COMMON COURSE OUTLINE: Course discipline/number/title: SMGT 1215: Continuous Improvement Management and Decision Making

A. CATALOG DESCRIPTION
1. Credits: 4
2. Hours/Week: 4
3. Prerequisites (Course discipline/number): None
4. Co-requisites (Course discipline/number): None
5. MnTC Goals (if any): NA

This course will teach participants the skills and resources needed to define and resolve organizational problems in order to make decisions by using the right tools and processes to achieve quality and improvement. Students will learn to identify customer and organizational needs, establish key performance indicators, apply tools and techniques for improving systems and processes, develop a continuous improvement plan for work group members, and gain approval and support for successful implementation. Actual workplace problems will be utilized for individual and group decision making. The course will culminate with a group decision-making, continuous improvement project.

B. DATE LAST REVISED (Month, year): December, 2008

C. OUTLINE OF MAJOR CONTENT AREAS:
1. Major quality forces in the business world
2. Foundations of a Quality System
3. The Language of Continuous Improvement
4. History of TQM
5. The Quality Gurus - Key Learning Points and Contributions
   a) Early gurus including Deming and Crosby.
   b) Contemporary quality/continuous improvement philosophies.
6. Quality transformation
7. The Malcolm Baldrige National Quality Award Performance Excellence Framework
8. Additional frameworks including ISO, LEAN, Six Sigma, etc
9. Listening and responding to the Customer
   a) Internal and external customer requirements
10. Using Data and Information to Learn and Improve
    a) Key Performance Indicators
    b) Key Performance Measures
    c) Data Collection
    d) The Principle of Variation
11. Benchmarking
12. Models of Excellence-Best Practices
14. Plan, Do, Check, Act (PDCA)
15. Problem solving-
    a) Individual
    b) Group
16. Information gathering techniques
17. Charting unknowns
18. Root cause analysis
19. Criteria matrix
20. Decision Making-
    a) Individual
    b) Group
21. Decision making steps
22. Decision making process of elimination
24. Consensus building
25. Prioritizing
C. OUTLINE OF MAJOR CONTENT AREAS: Continued. . .

26. Tools and Techniques that support Continuous Improvement, Problem Solving and Decision Making.
   a) 7-step method, brainstorming, process mapping, flow charts, run chart, x-mr charts, attributes charts, control chart, data collection, histogram, cause and effect diagram, pareto diagram, force field diagram, process improvement storyboard, PDCA, affinity diagram, 10/4 voting, criteria matrix, 5-whys analysis, etc.

27. Action planning

D. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Examine the major forces in the changing world of business as they relate to quality and why continuous improvement is necessary for organizational success.
2. Understand the role of quality gurus including Deming and Crosby.
3. Identify needs and expectations of internal and external customers and how quality processes affect these interactions.
4. Identify quality/continuous improvement process elements and discuss quality/customer service relationship & importance.
5. Explain and apply various continuous improvement processes and tools including flow and run charts, data collection and check sheets, attribute and control charts, histogram, cause and effect diagrams, pareto and force-field diagrams and process improvement storyboards.
6. Identify how to track results, develop goals and create a reporting process.
7. Identify and define workplace problems.
8. Explain problem solving steps and how they lead to group decision making opportunities
9. Identify various problem solving methods, charts, and techniques which lead to successful implementation of solutions.
10. Explore the leader’s role and the value of successful communication during problem solving meetings.
11. Use problem-solving / decision-making process.
12. Gather and analyze data and information.
13. Identify root cause.
14. Generate and assess alternative solutions.
15. Evaluate effectiveness of solutions.
16. Design an action plan specific to quality/continuous improvement.

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:

1. Oral Presentations
2. Textbook Problems
3. Group Activities
4. Individual Projects
5. Worksheets
6. Application Papers

G. SPECIAL INFORMATION (if any): None