

### 1. Name of Course:

BMGX 3016 Problem Solving and Decision Making Tools and Techniques

### 2. Number of Clock Hours: 7

### 3. Course Description:

This class will introduce students to a systematic process that will enable them to identify and successfully implement solutions to the complex problems employees and managers experience in the rapidly changing work environment of the 21<sup>st</sup> Century. The tools and techniques introduced here are being utilized by professionals in multiple disciplines across the globe.

*Solving problems and making decisions have always been two tough functions of project managers and employees. Mastery of academic content and basic skills are necessary but not sufficient for today's employers who need candidates with "21st century skills": Employees who can lead, work in teams, be creative, use technology and find logical solutions to complex problems.*

*Problem solving is a tool, a skill and a process. It is a tool because it can help students solve an immediate problem or to achieve a goal. It is a skill because once students have learnt it they can use it repeatedly, like the ability to ride a bicycle, add numbers or speak a language. It is also a process because it involves taking a number of steps.*

### 4. Prerequisites

This course is intended for practicing project managers. It qualifies for ongoing PDUs for certified PMI Project management Professionals (PMP).

### 5. Course Learning Objectives:

After taking the class, the participants will be able to:

1. Frame and define a problem.
2. Approach solving problems methodically.
3. Utilize various problem solving tools and techniques such as Root Cause Analysis, The Problem Solving Process, Gap Analysis and SWOT Analysis.
4. Select and apply the most appropriate method to solve a problem.
5. Make better decisions

### 6. Rationale:

- In a survey conducted by the ACC High Technology Institute, 86% of respondents listed project management skills as important for career advancement.
- Organizations benefit by having employees that can successfully manage more complex projects and have better risk identification and response procedures.

7. **Required Materials:** None. To be supplied by instructor.

## 8. Evaluation

A completion certificate worth 0.7 continuing education units (CEUs) will be awarded for successful completion. 0.7 CEU's are equivalent to 7 PMI Professional Development Units (PDU's).

Students are expected to arrive on time, stay for the entire class period, and actively participate in class by asking questions and sharing personal experiences. Any student counted as missing more than 1 hour of class will not receive a completion certificate. There will usually be a short break about half way through each evening's class time.

## 9. Course Outline

- I. Welcome and Introduction
  - A. Introductions
  - B. Discuss Learning Objectives
  
- II. What is a problem?
  - A. What Makes a Problem a Problem?
  - B. How should we solve problems?
    1. Focus on the solved state
    2. Be clear about all your goals and objectives
    3. Expand your definition of "Define the Problem"
    4. Think of problem solving as a cover-the-bases activity
    5. Draw diagrams and otherwise picture the structure of the problem
    6. Take the concept of cause with a grain of salt
    7. Watch out for "disconnects"
    8. Be aware of your own blinders
    9. Research the subject matter
    10. Develop your own system for solving problems
  
- III. What is Root Cause Analysis?
  - A. When to use Root Cause Analysis?
  - B. Root Cause Analysis Example:
  - C. How to construct a diagram?
  - D. Exercise – Root Cause Analysis
  
- IV. The Problem Solving Process or Model
  - A. The Six Step Problem Solving Process
    1. Identify the problem or symptom
    2. Analyze the problem / Identify the root cause
    3. Develop Solutions / Determine alternatives and impacts
    4. Make a decision / Select the best alternative
    5. Implement a Solution / Execute
    6. Evaluate The Results / Monitor

- B. The Problem Solving Wheel
  - C. Plan - Do - Check – Act
  - D. When to use The Six Step Problem Solving Process?
  - E. Exercise – Problem Solving Process
- V. What is SWOT Analysis?
- A. When and how to use SWOT Analysis?
  - B. SWOT Analysis Worksheet
  - C. Sample SWOT Analysis Template
  - D. SWOT Analysis Example
  - E. Exercise – SWOT Analysis
- VI. What is Gap Analysis?
- A. Five Gaps
    1. Gap # 1: Something's Gone Wrong
    2. Gap # 2: Raised Expectations
    3. Gap # 3: Double Whammy
    4. Gap # 4: It Never Did Work Right (A "Day One" Problem)
  - B. The Concept of Cause
  - C. The Goal
  - D. Gap Analysis Tool
  - E. Exercise – Gap Analysis
- VII. Summary

#### 10. Target Audience:

- All project professionals
- All managers and leaders
- All company employees

#### **PDU Information:**

Program Number: 2020-BMGX3016; Category: 3; Number of PDUs: 7