior that substantially or repeatedly interrupts either the instructor's ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities."

### **Use of Personal Electronic Devices in the Classroom:**

Using personal electronic devices in the classroom setting can hinder instruction and learning, not only for the student using the device but also for other students in the class. To this end, the University establishes the right of each faculty member to determine if and how personal electronic devices are allowed to be used in the classroom. For complete information, please reference: <http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html>.

**Scholastic Dishonesty:**

You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis. (Student Conduct Code:

[http://regents.umn.edu/sites/default/files/policies/Student\\_Conduct\\_Code.pdf](http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf)) If it is determined that a student has cheated, he or she may be given an "F" or an "N" for the course, and may face additional sanctions from the University. For additional information, please see: <http://policy.umn.edu/Policies/Education/Education/INSTRUCTORRESP.html>.

The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: <http://www1.umn.edu/oscai/integrity/student/index.html>. If you have additional questions, please clarify with your instructor for the course. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class-e.g., whether collaboration on assignments is permitted, requirements and methods for citing sources, if electronic aids are permitted or prohibited during an exam.

**Makeup Work for Legitimate Absences:**

Students will not be penalized for absence during the semester due to unavoidable or legitimate circumstances. Such circumstances include verified illness, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, and religious observances. Such circumstances do not include voting in local, state, or national elections. For complete information, please see:

<http://policy.umn.edu/Policies/Education/Education/MAKEUPWORK.html>.

**Appropriate Student Use of Class Notes and Course Materials:**

Taking notes is a means of recording information but more importantly of personally absorbing and integrating the educational experience. However, broadly disseminating class notes beyond the classroom community or accepting compensation for taking and distributing classroom notes undermines instructor interests in their intellectual work product while not substantially furthering instructor and student interests in effective learning. Such actions violate shared norms and standards of the academic community. For additional information, please see: <http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html>.

**Sexual Harassment:**

"Sexual harassment" means unwelcome sexual advances, requests for sexual favors, and/or other verbal or physical conduct of a sexual nature. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive working or academic environment in any University activity or program. Such behavior is not acceptable in the University setting. For additional information, please consult Board of Regents Policy:

<http://regents.umn.edu/sites/default/files/policies/SexHarassment.pdf>

**Equity, Diversity, Equal Opportunity, and Affirmative Action:**

The University will provide equal access to and opportunity in its programs and facilities, without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. For more information, please consult Board of Regents Policy:

[http://regents.umn.edu/sites/default/files/policies/Equity\\_Diversity\\_EO\\_AA.pdf](http://regents.umn.edu/sites/default/files/policies/Equity_Diversity_EO_AA.pdf).

**Disability Accommodations:**

The University of Minnesota is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center Student Services is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations.

If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact DRC at 612-626-1333 or [drc@umn.edu](mailto:drc@umn.edu) to arrange a confidential discussion regarding equitable access and reasonable accommodations.

If you are registered with DS and have a current letter requesting reasonable accommodations, please contact your instructor as early in the semester as possible to discuss how the accommodations will be applied in the course.

For more information, please see the DS website, <https://diversity.umn.edu/disability/>.

**Mental Health and Stress Management:**

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance and may reduce your ability to participate in daily activities. University of Minnesota services are available to assist you. You can learn more about the broad range of confidential mental health services available on campus via the Student Mental Health Website: <http://www.mentalhealth.umn.edu>.

**The Office of Student Affairs at the University of Minnesota:**

The Office for Student Affairs provides services, programs, and facilities that advance student success, inspire students to make life-long positive contributions to society, promote an inclusive environment, and enrich the University of Minnesota community.

Units within the Office for Student Affairs include, the Aurora Center for Advocacy & Education, Boynton Health Service, Central Career Initiatives (CCE, CDes, CFANS), Leadership Education and Development – Undergraduate Programs (LEAD-UP), the Office for Fraternity and Sorority Life, the Office for Student Conduct and Academic Integrity, the Office for Student Engagement, the Parent Program, Recreational Sports, Student and Community Relations, the Student Conflict Resolution Center, the Student Parent HELP Center, Student Unions & Activities, University Counseling & Consulting Services, and University Student Legal Service.

For more information, please see the Office of Student Affairs at <http://www.osa.umn.edu/index.html>.

**Academic Freedom and Responsibility: *for courses that do not involve students in research:***

Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.\*

**OR:**

**Academic Freedom and Responsibility, for courses that involve students in research**

Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom and conduct relevant research. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.\* When conducting research, pertinent institutional approvals must be obtained and the research must be consistent with University policies.

Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college, (Dr Kristin Anderson, SPH Dean of Student Affairs), or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost.

*\* Language adapted from the American Association of University Professors "Joint Statement on Rights and Freedoms of Students".*

**Student Academic Success Services (SASS): <http://www.sass.umn.edu>:**

Students who wish to improve their academic performance may find assistance from Student Academic Support Services. While tutoring and advising are not offered, SASS provides resources such as individual consultations, workshops, and self-help materials.