

Critical Thinking, Problem Solving, and Decision-Making

Course Summary

Description

This course uses critical thinking as the foundation to improve the effectiveness of judgement and decision-making. Participants in this course apply the concepts and principles of critical thinking and apply them to practical problem-solving and decision-making as they work through a series of relevant examples and case-studies.

This is a two-day, instructor led intermediate level course with interactive lecture, exercises, and extensive practical applications through case-study.

Objectives

After taking this course, students will be able to:

- Differentiate different aspects of critical thinking related to problem-solving and decision-making
- Apply the building blocks of critical thinking
- Use effective structured methods of critical-thinking for defining, describing and solving problems
- State the pros and cons of each structured technique of critical thinking and know when to use, and not use, a technique
- Use proven decision-making models and approaches to choose the best solution to a problem
- Apply tools and techniques for rational decision making
- Apply a business anchored problem-solving approach to stimulating innovation, and solving problems

Topics

- Introduction to the Course
- Understanding Critical Thinking
- Personal style: Adopting a Critical Thinking Mindset
- Seven Essential Critical Thinking Tools and Techniques.
- Critical Thinking: Inductive Reasoning and Using a Heuristic Approach
- Critical Thinking and Decision-Making
- Solving a Business Focused problem
- Conclusion and Action Planning

Audience

This course is designed for those wanting to learn a traditional root cause analysis approach to problem-solving and decision making.

Prerequisites

There are no prerequisites for this course.

Duration

Two days

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Course Outline

- I. Introduction to the Course**
 - A. Format: Lecture and Group Discussion
 - B. Participants are introduced to the outline for the course. They review the formal objectives and set their personal objectives for the course.
- II. Understanding Critical Thinking**
 - A. Format: Interactive Group Discussion and Personal Exploration
 - B. Participants are introduced to elements of thinking and components of critical thinking, including reason, openness, analysis and logic. This topic includes exploration of personal thinking preferences (based on the Herrmann Brain Dominance Model) and exercising their thinking style toward the critical thinking disciplines.
- III. Personal style: Adopting a Critical Thinking Mindset**
 - A. Format: Interactive Group Discussion
 - B. Participants explore different orientations with a discussion about the different goals and expectations of different personality styles, and how to focus a group to achieve maximum problem-solving effectiveness. They also explore barriers to critical thinking and how to overcome their biases to ensure better decision making. The context for personality style is anchored on the DiSC four-quadrant model, so those who have completed the assessment e.g. in another course, will be able to deepen their self-understanding through this discussion.
- IV. Seven Essential Critical Thinking Tools and Techniques.**
 - A. Format: Interactive Group Discussion
 - B. Participants explore using seven proven and effective critical thinking techniques, and explore how and when to use each.
- V. Critical Thinking: Inductive Reasoning and Using a Heuristic Approach**
 - A. Format: Interactive Group Discussion
 - B. Participants discuss when and how to use inductive reasoning and a heuristic approach to problem solving and explore examples of how to apply both a reasoning approach and a heuristic approach to problem solving.
- VI. Critical Thinking & Decision-Making**
 - A. Format: Interactive Group Discussion and Practical Application
 - B. Participants learn and practice proven and effective decision-making techniques and approaches, and when to use a specific technique versus another. i.e. Decision Matrix, Multi vote, Pro-con analysis
- VII. Solving a Business Focused problem**
 - A. Format: Interactive Group Discussion and Practical Application
 - B. Participants engage in a detailed case-study to build critical thinking and solving problems from a business perspective taking into consideration IT needs and objectives.
- VIII. Conclusion and Action Planning**
 - A. Format: Group Discussion and Learning Review
 - B. Participants review the topics covered in the two days. Participants are also asked to state their key learnings from the course, and to reflect on and write down one new thing they intend to put into practice upon returning to their workplace. They are encouraged to share this "one thing" with an accountability partner in the class, and with their manager/supervisor.