UNIVERSITY of Prince Edward ISLAND | Office of CONTINUING EDUCATION and PROFESSIONAL DEVELOPMENT

Introduction to Lean Management and Project Leadership Course

Description of Course

The *Introduction to Lean Management and Project Leadership* course provides participants with practical knowledge and applied skills in Lean management, process improvement, and project leadership.

Through five interactive modules based on the DMAIC framework, participants will explore tools and techniques related to process mapping, stakeholder engagement, performance measurement, root cause analysis, risk assessment, and continuous improvement.

Introduction to Lean Management and Project Leadership emphasizes practical application through collaborative discussions, workplace-focused exercises, and real-world examples brought forward by participants.

Participants will strengthen their ability to identify inefficiencies, support data-informed decision-making, communicate improvement initiatives effectively, and contribute to sustainable organizational change and operational effectiveness within service and project-based environments.

Why Take this Certificate?

Introduction to Lean Management and Project Leadership provides practical skills and tools that participants can apply directly within their workplace to improve processes, support operational efficiency, and contribute to successful projects and organizational initiatives.

Participants will strengthen their ability to identify inefficiencies, analyze workplace challenges, engage stakeholders, and support data-informed decision-making.

Through practical exercises and real-world applications, participants will gain experience with Lean management tools, process mapping, root cause analysis, and continuous improvement strategies that can help improve workflows, communication, collaboration, and overall organizational effectiveness within their place of employment.

Learning Objectives

1) Participants will build practical skills in process mapping, performance measurement, basic analytical and data-informed decision-making.
2) Applying principles and methods used in project leadership, such as 6S Lean projects.
3) Applying methods of stakeholder identification, mapping, communication and engagement.
4) Practicing communicating the outcomes of 6S Lean and general process improvement projects effectively to all stakeholders, including management and leadership.
5) Encouraging networking and constructive exchange of knowledge and experience accessible to participants in the course.

Course Structure

Participants complete the following five modules over five days (totaling 30 hours). Each course combines instructor-led training, interactive discussion, and applied learning activities.

Module Overview

Module #1: Define Phase – Understanding Processes and Scope

- Introduction to Lean management and Six Sigma principles.
- Overview of the DMAIC framework and its relevance in service environments.
- Identification of improvement opportunities and development of problem statements.
- Understanding stakeholders and conducting stakeholder analysis using tools such as SIPOC, Voice of the Customer, and stakeholder mapping.
- Defining project scope, goal, objectives, deliverables, key performance indicators (KPIs) and objectives and key results (OKRs).
- Introduction to high-level process mapping.

Module #2: Measure Phase – Current State Assessment

- Development of data collection plans and selection of appropriate performance metrics.
- Introduction to data types and measurement considerations.
- Creation of detailed process maps, including Swimlane diagrams.
- Techniques for capturing current-state performance, such as GAP analysis, and identifying variation, such as value stream mapping.
- Establishing quantitative and qualitative baseline performance indicators.

Module #3: Analyze Phase – Root Cause Identification

- Introduction to structured problem-solving approaches, such as the PDCA Cycle and the 8D Problem-Solving.
- Application of root cause analysis tools, including cause-and-effect diagrams, the 5 Whys method, Pareto analysis and the Fishbone Diagram.
- Differentiation between symptoms and root causes of inefficiencies.
- Interpretation of data to identify trends and patterns.

Module #4: Improve Phase – Designing Solutions

- Generation and evaluation of improvement ideas.
- Application of Lean principles, including waste identification and process flow optimization.
- Use of prioritization tools, such as the Impact and Effort Matrix and the Weighted Criteria Matrix.
- Design of future-state process maps.
- Planning and testing improvements through pilot approaches.
- Introduction to risk identification, analysis and mitigation, and respective tools, such as Bow Tie analysis, Failure Mode and Effect Analysis (FMEA) and SWOT analysis.
- Introduction to strategic management tools to support the design of solutions and their future potential, such as VRIO and scenario planning.

Module #5: Control Phase – Sustaining Improvements

- Development of control plans to maintain improvements over time.
- Process standardization and documentation.
- Introduction to basic statistical process control concepts.
- Consideration of change management and its impacts, stakeholder communication and engagement.
- Preparation and delivery of findings and recommendations to stakeholders.
- Participant presentations or applied exercises to demonstrate learning.