Course Description

Campus: All

Department: Internal Medicine

Course Title: Quality Improvement and Patient Safety

Course Number: IMED 9506

Location of Course: Virtual

Preceptor(s): Dinesh Bande, MD, Mallory Koshiol, MPH, CPH, Kate Syverson, MSW, LCSW, CPHQ

Course Prerequisites: Completion of phase 2

Periods: This course spans the entirety of phase 3

Number of students per period: All

Purpose: To provide students with an opportunity to learn the quality improvement process and how it can be applied to patient safety. Students will earn the Institute for Healthcare Improvement Open School Basic Certificate in Quality and Safety as online courses are completed.

Objectives: Following successful completion of this elective, the <u>student</u> will be able to:

IHI Module QI 101:

1. Describe common challenges for health care systems around the world.
2. List the six dimensions of health care, and the aims for each, outlined by the Institute of Medicine in 2001.
3. Explain the value of improvement science in health care.

IHI Module QI 102:

1. List the three questions you must ask to apply the Model for Improvement.
2. Identify the key elements of an effective aim statement.
3. Identify three kinds of measures: process measures, outcome measures, and balancing measures.
4. Use change concepts and critical thinking tools to come up with good ideas for changes to test.
5. Test changes on a small scale using the Plan-Do-Study-Act (PDSA) cycle.

IHI Module QI 103:

1. Describe how to establish and track measures of improvement during the "plan" and "do" phase of PDSA.
2. Explain how to learn from data during the "study" phase of PDSA.
3. Explain how to increase the size and scope of subsequent test cycles based on what you're learning during the "act" phase of PDSA.

IHI Module QI 104:

1. Draw a run chart that includes a baseline median, a goal line, and annotations.
2. Describe the difference between common and special cause variation.
3. Explain the purpose of a Shewhart (or control) chart.
4. Apply four rules to identify non-random patterns on a run chart.
5. Explain when and how to use the following tools for understanding variation in data: histograms, Pareto charts, and scatter plots.

IHI Module QI 105:
1. Describe how to lead an improvement project through four key phases.
2. Identify and describe the components of IHI's Framework for Spread.
3. Apply strategies to assess and overcome resistance to change.
4. Apply strategies to work effectively with interprofessional colleagues.

IHI Module PS 101:
1. Summarize why it is essential to improve patient safety.
2. Describe a framework for improving the safety of health care systems.
3. Identify four key elements of a culture of safety.
4. Explain why systematic learning from error and unintended events is the best response to ensuring patient safety.

IHI Module PS 102:
1. Explain the Swiss cheese model of error.
2. Define active failures and latent error and discuss their roles in causing harm.
3. List the main types of unsafe acts utilizing James Reason's classification system.
4. Explain why patient safety experts recommend focusing less on reducing errors and more on reducing harm.

IHI Module PS 103:
1. Explain how human factors principles apply to health care.
2. Describe how changes to processes can mitigate the effects of factors that contribute to error.
3. Define simplification, standardization, constraints, forcing functions, and redundancies.
4. Discuss the risks and benefits of using technology to improve patient safety.

IHI Module PS 104:
1. Explain how individual behavior and team dynamics in health care can make care safer or less safe.
2. Use structured communication techniques to improve communication within health care.
3. Specify possible interventions to improve patient safety and reduce risk during times of transition.

IHI Module PS 105:
1. Describe four steps to take following an adverse event.
2.Explain how to communicate effectively about bad news and when you should apologize.
3.Discuss the impact of adverse events on providers

IHI Module TA 101
1. Describe the three components of the IHI Triple Aim for populations.
2. Explain the responsibilities of clinicians and health care systems in optimizing population-level outcomes with available resources.
3. Understand medical care as one determinant of the overall health of a population, and the relationship of health care quality and safety to population health.
4. Provide examples of population-level interventions designed to improve overall health and reduce costs of care.

IHI Module PFC 101
1. Describe the partnership model of patient-provider relationships.
2. Explain why the partnership model can improve health.
3. Discuss how social conditions, faith, culture, and trust affect the patient-provider relationship.
4. Identify at least four skills to improve clinical interactions with patients.

IHI Module L 101

1. Describe several characteristics of leaders, who may or may not have formal positions of authority.
2. Describe different techniques for persuading different types of people.
3. Explain why achieving a workable level of unity among teammates is essential for effective team functioning.
4. List several ways to help sustain your health care leadership journey over time.

After completing the Quality Improvement project proposal, the student will be able to:
1. Identify and define one quality improvement project based on his/her third year clinical experience.

2. Apply IHI models for improvement to develop a one-page proposal addressing the above identified concern within the healthcare facility.

Instructional Activities: During this elective, <u>the student</u> will be involved in/experience:
1. Complete online modules through IHI open school: QI 101-105, PS 101-105, TA 101, PFC 101, and L 101. This will complete the requirements for the Basic Certificate in Quality and Safety.

2. Submit a proposal for a patient safety-related quality improvement project that could be implemented in a health system where you have completed a clinical rotation.

This course will be graded satisfactory/unsatisfactory

Criteria for Grading: During and following this elective, the quality improvement faculty will:
1. By direct review of online course completion logs assess the student's completion of online modules QI 101-105, PS 101-105, TA 101, PFC 101, and L 101.

2. By direct review of the student's quality improvement project proposal evaluate the student's ability to identify an area of patient safety needing improvement and their ability to apply the concepts learned in the IHI online modules to the project proposal. This evaluation will be completed using a standardized rubric shown below. Any areas evaluated as needs improvement will need to be revised until they are acceptable at a minimum.

Project Proposal Assessment Rubric

	Excellent	Acceptable	Needs Improvement
Topic	Topic identifies a patient safety or quality improvement issue needing attention		Topic does not address a patient safety or quality improvement issue needing attention
Problem Identification	The problem identified is clearly delineated and sufficient detail is given for the reader to understand the problem	The problem description is somewhat unclear or gives only some detail	The problem is not described in an understandable way or is described only superficially
Stakeholders	All Stakeholders affected by plan and involvement of each clearly identified	Stakeholders identified but their involvement in the process not sufficiently defined	Stakeholders or their involvement in the project not identified
Improvement	Suggested steps for improvement are clearly stated and explained in detail	Suggested steps for improvement are given in a general fashion but lack detail or clarity	Suggested steps for improvement are not described
Assessment	The method of assessing improvement is described in detail	There is mention of assessment, however, detail is lacking	No follow up plans for assessment are included
Professionalism	Product is completed in a professional manner and free of grammatical errors	Occasional grammatical or typographical errors	Lack of professional presentation or numerous grammatical or typographical errors