Lean Health Care Green Belt

Online Program

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The Ontario Hospital Association (OHA), in collaboration with KPMG and MoreSteam, is pleased to offer the Lean Health Care Green Belt online course.

This course is comprised of multiple sessions which follow the Define, Measure, Analyze, Improve, and Control (DMAIC) project phase structure. Each interactive session include lessons, simulations and interactive quizes.

By completing this course of study, you will gain solid knowledge of the theory, composition and implementation of Lean initiatives. You will also become proficient in all of the basic analytical tools necessary to define, measure, analyze, improve, and control Lean improvement projects, with the exception of design and analysis of experiments.

In short, as a Green Belt you will master the skills necessary to lead a complex process improvement project that produces bottom-line results.

The Ontario Hospital Association is a proud member of:

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Online Course Benefits

The course is presented in a logical sequence to follow the Lean DMAIC improvement process. We believe that you will learn most efficiently by following the sequence presented. In particular, the first session presents an overview of Lean, which will be helpful to put the remaining sessions in proper context.

The overarching learning objective of this course is to develop a comprehensive set of skills that will allow you to function effectively as a Lean leader. The Green Belt body of knowledge includes techniques for both quantitative and non-quantitative analysis, as well as the team leadership skills necessary to get projects across the goal line.

After completing this course, you should be able to do the following:

- Communicate with and relate Lean concepts to the overall business mission and objectives.
- Think about your organization as a collection of processes, with inputs that determine the output.
- Understand and apply the five step DMAIC model as a framework to organize process improvement activity.
- Employ a wide range of process improvement techniques within the DMAIC model.
- Recognize the organizational factors that are necessary groundwork for a successful Lean effort.
- Employ your Lean skills to lead a successful process improvement project, delivering meaningful results to the organization.

Key Features

The online format offers enrollment on-demand and a course structure that allows students to advance at their own pace. Individual lessons include simulations, videos, tool templates, and interactive practice exercises and concludes with an interactive quiz to test your knowledge.

This course is supported by instructors, primarily via email, who are familiar with the course content. Each lesson page includes access to a variety of helpful learning tools, including an online encyclopedia, a notes tab, and link for instructor support. You can use the course navigation map to move through the course in a linear fashion or you can skip around and explore topics as you see fit.

- All course content is presented online, in an on-demand format. To begin, you simply log onto the MoreSteam University learning portal. You will return to the point that you last left the course.
- You will learn the process improvement methodology (DMAIC) through numerous case studies and examples drawn from health care and other service applications.
- With a heavy practice orientation, as much as half of your time will be spent working through interactive practice exercises and online assessments.
- You have will 365 days to complete this course.

Program content and outline

Total Estimated Hours: 72.45

Session 1: Lean Introduction (4.65 Hours)

• Introduction and Lean framework
• Higher standards for higher performance
• The 8 forms of waste and 99.9% problem
• DNA of a champion
• Define, Measure, Analyze, Improve, and Control (DMAIC) - The Lean improvement process
• Organizing for success and working relationships
• Introduction to EngineRoom®

Session 2: Define I – Starting a Project and Leading Teams (6.45 hrs.)

  Project planning and tracking toolset
• Leadership thinking and leading teams
• Fueling the improvement engine
• Four conversations toolset
• Leading change
• Success factors for effective change management
• Stakeholder analysis – RACI matrix
• Leadership reflection

Session 3: Define II - Voice of the Customer (6.50 Hours)

• Understanding customer requirements
• Survey considerations and conducting surveys
• The degree of uncertainty in sampling
• Guideline for margin of error
• Histogram toolset
• Affinity diagram toolset
• CTQC tree diagram toolset
• Operational definition toolset
• Voice of the customers as specifications

Session 4: Define III – Mapping the Process (5.15 Hours)

• Drawing a process picture
• Process mapping (SIPOC) toolset
• Flow Charts
• Value-added flow charts
• Spaghetti charts
• Takt time
• Define tollgate – progress review

Session 5: Measure I – Measurements and Basic Statistics (5.75 Hours)

• Business problem solving
• Basic statistical terms
• Descriptive and inferential statistics
• Discrete vs. continuous measurements
• Measurement subjects and graphical summaries
• Quantifying process variability
• Pareto chart and histogram toolsets
• Measuring central tendency and quantifying process variability
• Understanding variation

Session 6: Measure II – Measurement System Analysis (6.45 Hours)

• Measurement as a process
• Cause & effect matrix toolset
• The analysis and calibration of measurement systems
• Collecting data and developing a sampling plan
• Baseline performance
• Derivative performance metrics
• Calculation the Lean level - toolset

Session 7: Measure III - Charting Process Behavior (5.95 Hours)

• Trend chart toolset
• SPC - introduction and background
• Implementing SPC and SPC chart selection
• X and moving range charts - toolset
• Attribute control chart toolset
• Measure tollgate - progress review

Session 8: Analyze I – Identifying Potential Root Causes (5.65 Hours)

• Finding the root cause
• A Combination of 5-why, pareto, and trend charts
• Scatter plot and multiple regression toolsets
• Correlation and regression analysis

Session 9: Analyze II - Hypothesis Testing (10.90 Hours)

• Introduction to hypothesis testing and types of error
• Hypothesis testing and confidence intervals
• The hypothesis - accept or reject?
• Treatment comparisons - control charts
• Comparing two proportions toolset
• Measuring central tendency and quantifying process variability
• Comparing multiple means - ANOVA /F-test toolset
• Hypothesis testing learning lab
• Analyze progress review

Session 10: Improve (10.15 Hours)

• Benchmarking and brainstorming
• Narrowing down the list of ideas and error proofing
• Continuous flow and cellular processing toolsets
• Prioritizing and selecting a solution
• Balancing capacity with demand and piloting a solution
• Corrective action matrix
• System dynamics toolset

Session 11: Control (4.85 Hours)

• Control charts revisited
• The process control plan
• Visual control
• Best practices and lessons learned
• Standardized work - documenting process changes
• Ending the project
• Control tollgate - progress review
• Course completion

Practical Application

All course sessions use a mix of multimedia to present material, including text, synchronized audio slide shows, diagrams, charts, audio lectures, and simulations. Links to outside research resources are provided to explore chosen subjects in greater detail.

Interactive Practice Modules will be presented throughout each session so that you can try your new skills and get immediate feedback.

Course Materials

Materials Provided by MoreSteam:
This course comes with EngineRoom® statistical software at no additional charge. The EngineRoom® software subscription will be available for one-year with the purchase of this course.

Technical Requirements for Students
Microsoft Office (Word, Excel, PowerPoint). Office 2003 or higher is recommended.

Assessment and Certification

An online quiz will be presented at the end of the course. The quiz is interactive, and provides immediate feedback to close the learning loop.

Upon completion of the course material, students will receive an OHA Lean Health Care Green Belt certificate of completion.

By completing this course, you will become eligible for 7 CEUs or 70 PDUs of credit.

Suite of Lean Educational Offerings

The OHA and KPMG are also pleased to offer the following Lean education:

- White Belt (Online) - Equipping you with the practical skills to **participate** in and **support** Lean projects.

- Yellow Belt (Online or Classroom Based) - Educating you on the practical skills to **implement** Lean projects.

- Executive Green Belt (Classroom Based) - Training on how to deliver fact based, data driven solutions with sustainable and higher ROI on all projects. Learn how to lead an organization so it meets its fiscal constraints while still able to improve on quality for the patients, residents, clients and customers without reducing services or staff.

- Black Belt (Classroom Based) - Preparing you to be the **expert** in Lean within an organization. A Black Belt typically **sets the strategy** for Lean system transformation implementation. Working with executive leadership, they **select and prioritize** projects to ensure work aligns with strategic goals by having an understanding of the overall system. They **lead system wide projects** and **mentor Yellow, Green and White Belts**.

Registration

This course offers continuous enrollment so students can register at anytime throughout the year.

Registration Fee

Fee: $2700 + HST

To register for the Lean Health Care Green Belt online program, please visit **www.oha.com/lean** and follow the registration instructions below:

1. Click 'Here' to open the registration page for the **Lean Health Care Green Belt** course
2. Register as a **New User** or **Login**
3. Complete all fields and follow the prompts
4. Submit your payment
5. Received welcome email with access instructions

Payment Method
Payment can be made by Credit Card (American Express/VISA/Mastercard) or Cheque. Please note, for transactions less than $300 before taxes, payment must be made by credit card.

Cancellation Policy
A 50% adminisration fee will apply to all refunds.

Course Expiry

Students will have access to the online course for a period of 12 months.

Contact Us
For additional event information and questions, please contact Arlene Robinson at 416 205 1362 / 1 800 598 8002 ext 1362 or **arobinson@oha.com**.