

## **Advanced Topics in Healthcare Quality (PHCY 5160)**

*Fall 2019 (September 4 through December 13)*

**Credit Hours:** 4

**Course Coordinator:** David Nau, PhD

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### **Course Description:**

This is an advanced-level course on patient safety and quality improvement strategies in healthcare. The course will utilize many learning resources of the Institute for Healthcare Improvement (IHI) Open School and will also enable the student to obtain an IHI Basic Certificate in Quality & Safety.

### **Course-Specific Outcomes:**

By course completion, the student will be able to:

1. Discuss the Triple Aim of Health Care and how these aims relate to hospitals, practitioners and others in the healthcare system
2. List the six dimensions of health care, and the aims for each, outlined by the Institute of Medicine (IOM) in 2001
3. List the three questions you must ask to apply the Model for Improvement.
4. Identify the key elements of an effective aim statement.
5. Identify three kinds of measures: process measures, outcome measures, and balancing measures.
6. Use change concepts and critical thinking tools to come up with good ideas for changes to test.
7. Test changes on a small scale using the Plan-Do-Study-Act (PDSA) cycle.
8. Describe how to establish and track measures of improvement during the “plan” and “do” phase of PDSA.
9. Explain how to learn from data during the “study” phase of PDSA.
10. Explain how to increase the size and scope of subsequent test cycles based on what you’re learning during the “act” phase of PDSA.
11. Draw a run chart that includes a baseline median, a goal line, and annotations.
12. Describe the difference between common and special cause variation.
13. Explain the purpose of a Shewhart (or control) chart.
14. Apply four rules to identify non-random patterns on a run chart.
15. Explain when and how to use the following tools for understanding variation in data: histograms, Pareto charts, and scatter plots
16. Describe how to lead an improvement project through four key phases.
17. Identify and describe the components of IHI’s Framework for Spread.
18. Apply strategies to assess and overcome resistance to change.
19. Apply strategies to work effectively with interprofessional colleagues.
20. Describe a framework for improving the safety of health care systems.
21. Identify four key elements of a culture of safety.
22. Explain why systematic learning from error and unintended events is the best response to ensuring patient safety.
23. Explain the Swiss cheese model of error.

24. Define active failures and latent error and discuss their roles in causing harm.
25. List the main types of unsafe acts utilizing James Reason's classification system.
26. Explain why patient safety experts recommend focusing less on reducing errors and more on reducing harm.
27. Explain how human factors principles apply to health care.
28. Describe how changes to processes can mitigate the effects of factors that contribute to error.
29. Define simplification, standardization, constraints, forcing functions, and redundancies.
30. Discuss the risks and benefits of using technology to improve patient safety
31. Explain how individual behavior and team dynamics in health care can make care safer or less safe.
32. Use structured communication techniques to improve communication within health care.
33. Specify possible interventions to improve patient safety and reduce risk during times of transition.
34. Describe four steps to take following an adverse event.
35. Explain how to communicate effectively about bad news and when you should apologize.
36. Discuss the impact of adverse events on providers
37. Explain how adverse events and near misses can be used as learning opportunities.
38. Determine which events are appropriate for Root Cause Analyses and Actions (RCA Squared).
39. Describe a timeline of activities for the RCA Squared review period.
40. Describe activities that should take place during the action period of RCA Squared.
41. Describe the partnership model of patient-provider relationships.
42. Explain why the partnership model can improve health.
43. Discuss how social conditions, faith, culture, and trust affect the patient-provider relationship.
44. Identify at least four skills to improve clinical interactions with patients.

### **Learning Resources:**

There is no required textbook; however, each student will need to register as a user within the IHI Open School under the University of Wyoming's membership. The registration and login instructions for IHI Open School can be found on the Wyocourse site. Information about the IHI Open School can be found at the following link:

<http://www.ihl.org/education/ihlopenschool/Pages/default.aspx>

### **Course Activities and Delivery Method(s):**

The primary instructional delivery method will be through viewing of the video lessons within the IHI Open School. Students will also write a paper on a topic of their choosing in the area of healthcare quality and safety. Details are provided below:

*IHI Video Lectures:* Students will view each of the assigned video lecture modules from the IHI Open School (see course calendar for the list of modules and due dates). Within each module, there are generally 3-5 videos that must be viewed to complete the module. At the end of each video, there is an online learning assessment that should be completed in order to generate a certificate of completion of the module. Students should complete the learning assessment and download a copy of the certificate. The certificate can then be uploaded within the Assignments section of the Wyocourse site.

The IHI video lectures are divided into two blocks for the purposes of this course. At the end of each block, an online quiz must be completed within the Wyocourse site. The quizzes have been created by Dr. Nau based on the content of the IHI video lectures for that block. The quizzes must be completed by the due date listed in the course calendar.

*Final Paper:* In lieu of a final exam, students will submit a paper on a topic of their choice in the field of healthcare quality & safety; however, the topic must be approved by Dr. Nau.

**Students should submit their proposed topic to Dr. Nau via email no later than November 26.** Dr. Nau's email address is [dnau@uwyo.edu](mailto:dnau@uwyo.edu)

### **Assessments and Grading:**

IHI Modules (17 modules x 4 points each)	68 points
Quiz for Block 1	10 points
Quiz for Block 2	12 points
Paper	<u>10</u> points
Total Points:	100 points

### **Grading:**

Students will be assigned a grade at the completion of the course, based on the following percentages of possible points:

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	below 60%

### **Course Communication**

#### **Instructor communications:**

All students must have access to their university email address. Any changes to the syllabus or class schedule will be communicated through email (per the University Faculty Handbook). Students are responsible for obtaining course updates sent via email. Please check your email regularly for any important updates, changes, or cool news about pharmacy and the world of health care.

**Etiquette and Professionalism:**

As an enrolled student in a graduate professional program, you are held to the same professional standards as a healthcare professional. Please be courteous and respectful of your classmates and instructors when communicating in person and by email. Professionalism in your interactions includes correct and appropriate spelling, grammar, and punctuation.

**Academic Dishonesty Statement:**

Academic dishonesty will not be tolerated in this class. Cases of academic dishonesty will be treated in accordance with UW Regulation 2-114. The penalties for academic dishonesty can include, at the Course Coordinator's discretion, an "F" on an exam, an "F" on the class component exercise, and/or an "F" in the entire course. Academic dishonesty means anything that represents someone else's ideas as your own without attribution. It is intellectual theft – stealing - and includes (but is not limited to) unapproved assistance on examinations, plagiarism (use of any amount of another person's writings, blog posts, publications, and other materials without attributing that material to that person with citations), or fabrication of referenced information. Facilitation of another person's academic dishonesty is also considered academic dishonesty and will be treated identically

**Disability Support Statement:**

The University of Wyoming is committed to providing equitable access to learning opportunities for all students. If you have a disability, including but not limited to physical, learning, sensory or psychological disabilities, and would like to request accommodations in this course due to your disability, , please register with and provide documentation of your disability as soon as possible to Disability Support Services (DSS), Room 128 Knight Hall. You may also contact DSS at (307) 766-3073 or [udss@uwyo.edu](mailto:udss@uwyo.edu). It is in the student's best interest to request accommodations within the first week of classes, understanding that accommodations are not retroactive. Visit the DSS website for more information at: [www.uwyo.edu/udss](http://www.uwyo.edu/udss)

**Classroom Statement on Diversity:**

The University of Wyoming values an educational environment that is diverse, equitable, and inclusive. The diversity that students and faculty bring to class, including age, country of origin, culture, disability, economic class, ethnicity, gender identity, immigration status, linguistic, political affiliation, race, religion, sexual orientation, veteran status, worldview, and other social and cultural diversity is valued, respected, and considered a resource for learning.

**Duty to Report:**

UW faculty are committed to supporting students and upholding the University's non-discrimination policy. Under Title IX, discrimination based upon sex and gender is prohibited. If you experience an incident of sex- or gender-based discrimination, we encourage you to report it. While you may talk to a faculty member, understand that as a "Responsible Employee" of the University, the faculty member MUST report information you share about the incident to the university's Title IX Coordinator (you may choose whether you or anyone involved is identified by name). If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are people who can meet with you. Faculty can help direct you or you may find info about UW policy and resources at <http://www.uwyo.edu/reportit>

You do not have to go through the experience alone. Assistance and resources are available, and you are not required to make a formal complaint or participate in an investigation to access them.

**Substantive Changes to Syllabus:**

All deadlines, requirements and course structure is subject to change if deemed necessary by the instructor. Students will be notified verbally in class, on our WyoCourses page announcement, and/or via email of these changes.

## Student Resources:

DISABILITY SUPPORT SERVICES: [udss@uwyo.edu](mailto:udss@uwyo.edu), 766-3073, 128 Knight Hall, [www.uwyo.edu/udss](http://www.uwyo.edu/udss)

COUNSELING CENTER: [uccstaff@uwyo.edu](mailto:uccstaff@uwyo.edu), 766-2187, 766-8989 (After hours), 341 Knight Hall, [www.uwyo.edu/ucc](http://www.uwyo.edu/ucc)

ACADEMIC AFFAIRS: 766-4286, 312 Old Main, [www.uwyo.edu/acadaffairs](http://www.uwyo.edu/acadaffairs)

DEAN OF STUDENTS OFFICE: [dos@uwyo.edu](mailto:dos@uwyo.edu), 766-3296, 128 Knight Hall, [www.uwyo.edu/dos](http://www.uwyo.edu/dos)

UW POLICE DEPARTMENT: [uwpd@uwyo.edu](mailto:uwpd@uwyo.edu), 766-5179, 1426 E Flint St, [www.uwyo.edu/uwpd](http://www.uwyo.edu/uwpd)

STUDENT CODE OF CONDUCT WEBSITE: [www.uwyo.edu/dos/conduct](http://www.uwyo.edu/dos/conduct)

## Course Calendar

Block	Activity	Due Date
	Class meeting via Zoom on Thursday, Sept 5, 8pm MT	09/05/2019
1	A) Complete the following IHI modules and submit certificate via Wyocourse: QI 101 QI 102 QI 103 QI 104 QI 105 QI 201 L 101  B) Complete the online quiz for Block 1	09/28/2019
2	A) Complete the following IHI modules and submit certificate via Wyocourse: PS 101 PS 102 PS 103 PS 104 PS 105 PS 201 PS 203 TA 101 TA 103 PFC 101  B) Complete the online quiz for Block 2	12/05/2019
3	Paper submitted via email to Dr. Nau ( <i>topic must be submitted to Dr. Nau by 11/26/2019</i> )	12/12/2019