



Analyst Skills Training

The Analyst Training Program from Hammond Educators equips participants with the analytical, technical, and facilitation skills required to succeed in this vital role. Through a progressive series of hands-on courses, participants learn to think critically, communicate clearly, and develop actionable solutions that drive organizational performance.

This comprehensive program provides a structured pathway for both new and experienced analysts. Participants begin by building a solid foundation in analytical thinking, systems concepts, and problem-solving, and then advance to applying rigorous methodologies for process improvement, business case development, and stakeholder engagement.

Each course emphasizes real-world practice, ensuring participants not only learn key concepts but also gain the confidence to apply them immediately in their work.

1. **Systems Analysis Foundation (2 Days):** Introduces systems thinking, the systems development life cycle (SDLC), Agile and Scrum principles, and the role of the systems analyst in defining problems, gathering requirements, and supporting business improvement.
2. **Root Cause Analysis (1 Day):** Provides proven tools and techniques, including the IS-IS NOT Matrix, Fishbone Diagrams, 5 Whys, and Pareto Charts, to identify true causes of problems and implement lasting solutions.
3. **Facilitation Methods and Techniques Workshop (3 Days):** Develops facilitation and collaboration skills to lead productive meetings and workshops, manage conflict, and build consensus—aligned with the International Association of Facilitators (IAF) core competencies.
4. **Analyzing and Creating an Effective Business Case (2 Days):** Teaches participants to perform feasibility and cost/benefit analyses, evaluate alternatives using weighted decision models, and communicate recommendations that drive sound business decisions.
5. **Introduction to Survey Design (1 Day):** Covers the step-by-step process of planning, designing, and conducting effective surveys, including question development, bias reduction, and result presentation for actionable insights.
6. **Basic Analyst's Workshop (4 Days):** Establishes the fundamental skills every analyst needs—critical thinking, problem solving, communication, time management, and facilitation—to effectively identify opportunities and support organizational goals.
7. **Advanced Analyst's Bootcamp (5 Days):** Immerses participants in a realistic, case-based simulation where they apply advanced analytical techniques to diagnose problems, develop solutions, and present recommendations to management.

These courses can be offered individually, or as part of a larger program. Detailed course descriptions are on the following pages.



Systems Analysis Foundation (2 Days)

The foundation course will include an introduction to systems and systems thinking along with a look at the SDLC, the principles of Agile and the Scrum Method. We will discuss the role of the systems analyst and compare that role to others such as the business analyst. In discussing the role of the system analyst, we will explore various activities where the analyst is involved either primarily or secondarily. This means we briefly will explore the business case that justifies a project. **A key portion of the course focuses on solving “business” problems and creating well-defined (SMART) systems objectives.**

We will also explore tools used by the analyst such as process modeling, prototyping, data modeling, use cases, and user stories. Also, participants will learn how to document business rules and non-functional requirements.

Objectives

At the conclusion of this course, students will be able to:

1. Assist management in the identification of problems and opportunities critical to the organization’s success (Problem Analysis)
2. Participate in the definition of the solution (Project Scope, Requirements Development, Technical Design)
3. Employ systems thinking to a variety of problems and situations
4. Communicate more effectively with all stakeholders
5. Describe the responsibilities of the systems analyst and the major deliverables for each major step in the systems development life cycle
6. Distinguish between the role of the systems analyst and the business analyst and a scrum master
7. List the critical skills needed to be a successful systems analyst
8. Define measurable project objectives
9. Define business problems and find their true cause
10. Develop tactics for diffusing resistance to change
11. Prepare a stakeholder analysis
12. Communicate more effectively with all stakeholders
13. Use modeling tools and techniques (process model, data model, use cases, user stories, etc.) to elicit, document and validate a project’s scope and requirements
14. Describe the components of a business case



Root Cause Analysis (1 Day)

To achieve continuous process improvement, people in organizations need a proven method for solving problems. Yet many struggle to solve problems effectively. They create “solutions” only to find they still have the problem. Or they employ inefficient, brute force, trial and error methods that waste time and money.

In this course we use an IS-S NOT Matrix¹ to find causes of a problem. It isolates the what, when, and where, aspects of a problem, keeping the focus on the elements that have an impact on the problem and eliminating the elements that do not. The result is participants learn to uncover the root cause(s) of problems and to solve them correctly and quickly.

In addition, they will learn several tools that can be used in conjunction with the method or used separately. These tools and techniques include Ishikawa (Fishbone) diagrams, 5 Whys, and Pareto Charts.

Lastly, participants will explore how the methods used in class can be incorporated into their organization’s processes and procedures. We use small lectures, discussion, individual and small team activities and lots of practice.

Learning Objectives

1. Use the IS-IS NOT Matrix of problem-solving (Kepner-Tregoe Matrix)
2. Explain why methods are needed for RCA as opposed to simply using Subject Matter Expertise
3. Explain the pros and cons of having in-depth subject matter expertise
4. Increase the probability of finding true cause
5. Correctly define and specify a problem
6. Ask the right questions to uncover critical data required for RCA.
7. Reduce the time it takes to solve a problem
8. Employ Double loop learning: answering the question, “how did the cause come to be?”²



Facilitation Methods and Techniques Workshop (3 Days)

Meetings, workshops, and business discussions are a vital part of any organization's problem-solving, planning and decision-making processes. If done correctly, these methods can result in better-defined and more-complete deliverables as well as higher user commitment and ownership. If not, they can lead to wasted efforts, inaccurate results, frustration, and personal conflicts.

The key to success is effective facilitation.

This workshop is designed to give facilitators the tools and the skills they need to run effective meetings and collaborative work sessions that achieve results. The focus is on choosing the right methods and techniques for a given purpose and being able to guide a group to reach that end: specifically, planning a session, consensus building, probing, listening, eliciting participant feedback, remaining objective, maintaining focus and staying on task, managing conflict, and defusing resisters.

The workshop is built upon the critical core competencies as defined by The International Association of Facilitators (IAF): This is a workshop and participants learn by doing. Each will facilitate a series of sessions that are critiqued using video tape and by the instructor as well as other participants.

Objectives:

Upon completion of the Facilitation Methods and Techniques Workshop students will be able to:

1. Define the Role of a facilitator
2. List the critical success factors for effective meetings and facilitated sessions
3. List the key knowledge, skills and traits of a successful facilitator
4. Apply the IAF's core competencies when facilitating a session
5. Reduce meeting time and cost
6. Employ collaboration techniques to reduce the time taken by traditional methods
7. Manage the participants during a session (defuse resisters, etc.)
8. Employ various techniques to help build consensus, resolve conflict, identify and solve problems, make decisions, and generate and evaluate alternative solutions.
9. Conduct meetings that produce the desired outcome
10. Resolve conflicts
11. Employ effective listening skills
12. Plan a meeting or facilitated session
13. Start up, manage and close meetings effectively



Analyzing and Creating an Effective Business Case (2 Days)

Today's environment demands that organizations use all resources to the utmost effectiveness in order to meet organizational goals. Often, however, professionals are ill-equipped to respond in ways that management understands. This workshop addresses that requirement.

In this course students will learn to develop and deliver a business case for project initiatives, and to do it in such a way that decision makers will make the right choice.

The crux of the course is the examination of the six aspects of feasibility: technical, risk, economic, legal, operational, and schedule.

Specifically, participants will learn to perform cost/benefit and risk analyses and to use a weighted decision model to evaluate alternate solutions to a business initiative.

Lastly, they will learn how to assemble and communicate the business case in the terms decision makers understand.

Course Objectives:

Upon completion of this course participants will be able to:

1. Discover the true requirements and constraints that will drive the decision-making process
2. Accurately evaluate costs and benefits using accepted return-on-investment calculations
3. Perform a risk assessment for a project initiative
4. Use ideation techniques (Brainstorming, Nominal Group Technique, etc.) to generate and evaluate alternative solutions to a business problem
5. Structure and present an analysis of alternatives using a weighted decision model that reflects the decision makers true wants and needs.
6. Present the Business Case in an organized and understandable fashion.
7. Employ communications concepts that will enable you to influence the decision makers to make the best choice.
8. Compile relevant documents from the feasibility study, project scoping activities and risk analysis into the Business Case decision-making package

Audience:

The Primary audience for this class would be Business Analysts, Project Managers, Development Managers, and Key Stakeholders in projects. A secondary audience would include decision makers, senior managers, and anyone performing the role of the Business Analyst.



Introduction to Survey Design (1 Day)

Course Description

This workshop provides students the background, knowledge, tools, and critical thinking skills to build and administer meaningful surveys. Students will learn a step-by-step process: students will learn to plan, design, create and administer effective surveys. In addition, they will learn how to analyze the results, draw conclusions, and effectively present their findings to others.

This workshop is hands-on. Participants will work through each step of the survey process. Each student's work – the survey and the presentation of results will be critiqued by the class participants, thus delivering immediate feedback for improvement.

Participants are encouraged to bring along a current questionnaire or notes regarding a planned or current survey of your own which you can work with during the exercise sessions.

Objectives

Upon completion, students will be able to:

1. Devise a step-by-step process to conduct a survey
2. Create a well-designed survey that achieves the results intended
3. Create a survey that eliminates or greatly reduces bias
4. Write survey questions that match intentions
5. Organize and present survey results in an actionable format



Basic Analyst Workshop (4 Days)

Organizations today are faced with more internal and external pressure to perform effectively than ever before. Crucial to an organization's success is the capability of its people to solve problems and seize opportunities that contribute to the organization's goals. Limited resources must be expended wisely.

People are needed who can figure things out, cut to the chase, and solve problems. They must make decisions or provide the information to those who will. They need to be able to communicate well in all forms. Information must be conveyed in a clear, logical and concise fashion.

To be successful, they need to be proactive, good-natured and to be able to manage their time and energy for the good of the organization they serve.

These people are called analysts.

This workshop is designed to provide insight into the skills that they will need to be successful.

Course Objectives:

Upon the successful completion of this course, participants will be able to:

1. Use critical thinking and problem solving to recognize and seize opportunities for improved organizational performance
2. Examine their style of communicating with others, take steps to improve their interpersonal skills, and change their communicative behaviors
3. Assist stakeholders to make better decisions
4. Communicate their message clearly and concisely
5. Use basic statistical concepts to collect, present, analyze and interpret data
6. Align their time and energy with the goals of the organization
7. Lead teams to achieve productive results
8. Correctly analyze, interpret, document, and communicate policies and procedures to others
9. Facilitate meetings that achieve results
10. Use creative thinking to generate alternate solutions to problems
11. Elicit information from stakeholders using interviews and survey
12. Explain the roles and responsibilities of a project manager and create a simple project plan.
13. Recognize different forms of organization structure; formal and informal structures and the effect on influence and authority.



Advanced Analyst's Bootcamp (5 Days)

The Advanced Analyst's *Bootcamp* provides experienced analysts with a road map for meeting that challenge. It covers initial problem analysis, goal setting, planning, eliciting, analyzing, and structuring requirements, assessing feasibility, generating alternative solutions, and presenting the results/making recommendations to decision-makers.

At the core of this workshop is a Harvard Business School type case study that immerses the student in total job practice.

Solving real problems in the classroom gives participants not only the skills, but also the confidence to provide effective solutions and to recognize new opportunities for their organizations.

This workshop uses our exclusive "immersion" method of teaching. Participants are thrust into a simulated "real life situation" where they actually practice and solve real organizational problems.

Upon completion of the *Advanced Analyst's Bootcamp*, participants will be able to:

1. Accurately diagnose business problems
2. Define measurable objectives.
3. Prepare cost-of-resource analysis for current and proposed systems.
4. Generate and evaluate alternative solutions from a business point of view
5. Devise a requirements-gathering plan.
6. Plan and conduct data-gathering interviews.
7. Identify areas of risk for a given systems solution.
8. Communicate recommendations and alternatives to management, in management terms.
9. Develop business solutions that favorably impact on their organization's overall goals.
10. Assist management to defuse resistance to change