

# UNLV

UNIVERSITY OF NEVADA LAS VEGAS

## **OPERATIONAL EXCELLENCE CERTIFICATE PROGRAM**

### **ACCELERATED SIX SIGMA: A SIMPLIFIED, POWERFUL APPROACH TO ACHIEVING DRAMATIC RESULTS**

UNLV Paradise Campus, Las Vegas, NV  
June 9 & 10 2008

### **PUZZLES, MYSTERIES, & MESSES: ADVANCED TECHNIQUES FOR ORGANIZATIONAL CHALLENGES**

UNLV Paradise Campus, Las Vegas, NV  
July 28 & 29, 2008

### **PROCESS MAPPING AND PROCESS IMPROVEMENT**

UNLV Paradise Campus, Las Vegas, NV  
September 15 & 16, 2008

### **STREAMLINING OFFICE & SERVICE OPERATIONS WITH LEAN**

UNLV Paradise Campus, Las Vegas, NV  
October 20 & 21, 2008

## **Summer & Fall 2008**

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# OPERATIONAL EXCELLENCE CERTIFICATE PROGRAM

Today there are several very powerful operational improvement methodologies available to help executives, directors, and managers. They include Process Mapping, Six Sigma, Lean, Reengineering, Activity Based Costing, and Continuous Improvement. Each methodology has inherent strengths and specific situations where they are best applied. Four informative and practical two-day classes give participants hands-on practice and knowledge for each of these operational improvement methods. Students will learn to use Six Sigma for quality related problems, Lean for time reduction issues, and Activity Based Costing for understanding and controlling process costs. Faced with multiple challenges in an organization, students will learn to use the best methodology for specific problems. Any of these classes may be taken independently or you may apply them to earn the certificate.

## Curriculum

- **Accelerated Six Sigma: A Simplified, Powerful Approach to Achieving Dramatic Results**
- **Puzzles, Mysteries, & Messes: Advanced Techniques for Organizational Challenges**
- **Process Mapping and Process Improvement**
- **Streamlining Office and Service Operations with Lean Accelerated Six Sigma**
- Offered in this catalog

## Advantages to Earning the Certificate

- Become proficient in all operational methodologies, not just one
- Know when to use the best improvement method based on a specific problem
- Solve your toughest operational and organizational problems
- Lead and facilitate operational improvements efforts, no matter what the problem may be

## INSTRUCTIONAL BIO

**Daniel J. Madison** is a principal in Value Creation Partners, an organizational consulting and training firm. He focuses on helping clients increase value through operational improvement, organizational redesign, six sigma facilitation, lean techniques, and strategic planning.

His clients have realized dramatic results. For example, The City of San Jose Public Works Department was able to cut processing time on a grading permit from 21 days to 5 days while increasing customer service. The redesigned processes in the Development Services Department have been able to successfully accommodate twice as many permit applications without having to add to the existing staffing levels (In other words, productivity has doubled). ADP was able to reduce the number of process steps from 131 to 71 and cycle time went from 4 weeks to 2 weeks.

Past clients include University of Chicago, Cisco Systems, Applied Materials, Mexican Federal Government, Health Alliance Plan, California League of Cities, AT&T, United Space Alliance, and the US Department of Agriculture.

Dan regularly teaches courses on Process Mapping, Analyzing and Improving Operations, Six Sigma for Service and Manufacturing, and Strategic Cost Reduction through the University of Chicago, University of Pittsburgh, University of Wisconsin, and the University of Texas.

Prior to his current activities, Dan was a professional money manager, interviewed over 100 corporate officers (CEO's and CFO's) of the Fortune 500, and extensively analyzed hundreds of publicly held companies. He has an MBA in Finance (with honors) and is a Chartered Financial Analyst.

# **ACCELERATED SIX SIGMA: A SIMPLIFIED, POWERFUL APPROACH TO ACHIEVING DRAMATIC RESULTS**

June 9 & 10, 2008

## **OVERVIEW**

Six Sigma tools and techniques are helping GE, Bank of America, Allied Signal, and Motorola achieve dramatic cost savings and quality improvement. With this seminar, you will jump-start your efforts to capture these benefits for your own organization in your manufacturing, service and back office operations.

Employ our simplified, powerful approach to Six Sigma and achieve dramatic increases in customer satisfaction, and radical reductions in quality problems. We cover much of the standard curriculum of Green Belt training.

In this workshop, you will practice and use Six Sigma methods so you can go back and implement improvements in your own organization.

Discover where your company can solve problems right in the workshop. If you don't know which process to work on, you'll be given the tools to prioritize them in the session.

## **Who Should Attend:**

This seminar is for both individuals and teams. Teams benefit from practicing together with the tools and techniques.

- Chief Executive Officers
- Chief Operating Officers
- Department heads
- Operations managers and supervisors
- Quality executives and managers
- Quality teams or task forces
- Quality professionals
- Cost reduction teams or task forces

## **Benefits of Attending--You will learn to:**

- Gain a full understanding of what Six Sigma is and how to implement it
- Learn Six Sigma tools to achieve breakthroughs in quality and cost reduction
- Apply the tools to your most challenging process right in the workshop
- Use the appropriate Six Sigma tool depending upon your specific needs

- Achieve both bottom line and “soft” cost savings
- Organize your organization’s process improvement effort
- Gain buy-in from both upper management and staff
- Prioritize improvement opportunities
- Facilitate process improvement efforts

## **COURSE OUTLINE**

### **Overview of Six Sigma**

What is Six Sigma?

History of Six Sigma

Comparing and contrasting Six Sigma to TQM and Reengineering

Six Sigma success stories

Six Sigma in manufacturing and service organizations

How Six Sigma is organized

Champion

Sponsor

Black Belt

Green Belt

Teams

Overview of the Six Sigma DMAIC process (Define, Measure, Analyze, Improve, Control DMAIC, and process checklist)

### **Breakthrough Project Selection**

Levels of business processes

Prioritizing your company’s processes for improvement

Choosing a process to work on in this workshop

### **Define: Step One of DMAIC**

Project Charter, Problem Statement, Stretch Goal, etc.

Voice of the Customer (VOC)

Converting VOC into Critical to Quality (CTQ) variable to measure

SIPOC Diagram

Customer and Supplier Evaluations

Quality Function Deployment (QFD)

### **MEASURE: STEP TWO OF DMAIC**

Measurement Process and Steps

Process Mapping

Fishbone, Cause & Effect, Ishikawa Diagrams

Checksheets

Pareto Diagrams

Continuous and Discrete Variables

Stratified Sampling

Gauge R&R

DPMO

Rolled Throughput Yield  
Project Storyboard

### **ANALYZE: STEP THREE OF DMAIC**

Logical Cause Analysis  
Root Cause Analysis  
Narrowing Down Root Causes  
5 Whys  
Frequency Plots  
Histograms  
Run Charts  
Scatter Plots and Correlation Diagrams  
Verifying Root Causes with Data

### **IMPROVE: STEP FOUR OF DMAIC**

Failure Mode and Effects Analysis (FMEA)  
Error-Proofing  
Selecting your Optimal Process  
Developing an Implementation Plan  
De-risk your process proposal  
Implementation Options

### **CONTROL: STEP FIVE OF DMAIC**

History of Statistical Process Control (SPC)  
Cautions in SPC  
Using Code Values to Ease Data Collection  
Control Charts—an Overview  
Choosing the Right Type of Control Chart  
Process Capability Analysis  
Control Plan

### **MAKING IT HAPPEN**

Implementing Six Sigma in Your Organization  
Piloting your Six Sigma Effort  
Change Leadership—Overcoming Resistance  
How to Start  
Barriers and Success Factors  
Keys to Six Sigma Success  
Your Customized Six Sigma Plan

**DATE, LOCATION AND TIME:** June 9 & 10, 2008, 8:30 am-4:30 pm,  
Paradise Campus, (PAR) TBD, Las Vegas, NV

**FEE:** \$825, includes instructional materials, 1.5 CEUs, refreshments, lunches,  
and parking permit. This fee does not include lodging or other meals.

# **PUZZLES, MYSTERIES & MESSES: ADVANCED TECHNIQUES FOR ORGANIZATIONAL CHALLENGES**

July 28 & 29, 2008

As a manager and leader, sooner or later you are going to make some difficult decisions and face some tough operational and organization problems. This program is about the skills, tools, and methods which will make this task very efficient and highly effective.

Making decisions and solving problems are the most important aspects of being an executive. It is also the toughest and riskiest. Bad decisions can damage a business and a career, sometimes irreparably.

A promotion can be a very dangerous time for an executive because the new problems that they face can be radically different from the typical problems from their prior position. In fact, the decision making style and problem solving approach that worked in the past may be the wrong style and approach in their new position.

There are a number of pitfalls to decision making which almost operate beyond our recognition. Learn about each of these pitfalls and practice the antidotes to stop them immediately.

Excellent managers and leaders can quickly arrive at quality solutions to the toughest operational and organizational problems. They can quickly frame them in such a way that they get the maximum leverage from staff and resources. These leaders know how to adjust their role to fit the situation. They know when to look to others for input and how to get the right people involved. They know some problems require ongoing engagement, while others can be fixed permanently.

The speed in which excellent managers and leaders guide the organization in solving problems and the resultant quality of the solutions is what sets them apart from others. In this seminar you will not only learn the critical techniques to solve your toughest operational and organizational problems, but you will also learn how to leverage the time and talent of your staff to arrive at quality solutions quickly.

Typical examples of tough problems include:

- Struggling with multiple organizational initiatives
- Coming to a solution when a number of key stakeholders have strong vested interests

- Dealing with a boss whose goals, assumptions, or actions causes degradation in some aspect of the organization
- Planning in the face of uncertain futures
- Long term versus short term, quality versus cost, centralized versus decentralized
- Conflicts between departments arising from conflicting goals

Today organizations are being stressed by increasing demands for timely response, increased cooperation, lower cost, higher quality and better service. Managers need to have a more comprehensive set of tools to deliver complete solutions. In this seminar, you will gain “hands-on” experience with powerful methods to move your organization to the next level.

Our research and practical experience has demonstrated that most organizational problems can be classified into eight types. Particularly difficult problems can contain more than one type. ***Participants are highly encouraged to bring their most vexing operational or organizational problems to the seminar.*** You will learn to analyze the problem and create action plans that will eliminate the issue, permanently.

#### **WHO SHOULD ATTEND:**

- Executives
- Division and department heads
- Project managers
- Product line managers
- HR/OD professionals
- Operational improvement task force teams and leaders
- Public sector managers

#### **BY THE END OF THIS SEMINAR, PARTICIPANTS WILL BE ABLE TO:**

- Avoid the mistakes that can derail a career
- Fit their unique and difficult problems into the appropriate problem types
- Generate powerful solutions to the most difficult problems
- Dramatically improve decision making effectiveness
- Know how to involve key players
- Lay out an executive action plan that helps others gets results
- Achieve high quality solutions, quickly

#### **Course outline:**

List your problems

List your decisions

Examine the relationship of decisions and problems to the organizational hierarchy

## UNCOVER THE 8 TRAPS IN DECISION MAKING:

- Antidotes to the 8 traps
- Advocacy versus Inquiry
- Ground rules for discussion and inquiry

### Pick a problem you want to solve but don't know how

Using the critical skills of Naming and Framing as precursors to efforts in Taming the problem.

#### Problems that are fundamental:

- **Problems that are puzzles:** classical problems with clear criteria and objective solutions. (Typical methodologies include six sigma, lean, and process design.)
- **Problems that are "too rich":** resulting in the need to create a cohesive strategy

#### Problems that are mysterious:

- **Problems with uncertainties:** problems with many unknown or unknowable variables as they relate to the future
- **Problems that are dilemmas:** the desire to achieve two essential goals that feel mutually incompatible. Often seen as a friction between two departments. (Case study: Dell Computer)
- **Problems with a life of their own:** problems with their own momentum and stability, which is separate from the intentions of the problem solvers (Case studies: US Healthcare System)

#### Problems that are dangerous:

- **Problems with many voices:** competing interests among various groups who need to bargain in good faith to a mutually acceptable solution
- **Problems of our own making:** result of unrealistic, naive, or distorted assumptions about our situation (Case study: Gillette)
- **Problems that bite:** entrenched conflicts with long history and strong moral overlays, volatile or hostile behavior between groups, virtually intractable (Case study: US Postal Service)

Once you identify the problem type, you will also know the following

- Your role as the leader
- What the leader says and does
- Prerequisites for a successful effort
- Potential value of the group and when to avoid a group
- Proper role of the problem solver
- Possible need for a neutral party
- Definition of a good outcome
- The false solutions that could derail your efforts
- Needed insights or change in thinking
- When to exit an intractable situation

The use of seven Solution Areas:

- Structural
- Conceptual
- Interpersonal
- Cultural
- Technological
- Individual
- Political

### **Tasking Checklist**

- Integrating everything into an effective leadership problem solving strategy
- Action plans

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## **PROCESS MAPPING AND PROCESS IMPROVEMENT**

September 15 &16, 2008

### **OVERVIEW**

How to document, analyze, redesign, and manage processes for dramatic improvement:

Process mapping can be an extremely powerful diagnostic tool for your organization. By analyzing processes you will not only find process issues, but also uncover structural problems, poor controls, and people issues. You will learn to tap into employee frustration to fix processes and get to the root cause of quality and timeliness issues.

By using the sixteen symptoms of a broken process and the five lenses of process analysis, this workshop will teach you how to pinpoint those processes most in need of immediate attention. You will also learn to use key criteria to prioritize your process improvement efforts at your organization. Once you have diagnosed your process, and identified its problems, you will be able to pick the right improvement technique, including continuous process improvement, process redesign, six sigma, lean techniques, and reengineering. Throughout the workshop, you'll be able to practice these

techniques on your own real-world processes, and leave the seminar with multiple improvement ideas.

Often people are unaware that process design principles exist. The design principles apply to work flow, information flow, and job design. By using these powerful design principles, you will be able to create processes that are exceptionally fast, dramatically cheaper, and that produce very high quality products or services. As part of the diagnosis of processes, learn to capture process costs, quality costs, cycle, process, and wait time, and employee frustrations. By costing out process and quality costs, you will be able to demonstrate to senior management cost savings and return on investment opportunities.

Process mapping will give you the skills you need to enact real process improvement within your organization. In addition to learning specific skills, you will be coached in leading and facilitating the mind set that will launch your organization to the next level of performance. Part of the mind set is the new role of process managers or consultants. Also, you will learn how to select, organize, and facilitate process improvement efforts in your own organization. You will learn the eight major barriers to process improvement and effective strategies for overcoming these barriers.

Finally, information technology is enabling process management in a variety of ways. Complete process documentation can be easily accomplished with modern software programs. More importantly, processes can be simulated to do “what if” analysis and to validate changes in process design.

We encourage you to bring your process problems to the seminar and then practice the powerful techniques and tools on these processes. Leave with an action plan to fix these processes and then establish in your organization an environment of on-going process improvement. Each participant will receive a copy of the instructor’s book; Process Mapping, Process Improvement, and Process Management.

### **SEMINAR BENEFITS:**

At the end of the seminar you will know how to:

- Practice and construct a variety of process maps
- Identify broken processes through 16 telltale symptoms
- Evaluate current process capability
- Turn staff frustration into ideas to improve processes, people, and systems
- Use powerful design principles
- Eliminate duplication and bureaucracy
- Gather metrics on cycle, process, and wait time
- Delve into the details of tasks and procedures to find problems

- Install and audit process controls for Sarbanes-Oxley compliance
- Organize your process improvement efforts

## **SEMINAR OUTLINE:**

- 1. Different Styles of Work Management**
  - Traditional
  - Involvement
  - Process
  - Cross-functional
  - Matrix
  - “F” type
- 2. Resource and Structural Organizations**
  - People
  - Process
  - Controls
  - Structure
- 3. Where Do Most Organizational Problems Originate?**
- 4. Choosing Suppliers**
  - Evaluation
  - Measurement
  - Partnering
- 5. Customer Report Card**
  - Your process evaluation
  - Breakthroughs
- 6. Definition of a Process**
  - Processes common to many organization
  - Support processes
  - How to identify a broken process
  - Selecting a process for redesign
- 7. The Five Main Advantages To Process Mapping**
- 8. The Four Types Of Information Captured In a Process Map**
- 9. Flow Charting Symbols and How to Use Them**
- 10. Process Maps and The Level of Detail**
  - Macro level flow chart
  - Functional-activity level flow chart
  - Task and procedural level
- 11. Procedure For Making a Functional-Activity Flow Chart**
  - Identifying staff frustrations and eliminate frustrations
  - Bottleneck elimination
  - Bureaucracy elimination
- 12. Using automation and information technology**
  - Videotaping processes
  - The “ball of yarn” technique
  - Picking high impact ideas to be implemented immediately
- 13. Gathering Cycle Time, Process Time, and Wait Time**

**14. Installing Process Controls for Sarbanes-Oxley Compliance**

**15. Costing Out a Process Using Activity Based Costing**

- Calculating true profitability by customer or product
- Identifying value-adding activities

**16. Design Principles**

- Work flow
- Information flow
- Job design
- “Clean sheet” redesign

**17. Five Implementation Options**

**18. Eight Barriers To Process Improvement**

**19. Ten Step Process Redesign Methodology**

**20. Quality Costs**

- Calculating the cost of poor quality
- Quality improvement tools
- Basic six sigma tools

**21. Simplified Task and Procedure Flow-Charting**

**22. Process Team Formation**

- Selecting team members
- Team member roles
- Project manager
- Facilitator
- Champion

**23. Process Management Software**

- Process documentation
- Process simulation

**24. Your Personal Action Plan and Next Steps**

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**WHO SHOULD ATTEND**

This workshop is designed for professionals that want “hands-on” experience in process mapping, improvement, and management such as:

- Process improvement teams or task forces
- IT professionals
- Department heads
- Quality professionals
- Operations professionals
- Managers and supervisors

# STREAMLINING OFFICE AND SERVICE OPERATIONS WITH LEAN

October 20 & 21, 2008

## OVERVIEW

Today, enormous amounts of waste exist in office and service operations. Delays, bottlenecks, errors, redundancy, work arounds, and ambiguity abounds. Non value added work can be as high as 95 percent.

The methodology that can eliminate these problems is Lean. Manufacturing organizations have had great success in applying Lean. However there are significant challenges and differences in an office versus a manufacturing setting. For these reasons, a tailored approach to improving office operations is necessary.

Through simulation, cases, and by working on your own processes, you will practice Lean tools to dramatically improve quality and service, while shrinking time and cost. You will know which tool to use based on the goal of the effort and problems you are facing. You will leave with the skills necessary to dramatically improve your office environment.

A special aspect of the seminar is the actual simulation of several office processes. Participants will receive "hands on" practice with Lean tools and techniques in an actual office setting.

## SEMINAR OUTLINE:

- 1. How Office and Manufacturing Environments are Different**
- 2. Identifying the Eight Office Wastes**
  - Waiting
  - Errors
  - Overproduction
  - Movement
  - Transportation
  - Untapped employee resources
  - Non value added activities
  - Excess inventory
- 3. Visualizing Work and Information Flow**
  - Macro level flow chart
  - Value Stream Mapping
  - Functional-Activity Flow Chart
  - Creating the Current State Map
- 4. Collecting the Right Data**
- 5. Value Adding and Non Value Adding Activities**
- 6. Simulation Exercise**

## **7. Analyzing Time**

- Processing
- Waiting
- Rework
- Inspection
- Set up
- Move
- Cycle
- Lead
- Tact

## **8. Quality Tools**

- Quality costs
- Percent complete and accurate
- Cause and effect diagram
- Check sheets
- Pareto diagram
- 5 Whys
- Error proofing

## **9. Improvement Activities**

- Standardized work
- 5 S
- Visual controls
- Visual management
- Pull
- Batch sizes
- Pitch
- A3 Process and Report

## **10. Process Design Principles**

- Work flow
- Information flow
- Job design

## **11. Creating the Future State Map**

- Focused Kaizen efforts

## **12. Leadership for the Lean Office**

- New ways to manage work
- Changing roles and responsibilities
- Change management

## **SEMINAR BENEFITS:**

### **1. You will learn how to:**

- Identify the eight wastes in your office processes
- Find and eliminate bottlenecks
- Organize the workspace for ease of use and quality
- Uncover the root cause of quality problems and systematically solve them

- Design work flow for maximum efficiency (speed) and effectiveness
- Create a schedule to monitor and quickly correct process problems

**AUDIENCE:**

**1. VP of Administration**

**2. Department Heads in:**

- Finance/Accounting
- IT
- Sales and Marketing
- Customer Service
- Human Resources

**3. Lean Teams**

**4. Process Improvement Teams**

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# REGISTRATION FORM

*(Please note location of seminars)*

- [ ] **ACCELERATED SIX SIGMA: A SIMPLIFIED, POWERFUL APPROACH TO ACHIEVING DRAMATIC RESULTS - B082GB3130**  
June 9 & 10, 2008, Mon. & Tue., 8:30 am - 4:30 pm  
\$825 includes materials, refreshments, parking permit, lunches, and CEU
  
- [ ] **PUZZLES, MYSTERIES, & MESSES: ADVANCED TECH. FOR ORGANIZATIONAL CHALLENGES - B082GB3131**  
July 28 & 29, 2008, Mon. & Tue., 8:30 am - 4:30 pm  
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- [ ] **PROCESS MAPPING AND PROCESS IMPROVEMENT - B083GB3209**  
September 15 & 16, 2008, Mon. & Tue., 8:30 am - 4:30 pm  
\$825 includes materials, refreshments, parking permit, lunches, and CEU
  
- [ ] **STREAMLINING OFFICE AND SERVICE OPERATIONS WITH LEAN - 083GB3207**  
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\$825 includes materials, refreshments, parking permit, lunches and CEU

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**BY PHONE:** You may register by phone with Visa, MasterCard, Discover or American Express cards by calling **(702) 895-3394**. Please have class title, start date, credit card number, and expiration date.

**BY FAX:** Educational Outreach, University of Nevada, Las Vegas, **(702) 895-4195**.

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