**Instructor: Dr. Wendy Fraser**

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**Meeting Days/Times:** Fridays, 8:30 a.m. – 5:00 p.m.

 9/13/2024 – 12/6/2024

 No class on Friday, November 29

**Class Location:** South Puget Sound Community College – Lacey Campus (Heritage Bank Center), Classroom 183

4220 6th Ave SE

Lacey, WA 98503

## About Lean Six Sigma

Lean Six Sigma is a business and data-driven, disciplined approach to reducing waste and minimizing defects in any type of process (manufacturing, service, health care, government, etc.). Lean Six Sigma focuses on reduction of waste, increased quality, and customer satisfaction. It is a method of integrated management used by organizations to more effectively and efficiently meet the needs of their customers and stakeholders.

## The Role of Black Belts

## Black Belts are experienced Lean Six Sigma professionals who provide project management, statistical analysis, financial analysis, project prioritization, leadership and team development for the organization. The typical Black Belt leads several projects, coaches and mentors Green Belts, and understands how to scope problems and design processes towards solutions. Black Belts often manage Lean Six Sigma projects full time and are the liaison between the staff and the project sponsors and managers.

## Course Overview

The Black Belt Certificate program is designed for experienced practitioners with a Green Belt Certificate (or equivalent process improvement experience) who wish to achieve a higher level of Lean Six Sigma training by developing critical skills for leadership in enterprise-wide deployment. In this instructor-led course, participants spend 90 hours in the classroom and 30 hours in the field applying the Lean Six Sigma methodologies. Students become grounded in the established Lean Six Sigma body of knowledge, gain experience to implement it in the workplace through a group project in the field, and the credentials to be a Lean Six Sigma leader within their organization.

This course is limited to 12 participants. Participants should plan on spending 4-5 hours a week outside of scheduled class time for reading and homework assignments in addition to managing their own Black Belt project. Students must actively participate during and in between class sessions in order to earn a certificate of completion. Upon successful completion based on all assessment parameters (80% or better attendance and satisfactory completion of team project), students will earn 12.0 CEUs (120 contact hours) and a Certificate of Completion from the Center for Continuous Improvement.

## Program Admission Requirements

Black Belt program participants must have a Green Belt in Lean Six Sigma or equivalent experience in leading process improvement activities.

## Course Outcomes

* Identify, scope, and implement Lean Six Sigma process improvement projects at multiple levels and complexities within organizations
* Learn the history, comparability, and adaptation of current key improvement methodologies including: Lean, Six Sigma, PDCA, Theory of Constraints, Agile, and other methods used in organizations.
* Expand your depth of understanding and use of Lean Six Sigma practices and tools through hands-on activities and teach-back experiences.
* Apply appropriate leadership, facilitation, analytical, and communication skills to serve as a liaison between process improvement teams and project sponsors; and serve as a coach to organizational leaders; and lead other process improvement professionals to support a Lean Six Sigma culture.
* Facilitate and conduct training to develop new Green Belt practitioners within the organization and other training for small and large groups involved in process improvement.
* Prepare and present a Black-Belt level project results to class peers, the instructor, and invited guests and submit a written portfolio documenting your process and learning.

Required T**exts**

## Lean Six Sigma Pocket Toolbook, George, M.; Rowlands, D.; Price, M. and Maxey, J.(2005), McGraw-Hill, New York, ISBN: 0-07-144119-0Advanced Facilitation Strategies: Tools and Techniques to Master Difficult Situations, Bens, Ingrid (2005), Jossey-Bass, San Francisco, CA, ISBN: 978-0-7879-7730-6

## Leading Change, Kotter, John P. (2012) Harvard Business Press, Cambridge, Massachusetts, ISBN: 978-1422186435

## What Sets This Program Apart from Other Black Belt Programs

Our interactive class design emphasizes organization development, change management, leadership, systems thinking, strategic thinking, listening, teamwork, and communication skills. Most other Black Belt programs focus on tools and models. This program focuses on the whole system – the human system (social sciences, complexity science, leadership and human development) and how to engage with and change organizational systems (organization development, change management, strategic planning) all while improving outcomes (Lean Six Sigma methodologies).

## Black Belt Projects

Students lead process improvement projects within the workplace to practice applying the Lean Six Sigma tools and concepts to a specific process within the organization. Projects require both instructor and sponsor approval. Each Black Belt project is required to have a portfolio that demonstrates the tools used in that project – at least two (or more) tools per DMAIC phase.

## 2024 Fall Course Schedule

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| Date | **High-Level Class Topics** | **Homework/Deliverables** |
| 1. September 13 (Friday)8:30 am – 5:00 pmSouth Puget Sound Community College – Lacey Campus | * Introductions
* Discuss Program approach, outline, deliverables, BB project
* Overview of process improvement over last 100 years
* Outline elements of current key improvement methodologies: Lean, Six Sigma, Theory of Constraints, A3, Scrum, Agile, PDCA, etc.
 | Read Articles:* “How to compare SS, Lean, & Theory of Constraints”
* “Integrating Lean and Six Sigma – A Holistic Approach”
* “Lean Consumption”
* “Similarities and differences between TQM, SS, and Lean”
 |
| 2. September 20 (Friday)8:30 am – 5:00 pm | * Systems Thinking; Understanding processes; Belief Systems; The Psychology of LSS
* Leading in a Lean Environment; helping leaders understand their role
* Customers & Stakeholders
* Infrastructure & Support
 | Read Articles:* “Executive Sponsorship study”
* “Exploring the role of the project sponsor”
* “If you’re the leader, you’re the narrator”
* “A Survival Guide for Leaders”
* “The darker side of lean”
 |
| 3. September 27 (Friday)8:30 am – 5:00 pm | * Change Management; Immunity to Change; Resistance
* Gemba Walks
* Value Stream Mapping – set up; best practices; data gathering
 | Read Articles: * “Leading Change”
* “Real Reasons People Don’t Change”
 |
| 4. October 4 (Friday)8:30 am – 5:00 pm | * Define Tools – teach back method; hands on using computer and in-class exercises
 | * BB Project Charters due
* Prepare/teach a Define tool

Read Article:* “Lean Knowledge Work”
* *Browse* “Learning to See”
* *Browse*/*Use*: “LSS Toolbook”
 |
| 5. October 11(Friday)8:30 am – 5:00 pm | * Communicating with Data and using statistical process control charts
* Guest Presenters
 | * Bring data and a laptop

Read Articles:* “Data’s Credibility Issue”
* “May Not Need Big Data After All”
* “Better Intelligence…”
 |
| 6. October 18 (Friday)8:30 am – 5:00 pm | * Measure Tools– teach back method; hands on using computer and in-class exercises
* Use real data to create excel-generated statistical tools
 | * Prepare/teach Measure tool

Read Article:* “Implementation of TQM, Six Sigma – Case Study”
* “Staple Yourself to an Order”
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| 7. October 25 (Friday)8:30 am – 5:00 pm | * Analyze Tools– teach back method; hands on using computer and in-class exercises
 | * Prepare/teach an Analyze tool

Read Article:* “Improving Service in Government with LSS”
 |
| 8. November 1 (Friday)8:30 am – 5:00 pm | * Improve Tools– teach back method; hands on using computer and in-class exercises
 | * Prepare/teach an Improve tool

Read Article:* Read: “Lean Six Sigma – Getting Better All the Time”
* “Remedies do not address root causes”
 |
| 9. November 8 (Friday)8:30 am – 5:00 pm | * Control Tools– teach back method; hands on using computer and in-class exercises
* Facilitation; small and large scale facilitation models
 | Browse Book: * “Advanced Facilitation Strategies” (Bens, 2005)

Read Article:* “Teaching Smart People How to Learn”
 |
| 10. November 15 (Friday)8:30 am – 5:00 pm | * Organization Development
* Culture
* Training Green Belts
 | Read Articles: * “Notions, Stakes, Boulders, and Tombstones”
* “Learning about Learning”
* “Clues About Culture”
 |
| 11. November 22 (Friday)8:30 am – 5:00 pm | * Strengthening Relationships:
* Team Development
* Conflict Management
* Trust
* Project Management
 | Read Articles:* “It’s the Little Things that Matter”
* “What Google Learned from its Quest to Build the Perfect Team”
 |
| 12. December 6 (Friday)8:30 am – 4:00 pmGRADUATION!! | * Presentations by BB Graduates – present portfolio and brief audience on BB project
* Class Graduation
 | * Portfolio’s due
* Presentation
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