AEROSPACE
SHORT COURSES

Process-Based Management in Aerospace: Defining, Improving and Sustaining Processes (AERO0430)

Instructor: Michael Wallace

Course Description

This course covers foundational principles and the tools and techniques of Process Based Management (PBM), and delineates the strategies for successful implementation of PBM in an aerospace organization. Course content focuses on how to depict an enterprise process view, develop process measures, define key components and identify critical success factors to maintain the focus on priority requirements for managing processes to achieve sustainable performance improvements. It includes how this fits with and supports Lean, Six Sigma, Total Quality Management and the Toyota Production System. Several aerospace organizational case studies are used to augment the theoretical components.

Course Highlights

- Overview of the aerospace design and manufacturing process(es)
- Foundational principles of process management
- Data gathering methods and analysis
- Identifying, reducing and controlling variation
- Increasing efficiencies and effectiveness of the designer and production
- Setting, achieving and holding performance goals
- Achieving a culture of continuous improvement

Who Should Attend?

This course is designed for managers, engineers, quality, IT and planning professionals in the aerospace industry who are responsible for the identification, implementation and improvement of existing organizational processes and the development of new processes necessary to compete in the future.

Learning Objectives

- Process management and how to implement it in your organization
- Process management tools, techniques and metrics
- How to identify potential problem areas and create an abatement plan
- How to build and lead a high-performing team

- The economics of processes and projects, and how to optimize returns
- How to use process management to achieve continuous improvement

Course Outline

Day One

- Introduction
- Overview of aerospace organizational processes
- Needs for continuous improvement
- Back to basics
- Basic principles
- Data gathering methods
- Decomposing processes
- Setting performance goals
- Process ownership
- Critical success factors
- Process mapping

Day Two

- Process measurement
- Defining process measures
- Process measures at the organizational level (balanced scorecard)
- Identifying and controlling variation
- Diagnostic tools
- Basic Six Sigma tools
- Benchmarking
- Change management
- Risk management

Day Three

- Cultural focus
- Integration of strategy and process management
- Role of the leadership team
- Team based decision-making methods
- Self-directed work teams
- High-performance work teams
- Organizational relationships
- Facilitation skills

Day Four

- Identifying and capitalizing on process improvement opportunities
- Conducting a self-assessment
- Systemic approach to product development
- Enterprise process model

- The economics of quality
- Quality management system
- Pitfalls and how to avoid them
- Case studies

Day Five

- Case studies (continued)
- Advance process management techniques and tools
- Performance improvement system
- Knowledge management
- Process modeling
- Knowledge-based engineering
- Artificial intelligence
- Summary and wrap-up

Classroom hours / CEUs

35.00 classroom hours
3.5 CEUs

Certificate Track

This course is not part of a certificate track.

Course Fees

Early registration fee: $2,595 if you register and pay by the early registration deadline (45 days prior to the first day of class).

Regular registration fee: $2,795 if you register and pay after the early registration deadline.

Course Materials

Course materials, including outlines, presentation copies, and supplementary materials, will be accessible through Canvas, KU's online learning system. Instructions to access Canvas will be provided upon completed registration. Students are required to bring a computer or other electronic device with PDF-viewing capabilities with them to class each day. If you require accommodation contact us at professionalprograms@ku.edu and we will work with you on an accessible solution.

U.S. Federal Employee Discount

This course is available to U.S. federal employees at 10% off the registration fee. To receive the federal employee discount, you must enter the code **FGVT116** during the checkout process. Please note that you must validate your eligibility to receive this discount by entering your U.S. government email address (ending in .gov or .mil) when creating your online registration profile. This discount is available for both the early registration and regular registration fees.

Instructor Bio

Michael Wallace is an internationally recognized authority on the leadership of engineering and technical projects and organizations with 35 years of experience in aerospace process management specializing in knowledge-based engineering and lean manufacturing and information technology. During his 26 years with The Boeing Company, Wallace led the design and implementation of quality improvement techniques including process-based management, knowledge-based engineering and quality management. As a project manager with The Boeing Company, he was instrumental in introducing process management in factory and office environs and defining and leading process improvement projects that encompassed enhancements in lean manufacturing and information technology. Since retiring from The Boeing Company, Wallace is a frequent lecturer and keynote presenter on process-based management, along with other related topics such as project management, lean manufacturing and system analysis. He was a Baldrige Examiner with the Kansas Award for Excellence and a board member of the Kansas Center for Performance Excellence. Wallace has an M.B.A. from Wichita State University with extensive study in business and constitutional law and a B.S. in mathematics from the University of Kansas.

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Your company can realize substantial savings by bringing an aerospace short course to your workplace. On-site delivery is ideal for organizations that need to train 10 or more employees on a specific topic. For more information on on-site course delivery, or to request a cost proposal, please contact us at ProfessionalPrograms@ku.edu.

CONTACT US:

KU Jayhawk Global
Aerospace Short Course Program
1515 St. Andrews Dr.
Lawrence, KS 66047
Email: jayhawkglobal@ku.edu
Phone: 785-864-6779 (Registration)