



Lean Design Institute

VSM in the OR Course Syllabus

Objectives	Content (Topics)
<p style="text-align: center;">Welcome and Course Orientation</p> <p>Familiarize students with the format of the presentation lessons and the structure of the online quizzes. Take a sample quiz.</p>	<ul style="list-style-type: none"> • Learn to navigate the Articulate Presenter interface. • Try an interactive slide like the ones embedded in the lessons. • Take an online sample quiz, like the ones that will follow every other lesson.
<p style="text-align: center;">Introduction to Value Stream Mapping (VSM)</p> <p>Learn the basic definitions and concepts associated with the VSM technique. Get acquainted with the VSM in the OR Roadmap.</p>	<ul style="list-style-type: none"> • Define VSM, its uses in the OR environment as well as the whole hospital. • Describe the benefits of the VSM method. • Understand the Global steps to conduct a VSM activity. • Introduce the VSM in the OR Roadmap. • Take a sample quiz.
<p style="text-align: center;">Lesson 1 - Identify the Customer</p> <p>Learn to identify the Customer as the person or group who receives the delivery of value.</p>	<ul style="list-style-type: none"> • Define the customer. • Who is the customer in a hospital? • Lean and VSM support a patient-centric view of the OR. • Drawing the customer into the VSM.
<p style="text-align: center;">Lesson 2 - Identify the Value</p> <p>Learn to identify Value as the physical or service item for which the customer is willing to exchange consideration.</p>	<ul style="list-style-type: none"> • Definition of value in general. • Value in the hospital. • Value comes in many forms, especially in the hospital. • Value in the OR. • Some rules for deciding what value to map.
<p style="text-align: center;">Lesson 3 - Identify the Processes</p> <p>Learn to identify a Process as a grouping of work steps that lead to the delivery of <i>Value</i> to a <i>Customer</i>.</p>	<ul style="list-style-type: none"> • Defining a Process. • Process start and end points. • Example from Sterile Processing. • A process as an element of the value stream. • The Process Owner. • Drawing a process in the VSM.
<p style="text-align: center;">Lesson 4 - Draw the Process Relationships</p> <p>Learn to draw a graphical display of the relationship of processes as they are at the time of mapping.</p>	<ul style="list-style-type: none"> • Basic VSM symbols. • The VSM canvas. • Mapping upstream and downstream. • Preparation materials. • Example.

Objectives	Content (Topics)
<p>Lesson 5 - Establish Process Times Learn to establish process times, either estimated or timed by a mapping team member.</p>	<ul style="list-style-type: none"> • Each process must have a time. • Process times must be reasonable. • Estimating times versus timing processes. • The 80/20 rule for process times. • Accounting for variability.
<p>Lesson 6 - Gather Ancillary Data Learn to capture other relevant data elements like changeover times, batch sizes, downtime, number of shifts, and number of people.</p>	<ul style="list-style-type: none"> • The VSM Data Box. • Defect rate. • Non-Value-Adding designation. • Staffing. • Number of Shifts. • Changeover/Turnover time. • Process uptime (Availability) • Distance travelled. • Process Maturity level. • The Standard Work Definition.
<p>Lesson 7 - Identify Process Delays Learn to spot every time the value is not being worked on. That non-value-adding time is a “delay”</p>	<ul style="list-style-type: none"> • Definition of “delay”. • Examples of delays in the OR. • How to document delays in the VSM. • How delays contribute to total Lead-time. • Estimating versus timing delays.
<p>Lesson 8 - Calculate Performance Metrics Learn to answer the basic performance questions: How long does it take to deliver value? How much time is the value sitting waiting to be worked on? How many steps/feet do employees in the VS walk to deliver value?</p>	<ul style="list-style-type: none"> • Definition of Lead-time. • The Timeline aka the Castle Wall. • Other relevant metrics: Staffing. • Other relevant metrics: Distance travelled • Other relevant metrics: Average Process Maturity Level.
<p>Lesson 9 - Identify Sources of Waste Learn to identify and document all the activities you found that do not add value to the value stream’s customer.</p>	<ul style="list-style-type: none"> • What is waste. • Forms of Waste: Overproduction. • Forms of Waste: Transportation. • Forms of Waste: Motion. • Forms of Waste: Waiting. • Forms of Waste: Over-processing. • Forms of Waste: Excess Inventory. • Forms of Waste: Defects. • Forms of Waste: Ineffective Use of Computers. • Forms of Waste: Human Potential.

Objectives	Content (Topics)
<p align="center">Lesson 10 - Brainstorm Solutions</p> <p>Learn how to develop solutions as a team and by consensus. When in doubt, take a “Field Trip”.</p>	<ul style="list-style-type: none"> • Taking stock of where you are in the VSM Roadmap. • The role of Mentors. • Documenting suggestions for improvement. The Kaizen Burst. • Focusing suggestions around Lean principles. • Displaying the VSM with all suggestions.
<p align="center">Lesson 11 - Solutions to Kaizen Events</p> <p>Learn that an idea is not a solution until we make a plan to implement it.</p>	<ul style="list-style-type: none"> • Define Kaizen. • Types of Kaizen. • Process Improvement from within. • The role of the Kaizen Team Leader. • Scoping a Kaizen project. • When to use outside help.
<p align="center">Lesson 12 - Project Plan</p> <p>Learn how to bring all the identified opportunities for improvement into one Master Plan.</p>	<ul style="list-style-type: none"> • The single project view. • The Value Stream view. • The project follow-up view.
<p align="center">Lesson 13 - Future State</p> <p>Learn to de-draw the VSM flowchart incorporating the identified improvements.</p>	<ul style="list-style-type: none"> • What is the Future State VSM? • The impact of selected projects. • Drawing the Future State VSM.
<p align="center">Lesson 14 - Present Results</p> <p>Learn the basic elements of a Report-out presentation and roles during it.</p>	<ul style="list-style-type: none"> • Basic elements of a Progress Report aka The Report-Out presentation. • Who prepares the report? • Management’s role in the report-out. • Reporting results. • Follow up after the report-out.
<p align="center">Lesson 15 - Next Steps</p> <p>Discuss suggestions for next steps in your Lean journey after completing a Value Stream Analysis.</p>	<ul style="list-style-type: none"> • Taking stock of all the work done. • Getting started with Kaizen. • Leadership support is a must. • Pigheaded determination is a must. • Coaching and Mentoring is a must.
<p align="center">Certificate Exam</p> <p>Take a 30 question online exam, in order to earn a certificate of completion.</p>	<p>Questions will be asked regarding the content of every lesson, with a target of 1 minute per lesson.</p>