Structured Problem Solving

Effective problem solving and smart decision-making are critical skills in business and in life. Decisions that are based primarily on innate intuition and judgment are more likely to lead to undesirable results. This course will teach students a structured approach to problem solving to improve decision-making and help overcome our natural over-reliance on intuition and judgment. Students will learn how to properly define and diagnose problems. Students will apply tools to identify, evaluate, and prioritize solutions. This course will leverage case studies across many functions, and students will come away with a robust problem-solving toolkit.

Who should take this course?

This is an introductory course targeted at all professionals. It is a required class within the Business Management Fundamentals certificate program at Bellevue College.

Course Objectives

• Describe a structured approach to problem solving and how it differs from an intuitive approach.
• Apply tools to properly define problems.
• Apply tools to diagnose problems.
• Apply tools to maximize creativity in identifying potential solutions.
• Apply tools to evaluate and prioritize solutions.
• Describe key success factors in the execution of solutions.

Course Details

• Length: 12 hours
• Classroom Type: Lecture
• Prerequisites: None

The above prerequisites are considered to be the basic skills and knowledge needed prior to taking this class. Instructors will assume your readiness for the class materials and will NOT use class time to discuss prerequisite materials.
Course Contents

Describe a structured approach to problem solving and how it differs from an intuitive approach.

- Describe the innate factors such as emotion, mental shortcuts, and biases that serve as barriers to smart decision-making.
- Describe the benefits and drawbacks to a structured problem solving approach.
- Identify the four major steps in structured problem solving: definition, diagnosis, solution, and execution.
- Identify five critical success factors in structured problem solving.

Apply tools to properly define problems.

- Describe how an improperly defined problem can lead to a poor decision.
- Leverage multiple sources of information to effectively scope a problem.
- Develop a clear problem statement to guide the problem solving process.

Apply tools to diagnose problems.

- Leverage the 5 Whys to identify potential root causes of a problem.
- Create a logic tree to identify potential root causes of a problem.
- Develop hypotheses for the likely root causes of the problem.
- Build a hypothesis development plan to test the hypotheses.

Apply tools to maximize creativity in identifying potential solutions.

- Describe how a solution tree is different from a diagnosis tree.
- Create a logic tree to structure potential solutions to a problem.
- Leverage creative thinking techniques to identify potential solutions, both conventional and unconventional.
- Explain how to use brainstorming techniques to best leverage the talents of the team in developing effective solutions.
Course Contents, continued

Apply tools to evaluate and prioritize solutions.

• Explain how to quickly identify solutions that are out of scope or not feasible.
• Develop a hypothesis development plan to test potential solutions.
• Analyze potential solutions using techniques such as pros-cons-fixes, weighted rankings, and decision matrices to evaluate solutions.

Describe key success factors in the execution of solutions.