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Senior Policy Analyst
Hilltop

Course Description
Despite many ongoing attempts to improve quality and safety in today’s healthcare settings, many projects are not evaluated and cannot later demonstrate whether improvements were actually made or not. Among the quality improvement/patient safety (QI/PS) evaluations that are conducted, a fair portion are done post-hoc; without a guiding conceptual framework or theory; and are underfunded. Further, contextual data that can help explain why some sites achieve greater success than others is often not collected or analysed, constraining the application of interventions to other settings. This course seeks to prepare students to evaluate QI/PS projects by developing their competencies in the following areas: 1) critiquing evaluations of QI/PS projects; 2) designing a robust evaluation of a QI/PS project; and 3) conducting a small scale qualitative study.

Learning Objectives
Upon successfully completing this course, students will be able to:

- Enumerate and communicate the importance of environmental, organizational, group, provider, task, work system, implementation and patient influences on outcomes;
- Describe and evaluate strengths and weaknesses of designs for testing success of QI/PS interventions;
Describe operational steps to conducting robust data collection and analysis (quantitative and qualitative); and
Define and describe remedies for common problems in QI/PS studies.

Course Requirements

- Attendance at all lectures
- Participation in all classroom discussions and activities
- Readings
  Each lecture will have required reading (see below). Students are expected to be familiar with all required reading prior to class. Students should be prepared to discuss the topics under consideration and to raise questions or issues generated by the readings and the discussion.
- Final paper
  The final paper will be a 6-page critique of a published QI/PS evaluation. The paper will describe the published evaluation (including the interventions, study design, primary outcome measures, and principal results); criticize the study design, selection and measurement of the outcomes, data collection process, and analysis approaches; and provide recommendations to the evaluation approach for improvements. See below for the detailed requirements for the paper.

  The due date for the final paper will be announced during the course. The paper should be submitted via Drop Box in CoursePlus. Late papers will not be accepted.

All readings are available on Ares E-Reserve System https://ares.library.jhu.edu/shib/

You will need your Johns Hopkins JHED ID and password to access the materials.

Course Grades
Grades for the course will be based on class participation and the written assignment as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Class participation</td>
<td>40%</td>
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<tr>
<td>Final paper</td>
<td>60%</td>
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## Course Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Course Session</th>
<th>Speaker</th>
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<tbody>
<tr>
<td><strong>Monday</strong></td>
<td></td>
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<tr>
<td>(January 13)</td>
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<tr>
<td>9:00 – 10:30</td>
<td><strong>Session 1</strong>&lt;br&gt;• Course overview&lt;br&gt;• Introduction to QI/PS initiatives and changes&lt;br&gt;• Activity: What is “CHANGE”?</td>
<td>Jill Marsteller</td>
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<tr>
<td>10:30 – 10:45</td>
<td><strong>Break</strong></td>
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<tr>
<td>10:45 – 12:45</td>
<td><strong>Session 2</strong>&lt;br&gt;• Identifying framework and stakeholders&lt;br&gt;• Immprove Project: Calling the Shots</td>
<td>Jill Marsteller</td>
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<tr>
<td>12:45 – 13:45</td>
<td><strong>Lunch</strong></td>
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<td>13:45 – 14:45</td>
<td><strong>Session 3</strong>&lt;br&gt;• Using a logical framework in evaluation</td>
<td>Jill Marsteller on behalf of Yea-Jen Hsu</td>
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<td>14:45 – 15:00</td>
<td><strong>Break</strong></td>
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<td>15:00 – 17:00</td>
<td><strong>Session 4</strong>&lt;br&gt;<strong>Video: CDSS intervention</strong>&lt;br&gt;• Evaluation design&lt;br&gt;• Activity: Designing your evaluation</td>
<td>Jill Marsteller</td>
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<tr>
<td><strong>Tuesday</strong></td>
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<td>(January 14)</td>
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<tr>
<td>9:00 – 11:00</td>
<td><strong>Session 5</strong>&lt;br&gt;• Data collection and quality control&lt;br&gt;• Survey methods&lt;br&gt;• Activity: Surveying providers</td>
<td>Jill Marsteller</td>
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<td>11:00 – 11:15</td>
<td><strong>Break</strong></td>
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<td>11:15 – 12:15</td>
<td><strong>Session 6</strong>&lt;br&gt;• Use of electronic medical records and claims data for evaluation</td>
<td>Mani Keita on behalf of Yea-Jen Hsu</td>
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<td>12:15 – 13:15</td>
<td><strong>Lunch</strong></td>
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<td>13:15 – 15:00</td>
<td><strong>Session 7</strong>&lt;br&gt;• Quantitative data analysis&lt;br&gt;• Activity: Statistical process control</td>
<td>Jill Marsteller</td>
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<td>15:00 – 15:15</td>
<td><strong>Break</strong></td>
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<td>15:15 – 17:00</td>
<td><strong>Session 8</strong>&lt;br&gt;• Cluster randomized trials for QI evaluation&lt;br&gt;Activity: CRT Activity ON YOUR OWN, Visit Courseplus</td>
<td>Jill Marsteller</td>
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<tr>
<td><strong>Wednesday</strong></td>
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<td>(January 15)</td>
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<td>9:00 – 11:00</td>
<td><strong>Session 9</strong>&lt;br&gt;• Debrief CRT activity&lt;br&gt;• Qualitative methods&lt;br&gt;• Activity: Observing quality</td>
<td>Jill Marsteller</td>
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<td>11:00 – 11:15</td>
<td><strong>Break</strong></td>
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<td>11:15 – 12:15</td>
<td><strong>Session 10</strong>&lt;br&gt;• Conducting systematic reviews for QI/PS evaluations</td>
<td>Dolapo Fakeye</td>
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<tr>
<td>12:15 – 13:15</td>
<td><strong>Lunch</strong></td>
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| 13:15 – 14:15 | **Session 11**  
| | • Calculating the ROI for patient safety and clinical quality improvement  
| | Dolapo Fakeye |
| 14:15 – 15:00 | **Session 12**  
| | • Introduction to Implementation Science  
| | Jill Marsteller |
| 15:00 – 15:15 | **Break** |
| 15:15 – 17:00 | **Session 13**  
| | • Ethical and institutional review board considerations in quality improvement and QI/PS research  
| | • Conclusion  
| | • Course Evaluations  
| | Jill Marsteller |

**Readings**

**SESSION 1**  
Course Overview; Introduction to QI/PS Initiatives and Changes


**SESSION 2**  
Identifying Framework and Stakeholders


**Optional:**


SESSION 3
Using a Logical Framework in Evaluation


SESSION 4
Evaluation Design


Optional:

SESSION 5
Data Collection and Quality Control

Survey Methods


SESSION 6
Use of Electronic Medical Records and Claims Data for Evaluation


SESSION 7
Quantitative Data Analysis


SESSION 8
Cluster randomized trials for QI evaluation


Optional:

SESSION 9
Qualitative Methods


SESSION 10
Conducting systematic reviews for QI/PS evaluations

Part 2, Chapter 1: Starting a review
Part 2, Chapter 2: Determining the scope and questions
Part 2, Chapter 4: Searching & selecting studies
Part 2, Chapter 5: Collecting data


SESSION 11
Calculating the ROI for Patient Safety and Clinical Quality Improvement


SESSION 12
Introduction to Implementation Science


SESSION 13
Ethical and Institutional Review Board Considerations in Quality Improvement and QI/PS Research

No required readings
Guide for Final Paper
Written and submitted by each student individually
Due Date: to be announced during the course

This assignment accounts for 60% of the final grade of this course. Each student will select one journal article that describes an evaluation of a quality improvement or patient safety (QI/PS) program and reports the results of the evaluation. The student will write and submit a critique of the selected article. Students can choose an article from the suggested list at the end of this guide or choose another article from a peer-reviewed journal. If you choose a different article, you must include the full citation in your final paper so faculty can obtain the manuscript you are critiquing.

Your paper should include the following elements:

1) Description of the published evaluation (max 1 page; 5%)
   Please briefly describe the interventions, study design, primary outcome measures, and principal results.

2) Critiques (4-5 pages; 40%)
   Please explain why you think each of the following aspects of the selected evaluation is appropriate or not:
   - Study design (10%)
   - Selection and measurement of the primary outcome variable(s) (10%)
   - Data collection process (10%)
   - Data analysis (10%)
   You can provide comments regarding strengths/limitations, feasibility, cost, and/or comparisons with alternative choices the project designers or implementers could have made.

3) Recommendations (1-2 pages; 15%)
   Please provide recommendations for improvements to the evaluation approach based on your critique.

The paper should be 6 pages double-spaced, 12 point Times New Roman font, with 1 inch margins, and should be appropriately referenced (with at least 5 references).

Please submit your final paper on the date it is due or before via dropbox. Late papers will not be accepted.

See below for the suggested evaluation articles and other references that may be helpful for preparing this assignment:
Suggested Evaluations for Your Final Paper

- **Keystone ICU Project**

- **Alternative Quality Contract (AQC)**

- **Unintended Consequences**

- **Good Goals Project: Mixed Methods**

- **Single Institution Experience**

- **Qualitative Assessment**

Other References for Final Paper


And, of course, references from the course reading list!