



Problem Solving and Decision Making

"Navigating Challenges and Crafting
Solutions"



Introduction



In this course, we will delve into the art and science of tackling challenges effectively and making sound decisions. Whether you're a professional aiming to enhance your problem-solving skills or an individual seeking to make better decisions in various aspects of life, this course is designed to equip you with practical techniques and strategies to navigate through complex situations with confidence and clarity.

Course Objectives



- 1** Develop a deep understanding of problem-solving methodologies.
- 2** Acquire critical thinking skills necessary for analyzing and dissecting problems.
- 3** Master decision-making frameworks to make informed and rational choices.
- 4** Enhance your ability to evaluate risks and uncertainties associated with decisions.
- 5** Apply problem-solving and decision-making techniques to real-life scenarios.
- 6** Cultivate resilience and adaptability in the face of challenges.



Course Benefits

- Equip you with structured problem-solving methodologies.
- Enhance critical thinking skills for better analysis.
- Empower you to make informed and rational decisions.
- Navigate risks effectively and confidently.
- Apply techniques to real-life scenarios for immediate impact.

Course Modules

Understanding Problem Solving

1. Introduction to problem-solving techniques
2. Problem identification and definition
3. Root cause analysis
4. Creative problem-solving methods

Critical Thinking and Analysis

1. Developing critical thinking skills
2. Logical reasoning and deduction
3. Analytical tools and frameworks
4. Analyzing a complex scenario and identifying key issues

Decision Making Foundations

1. Introduction to decision-making processes
2. Decision criteria and priorities
3. Decision trees and probability analysis
4. Ethical considerations in decision making

Risk Assessment and Management

1. Understanding risk and uncertainty
2. Risk assessment methodologies
3. Risk mitigation strategies
4. Decision-making under uncertainty

Strategic Decision Making

1. Strategic vs. tactical decisions
2. Long-term planning and goal setting
3. Strategic analysis frameworks (SWOT, PESTEL, etc.)
4. Scenario planning and forecasting

Application and Reflection

1. Applying problem-solving and decision-making skills to personal and professional scenarios
2. Reflection on learning journey
3. Continuous improvement strategies
4. Final project Presenting



Who Should Join This Course

→ Professionals seeking to enhance problem-solving skills in their respective fields.

→ Individuals aiming to make better decisions in personal and professional contexts.

→ Students or career changers looking to develop critical thinking abilities.

→ Anyone interested in understanding effective problem-solving and decision-making processes, regardless of prior experience.



Module 1 : Understanding Problem Solving

Lesson 1 : Introduction to Problem-Solving Techniques

Objective :

Introduce learners to various problem-solving techniques and methodologies.

Content :

- Explanation of problem-solving as a systematic approach to addressing challenges.
- Overview of different problem-solving frameworks such as IDEAL (Identify, Define, Explore, Act, Look) and DMAIC (Define, Measure, Analyze, Improve, Control).
- Introduction to brainstorming techniques for generating innovative solutions.
- Real-life examples illustrating the application of different problem-solving techniques.



Module 1 :

Understanding Problem Solving

Lesson 2 : Problem Identification and Definition

Objective :

Teach learners how to identify and define problems accurately to facilitate effective problem-solving.

Content :

- Importance of clearly defining the problem statement.
- Techniques for problem identification, including observation, data analysis, and stakeholder consultation.
- Strategies for breaking down complex problems into manageable components.
- Case studies demonstrating the impact of accurately defining problems on the problem-solving process.



Module 1 : Understanding Problem Solving

Lesson 3: Root Cause Analysis

Objective :

Equip learners with the skills to conduct root cause analysis to identify the underlying reasons behind problems.

Content :

- Definition of root cause analysis and its importance in problem-solving.
- Various techniques for root cause analysis, including the 5 Whys, fishbone diagrams (Ishikawa diagrams), and fault tree analysis.
- Importance of digging deeper to uncover the root causes rather than addressing surface-level symptoms.
- Practical examples demonstrating how root cause analysis can lead to more effective problem-solving outcomes.



Module 1 : Understanding Problem Solving

Lesson 4: Creative Problem-Solving Methods

Objective :

Introduce learners to creative problem-solving techniques to foster innovative solutions.

Content :

- Explanation of the importance of creativity in problem-solving.
- Introduction to brainstorming techniques such as mind mapping, free association, and reverse thinking.
- Overview of lateral thinking methods, including random stimulation and provocation.
- Real-life examples showcasing the application of creative problem-solving in various fields.



Module 2 : Critical Thinking and Analysis

Lesson 1 : Developing Critical Thinking Skills

Objective :

Introduce the concept of critical thinking and its importance in problem-solving and decision-making processes.

Content :

- Definition of critical thinking and its components: analysis, evaluation, interpretation, inference, explanation, and self-regulation.
- Explanation of the relevance of critical thinking in various aspects of life, including work, relationships, and personal development.
- Techniques for improving critical thinking skills, such as questioning assumptions, considering multiple perspectives, and evaluating evidence.
- Real-world examples demonstrating the impact of critical thinking on problem-solving outcomes.



Module 2 : Critical Thinking and Analysis

Lesson 2 : Logical Reasoning and Deduction

Objective :

To familiarize learners with the principles of logical reasoning and deduction for systematic problem analysis.

Content :

- Introduction to logic and its role in critical thinking.
- Explanation of deductive reasoning and its use in drawing conclusions from premises.
- Overview of inductive reasoning and its application in making generalizations based on observations.
- Techniques for evaluating the validity and soundness of arguments.
- Real-life examples illustrating the application of logical reasoning in problem-solving contexts.



Module 2 : Critical Thinking and Analysis

Lesson 3 : Analytical Tools and Frameworks

Objective :

To introduce learners to analytical tools and frameworks used in problem-solving and decision-making processes.

Content :

- Overview of various analytical tools commonly used in problem-solving, such as SWOT analysis, PESTEL analysis, and decision trees.
- Explanation of how these tools help in organizing information, identifying patterns, and evaluating alternatives.
- Practical examples demonstrating the application of analytical tools in real-life scenarios across different industries.
- Discussion on the strengths and limitations of each analytical tool and how to choose the most appropriate one based on the problem context.



Module 2 : Critical Thinking and Analysis

Lesson 4: Analyzing a Complex Scenario

Objective :

To apply critical thinking and analytical skills to a real-world case study, allowing learners to practice problem-solving in a practical context.

Content :

- Introduction to the case study scenario, which presents a complex problem or challenge relevant to the course topic.
- Breakdown of the case study into its key components, including background information, challenges, stakeholders, and potential solutions.
- Guided analysis of the case study, encouraging learners to identify relevant facts, assess risks and opportunities, and propose solutions.
- Interactive discussion to explore different perspectives and potential approaches to addressing the problem presented in the case study.
- Reflection on the lessons learned from the case study analysis and how they can be applied to real-life situations.



Module 3 : Decision Making Foundations

Lesson 1 : Introduction to Decision-Making Processes

Objective :

To provide learners with an overview of decision-making processes and their importance in problem-solving and organizational contexts.

Content :

- Definition of decision making and its significance in personal, professional, and organizational settings.
- Explanation of the decision-making process, including identifying the decision, gathering information, evaluating alternatives, making the decision, and assessing outcomes.
- Overview of different decision-making models, such as rational decision-making, bounded rationality, and intuitive decision-making.
- Real-life examples illustrating the various stages of the decision-making process and the factors influencing decision outcomes.



Module 3 : Decision Making Foundations

Lesson 2 : Decision Criteria and Priorities

Objective :

To help learners understand how to establish decision criteria and priorities to guide their decision-making process effectively.

Content :

- Explanation of decision criteria and their importance in evaluating alternatives.
- Identification of different types of decision criteria, such as financial, strategic, ethical, and operational criteria.
- Techniques for prioritizing decision criteria based on their relative importance and relevance to the decision context.
- Real-life examples demonstrating the application of decision criteria and priorities in various decision-making scenarios.
- Interactive exercises to practice identifying and prioritizing decision criteria in different contexts.



Module 3 : Decision Making Foundations

Lesson 3 : Decision Trees and Probability Analysis

Objective :

To introduce learners to decision trees and probability analysis as tools for structuring decision-making processes and assessing risks.

Content :

- Explanation of decision trees as graphical representations of decision-making processes, including nodes, branches, and decision points.
- Overview of how decision trees can be used to analyze complex decisions with multiple possible outcomes and uncertainties.
- Introduction to probability analysis and its role in assessing the likelihood of different outcomes.
- Techniques for incorporating probabilities into decision trees using probability nodes and expected value calculations.
- Real-life examples demonstrating the application of decision trees and probability analysis in decision-making contexts.



Module 3 :

Decision Making Foundations

Lesson 4: Ethical Considerations in Decision Making

Objective :

To explore the importance of ethical considerations in decision-making processes and provide learners with frameworks for ethical decision-making.

Content :

- Discussion on the significance of ethics in decision making and its impact on individuals, organizations, and society.
- Exploration of ethical theories and principles, such as utilitarianism, deontology, and virtue ethics, and their application to decision making.
- Examination of common ethical dilemmas faced in various contexts, including business, healthcare, and environmental sustainability.
- Introduction to ethical decision-making frameworks, such as the ethical decision-making model and the four ethical principles approach.
- Case studies and real-life examples illustrating the ethical dimensions of decision making and the consequences of ethical and unethical choices.



Module 4 : Risk Assessment and Management

Lesson 1: Understanding Risk and Uncertainty

Objective :

To introduce learners to the concepts of risk and uncertainty and their implications for decision making.

Content :

- Definition of risk and uncertainty and their distinction in decision-making contexts.
- Discussion on the sources of risk, including internal and external factors, and their impact on decision outcomes.
- Exploration of different types of uncertainty, such as aleatory and epistemic uncertainty, and their implications for risk assessment.
- Techniques for quantifying and qualifying risks, including risk matrices, risk registers, and probabilistic analysis.
- Real-life examples illustrating the consequences of failing to account for risks and uncertainties in decision making.



Module 4 : Risk Assessment and Management

Lesson 2 : Risk Assessment Methodologies

Objective :

To familiarize learners with various methodologies used to assess and evaluate risks in decision-making processes.

Content :

- Overview of qualitative and quantitative risk assessment methodologies.
- Explanation of qualitative risk assessment techniques, such as risk matrices, risk scoring, and risk ranking.
- Introduction to quantitative risk assessment methods, including probabilistic analysis, sensitivity analysis, and Monte Carlo simulation.
- Comparison of different risk assessment approaches and their suitability for different types of decisions and risk contexts.
- Case studies and examples demonstrating the application of risk assessment methodologies in real-world scenarios.



Module 4 : Risk Assessment and Management

Lesson 3 : Risk Mitigation Strategies

Objective :

To explore various strategies for mitigating risks and minimizing their potential impact on decision outcomes.

Content :

- Introduction to risk mitigation and its importance in reducing the likelihood and severity of adverse events.
- Discussion on different categories of risk mitigation strategies, including avoidance, reduction, transfer, and acceptance.
- Explanation of specific risk mitigation techniques, such as diversification, contingency planning, insurance, and contractual agreements.
- Evaluation of the effectiveness and feasibility of different risk mitigation strategies based on the nature of the risks and the decision context.
- Case studies and examples illustrating the application of risk mitigation strategies in mitigating risks in various industries and scenarios.



Module 4 : Risk Assessment and Management

Lesson 4: Decision Making Under Uncertainty

Objective :

To equip learners with strategies and techniques for making decisions when faced with significant uncertainties.

Content :

- Introduction to decision making under uncertainty and its challenges.
- Discussion on the importance of acknowledging and embracing uncertainty in decision-making processes.
- Exploration of decision-making approaches suitable for uncertain environments, such as scenario planning, real options analysis, and adaptive decision making.
- Techniques for quantifying and managing uncertainty, including sensitivity analysis, scenario analysis, and decision trees.
- Case studies and examples demonstrating how organizations and individuals navigate decision making under uncertainty and adapt their strategies to changing conditions.



Module 5 : Strategic Decision Making

Lesson 1 : Strategic vs. Tactical Decisions

Objective :

To distinguish between strategic and tactical decisions and understand their respective roles in organizational decision-making processes.

Content :

- Definition of strategic and tactical decisions and their significance in achieving organizational objectives.
- Explanation of the differences in scope, timeframe, and impact between strategic and tactical decisions.
- Discussion on how strategic decisions shape the overall direction and competitive position of an organization, while tactical decisions focus on implementation and short-term actions.
- Real-life examples illustrating strategic and tactical decisions in various business contexts.



Module 5 : Strategic Decision Making

Lesson 2 : Long-Term Planning and Goal Setting

Objective :

To explore the importance of long-term planning and goal setting in strategic decision making and organizational success.

Content :

- Explanation of the role of long-term planning in defining organizational vision, mission, and objectives.
- Techniques for setting SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals aligned with organizational strategy.
- Introduction to strategic planning frameworks, such as the Balanced Scorecard and OKR (Objectives and Key Results).
- Strategies for cascading organizational goals and objectives throughout the organization and aligning individual goals with strategic priorities.
- Real-life examples illustrating the impact of effective long-term planning and goal setting on organizational performance.



Module 5 : Strategic Decision Making

Lesson 3 : Strategic Analysis Frameworks

Objective :

To introduce learners to strategic analysis frameworks used to assess internal and external factors affecting organizational performance and inform strategic decision making.

Content :

- Overview of strategic analysis and its importance in identifying opportunities and threats in the external environment and strengths and weaknesses within the organization.
- Introduction to popular strategic analysis frameworks, such as SWOT analysis (Strengths, Weaknesses, Opportunities, Threats), PESTEL analysis (Political, Economic, Social, Technological, Environmental, Legal), and Porter's Five Forces.
- Explanation of how each framework helps organizations understand their competitive position, market dynamics, and industry trends.
- Practical examples demonstrating the application of strategic analysis frameworks in strategic decision-making processes.
- Discussion on best practices for conducting strategic analysis and interpreting findings to inform strategic decisions.



Module 5 : Strategic Decision Making

Lesson 4: Scenario Planning and Forecasting

Objective :

To familiarize learners with scenario planning and forecasting techniques for anticipating future developments and making strategic decisions.

Content :

- Explanation of scenario planning as a strategic decision-making tool for exploring alternative futures and assessing their implications.
- Overview of the steps involved in scenario planning, including identifying key uncertainties, developing plausible scenarios, and analyzing strategies for each scenario.
- Introduction to forecasting methods, such as trend analysis, regression analysis, and qualitative forecasting techniques.
- Techniques for incorporating scenario planning and forecasting into strategic decision-making processes.
- Case studies and examples demonstrating the application of scenario planning and forecasting in strategic decision making across different industries.



Module 6 : Application and Reflection

Lesson 1 : Applying Problem-Solving and Decision-Making Skills

Objective :

To encourage learners to apply problem-solving and decision-making skills learned in the course to real-life scenarios.

Content :

- Guided exercises or case studies challenging learners to apply problem-solving methodologies, critical thinking skills, and decision-making frameworks to address practical problems or challenges.
- Opportunities for learners to collaborate and discuss their approaches and solutions with peers, gaining insights from different perspectives.
- Reflection on the application of problem-solving and decision-making skills, including successes, challenges, and lessons learned.



Module 6 : Application and Reflection

Lesson 2 : Reflection on Learning Journey

Objective :

To facilitate learners in reflecting on their learning journey throughout the course and identifying areas of growth and development.

Content :

- Guided reflection prompts or questions to help learners assess their progress and achievements throughout the course.
- Encouragement for learners to reflect on how their problem-solving and decision-making skills have evolved and improved over time.
- Opportunities for learners to share their reflections with peers and receive feedback and support.
- Guidance on setting future learning goals and strategies for continuous improvement in problem-solving and decision-making.



Module 6 :

Application and Reflection

Lesson 3 : Continuous Improvement Strategies

Objective :

To explore strategies for continuous improvement in problem-solving and decision-making skills beyond the course.

Content :

- Introduction to the concept of continuous improvement and its importance in personal and professional development.
- Discussion on the benefits of adopting a growth mindset and embracing lifelong learning.
- Exploration of strategies for enhancing problem-solving and decision-making skills on an ongoing basis, such as seeking feedback, practicing deliberate practice, and participating in communities of practice.
- Guidance on creating a personalized learning plan to continue developing problem-solving and decision-making skills after completing the course.
- Resources and recommendations for further learning, including books, articles, online courses, and professional development opportunities.



Module 6 : Application and Reflection

Lesson 4 : Final Project Presentation

Objective :

To provide learners with an opportunity to showcase their understanding and application of problem-solving and decision-making skills through a final project presentation.

Content :

- Overview of the final project requirements and presentation format.
- Guidance on selecting a relevant topic or scenario for the final project, aligned with the course objectives.
- Recommendations for structuring the final project presentation, including an introduction, problem statement, methodology, findings, conclusions, and recommendations.
- Practice sessions and feedback opportunities to help learners refine their final project presentations.
- Celebration and recognition of learners' achievements in completing the course and demonstrating proficiency in problem-solving and decision-making.



BASIC PRINCIPLES FOR COURSE IMPLEMENTATION



Active Participation

- Encourage learners to actively engage with the course materials, participate in discussions, and apply learned concepts to real-life scenarios.



Continuous Feedback

- Provide regular feedback to learners on their progress, assignments, and contributions, fostering a supportive learning environment and facilitating improvement.



Practical Application

- Emphasize practical application of problem-solving and decision-making skills through case studies, exercises, and real-world examples, ensuring relevance and applicability.



Peer Collaboration

- Facilitate opportunities for peer collaboration and knowledge sharing, allowing learners to learn from each other's experiences, perspectives, and insights.



Lifelong Learning

- Encourage a mindset of lifelong learning and continuous improvement, motivating learners to seek further development opportunities beyond the course to enhance their problem-solving and decision-making abilities.

PRACTICAL TIPS FOR IMPLEMENTING THE COURSE



Set Clear Expectations

- Clearly outline course objectives, requirements, and expectations to learners at the beginning of the course, ensuring clarity and alignment.



Provide Structured Learning Materials

- Offer organized and easily accessible learning materials, including readings, videos, and interactive exercises, to facilitate understanding and engagement.



Encourage Regular Practice

- Encourage learners to regularly practice problem-solving and decision-making techniques through exercises, case studies, and real-life applications, promoting skill development and retention.



Offer Timely Support

- Provide timely support and guidance to learners through discussion forums, office hours, and feedback sessions, addressing questions, concerns, and challenges promptly.



Promote Reflection

- Encourage learners to reflect on their learning experiences, successes, and areas for improvement, fostering metacognition and facilitating continuous growth and development.

READING MATERIAL AND CASE STUDIES

"Critical Thinking An Introduction" by Alec Fisher

This concise book provides a comprehensive overview of critical thinking principles and techniques, offering practical insights into improving analytical skills.

"Decision Making and Problem Solving Strategies" by John Adair

This practical guide offers strategies and frameworks for effective decision making and problem solving, with real-world examples and actionable tips.

Case Study 1: "The Challenger Disaster"

- This case study explores the events leading to the Space Shuttle Challenger disaster, highlighting the importance of effective decision making, risk assessment, and ethical considerations in high-stakes situations.

Case Study 2: "Netflix: Disrupting the Entertainment Industry"

- This case study examines Netflix's strategic decision-making process and its disruptive impact on the entertainment industry, showcasing innovative approaches to problem solving and adaptation to changing market dynamics.

Case Study 3: "Tesla: Navigating Challenges in the Automotive Industry"

- This case study delves into Tesla's strategic decisions and challenges in the automotive industry, illustrating the application of problem-solving techniques and strategic planning in a competitive market environment.



Who We Are



KLCC ACADEMY an Accredited Education Centre in Malaysia - provides an enriched learning environment that has helped countless students get ahead. Founded in 2013, the Academy is in heart of Kuala Lumpur near the iconic KLCC - Petronas Twin Towers (distance of 500m) and reflects the diverse backgrounds and cultures of the area.

We believe that education is a fundamental right, and everyone should have access to quality higher education. With this view in mind, we strive to create opportunities for those who have genuine aspiration and honest intention, who seek high-quality education, great academic experience, unparalleled student services, globally recognizable qualifications, and career prospects post qualification after studying in their chosen destination countries.

Contact Information



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