

GSA

AUTHORIZED FEDERAL SUPPLY SCHEDULE PRICE LIST

Mission Oriented Business Integrated Services (MOBIS)



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Colorado Springs, CO 80920
Phone: (800) 748-1277
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EXECUTIVE SUMMARY

Air Academy Associates LLC is a Colorado Springs based company that has been in business for fifteen years. Since then, it has become a global leader in partnering with industry, government and academia in the knowledgeable, disciplined and accountable implementation of knowledge based enterprise transformation for systemically reducing waste and variation in their products, services and processes.

Research and benchmarking have indicated that 15 to 35% of industry's annual revenue is consumed by waste and variation. As globalization and commoditization intensifies, leadership within industry has three choices to remain competitive. They can reduce profits, reduce the costs of labor and materials or reduce this waste and variation.

Though Government does not operate to create profit, it provides products and services for the direct benefit of its citizens. Delivery of such products and services, as in industry, suffers from waste and variation in the form of inefficiencies in timeliness, cost and accuracy.

Air Academy Associates is fortunate to have some of the very best people in the world who are highly trained and experienced in the right tools and using the right texts, guides and software to significantly and systematically reduce waste and variation in Government and industry. This is precisely what Air Academy Associates has accomplished in direct support of over 100 major enterprises. Billions of verifiable dollars have been saved along with improved value delivery to its customers through Air Academy Associates' proven knowledge and experience in consulting, facilitation and training.

Air Academy Associates has two partners, six senior associates, twenty independent consultants and five administrative support members. It also utilizes over twenty-five alliance consultants and sub-contractors worldwide for surge support and specialized services. It was a ground floor participant in the initial conceptualization and implementation of Six Sigma at Motorola. As part of its approach to Knowledge Based Management, Air Academy Associates was a pioneer in integrating the principles, tools, methodologies and project roadmaps of Lean Six Sigma (LSS) and Design for Lean Six Sigma (DFLSS). It's Keep-It-Simple-Statistically or KISS approach to simplification (Lean) and perfection (Six Sigma) is used by business, Government and academia worldwide and emulated by our competitors.

Air Academy's senior associates and independent consultants have, on average, over twenty years of practical experience in LSS and DFLSS consulting, facilitation and training. Each has a passion for action and early results for the clients they support. Each follows a proven process for generating early financial benefits and self-sustainability for their clients. Our associates and consultants are well versed in understanding client requirements and translating those requirements into a flexible, highly capable and properly scaled implementation solution.

The results from such investments are impressive. Clients receive 0.5 to 1% of annual revenue back in "hard" verifiable P&L benefits during their full first year of deployment. Second year and beyond benefits equal or exceed 2% of revenue. Other benefits include increased value delivery for their customers and owners, enhanced intellectual capital derived from the projects and Kaizens that are commissioned and positive culture change.

Our Value System

We work closely our industry and Government customers with integrity, honesty and ethics. We treat people with the respect and dignity they deserve along and with gratitude and appreciation. Our success is not measured by the revenue we earn, but by the verifiable and measurable success experienced by our clients. We continuously collect and evaluate feedback from our clients to ensure consistency and quality of effort. We also value early self-sustainability within our client base thereby enabling their employees to perform the consulting, facilitation and training previously accomplished by ours.

Materials and Software

We are the only first-tier Lean Six Sigma service provider that exclusively designed, developed, tested, deployed and continuously improved its own, fully integrated texts, guides and software. Each follows our famous "KISS" approach mentioned earlier. Our software is Excel-based to facilitate ease of use without sacrificing capability. Our in-class, e-learning and blending teaching approaches are cutting edge, continually improved and cost-effective for our customers. The minimum return-on-investment from utilizing our profession services capabilities and support products (e.g. guides, texts and software) is 10:1 and often ranges between 20 or 30:1.

Enterprises We Support

Our clients include businesses ranging in annual revenue from \$100M to \$20B annually. These include Alcoa, Allied Signal/Honeywell, Apogee Enterprises, ATMI, BF Goodrich, Bombardier, Bose, Brunswick, Cessna, Chevron Texaco, Corning, Danaher, Dell, EMC, Gates Rubber, General Dynamics, General Electric, GlaxoSmithKline, Grupo IMSA, Heritage Valley Health, Holley Performance, Hyundai, John Deere, Johnson Controls, Kaiser Aluminum, KIA, Lockheed Martin, Merck Medco, Nationwide Insurance, Nokia, Northrop Grumman, Nova Chemicals, Perkin Elmer, Raytheon, Samsung, Singer, Sony, Stanadyne, Thilmany, St. Jude Medical, Textron Financial, University of Texas, Woodward Governor, Xerox and many others. We are also partnering with Government agencies including the U.S. Army, Navy and Air Force, the Federal Aviation Administration, NASA, the U.S. Postal Service, the National Imagery and Mapping Agency, the National Reconnaissance Office and the Defense Contract Management Agency.

Our Generalized Deployment Approach

Our generalized deployment approach synchronizes LSS and DFLSS to the method by which our clients both manage and improve their enterprise, be it Government, industry, or academia. Phase One emphasizes “Initialization” whereby the client’s voice of the customer, mission, strategic plan, measures/metrics and scorecards are understood and a LSS or DFLSS Deployment Plan is appropriately formulated. Phase Two involves “Execution” whereby the right projects and Kaizen events are commissioned, led by the right people and continually monitored by the leadership to ensure timely completion and benefit realization. Phase Three involves “Assessment” whereby the actual versus projected benefits are compared and corrected by amending the original LSS or DFLSS Deployment Plan. Each phase along with the key sub-tasks within each phase is illustrated in the chart below.

Proposed Quality Measures and Accounting Controls

Governmental implementation of Lean Six Sigma and Design for Lean Six Sigma must yield timely and verifiable benefits that directly contribute to their mission-unique measures, metrics and/or scorecards. “Hard” savings that measurably and verifiably reduce their budgetary obligations also represent a key quality measure. Other “soft” quality measures include the number of employees trained, the percentage of time spent on management-approved LSS or DFLSS projects, the benefits (\$) per employee, project cycle times/average duration, employee “certification” levels, sigma capability versus time on key processes and services, return-on-investment, etc. All hard and soft quality measures are collaboratively developed during the Initialization Phase between the Government agency and Air Academy Associates. They are collected and regularly reviewed by both in accordance with the agencies’ LSS or DFLSS Deployment Plan to ensure knowledge, discipline, full accountability and control.

Authorized Federal Supply Schedule Price List

Online access to contract ordering information, terms and conditions, up-to-date pricing and the option to create an electronic delivery order is available through GSA *Advantage*[™], a menu-driven database system. The Internet address for GSA *Advantage*[™] is https://www.gsaadvantage.gov/advgsa/advantage/main/start_page.do.

Contract Number:

GS-10F-0057S

Contract Period:

November 18, 2005 – November 17, 2010

Contract Administrator:

Debbi Radke
Director of Business Development
Office: (719) 785-6711
Facsimile: (719) 531-0778
DRadke@airacad.com

DUNS Number:

618520282

Business Size:

Large

Approved Special Item Numbers:

874-1: Consultation Services

874-2: Facilitation Services

874-4: Training Services

874-5 Support Products

GSA

AUTHORIZED FEDERAL SUPPLY SCHEDULE PRICE LIST

Mission Oriented Business Integrated Services (MOBIS)

AIR ACADEMY ASSOCIATES LLC

CUSTOMER INFORMATION

SERVICES AND PRICING

CUSTOMER INFORMATION

1a. Table of Awarded Special Item Numbers (SINS):

874-1: Consultation Services

874-2: Facilitation Services

874-4: Training Services

874-5: Support Services

1b. Identification of the Lowest Priced Item/Service and Lowest Unit Price for That Item/Service for Each Special Item Number Awarded.

Prices shown in the price list are valid for all areas worldwide. Travel costs will be expensed in accordance with Joint Travel Regulations. For any overseas work, pricing will also reflect current State Department indices of living costs abroad.

2. Maximum Order Limitation: \$1 million

3. Minimum Order: \$300

4. Geographic Coverage (Delivery Area): Worldwide.

5. Point of Production:

1650 Telstar Drive, Suite 110
Colorado Springs, CO 80920

6. Discount From List Prices or Statement of Net Price:

Prices shown in the price list are net with all discounts deducted.

7. Quantity Discounts: As reflected in the price list.

8. Prompt Payment Terms:

Net – 30 Days
Other – ½% 10 Days

9a. Annotate if Government Commercial Purchase Card is Accepted: Yes, No

The types of Government purchase card(s) accepted for payment are American Express, VISA and Master Card.

9b. Discount for Payment by Government Commercial Credit Card: None.

10. Foreign Items: None.

11a. Time of Delivery:

To be determined at the time of task order/delivery.

11b. Expedited Delivery:

To be determined at the time of task order/delivery.

11c. Overnight and Second Day Delivery:

To be determined at the time of task order/delivery.

11d. Urgent Requirements:

Air Academy Associates will negotiate with the contracting agencies on an ad hoc basis in an effort to met accelerated delivery for rush requirements.

12. FOB Point(s): Destination.

13. Ordering Address:

Please forward all orders to the designated individual at the address below:

Air Academy Associates LLC
Attn: Debbi Radke
1650 Telstar Drive, Suite 110
Colorado Springs, CO 80920

Telephone: (719) 785-6711
Facsimile: (719) 531-0778
Email: DRadke@airacad.com

14. Payment Address:

Air Academy Associates LLC
Attn: Debbi Radke
1650 Telstar Drive, Suite 110
Colorado Springs, CO 80920
Telephone: (719) 785-6711
Facsimile: (719) 531-0778

15. Warranty Provision:

Air Academy Associates warrants and implies that the items delivered hereunder are merchantable and fit the particular purpose described in the contract.

16. Export Packing Charges: N/A

17. Terms and conditions of Government Commercial Credit Card Acceptance:

Payments made using the Government-wide commercial purchase card are not eligible for any negotiated prompt payment discount.

18. Terms and Conditions of Rental, Maintenance and Repair: N/A

19. Terms and Conditions of Installation: N/A

20. Terms and Conditions of Repair Parts Indicating Date of Parts Lists and Discounts from List Prices: N/A

21. List of Service and Distribution Points: N/A

22. List of Participating Dealers: N/A

23. Preventative Maintenance: N/A

24. Year 2000 (Y2K) Compliant:

Any information technology products supplied will be Y2K compliant.

25. Environmental Attributes, e.g. Recycled Content, Energy Efficiency and/or Reduced Pollutants:

Air Academy Associates will comply with any applicable environmental guidelines/regulations associated with the production and distribution of products and services under this GSA Schedule.

SERVICES AND PRICING

SIN 874-1: CONSULTING SERVICES

Air Academy Associates provides highly experienced consultation, technical assistance and related deliverables with all aspects of surveying pursuant to MOBIS. The associated prices for these services are:

Skill Category	Daily Government Labor Rate <i>On-Site</i>	Daily Government Labor Rate <i>Off-Site</i>
CEO and President	\$2,500	\$2,000
Vice-President	\$2,500	\$2,000
Director	\$2,500	\$2,000
Senior Associate/ Master Black Belt	\$2,500	\$2,000
Associate/Black Belt	\$2,500	\$2,000

The off-site rates apply to email and telephone consulting involving no travel to the agency's location. When travel to an agency's location (e.g. "on-site") for consulting services is involved, the daily rates apply plus applicable travel expenses which are to be reimbursed by the agency in accordance with applicable agency travel regulations.

Off-site rates are expressed hourly for simpler agency tasks per the table below:

Skill Category	Hourly Government Labor Rate <i>Off-Site</i>
CEO and President	\$250
Vice-President	\$250
Director	\$250
Senior Associate/Master Black Belt	\$250
Associate/Black Belt	\$250

The Government Labor Rates cited above are for the base period only. Out year escalation is governed by the Economic Price Adjustment Clause 552.216 on Page 37 of the solicitation.

SIN 874-2: FACILITATION SERVICES

Air Academy Associates provides highly experienced facilitation and related decision support services to agencies involved in collaborative efforts, working groups, integrated product, process or service teams or self-directed work teams. The associated prices for these services are:

Skill Category	Daily Government Labor Rate <i>On-Site</i>	Daily Government Labor Rate <i>Off-Site</i>
CEO and President	\$2,500	\$2,000
Vice-President	\$2,500	\$2,000
Director	\$2,500	\$2,000
Senior Associate/ Master Black Belt	\$2,500	\$2,000
Associate/Black Belt	\$2,500	\$2,000

The off-site rates apply to email and telephone consulting involving no travel to the agency’s location. When travel to an agency’s location (e.g. “on-site”) for consulting services is involved, the daily rates apply plus applicable travel expenses which are to be reimbursed by the agency in accordance with applicable agency travel regulations.

Off-site rates are expressed hourly for simpler agency tasks per the table below:

Skill Category	Hourly Government Labor Rate <i>Off-Site</i>
CEO and President	\$250
Vice-President	\$250
Director	\$250
Senior Associate/Master Black Belt	\$250
Associate/Black Belt	\$250

The Government Labor Rates cited above are for the base period only. Out year escalation is governed by the Economic Price Adjustment Clause 552.216 on Page 37 of the solicitation.

LABOR CATEGORY DESCRIPTIONS:

Labor Category: CEO and President

General Experience: The Air Academy CEO and President have a minimum of twenty years of industry, government and/or consulting experience in both managing and

improving a major enterprise. This includes extensive expertise in product, process and/or service design, development, test and evaluation, manufacturing, service, logistics and/or sales and marketing. Technical expertise in enterprise-level Lean Six Sigma program initialization, execution and assessment as well as related, enterprise-level quality systems improvement are also required.

Functional Experience: The Air Academy CEO and President are officers of the Company with extensive, significant and highly responsible industry, program management and leadership experience who provide leadership/executive level expert consultation and facilitation services.

Minimum Education: Bachelor of Art or Bachelor of Science, Master of Science and Ph.D. degrees in engineering, mathematics, statistics, operations research and/or business administration.

Labor Category: **Vice-President**

General Experience: An Air Academy Vice-President has a minimum of fifteen years of industry, government and/or consulting experience in product, process and/or service design, development, test and evaluation, manufacturing, service, logistics and/or sales and marketing. Significant and proven expertise in knowledge-based management and enterprise-level Lean Six Sigma program initialization, execution and assessment as well as related, enterprise-level quality systems improvement are also required.

Functional Experience: An Air Academy Vice-President is an officer of the Company with extensive, significant and highly responsible industry, program management and leadership experience who provide experienced and expert consultation and facilitation services to senior agency management.

Minimum Education: Bachelor of Art or Bachelor of Science and Master of Science degrees in engineering, mathematics, statistics, operations research and/or business administration.

Labor Category: **Director**

General Experience: An Air Academy Director has a minimum of ten years of industry, government and/or consulting experience in product, process and/or service design, development, test and evaluation, manufacturing, service, logistics and/or sales/marketing. Technical expertise in enterprise-level Lean Six Sigma program initialization, execution and assessment as well as related, enterprise-level quality systems improvement are also required.

Functional Experience: An Air Academy Director has extensive, significant and highly responsible industry, program management and managerial experience who lead the design and deployment of an enterprise-level Lean and/or Six Sigma program across all

organizational boundaries. The Director also provides experienced and expert consultation and facilitation services to senior and mid-level agency management.

Minimum Education: Bachelor of Art or Bachelor of Science and Master of Science Degrees in Engineering, Mathematics, Statistics, Operations Research and/or Business Administration.

Labor Category: Senior Associate/Master Black Belt

General Experience: An Air Academy Senior Associate/Master Black Belt has a minimum of ten years of industry, government and/or consulting experience Lean and/or Six Sigma. This includes both receiving and teaching Lean and/or Six Sigma training, passing related Lean and/or Six Sigma certification exams, leading multiple projects using Lean and/or Six Sigma principles, tools and methodologies resulting in verifiable benefit realization for the enterprise, leading associated project report-outs to enterprise executives/leaders and teaching, consulting and facilitating at least four waves of Lean and/or Six Sigma Black-Belt Level classes. In depth knowledge of basic, intermediate and advanced Lean and/or Six Sigma tools is required.

Functional Experience: An Air Academy Senior Associate/Master Black Belt leads, consults and facilitates a full spectrum of Lean and/or Six Sigma events. These include formal, in-class training of Lean and/or Six Sigma Master Black Belt, Black Belt and Green Belts in service, transactional and/or technical processes, Kaizen events, executive orientations and overviews as well as champion/sponsor training. Senior Associate/Master Black Belts design and develop guides, texts and/or software for use in Lean and/or Six Sigma deployments. They are certified through the projects they have led, the benefits that were delivered, the passing of one or more comprehensive exams and the satisfactory presentation of multiple project summaries to executives and leaders from industry, Government and/or academia. They also have proven experience in leading, consulting and facilitating key “Train-the-Trainer” events for preparing Lean and/or Six Sigma Black Belts within business, Government and/or academia to become future Master Black Belts.

Minimum Education: Bachelor of Art or Bachelor of Science and Master of Science Degrees in Engineering, Mathematics, Statistics, Operations Research and/or Business Administration.

Labor Category: Associate/Black Belt

General Experience: An Air Academy Associate/Black Belt has a minimum of seven years of practical industry, government and/or consulting experience Lean and/or Six Sigma. This includes both receiving and teaching Lean and/or Six Sigma training, passing related Lean and/or Six Sigma certification exams, leading multiple projects using Lean and/or Six Sigma principles, tools and methodologies resulting in verifiable benefit realization for the enterprise, leading associated project report-outs to enterprise executives/leaders and teaching, consulting and facilitating at least two waves of Lean

and/or Six Sigma Black-Belt Level classes. In depth knowledge of basic and intermediate Lean and/or Six Sigma tools is required.

Functional Experience: An Air Academy Associate/Black Belt leads, consults and facilitates a full spectrum of Lean and/or Six Sigma events. These include formal, in-class training of Lean and/or Six Sigma Black and Green Belts in either service, transactional and/or technical processes, Kaizen events, executive orientations and overviews as well as champion/sponsor training. They are certified through the projects they have led, the benefits that were delivered, the passing of one or more comprehensive exams and the satisfactory presentation of multiple project summaries to executives and leaders from industry, Government and/or academia.

Minimum Education: Bachelor of Art or Bachelor of Science and MBA is preferred.

Education Substitution Policy

Air Academy Associates recognizes varying levels of education and experience in their position descriptions. Air Academy Associates maintains that experience is as or more important than formal preparation. Therefore, it is Air Academy Associates’ policy to substitute two years of related experience for one year of higher education where appropriate and subject to the agencies’ prior approval.

SIN 874-4: TRAINING SERVICES

Air Academy Associates offers “off-the-shelf” or customized training under this SIN to meet specific agency needs related to management, organizational and business / product / process / service improvement services.

SCHEDULE OF AVAILABLE TRAINING

Description	Government Price (11/18/05-11/17/06)
Lean Six Sigma Executive Training (1 Day)*	
Total Cost, Minimum Class Size:	
Total Cost, Maximum Class Size:	\$3,988.00
Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	\$5,770.00 \$118.80
Six Sigma Executive Training (1 Day)*	
Total Cost, Minimum Class Size:	\$3,680.00
Total Cost, Maximum Class Size:	\$5,000.00
Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	\$88.00

<p>Synchronizing Six Sigma or Lean Six Sigma to Government and Industry Training (2 Days)*</p> <p>Total Cost, Minimum Class Size: \$7,140.00</p> <p>Total Cost, Maximum Class Size: \$9,450.00</p> <p>Cost/Participant for Materials Only (For Class Sizes Between 11 and 25): \$154.00</p>	
<p>Lean Six Sigma or Six Sigma Champion Training (2 Days)*</p> <p>Total Cost, Minimum Class Size: \$8,372.00</p> <p>Total Cost, Maximum Class Size: \$12,530.00</p> <p>Cost/Participant for Materials Only (For Class Sizes Between 11 and 25): \$277.20</p>	
<p>Lean Six Sigma or Six Sigma Champion Training (3 Days)*</p> <p>Total Cost, Minimum Class Size: \$11,172.00</p> <p>Total Cost, Maximum Class Size: \$15,330.00</p> <p>Cost/Participant for Materials Only (For Class Sizes Between 11 and 25): \$277.20</p>	
<p>Lean Six Sigma or Six Sigma Yellow Belt Training (5 Days)*</p> <p>Total Cost, Minimum Class Size: \$18,180.00</p> <p>Total Cost, Maximum Class Size: \$24,450.00</p> <p>Cost/Participant for Materials Only (For Class Sizes Between 11 and 25): \$418.00</p>	
<p>Lean Six Sigma or Six Sigma Green Belt Training (10 Days)*</p> <p>Total Cost, Minimum Class Size: \$32,180.00</p> <p>Total Cost, Maximum Class Size: \$38,450.00</p> <p>Cost/Participant for Materials Only (For Class Sizes Between 11 and 25): \$418.00</p>	
<p>Lean Six Sigma or Six Sigma <u>Service and Transactional</u> Green Belt Training (10 Days)*</p> <p>Total Cost, Minimum Class Size: \$31,828.00</p> <p>Total Cost, Maximum Class Size: \$37,570.00</p> <p>Cost/Participant for Materials Only (For Class Sizes Between 11 and 25): \$382.80</p>	
<p>Lean Six Sigma or Six Sigma Black Belt Training (20 Days)*</p> <p>Total Cost, Minimum Class Size: \$63,700.00</p> <p>Total Cost, Maximum Class Size: \$75,250.00</p> <p>Cost/Participant for Materials Only (For Class Sizes Between 11 and 25): \$770.00</p>	
<p>Lean Six Sigma or Six Sigma <u>Service and Transactional</u> Black Belt Training (15 Days)*</p> <p>Total Cost, Minimum Class Size: \$47,324.00</p> <p>Total Cost, Maximum Class Size: \$55,310.00</p> <p>Cost/Participant for Materials Only (For Class Sizes Between 11 and 25): \$532.40</p>	

Design for Lean Six Sigma (DFLSS) Pre-Requisite or Design for Six Sigma (DFSS) Pre-Requisite (Pre-Req for DFLSS or DFSS) - (5 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	 \$19,800.00 \$28,500.00 \$580.80
Design for Lean Six Sigma (DFLSS) Capstone or Design for Six Sigma (DFSS) Capstone (5 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	 \$20,908.00 \$31,270.00 \$690.80
On Line Six Sigma Green Belt - Certificate Program* (Min/Max Guidelines Not Applicable)	\$1,474.05/Participant Including Materials
On Line Six Sigma Green Belt - Certification Program* (Min/Max Guidelines Not Applicable)	\$1,846.05/Participant Including Materials
On Line Six Sigma Black Belt - Certificate Program* (Min/Max Guidelines Not Applicable)	\$2,413.35/Participant Including Materials
On Line Six Sigma Black Belt – Certification* (Min/Max Guidelines Not Applicable)	\$2,776.05/Participant Including Materials
On Line Six Sigma Green Belt Knowledge Assessment* (Min/Max Guidelines Not Applicable)	\$116.25/Participant
On Line Six Sigma Black Belt Knowledge Assessment* (Min/Max Guidelines Not Applicable)	\$116.25/Participant
Six Sigma Master Black Belt/Train-the-Trainer (7 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	 \$23,956.00 \$30,490.00 \$435.60
Statistical Tools, SPC & MSA Training (4 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	 \$13,620.00 \$17,250.00 \$242.00
Advanced Statistical Tools for Black Belts Training (3 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	 \$10,688.00 \$14,120.00 \$228.80
Design of Experiments (DOE) Training (4 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	 \$13,620.00 \$17,250.00 \$242.00

Introduction to Reliability Testing and Analysis (2 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	\$9,076.00 \$14,290.00 \$347.60
Principles of Lean Operations Training (5 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	\$15,188.00 \$16,970.00 \$118.80
Kaizen Workshop Training (7 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	\$22,196.00 \$26,090.00 \$259.60
Value Stream Mapping Workshop Training (4 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	\$13,796.00 \$17,690.00 \$259.60
Variance Reduction Workshop Training (1 Day)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	\$3,240.00 \$3,900.00 \$44.00
Process Simulation Using Process Model Training (3 Days)* Total Cost, Minimum Class Size: Total Cost, Maximum Class Size: Cost/Participant for Materials Only (For Class Sizes Between 11 and 25):	\$9,720.00 \$11,700.00 \$132.00
Notes: 1. Minimum number of participants for any offering is ten (10). Maximum number of participants for any offering is twenty-five (25). 2. Agency participants electing online certificate or certification training or online knowledge assessment are required to contact Dr. Lee Pollock at (905) 887-4903 or Debbi Radke at (719) 785-6711 at Air Academy Associates to obtain a Government-specific offer code. 3. Shipping and handling charges are extra. Actual shipping and handling charges only will be charged to the requesting agency and are estimated not to exceed \$200 per training course. 4. The Government prices cited above are for the base period only. Out year escalation is governed by the Economic Price Adjustment Clause 552.216 on Page 37 of the solicitation. 5. Travel and expenses (T&E) will be in accordance with limitations set forth in FAR 31.205-46. 6. The content of the above training is subject to change based on agency feedback and the need to continually improve the training and associated guides, texts and software. * Brand Name – Six Sigma; Unit of Issue – 1; Time of Delivery ARO – 30 Days.	

COURSE DESCRIPTIONS

Lean Six Sigma Executive Training

Purpose:

This one-day course is earmarked for executives and leaders who are considering the integration of Lean Six Sigma within and throughout all of their process, products, services and relationships. It provides critical information needed to make an informed decision on implementing or delaying the implementation of Lean Six Sigma.

Course agenda:

- I. The What and Why of Lean Six Sigma (Goals, Benefits, Principles, Variation, Cost of Poor Quality, ROI)
- II. First Line of Defense Against Variation to Generate Immediate Gains (Statapult Exercise)
- III. Knowledge-Based Lean Six Sigma Strategy (DMAIC, A Pull System for Tools and Techniques to Answer Questions, Gain Knowledge and Knowledge-Gaining Tools)
- IV. Lean Six Sigma Deployment and Implementation (Infrastructure, Roles and Responsibilities, Rollout, Scorecard, Project Selection, Project Savings, Leading Change, Critical Factors for a Successful Implementation)

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
3. Comprehensive Participant Guide

Six Sigma Executive Training

Purpose:

This one-day course is earmarked for executives and leaders who are considering the integration of Six Sigma within and throughout their enterprises’ processes, products, services and relationships. It provides critical information needed to make an informed decision on implementing or delaying the implementation of Six Sigma.

Course Agenda:

I. The What and Why of Six Sigma (Goals, Benefits, Principles, Variation, Cost of Poor Quality, ROI)

II. First Line of Defense Against Variation to Generate Immediate Gains (Statapult Exercise)

III. Knowledge-Based Six Sigma Strategy (DMAIC, A Pull System for Tools and Techniques to Answer Questions, Gain Knowledge and Knowledge-Gaining Tools)

IV. Six Sigma Deployment and Implementation (Infrastructure, Roles and Responsibilities, Rollout, Scorecard, Project Selection, Project Savings, Leading Change, Critical Factors for a Successful Implementation)

Materials:

1. Text entitled "Knowledge Based Management" by Schmidt, Kiemele and Berdine
2. Comprehensive Participant Guide

Synchronizing Six Sigma or Lean Six Sigma to Government and Industry Training

Purpose:

This two-day course is earmarked for key Deployment Leaders who are responsible for the disciplined, knowledgeable and accountable deployment of Six Sigma or Lean Six Sigma within their enterprise. Organizations worldwide continue to rely on Six Sigma and Lean Six Sigma as strategies for enhancing value delivery for their customers and improving their top and bottom-line. As reported in an article entitled "Benchmarking, Black Belt ROI Research" in the January-February 2005 issue of iSixSigma Magazine, significant and frequent gaps exist between expected and actual benefits. The causes for such gaps are complex and include inadequate front-end planning, a lack of executive ownership and infrastructure, selecting the wrong projects and people to lead these projects, cultural and change management issues and others. The continued commoditization of Six Sigma and Lean Six Sigma by service providers also contributes to reduced benefits. "Synchronizing Six Sigma and Lean Six Sigma to Government and Industry" represents a compilation of best deployment practices. The key activities and outcomes within each of the three major deployment phases of "Initialization," "Execution," and "Assessment" are presented to achieve the greatest customer and business impact within the shortest period of time. Whether the enterprise has begun its Six Sigma or Lean Six Sigma journey or is considering embarking on one, this training will provide timely, specific and practical recommendations, based on best practices, to ensure that the expected business results are, in fact, realized.

Course Agenda:

I. Six Sigma or Lean Six Sigma Primer (Evolution, Impetus, Cost of Poor Quality, Principles, Synergy of Lean and Six Sigma, ROI, Knowledge-Based Business Strategy, Key Deployment Roles, Six Sigma and Lean Six Sigma Impact Zones, DMAIC Project Roadmaps, Overview of Six Sigma and Lean Tools)

II. Deployment Scenarios (Three General Deployment Scenarios and Related Factors Regarding Level of Implementation, Executive Ownership and Alignment, Projects, People and Transformational Impetus)

III. Initialization Phase (Key Tasks and Best Practices)

IV. Execution Phase (Key Tasks and Best Practices)

V. Assessment Phase (Key Tasks and Best Practices)

VI. Case Studies and Next Steps (Exercises, Failure Modes and Effects Analysis, Deployment ROI Estimation, Participant Report-Outs)

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
3. Comprehensive Participant Guide

Lean Six Sigma or Six Sigma Champion Training (2 Days)

Purpose:

This course describes what Lean Six Sigma or Six Sigma is, why it is needed and what it can do to improve the organization’s performance from the perspective of its customers, its owners and its employees. It describes Lean Six Sigma and Six Sigma as a business strategy, its phasing and methodologies. The nature of variability is presented in detail and how variability adversely affects an enterprise’s products, processes, services and relationships. The “first line of defense” against variation is presented in detail including how this methodology can be propagated throughout the enterprise. A “pull system” for the maximizing the benefits from Lean Six Sigma and Six Sigma is presented along with an overview of the basic and advanced tools. The roles and responsibilities of a Champion are described. Project prioritization, selection, commissioning/chartering, execution and benefit delivery are described in detail. Financial considerations, communications, reward and recognition, knowledge transfer, customer/supplier involvement and other key factors are also presented and discussed in detail. Numerous in-class exercises are included using the statapult. The client/agency selects whether Lean Six Sigma or Six Sigma before commencement of training.

Course Agenda:

- I. The What and Why of Lean Six Sigma or Six Sigma (Goals, Benefits, Definitions, Variation, Waste, Cost of Poor Quality, ROI)
- II. First Line of Defense Against Variation to Generate Immediate Gains (Turning an Art into a Science: PF/CE/CNX/SOP)
- III. Knowledge Based Lean Six Sigma or Six Sigma Strategy (DMAIC, A Pull System for Tools and Techniques to Answer Questions and Gain Knowledge, Knowledge-Gaining Tools)
- IV. Advanced Concepts in Lean Six Sigma or Six Sigma (SPC, DOE, DFSS, HTT, Discrete Event Simulation)
- V. Lean Six Sigma or Six Sigma Deployment and Implementation Issues (Infrastructure, Roles and Responsibilities, Rollout, Scorecard, Project Selection, Project Savings, Leading Change, Critical Factors for a Successful Implementation)
- VI. Summary

Appendix A (Acronyms)

Appendix B (Rules of Thumb, Control Chart Selection, DOE Selection, Sigma Capability, Ask Marilyn)

Appendix C (DMAIC Master Strategy and Phase Descriptions)

Appendix D (Deployment Checklist, Implementation Activities and Timelines, References)

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
3. SPC XL Software
3. Comprehensive Participant Guide

Lean Six Sigma or Six Sigma Champion Training (3 Days)

Purpose:

This course covers the same topics as the two day Lean Six Sigma or Six Sigma Champion Course but provides significantly more insight into change management considerations, key tools and methodologies, project prioritization and selection, and critically important financial definitions and processes that are needed for a high ROI deployment. Additional exercises, examples and case studies are also presented.

Agenda: As indicated in the two day Lean Six Sigma or Six Sigma Champion Course.

Materials: As indicated in the two day Lean Six Sigma or Six Sigma Champion Course.

Lean Six Sigma Yellow Belt Training

Purpose:

This one week course provides Yellow Belt Candidates with a solid understanding of Lean Six Sigma principles, the “DMAIC” project roadmap and basic improvement tools and methodologies that are used within that roadmap. This knowledge will enable the candidates to serve as a Lean Six Sigma Yellow Belt on a Lean Six Sigma project or as a key participant on Lean Six Sigma project.

Subjects that are addressed in this course include:

- Definitions, Principles and Evolution of Lean and Six Sigma
- Lean Six Sigma Deployment
- Key Elements and Infrastructure
- The “DMAIC” Project Roadmap
- Work Sampling
- Data Templates
- Using Graphical Data
- Process Mapping
- Other Types of Process Maps (Physical Flow, Time-Value Charts)
- Root Causes of Waste
- Takt Time
- Lean Layout
- Change Management
- Benefit Capture
- SIPOC/IPO Diagrams
- Variables and Attribute Data
- Graphical Meaning of \bar{Y} , S and σ
- First Line of Defense to Reduce Variation: PF/CE/CNX/SOP
- Cause and Effect Diagrams
- COPQ

- Rolled Through-Put Yield
- Pareto Charts
- Histograms
- Box Plots
- Run Charts
- Scatter Diagrams
- Measures of Location (Mean, Median, Mode)
- Measures and Indexes of Quality (σ_{level} , C_{pk} , C_p and $\sigma_{capability}$)
- Introduction to Process Capability
- Mistake Proofing
- Control Plans
- Documenting and Communicating Project Results
- Next Steps

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Text entitled “Basic Statistics: Tools for Continuous Improvement” by Kiemele, Schmidt and Berdine
3. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
4. SPC XL Software
5. Notebook entitled “Knowledge Notebook”
6. Comprehensive Participant Guide

Six Sigma Yellow Belt Training

Purpose:

This one week course provides Yellow Belt Candidates with a solid understanding of Six Sigma principles, the “DMAIC” project roadmap and basic improvement tools and methodologies that are used within that roadmap. This knowledge will enable the candidates to serve as a Six Sigma Yellow Belt on a Six Sigma project or as a key participant on Six Sigma project.

Subjects that are addressed in this course include:

- Definitions, Principles and Evolution of Lean and Six Sigma
- Lean Six Sigma Deployment
- Key Elements and Infrastructure
- The “DMAIC” Project Roadmap
- Work Sampling
- Data Templates
- Using Graphical Data
- Process Mapping
- Other Types of Process Maps (Physical Flow, Time-Value Charts)
- Root Causes of Waste

- Change Management
- Benefit Capture
- SIPOC/IPO Diagrams
- Variables and Attribute Data
- Graphical Meaning of Y-Bar, S and σ
- First Line of Defense to Reduce Variation: PF/CE/CNX/SOP
- Cause and Effect Diagrams
- COPQ
- Rolled Through-Put Yield
- Pareto Charts
- Histograms
- Box Plots
- Run Charts
- Scatter Diagrams
- Measures of Location (Mean, Medium, Mode)
- Measures and Indexes of Quality (σ_{level} , C_{pk} , C_p and $\sigma_{capability}$)
- Introduction to Process Control and Capability
- Mistake Proofing
- Control Plans
- Documenting and Communicating Project Results
- Next Steps

Lean Six Sigma Green Belt Training

Purpose:

This two week course provides Green Belt Candidates with a solid understanding of Lean Six Sigma principles, the “DMAIC” project roadmap and the key improvement tools and methodologies that are used within that roadmap. This knowledge will enable the candidates to serve as active contributors to a Lean Six Sigma project or to lead a less complex Lean Six Sigma project.

Subjects that are addressed in this course include:

- Definitions, Principles and Evolution of Lean and Six Sigma
- Lean Six Sigma Deployment
- Key Elements and Infrastructure
- The “DMAIC” Project Roadmap
- Quality Function Deployment (QFD)
- Value Stream Mapping (VSM)
- Work Sampling
- Data Templates
- Using Graphical Data
- Process Mapping
- Kaizen Events
- Root Causes of Waste

- Takt Time
- Lean Layout
- Change Management
- Constraint Analysis
- Standard Work
- Flow and Pull Systems
- Mixed Model
- Hejiunka
- Strategic Inventory and Kanban
- Set-Up Reduction
- 5S
- Benefit Capture
- SIPOC/IPO Diagrams
- Variables and Attribute Data
- Graphical Meaning of Y-Bar, S and σ
- Process Capability
- First Line of Defense to Reduce Variation: PF/CE/CNX/SOP
- Other Types of Process Maps (Physical Flow, Time-Value Charts)
- Cause and Effect Diagrams
- COPQ
- Rolled Through-Put Yield
- Sampling
- Pareto Charts
- Histograms
- Box Plots
- Run Charts
- Control Charts
- Scatter Diagrams
- Measures of Location (Mean, Medium, Mode)
- Measures and Indexes of Quality (σ_{level} , C_{pk} , C_p and $\sigma_{capability}$)
- Use of Non-Normal Data
- Measurement System Analysis (MSA)
- Hypothesis Testing
- Process Control and Process Capability
- Mistake Proofing
- Control Plans
- Documenting and Communicating Project Results
- Next Steps

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Text entitled “Basic Statistics: Tools for Continuous Improvement” by Kiemele, Schmidt and Berdine
3. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
4. SPC XL Software

5. Notebook entitled “Knowledge Notebook”
6. Comprehensive Participant Guide

Six Sigma Green Belt Training

Purpose:

This two week course provides Green Belt Candidates with a solid understanding of Six Sigma principles, the “DMAIC” project roadmap and the key improvement tools and methodologies that are used within that roadmap. This knowledge will enable the candidates to serve as active contributors to a Six Sigma project or to lead a less complex Six Sigma project.

Subjects that are addressed in this course include:

- Definitions, Principles and Evolution of Six Sigma
- Six Sigma Deployment
- Key Elements and Infrastructure
- The “DMAIC” Project Roadmap
- Value Streams
- IPOs
- Key Terminology (Distribution, Mean, Median, Standard Deviation, Cp, Cpk, sigma level, sigma capability, first pass yield, defects)
- The First Line of Defense Against Variation (PF/CE/CNX/SOP)
- Measuring and Understand the Cost of Poor Quality (Waste)
- Project Definition and Project Management
- Teamwork and Change Management
- Population Versus Samples
- Metrics and Scorecards
- Failure Modes and Effects Analysis
- IPOs and IPO Matrix
- Pareto Charts
- Histograms
- Box Plots
- Run Charts
- Scatter Diagrams
- Measures of Location, Dispersion, Variables and Attribute Data, Correlation
- Measurement System Analysis
- Concepts of Probability
- Binomial, Poisson and Normal Distributions
- Sampling Distributions and Confidence Intervals
- Drawing Conclusions When Comparing Data Sets
- Process Control and Process Capability
- Introduction to Regression Analysis and Experimental Design.

Materials:

1. Text entitled “Basic Statistics: Tools for Continuous Improvement” by Schmidt, Kiemele and Berdine
2. Text entitled “Basic Statistics” by Kiemele, Schmidt and Berdine
3. Guide entitled “Lean Six Sigma: A Tools Guide,” by Adams, Kiemele, Pollock, Quan
4. SPC XL Software
5. Notebook entitled “Knowledge Notebook”
6. Comprehensive Participant Guide

Lean Six Sigma or Six Sigma Service and Transactional Green Belt Training

Purpose:

This two week course provides Green Belt Candidates with a solid understanding of Lean Six Sigma or Six Sigma principles, the “DMAIC” project roadmap and the key improvement tools and methodologies that are used within that roadmap. This knowledge will enable the candidates to serve as active contributors to a Lean Six Sigma or Six Sigma project or to lead a less complex Lean Six Sigma or Six Sigma project. The focus is on improving service and transactional processes versus technical/manufacturing processes. The client/agency selects whether Lean Six Sigma or Six Sigma will be presented before commencement of training.

Subjects that are addressed in this course include:

- Definitions, Principles and Evolution of Lean and Six Sigma
- Lean Six Sigma Deployment
- Key Elements and Infrastructure
- The “DMAIC” Project Roadmap
- Define Phase: Project Definition and Management, Teamwork, Understanding Change and the Voice of the Customer.
- The Role of Statistics in Process Improvement
- Making Sense Out of Data Using Graphical and Measurement Tools
- Business Case Study: Hiring Process Simulation
- Applying Lean Principles to Transactional Processes
- Drawing Conclusions When Comparing Data Sets
- Process Control and Capability
- Measurement System Analysis
- Control Plans... Realizing and Holding the Gains
- Sampling and Confidence Intervals

Materials:

1. Text entitled “Knowledge Based Management,” by Schmidt, Kiemele and Berdine
2. Text entitled “Basic Statistics,” by Kiemele, Schmidt and Berdine
3. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan

4. SPC XL Software
5. Notebook entitled “Knowledge Notebook”
6. Comprehensive Participant Guide

Lean Six Sigma or Six Sigma Black Belt Training

This four week course provides Lean Six Sigma or Six Sigma Black Belts with a solid understanding of Lean Six Sigma principles, the “DMAIC” project roadmap and the key improvement tools and methodologies, having low, medium and high complexity that are used within that roadmap. This knowledge will enable the candidates to serve as leaders on Lean Six Sigma or Six Sigma project and value stream improvements. The client/agency selects whether Lean Six Sigma or Six Sigma will be presented before commencement of training.

Subjects that are addressed in this course include:

- Definitions, Principles and Evolution of Six Sigma
- Six Sigma Deployment
- Key Elements and Infrastructure
- The “DMAIC” Project Roadmap
- Value Streams
- IPOs
- Key Terminology (Distribution, Mean, Median, Standard Deviation, Cp, Cpk, sigma level, sigma capability, first pass yield, defects)
- The First Line of Defense Against Variation (PF/CE/CNX/SOP)
- Measuring and Understand the Cost of Poor Quality (Waste)
- Project Definition and Project Management
- Teamwork and Change Management
- Population Versus Samples
- Metrics and Scorecards
- Failure Modes and Effects Analysis
- IPOs and IPO Matrix
- Pareto Charts
- Histograms
- Box Plots
- Run Charts
- Scatter Diagrams
- Measures of Location, Dispersion, Variables and Attribute Data, Correlation
- Measurement System Analysis
- Concepts of Probability
- Binomial, Poisson and Normal Distributions
- Sampling Distributions and Confidence Intervals
- Drawing Conclusions When Comparing Data Sets
- Process Control and Process Capability
- Introduction to Regression Analysis and Experimental Design

- Foundations and Overview of Design of Experiments
- Introduction to Design and Analysis
- Rules of Thumb
- Using Regression to Analyze Data
- Two-Level Design Summary
- Three-Level Design Summary
- Taguchi, Variance Reduction Methods, Robust Designs and Multivariate Charts
- The Control Phase
- Extending Design of Experiments to Include Multiple Response Optimization
- Historical Data Analysis
- Regression Model Diagnostics and Assessment
- Review and Extension of Variance Reduction Techniques
- Special Topics
- Comprehensive Review

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Text entitled “Basic Statistics: Tools for Continuous Improvement” by Kiemele, Schmidt and Berdine
3. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
4. SPC XL Software
5. Notebook entitled “Knowledge Notebook”
6. Text entitled “Understanding Industrial Designed Experiments,” Schmidt and Launsby
7. DOE KISS Software
8. DOE PRO XL Software
9. Comprehensive Participant Guide
10. DFSS Master Software

Lean Six Sigma or Six Sigma Service and Transactional Black Belt Training

Purpose:

This three week course provides Black Belt Candidates with a solid understanding of Lean Six Sigma or Six Sigma principles, the “DMAIC” project roadmap and the key improvement tools and methodologies that are used within that roadmap. This knowledge will enable the candidates to serve as leaders on Lean Six Sigma or Six Sigma project and value stream improvements. The focus is on improving service and transactional processes versus technical/manufacturing processes. The client/agency selects whether Lean Six Sigma or Six Sigma will be presented before commencement of training.

Subjects that are addressed in this course include:

- Definitions, Principles and Evolution of Lean and Six Sigma
- Lean Six Sigma Deployment

- Key Elements and Infrastructure
- The “DMAIC” Project Roadmap
- Define Phase: Project Definition and Management, Teamwork, Understanding Change and the Voice of the Customer.
- The Role of Statistics in Process Improvement
- Making Sense Out of Data Using Graphical and Measurement Tools
- Business Case Study: Hiring Process Simulation
- Applying Lean Principles to Transactional Processes
- Drawing Conclusions When Comparing Data Sets
- Process Control and Capability
- Measurement System Analysis
- Control Plans... Realizing and Holding the Gains
- Sampling and Confidence Intervals
- Introduction to Design and Analysis
- Rules of Thumb and Two-Level Design Summary
- Analyzing Historical Data
- Next Steps

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Text entitled “Basic Statistics: Tools for Continuous Improvement” by Kiemele, Schmidt and Berdine
3. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
4. SPC XL Software
5. Notebook entitled “Knowledge Notebook”
6. DOE KISS Software
7. Comprehensive Participant Guide

Design for Six Sigma (DFSS) Pre-Requisite or Design for Lean Six Sigma (DFLSS) Pre-Requisite (Pre-Req for DFSS or DFLSS)

This one week course serves as an important prerequisite to the Design for Lean Six Sigma (DFLSS) or Design for Six Sigma (DFSS) “capstone” course. The subjects contained within this highly accelerated training are those covered in the four week Lean Six Sigma or Six Sigma Black Belt Course. This prerequisite can be waived if the participant has demonstrated proficiency in probability distributions, measurement system analysis and design of experiments. Either a designation as “Black Belt” from a recognized service provider or the satisfactory completion of this pre-requisite is required for entry into the DFLSS or DFSS. If there are questions regarding either option, the agency is requested to contact Air Academy Associates at AAAUniversity@airacad.com.

Materials:

1. Text entitled “Basic Statistics: Tools for Continuous Improvement” by Kiemele, Schmidt and Berdine
2. SPC XL Software
3. Text entitled “Understanding Industrial Designed Experiments,” Schmidt and Launsby
4. DOE PRO XL Software
5. Comprehensive Participant Guide

Design for Lean Six Sigma (DFLSS) Capstone or Design for Six Sigma (DFSS) Capstone Training

Unlike the Service and Transactional or “Technical” Lean Six Sigma or Six Sigma Training that focuses on the significant improvement of existing processes or products, DFLSS and DFSS focuses on creating new and “perfect” processes and products. DFLSS and DFSS represent proven ways of exceeding customer expectations, achieving earlier market share and attaining a significantly higher ROI. This class has a five day duration. DFLSS and DFSS principles, tools, methodologies and an “IDOV” (Identify, Design, Optimize, Validate) roadmap are covered with numerous in-class exercises and examples.

Subjects that are addressed in this course include:

- Introduction to DFLSS/DFSS
- Impetus for Implementing DFLSS/DFSS
- The “IDOV” Project Life Cycle and Its Components
- Keeping Score (Part/Component, Process, Performance)
- Computing DPU
- Redundant Systems
- Voice of the Customer
- Strategic Planning/Benchmarking
- Identifying Critical-to-Customer (CTC) Requirements
- Pugh Concept Selection, Systems Engineering and Requirements Flow Down
- Transfer Functions
- Design for Robust Performance
- Tolerance Allocation
- Design for Manufacturability
- Basic Reliability Concepts
- Product Capability Prediction
- Testing and Validation
- Design Cycle Time Considerations
- Exercises

Materials:

1. SPC XL Software
2. DOE PRO XL Software
3. SimWare Software
4. DFSS Master Software
5. Comprehensive Participant Guide

On Line Six Sigma Green Belt - Certificate Program

In collaboration with Semizone and the Stanford University Center for Professional Development, Air Academy Associates offers agency employees online Six Sigma Green Belt Training. This training adheres to Air Academy's Keep-It-Simple-Statistically (KISS) approach, with the intention to avoid statistical complexity. There are a variety of Six Sigma tools and techniques, and enrollees will have an opportunity to practice them through the use of demonstrations and simulations. The main goals of this six sigma training program are to: (i) support the long-range business plan to achieve total customer satisfaction resulting in increased market share and improved profit margin; (ii) develop leaders in breakthrough technologies to meet stretch goals associated with Better, Faster, Lower Cost Products and Services; and (iii) develop a world-class culture for competitive advantage.

Participants must score at least 70% in the Green Belt Knowledge Assessment in order to receive a Green Belt Training Certificate. Participants who take this training also receive 2.65 Continuing Education Units.

Who should enroll in this training:

- Anybody interested in completing a Six Sigma Green Belt Training Certificate programs and receiving a Green Belt Certificate of Completion
- Technicians, operators, managers, educators, engineers, and scientists working in a variety of fields including manufacturing, biomedical, computer, electronics, government, higher education, & the service sector.
- Anybody interested in learning the Define, Measure, Analyze, Improve, and Control (DMAIC) strategy for getting better products & services to market faster and at lower cost.
- Anyone who desires to become a practitioner of the Six Sigma methodology and tool set and who will be leading Six Sigma projects within an organization.
- Those interested in mastering the skills necessary to efficiently monitor, improve, characterize, and optimize their processes.
- Those interested in embracing the philosophy and the implementation of continuous quality improvement, and to gain a mastery over those skills that will in turn provide them with a substantial Return on Investment.

Subjects that are addressed in this course include:

- The Basics of Six Sigma
- The Soft Side of Six Sigma Success
- Making Sense of Data Using Graphical and Numerical Tools (Descriptive Statistics)
- Measure System Analysis (MSA)
- Analyzing the Process and Prioritizing the Focus
- Detecting Significant Differences from Sample Data (Inferential Statistics)
- Process Control and Process Capability
- Six Sigma Green Belt Knowledge Assessment
- Six Sigma Certificate and Certification Programs

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Text entitled “Basic Statistics: Tools for Continuous Improvement” by Kiemele, Schmidt and Berdine
3. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
4. SPC XL Software

On Line Six Sigma Green Belt - Certification Program

In collaboration with Semizone and the Stanford University Center for Professional Development, Air Academy Associates offers agency employees online Six Sigma Green Belt Training. This training adheres to Air Academy’s Keep-It-Simple-Statistically (KISS) approach, with the intention to avoid statistical complexity. There are a variety of Six Sigma tools and techniques, and enrollees will have an opportunity to practice them through the use of demonstrations and simulations. The main goals of this six sigma training program are to: (i) support the long-range business plan to achieve total customer satisfaction resulting in increased market share and improved profit margin; (ii) develop leaders in breakthrough technologies to meet stretch goals associated with Better, Faster, Lower Cost Products and Services; and (iii) develop a world-class culture for competitive advantage.

Participants must score at least 70% in the Green Belt Knowledge Assessment and complete an approved project to become a Certified Green Belt. Projects must be reviewed and approved by Air Academy Associates prior to receiving Certification. Participants who take this training also receive 2.65 Continuing Education Units.

Who should enroll in this training:

- Individuals interested in completing a Six Sigma Green Belt Training Certification programs and becoming a Certified Green Belt.

- Technicians, operators, managers, educators, engineers, and scientists working in a variety of fields including manufacturing, biomedical, computer, electronics, government, higher education, & the service sector.
- Individuals interested in learning the Define, Measure, Analyze, Improve, and Control (DMAIC) strategy for getting better products & services to market faster and at lower cost.
- Individuals who desires to become a practitioner of the Six Sigma methodology and tool set and who will be leading Six Sigma projects within an organization.
- Those interested in mastering the skills necessary to efficiently monitor, improve, characterize, and optimize their processes.
- Those interested in embracing the philosophy and the implementation of continuous quality improvement, and to gain a mastery over those skills that will in turn provide them with a substantial Return on Investment.

Subjects that are addressed in this course include:

- The Basics of Six Sigma
- The Soft Side of Six Sigma Success
- Making Sense of Data Using Graphical and Numerical Tools (Descriptive Statistics)
- Measure System Analysis (MSA)
- Analyzing the Process and Prioritizing the Focus
- Detecting Significant Differences from Sample Data (Inferential Statistics)
- Process Control and Process Capability
- Six Sigma Green Belt Knowledge Assessment
- Six Sigma Certificate and Certification Programs

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Text entitled “Basic Statistics: Tools for Continuous Improvement” by Kiemele, Schmidt and Berdine
3. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
4. SPC XL Software
5. Notebook entitled “Knowledge Notebook”

On Line Six Sigma Black Belt - Certificate Program

In collaboration with Semizone and the Stanford University Center for Professional Development, Air Academy Associates offers agency employees online Six Sigma Black Belt Training. This training adheres to Air Academy’s Keep-It-Simple-Statistically (KISS) approach, with the intention to avoid statistical complexity. There are a variety of Six Sigma tools and techniques, and enrollees will have an opportunity to practice them through the use of demonstrations and simulations. The main goals of this six sigma training program are to: (i) support the long-range business plan to achieve total customer satisfaction resulting in increased market share and improved profit margin; (ii) develop

leaders in breakthrough technologies to meet stretch goals associated with Better, Faster, Lower Cost Products and Services; and (iii) develop a world-class culture for competitive advantage.

Participants must score at least 70% in the Black Belt Knowledge Assessment in order to receive a Black Belt Training Certificate. Participants who take this training also receive 4.2 Continuing Education Units.

Who should enroll in this training:

- Anybody interested in completing a Six Sigma Black Belt Training Certificate programs and receiving a Black Belt Certificate of Completion
- Technicians, operators, managers, educators, engineers, and scientists working in a variety of fields including manufacturing, biomedical, computer, electronics, government, higher education, & the service sector.
- Anybody interested in learning the Define, Measure, Analyze, Improve, and Control (DMAIC) strategy for getting better products & services to market faster and at lower cost.
- Anyone who desires to become a practitioner of the Six Sigma methodology and tool set and who will be leading Six Sigma projects within an organization.
- Those interested in mastering the skills necessary to efficiently monitor, improve, characterize, and optimize their processes.
- Those interested in embracing the philosophy and the implementation of continuous quality improvement, and to gain a mastery over those skills that will in turn provide them with a substantial Return on Investment.

Subjects that are addressed in this course include:

- The Basics of Six Sigma
- The Soft Side of Six Sigma Success
- Making Sense of Data Using Graphical and Numerical Tools (Descriptive Statistics)
- Measure System Analysis (MSA)
- Analyzing the Process and Prioritizing the Focus
- Detecting Significant Differences from Sample Data (Inferential Statistics)
- Process Control and Process Capability
- Understanding Data Distributions and Their Applications
- Introduction to Regression
- Design and Analysis with Two-Level Factors
- Summary of Two-Level Designs with Rules of Thumb
- Three-Level Designs with Robustness and Multiple Response Optimization
- Historical Data Analysis
- Special Topics
- Six Sigma Black Belt Knowledge Assessment
- Certificate and Certification Programs

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Text entitled “Basic Statistics: Tools for Continuous Improvement” by Kiemele, Schmidt and Berdine
3. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
4. SPC XL Software
5. Text entitled “Understanding Industrial Designed Experiments,” Schmidt and Launsby
6. DOE KISS Software
7. DOE PRO XL Software
8. SimWare Software

On Line Six Sigma Black Belt - Certification Program

In collaboration with Semizone and the Stanford University Center for Professional Development, Air Academy Associates offers agency employees online Six Sigma Black Belt Training. This training adheres to Air Academy’s Keep-It-Simple-Statistically (KISS) approach, with the intention to avoid statistical complexity. There are a variety of Six Sigma tools and techniques, and enrollees will have an opportunity to practice them through the use of demonstrations and simulations. The main goals of this six sigma training program are to: (i) support the long-range business plan to achieve total customer satisfaction resulting in increased market share and improved profit margin; (ii) develop leaders in breakthrough technologies to meet stretch goals associated with Better, Faster, Lower Cost Products and Services; and (iii) develop a world-class culture for competitive advantage.

Participants must score at least 70% in the Black Belt Knowledge Assessment and complete a project in order to become a Certified Six Sigma Black Belt. Projects must be reviewed and approved by Air Academy Associates prior to receiving Certification. Participants who take this training also receive 4.2 Continuing Education Units.

Who should enroll in this training:

- Anybody interested in completing a Six Sigma Black Belt Training Certification program and becoming a Certified Six Sigma Black Belt.
- Technicians, operators, managers, educators, engineers, and scientists working in a variety of fields including manufacturing, biomedical, computer, electronics, government, higher education, & the service sector.
- Anybody interested in learning the Define, Measure, Analyze, Improve, and Control (DMAIC) strategy for getting better products & services to market faster and at lower cost.
- Anyone who desires to become a practitioner of the Six Sigma methodology and tool set and who will be leading Six Sigma projects within an organization.
- Those interested in mastering the skills necessary to efficiently monitor, improve, characterize, and optimize their processes.

- Those interested in embracing the philosophy and the implementation of continuous quality improvement, and to gain a mastery over those skills that will in turn provide them with a substantial Return on Investment.

Subjects that are addressed in this course include:

- The Basics of Six Sigma
- The Soft Side of Six Sigma Success
- Making Sense of Data Using Graphical and Numerical Tools (Descriptive Statistics)
- Measure System Analysis (MSA)
- Analyzing the Process and Prioritizing the Focus
- Detecting Significant Differences from Sample Data (Inferential Statistics)
- Process Control and Process Capability
- Understanding Data Distributions and Their Applications
- Introduction to Regression
- Design and Analysis with Two-Level Factors
- Summary of Two-Level Designs with Rules of Thumb
- Three-Level Designs with Robustness and Multiple Response Optimization
- Historical Data Analysis
- Special Topics
- Six Sigma Black Belt Knowledge Assessment
- Certificate and Certification Programs

Materials:

1. Text entitled “Knowledge Based Management” by Schmidt, Kiemele and Berdine
2. Text entitled “Basic Statistics: Tools for Continuous Improvement” by Kiemele, Schmidt and Berdine
3. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
4. SPC XL Software
5. Notebook entitled “Knowledge Notebook”
6. Text entitled “Understanding Industrial Designed Experiments,” Schmidt and Launsby
7. DOE KISS Software
8. DOE PRO XL Software
9. SimWare Software

On Line Six Sigma Green Belt Knowledge Assessment

This comprehensive, online, Green Belt Knowledge Assessment (KA) is a vehicle for assessing an individual’s understanding, comprehension and application of the Six Sigma Green Belt body of knowledge. It consists of sixty (60) multiple choice questions, can be taken online in more than one sitting, with earlier entries being stored until the KA is completed. The test covers the entire Define-Measure-Analyze-Improve-Control (DMAIC) Six Sigma methodology, including the concepts & tool usage. If the enrollee is

not satisfied with the score on the first attempt, a second version of the KA may be taken without additional charge. The test takes approximately 2.5 hours to complete.

Enrollees who take this KA also receive 0.25 Continuing Education Units.

Subjects that are addressed in this KA include:

- Six Sigma Basics; Insuring Six Sigma Success
- Making Sense Out of Data Using Graphical and Numerical Tools (Descriptive Statistics)
- Measurement System Analysis; Analyzing the Process and Prioritizing the Focus
- Detecting Significant Differences from Sample Data (Inferential Statistics)
- Process Control and Process Capability

Who should take this KA:

- Those, with or without Six Sigma experience, who wants to baseline or benchmark against Air Academy's Six Sigma Green Belt body of knowledge.
- Those who want to see if their previous training and experience is current and complete at a Six Sigma Green Belt level of knowledge
- Those who has been through an Air Academy Six Sigma Green Belt program and desire to become Green Belt Certified from Air Academy.
- Those who seek Green Belt Certification from an organization that requires successful completion of this KA.

Materials:

- On line Six Sigma Green Belt Knowledge Assessment Examination

On Line Six Sigma Black Belt Knowledge Assessment

This comprehensive, online, Black Belt Knowledge Assessment (KA) is a vehicle for assessing an individual's understanding, comprehension and application of the Six Sigma Black Belt body of knowledge. It consists of sixty (60) multiple choice questions, can be taken online in more than one sitting, with earlier entries being stored until the KA is completed. The test covers the entire Define-Measure-Analyze-Improve-Control (DMAIC) Six Sigma methodology, including the concepts & tool usage. If the enrollee is not satisfied with the score on the first attempt, a second version of the KA may be taken without additional charge. The test takes approximately 2.5 hours to complete.

Enrollees who take this KA also receive 0.25 Continuing Education Units.

Subjects that are addressed in this KA include:

- Six Sigma Basics & Success; Data Analysis Using Graphical/Numerical Tools

- Measurement System Analysis; Process Analysis; Detecting Significant Differences
- Process Control/Capability; Data Distributions
- Regression Analysis, DOE; Design & Analysis with 2-Level Factors
- 2/3-Level Designs; Rules of Thumb; Multiple Response Optimization; Historical Data Analysis
- Lean, DFSS, High Throughput Testing, Discrete Event Simulation

Who should take this KA:

- Those, with or without Six Sigma experience, who wants to baseline or benchmark against Air Academy's Six Sigma Black Belt body of knowledge.
- Those who want to see if their previous training and experience is current and complete at a Six Sigma Black Belt level of knowledge
- Those who has been through an Air Academy Six Sigma Black Belt program and desire to become Green Belt Certified from Air Academy.
- Those who seek Black Belt Certification from an organization that requires successful completion of this KA.

Materials:

- On line Six Sigma Black Belt Knowledge Assessment Examination

Six Sigma Master Black Belt/Train-the-Trainer

This seven day course prepares Six Sigma Black Belts for effectively delivering Six Sigma Black or Green Belt Training to agency personnel. The prerequisite for this training is that (a.) each enrollee must have a Six Sigma designation from a recognized service provider, and (b.) each enrollee must take and successfully pass a screening examination administered by Air Academy Associates. For additional information regarding these prerequisites, interested agency personnel should contact AAAUniversity@airacad.com.

Subjects that are addressed in this course include:

- Six Sigma Master Black Belt, Black Belt, Green Belt Roles
- Training Philosophy
- Teaching Basics
- Physical / Logistical Requirements
- Evaluating the Course
- Classroom Observations
- Review of Each Six Sigma Black Belt Module
- Review of Key Take Aways
- Review of Objectives
- Practice Teaching
- Video Taping (Optional)

-- Observation / Critique / Feedback

Materials:

1. Text entitled "Knowledge Based Management" by Schmidt, Kiemele and Berdine
2. Text entitled "Basic Statistics: Tools for Continuous Improvement" by Kiemele, Schmidt and Berdine
3. Guide entitled "Lean Six Sigma: A Tools Guide" by Adams, Kiemele, Pollock, Quan
4. SPC XL Software
5. Notebook entitled "Knowledge Notebook"
6. Text entitled "Understanding Industrial Designed Experiments," Schmidt and Launsby
7. DOE KISS Software
8. DOE PRO XL Software
9. SimWare Software
10. Comprehensive Participant Guide

Statistical Tools, SPC & MSA Training

This four day course provides the needed statistical tools, texts and software to transform data into knowledge and knowledge into excellent decision-making. Tools having an intermediate level of complexity are covered. Participants must have a working knowledge of Microsoft Excel and have the Microsoft Windows 98, 2000 or XP Operating System and Microsoft Excel pre-loaded onto their laptop computers prior to class.

Subjects addressed in this course include:

- The Impetus for Deploying Six Sigma in Government and industry.
- The Role of Statistics in Process Improvement
- Making Sense Out of Data Using Graphical and Measurement Tools
- Understanding Data Distributions and Their Applications
- Sampling Distributions and Confidence Intervals
- Drawing Conclusions When Comparing Data Sets
- Process Control and Process Capability
- Measurement System Analysis
- Special Topics Including Regression, Introduction to Design of Experiments, Categorical Data and Failure Modes and Effects Analysis

Materials:

1. Text entitled "Basic Statistics: Tools for Continuous Improvement" by Kiemele, Schmidt and Berdine
2. SPC XL Software
3. Comprehensive Participant Guide

Advanced Statistical Tools for Black Belts Training

This three day course provides the needed, advanced statistical tools, texts and software to transform data into knowledge and knowledge into excellent decision-making. Participants must have a working knowledge of Microsoft Excel and have the Microsoft Windows 98, 2000 or XP Operating System and Microsoft Excel pre-loaded onto their laptop computers prior to class.

Subjects addressed in this course include:

- Overview of Data Mining (Definitions and Tasks, Steps in the Data Mining Process, Facts Versus Myths and Data Mining Applications)
- Preparatory Steps (Data Preparation, Visualization and Dictionaries)
- Background on Modeling (Dimensionality, Notation and Terms, Bias-Variance Tradeoff, Control of the Bias-Variance Tradeoff and Error Functions)
- Traditional Models (Linear Regression Procedures, Logistic Regression, Discriminant Analysis, Nearest Neighbors and Clustering Algorithms)
- Modern Models (Classification and Regression Trees, Neural Networks, Bump Hunting, Association Rules, Evaluating and Combining Models and a Survey of Recent Developments)

Materials:

1. XL Miner Trial Software
2. Comprehensive Participant Guide

Design of Experiments (DOE) Training

This four day course provides an essential understanding of what DOE is and its tremendous role in gaining process knowledge and reducing variation. Participants must have a working knowledge of Microsoft Excel and have the Microsoft Windows 98, 2000 or XP Operating System and Microsoft Excel pre-loaded onto their laptop computers prior to class.

Subjects addressed in this course include:

- Foundations and Overview of DOE
- Introduction to Design and Analysis
- Rules of Thumb
- Using Regression to Analyze Data
- Two-Level Design Summary
- Three-Level Design Summary
- Taguchi, Variance Reduction Methods, Robust Designs and Multivariate Charts
- Randomization and Multiple Response Optimization.

Materials:

1. Text entitled “Understanding Industrial Designed Experiments,” Schmidt and Launsby
2. DOE PRO XL Software
3. Comprehensive Participant Guide

Introduction to Reliability Testing and Analysis

This two day course provides participants with an excellent foundation of reliability principles, tools and methodologies having direct applicability to engineering design, analysis and test/evaluation as well as manufacturing and service applications.

Subjects included in this course include:

- Basic Statistical Concepts
 - Confidence Intervals
 - Hypothesis Testing
- Graphical Tools
 - Dot Plot, Histogram and Box Plot
 - End Count Test
- Reliability Concepts
 - Reliability Function
 - Hazard Function
 - Bathtub Curve
 - Censoring
- Common Reliability Distributions
 - Exponential
 - Weibull
 - Normal
 - Lognormal
- Nonparametric Reliability
 - Kaplan-Meier Estimates
 - Comparing Survival Curves
- Probability Plotting
 - Probability Paper
 - Distribution Identification
- Estimation
 - Least Squares Estimation
 - Maximum Likelihood Estimation
 - Estimating Percentile Failure Times
 - Estimating Probability of Failure
- System Failure
 - Series Systems

- Parallel Systems
- R out of N Systems
- Competing Risk Model
- Dealing with Multiple Failure Modes
- Planning Reliability Tests
 - Sample Size Calculations Using Simulation
 - Sample Size Calculations Using Large Sample Approximations
 - Zero Failure Testing
- Accelerated Life Testing (Time-Permitting)
 - Linear Acceleration
 - Testing for Equal Linear Acceleration
 - Arrhenius Acceleration

Materials:

1. Comprehensive Participant Guide

Principles of Lean Operations Training

This five day course provides participants with an understanding of the key tools to reduce cycle time, improve quality and reduce cost. Participants will learn how to map their current performance, create a picture of the future and map/implement key improvements.

Subjects addressed in this course include:

- Introduction to Lean and the Seven Wastes
- Implementing Total Productive Maintenance (TPM), 5S and Visual Control Techniques
- Just-in-Time and Kanbans
- Quick Changeovers and Error Proofing
- Kaizen Action Workouts.

Materials:

1. Guide entitled “Lean Six Sigma: A Tools Guide” by Adams, Kiemele, Pollock, Quan
2. Comprehensive Participant Guide

Kaizen Workshop Training

This workshop prepares participants to lead a Kaizen Event, also called a Kaizen “Blitz.” A Kaizen Event is a powerful tool focused on making improvements through small, sustainable steps. This approach has shown tremendous results for governments and businesses throughout the United States and overseas. Kaizen Events customarily run one

week and involves cross-functional teams that focus on making improvements to achieve specific, well-defined governmental or business objectives. These events follow a data-driven process in which Lean and Six Sigma principles, tools and methodologies are applied. Pre-work is accomplished before the Event. The pre-work and Event are facilitated by a “Sensei” or “Master” who is skilled in the application of Lean and Six Sigma. Each Event must be well-supported by management in terms of rapid decision-making and resource prioritization. Kaizen Events also facilitate employee motivation.

This training is conducted through the practical application of Kaizen principles, tools and methodologies to real problems. The training involves seven instructor days that are apportioned to one day for “Initiation and Planning,” five days for “Execution,” and one day for “Closeout.”

Prior to the actual Kaizen Event, the Air Academy instructor, Lean Six Sigma Black or Green Belt and process owner identify a subject, scope the event, select the team, collect the data, prepare the team on Kaizen Events and the chosen subject area. The Kaizen Event occurs next and runs for one week. It begins with a kick-off meeting between key stakeholders and the team. Throughout the week, the team works to meet the planned goals by looking at the current state, identifying problems and trying out different solutions until most of the improvement is made. The final step is presenting the week’s results to key stakeholders and ensuring ownership for follow-up activities. These closeout activities customarily include an After Action Review (AAR) and follow-up review meeting. Closeout occurs within thirty days of the end of the Kaizen Event. Implementation is finished and the results are tracked.

At the conclusion of this training, participants are expected to lead future Kaizen Events within their assigned operations.

Materials:

Comprehensive Participant Guide

Value Stream Mapping Workshop Training

This workshop prepares individuals to complete both current and future state value stream maps. Value Stream Maps help to visualize an entire value stream or process, link the flow of materials with the flow of information, identifies sources of waste and variation, highlights those operations that are constraints or pace makers and help to visualize how improvements will translate into product flow.

Participants in this workshop pre-select and scope a value stream they wish to map in coordination with the instructor. The instructor assigns each participant with specific data collection tasks. As the data is collected, the instructor individually and collectively meets with the participants to provide expert instruction on the ongoing value stream

mapping effort. At the conclusion of the training, a current and future state map for the selected value stream will be completed. Participants are then expected to follow-up by either commissioning formal Lean and/or Six Sigma improvement projects or commissioning highly targeted Kaizen Events. Participants are also expected to lead future Value Stream Mapping efforts within their respective operations. The duration of this training is between four days.

Materials:

Comprehensive Participant Guide

Variance Reduction Workshop Training

This one day event provides an overview of why Lean Six Sigma is fundamentally important in reducing an organization's cost of poor quality (COPQ). A number of fast-paced, highly interactive exercises occur throughout the training to demonstrate the power of selected tools. Also commonly referred to as "Advocate" Training, this Workshop is excellent for all employees by helping each to understand the impetus for investing in Lean Six Sigma, what it is and how to become involved in future projects and Kaizen Events.

Materials:

Comprehensive Participant Guide

Process Simulation Using Process Model Training

This three day training provides participants with the know-how to use a key Government and industry improvement tool called "ProcessModel." ProcessModel has been used by Lean Six Sigma project teams along with manufacturing and quality professionals in hundreds of organizations worldwide to include General Electric, Delphi, Hewlett Packard, Xerox, Lockheed Martin, NASA, Bausch and Lombe and Fidelity. ProcessModel is a combination graphics and statistics software package that maps processes, resources and assets, identifies trouble spots and obstacles, measures costs and efficiencies, conducts risk-free tests versus expensive trial and error and ultimately zeros in on the best approach for improvement.

Participants will learn how to use ProcessModel in the context of a Lean and Six Sigma deployment. Numerous in-class exercises will be accomplished to facilitate mastery of ProcessModel for subsequent use in enterprise-wide improvement. Design, development, test and evaluation, manufacturing, service and support, logistics and management personnel will benefit attending this course. A laptop computer each having a Windows Operating System is required for each participant.

Materials:

1. Process Model Demonstration Software
2. Comprehensive Participant Guide

The above training is subject to change based on agency feedback and the need to continually improve the training and associates participant guides, texts and software.

SIN 874-5: SUPPORT SERVICES

Air Academy Associates offers several support products in conjunction with services.

Description	Government Price (11/18/05-11/17/06)
“Knowledge Based Management (KBM)” Text	1-9 copies: \$28.50 each 10-25 copies: \$26.60 each 26-50 copies: \$24.94 each 51 + copies: \$23.28 each
“Basic Statistics, Tools for Continuous Improvement” Text	1-9 copies: \$71.25 each 10-25 copies: \$68.40 each 26-50 copies: \$64.13 each 51 + copies: \$59.85 each
“Understanding Industrial Designed Experiments” Text	1-9 copies: \$71.25 each 10-25 copies: \$68.40 each 26-50 copies: \$64.13 each 51 + copies: \$59.85 each
“Lean Six Sigma: A Tools Guide” Spiral Bound Guide	1-9 copies: \$42.75 each 10-25 copies: \$38.00 each 26-50 copies: \$35.63 each 51 + copies: \$33.25 each
“Knowledge Notebook”	1-9 copies: \$39.90 each 10-25 copies: \$33.25 each 26-50 copies: \$28.50 each 51 + copies: \$19.00 each
SPC XL Software for Excel	1-4 copies: \$189.05 each 5-10 copies: \$170.05 each 11-20 copies: \$160.55 each 21-50 copies: \$141.55 each
DOE PRO XL Software for Excel	1-4 copies: \$189.05 each 5-10 copies: \$170.05 each 11-20 copies: \$160.55 each 21-50 copies: \$141.55 each

DFSS MASTER Software for Excel	1-4 copies: \$331.55 each 5-10 copies: \$299.25 each 11-20 copies: \$280.25 each 21-50 copies: \$247.00 each
SIMWARE Software	1 copy: \$94.05 each 2-4 copies: \$84.55 each 5-9 copies: \$75.07 each 10-15 copies: \$56.05 each 26+ copies: \$46.55 each
PRO-TEST Software	1-4 copies: \$379.05 each 5-10 copies: \$341.05 each 11-20 copies: \$322.05 each 21-50 copies: \$284.05 each
DOE KISS Software	1-4 copies: \$113.05 each 5-10 copies: \$104.50 each 11-20 copies: \$95.00 each 21-50 copies: \$84.55 each
Online Six Sigma Black Belt Knowledge Assessment (Cost Per Exam)	\$118.00
Online Six Sigma Green Belt Knowledge Assessment (Cost Per Exam)	\$118.00
Project Review	\$118.75
Notes: 1. Shipping and handling charges are extra. 2. The content of the above guides, texts and software are subject to change based on agency feedback and the need to continually improve the training and associates participant guides, texts and software. 3. The Government prices cited above are for the base period only. Out year escalation is governed by the Economic Price Adjustment Clause 552.216 on Page 37 of the solicitation. * Brand Name – Six Sigma; Unit of Issue – 1; Time of Delivery ARO – 30 Days	

SUPPORT PRODUCT DESCRIPTIONS

“Knowledge Based Management (KBM)” Text

Knowledge Based Management: Unleashing the Power of Quality Improvement by Stephen R. Schmidt, Mark J. Kiemele and Ronald J. Berdine, Air Academy Press & Associates. This book addresses the reason some companies have succeeded in quality improvement while others have seen little, if any, return on investment from their efforts. Many managers are frustrated or sometimes intimidated by the complexity of modern-day processes. This text provides a common-sense, easy-to-follow approach to gaining process knowledge and shows how a proper knowledge base can provide greater return on investment and expanded profit margins.

“Basic Statistics, Tools for Continuous Improvement” Text

Basic Statistics: Tools for Continuous Improvement, Fourth Edition by Mark J. Kiemele, Stephen R. Schmidt and Ronald J. Berdine, Air Academy Press & Associates. This text provides a refreshingly new approach to applying statistical tools for moving up the quality improvement ladder. Its emphasis is on "statistical thinking" for transforming data into information. Examples and case studies span manufacturing, service, software, government, and health care industries.

Numerous practitioners contributed to this text which is recommended for use at the college level and within industry. This is a unique book in that it covers total quality, basic graphical and statistical tools, statistical process control (SPC), design of experiments (DOE), quality function deployment (QFD), and reliability. It also serves as an excellent reference for those who must demonstrate proficiency in statistical applications for QS 9000.

“Understanding Industrial Designed Experiments” Text

Understanding Industrial Designed Experiments, Fourth Edition by Stephen R. Schmidt and Robert G. Launsby, Edited by Mark J. Kiemele, Air Academy Press & Associates. This text is the first to successfully blend Taguchi and Classical techniques of Experimental Design into a new and powerful approach that is proven to yield high return on investment in the industrial arena. It incorporates traditional topics along with creative ways to implement and communicate statistics without mathematical complexity. Topics include: Full and Fractional Factorials, Plackett-Burman, Taguchi, Box-Behnken, CCD, and Robust Designs; Rules of Thumb for Design Selection, Sample Size, Analysis, and Tests for Confirmation.

There are 279 pages of case studies from a variety of industries. The first two chapters (125 pages) are an excellent overview with emphasis on proper planning, variance reduction, modeling, and statistical simplicity. Subsequent chapters provide more depth on design types such as objectives and advantages/disadvantages. Analysis strategies include simple graphs, normal probability plots, ANOVA, regression, and response surface methods aimed at optimizing the average response and minimizing variation.

“Lean Six Sigma: A Tools Guide” Spiral Bound Guide

Lean Six Sigma: A Tools Guide, Second Edition by Murray Adams, Mark J. Kiemele, Lee R. Pollock and Tom Z. Quan, Air Academy Press & Associates. This handy reference is a simple-to-read and simple-to-use source for practitioners who are interested in improving the way they do business. Six Sigma and Lean business process improvement strategies bring a host of valuable tools to the workplace. Often perceived as two competing initiatives, we present Lean and Six Sigma as a dynamic, synergistic force, which can contribute substantially to bottom line results, enhance competitiveness, and improve levels of customer service. (2003); spiral bound; 257 pp.

“Knowledge Notebook”

Knowledge Notebook published by Air Academy Press & Associates. A hardcopy manual that follows a disciplined and structured approach to organizing, executing, and documenting Six Sigma or other projects and serves as a means for tracking project status and financial and business results. Included are forms for standardized project briefings, mentor sessions, etc.

SPC XL Software for Excel

Creates control charts, diagrams (histograms, Pareto, box plots, etc.), MSA, t-Test, F-Test, etc., from within MS Excel. The charts and statistics that it produces can be shared with anyone who has Excel, even if they don't own SPC XL. Everything SPC XL produces is native to Excel so it can be formatted, pasted into PowerPoint, etc., just like every other Excel chart can be. Housed on CD-ROM.

DOE PRO XL Software for Excel

A Design of Experiments package with regression, prediction, and optimization from within Excel. DOE PRO can assist you in choosing the appropriate design in addition to predicting and optimizing for multiple responses. Housed on CD-ROM.

DFSS MASTER Software for Excel

A Monte Carlo simulation package that performs expected value analysis, robust design, tolerance allocation, sensitivity analysis, and other critical Design for Six Sigma (DFSS) functions, including a DFSS scorecard which will combine the results of all parts, process steps, performance measures, and software, rolled up into an overall capability assessment. Housed on CD-ROM.

SIMWARE Software

A new process and product simulator that allows the user to learn and practice Six Sigma tools. An excellent training aid for both instructors and students, the simulators in this package represent processes that should be optimized in order to reduce defects/errors. The data can be exported to Excel and other files for easy import into many statistical analysis packages. SimWare Pro has control charts, histograms, capability analysis and experimental designs built into the program. Housed on CD-ROM.

PRO-TEST Software

An easy-to-use test case generation package that will determine which combinations of factors and their settings need to be tested to provide complete coverage of all two-way combinations in far fewer cases than exhaustive testing. This combinatorial optimization software has broad application to any company needing to test the combinations of many qualitative factors each having many possible settings. Housed on CD-ROM.

DOE KISS Software

An excellent Design of Experiments package for those who do not need the power and flexibility of DOE PRO. Allows single response capability with multiple regression analysis and optimization, all from within Microsoft Excel. Housed on CD-ROM.

Online Six Sigma Black Belt Knowledge Assessment

This Black Belt (BB) Knowledge Assessment (KA) tests an individual's understanding, comprehension, & application of the Six Sigma BB Body of Knowledge. It consists of 60 multiple-choice questions (~2.5-hour test time), can be taken online in more than one sitting, with earlier entries stored until the KA is completed. The test covers the entire Define-Measure-Analyze-Improve-Control (DMAIC) methodology, including the concepts & tool usage (basic tools & some of the more advanced tools). If the enrollee is not satisfied with the score on the first attempt, a second version of the KA may be taken.

Online Six Sigma Green Belt Knowledge Assessment

This comprehensive, online, Green Belt (GB) Knowledge Assessment (KA) is a vehicle for assessing an individual's understanding, comprehension, & application of the Six Sigma GB Body of Knowledge. It consists of 60 multiple choice questions, can be taken online in more than one sitting, with earlier entries being stored until the KA is completed. The test covers the entire Define-Measure-Analyze-Improve-Control (DMAIC) Six Sigma methodology, including the concepts & tool usage. If the enrollee is not satisfied with the score on the first attempt, a second version of the KA may be taken without additional charge. The test takes ~2.5 hours to complete.

Project Review

An Air Academy-based, in-depth and expert review of Lean Six Sigma or Six Sigma projects, accomplished by

The above services are subject to change based on agency feedback and our commitment to continuously improving participant guides, texts, software and online services.



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