**Advanced Course in Improvement Science (ACIS) Cohort 4**
**Course Syllabus 2023-2024**

## Introduction

We are soliciting participants for Cohort 4 of the Advanced Course in Improvement Science (ACIS)! This syllabus provides an overview of the course, course requirements, and a guide for the major assignments. The ACIS syllabus was designed by the ACIS Course Founder, Dr. David Larson, Professor and Senior Vice Chair, Strategy and Clinical Operations, Department of Radiology. Dr. Larson served as the Executive Director of ACIS for Cohort 1-3.

## ACIS 2023-2024 Course Leadership

Executive Director: Dr. Terry Platchek (platchek@stanford.edu)
Administrative Director: Lisa Freeman (lisafree@stanford.edu)
Program Administrator: Celina Meza (cmeza@stanford.edu)
Graduates of ACIS Cohorts 1-3 will also assist in course leadership in Cohort 4.

## Course Objective

The objective of the course is to prepare health system leaders to become world-class improvement leaders, capable of creating an environment for improvement and leading change in complex sociotechnical systems.

The program is structured around the four domains of W. Edwards Deming's system of profound knowledge, namely, appreciation for a system, knowledge of variation, theory of knowledge, and psychology. Project management and design are also strongly featured.

## Course Structure

The training includes twenty full day (8 hour) sessions conducted in 4-day blocks from fall 2023 to spring 2024: Sep 5-8, 2023; Oct 10-13, 2023; Nov 7-10, 2023; Feb 6-9, 2024; and Apr 9-12, 2024. The course is spread over an 8-month period to allow time for participants to apply concepts in their daily work, prepare for upcoming sessions, and interact with other participants between sessions. Learning methods include case study, small group discussions, reflection and writing assignments, participant presentations, and group problem solving. While the course sessions include didactic lectures, interactive learning is emphasized. Participants are expected to complete 2-3 hours of reading in preparation for each weekly session and to meet with other participants outside of class sessions on a regular basis. Each participant will plan a project of their choosing, which may be at the unit, institutional, community, regional, national, or international level. A certificate of completion will be presented to those completing the program.

## Learning Groups

Each participant will be assigned to a learning group composed of 6-8 individuals. Participants are expected to meet outside of class hours to discuss course topics, complete assignments, and present their work. A group leader will be selected from among group members to help ensure that all participants remain actively engaged throughout the course. Participants should view members of their learning group as a resource for help with their project and other needs for the duration of the course and should similarly share their talents and time with their learning group colleagues.

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## Peer Coaching

Each participant will be paired with another participant within their learning group and will function as coaches to one another, providing reciprocal feedback, insight, and support. All written homework assignments are expected to be reviewed by the peer coach and subsequently revised prior to submission. Similarly, prior to all presentations, participants are expected to practice with their peer coach, receive feedback, and make appropriate adjustments. Participants should also briefly meet following all presentations to receive constructive feedback on aspects that can be improved in the future.

## Graduation Requirements

Participants are expected to attend at least eighteen of the twenty sessions to graduate (please contact program leaders for special circumstances) and view the recordings of all missed sessions. Participants are expected to be on time and meaningfully engaged throughout the sessions. Participants must also actively participate in their learning groups and as a peer coach.

Additionally, participants are expected to complete the following assignments:
- *The Improvement Guide* book review
- Book presentation
- Case study report
- Brief project proposal
- Project report

## Improvement Guide Review

Participants are expected to read the course text, *The Improvement Guide* by Langley, et al, in its entirety, and review each chapter in a meaningful, interactive way within their learning groups. Participants will take turns leading chapter discussion with other members of their group.

## Book Presentation

Participants are expected to read a book of their choosing, selected from a provided list (or may choose their own book, approved in advance by the course director), and present the book's content in an engaging manner to the other members of their learning group. Prior to beginning reading, participants should inform their group leader the title of the book they plan to present to prevent duplication. Each book presentation should be 30 minutes in length, with 15-20 minutes for presentation and 10-15 minutes for discussion. Participants are conversely expected to actively engage in discussion with other members of their learning group as they present their selected book—active participations in others' book presentation are just as important as presentation of their book.

## Case Study

Participants are expected to select a real-world case of a model, program, project, or initiative designed to bring about sustainable and scalable improvement in the healthcare setting. The selected case should be an example of a program or other improvement initiative that was theory-based, resulted in meaningful improvement, and was designed to be self-sustaining without the continued involvement of the leader. The example should incorporate thoughtful and effective design, with elements that reflect understanding of the underlying dynamics and corresponding strategies to work within those dynamics to bring about the desired outcome.

Participants may choose the case from the list provided or may select another case. Ideally, the case should have aspects in common with the participant's project, but this is not required. Participants are expected to study published literature on the topic, potentially augmented with interviews of knowledgeable individuals, and apply concepts learned in the course to analyze the case in terms of both strengths and weaknesses of the authors' theories and models. Participants may use the case throughout the course during practical application exercises during class. Participants are required to submit a report (4-8 pages in length, single space).

A detailed case study report guide will be provided.

## Project

Each participant is expected to select and conduct a leadership-based improvement project of his/her choice. Projects should focus on making changes that substantially improve clinical, operational, research, or educational processes related to the missions and strategic priorities of the institution. The project's focus may be internal or external to Stanford Medicine. Internal projects must be endorsed by appropriate organizational sponsors and must fit within the organization's operational goals and capacity. Participants are encouraged to undertake projects that are integral rather than additive to their existing work and career efforts. Participants are expected to study the dynamics underlying their focus are of improvement, learn from others' efforts in similar or analogous environments, and develop a theoretical model.

Participants have two months to select a project and prepare a brief proposal, and then have the rest of the course to prepare a thoughtful project summary to be submitted prior to the completion of the course. A template for the project summary report will be provided. **Participants are expected to plan the project but are not required to complete the project by the end of the course**.

## Submitting Assignments

The case study, project proposal, and project summary can be uploaded to the folder links to be identified or emailed to SMCI@stanford.edu. Team leaders will report on the groups' completion of *The Improvement Guide* chapter discussions, book presentation book selection, book presentations, and peer coaching assignments, and will report on individual's active participation in each of these activities.

## Assignment Due Dates

| Due Date | Course Element |
|---|---|
| November 20, 2023 | Project Proposal<br>Book Presentation: Book Selection |
| December 15, 2023 | Complete Improvement Guide Review |
| January 26, 2024 | Case Study Report |
| March 15, 2024 | Book Presentation |
| May 24, 2024 | Project Summary |

## Faculty

Program faculty, both internal and external to Stanford, have been assembled to teach topics in their area of relevant expertise. The goal is to enlist teachers who are among the best in their field for each topic. Faculty are expected to provide relevant reading material for their presentations. Participants are expected to have read and thoughtfully considered the material ahead of time and be prepared to ask insightful questions and engage in active discussion with the faculty and with other participants in the course sessions.

## Course Evaluation

(a) Each session and presenter will be evaluated by the participants at the end of each day. The entire program will be evaluated at the final session.
(b) The project progress by each physician/faculty or staff participant will show how learned knowledge and skills are being applied.
(c) Follow up evaluations of the value of the program will be elicited from participants 1-2 years after completion of the program.
(d) The accomplishments and leadership advancement of participants will be tracked over time.

## Accreditation

The Stanford University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

## Credit Designation

Stanford University School of Medicine designates this live activity for a maximum of approximately 120 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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