

Complex Projects: Concepts, Strategies, and Practices for Success

Over half of all large, complex industrial projects are failures. Get expert insights on how to drive success, no matter your role.



24-26 September 2024
Calgary, Canada

Daily Schedule

8 a.m. to 5 p.m.
Last day ends at 3p.m.

US\$2,250

If registered by 25 August

US\$2,500

If registered after 25 August

Group discounts available!
View registration page for details!

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COURSE DESCRIPTION

Large, complex projects are the most challenging projects that we do. When successful, they are also the most satisfying and rewarding projects that we do. Due to their unique challenges, it is imperative that every present and future complex project director, business sponsor, and team member understands how to generate success. Come learn and discuss what the data on over *US\$3 trillion* worth of complex industrial projects reveal about the root causes of success and failure.

Spend three fun and intensive days learning about what makes complex projects tick. Whether your focus is upstream, downstream, chemicals, renewables, pharmaceuticals, mining, or infrastructure, your time and effort in this seminar will pay off many times over.

WHO SHOULD ATTEND?

This course is intended for individuals with 5+ years of project management experience, those preparing to lead complex projects for the first time, project team members, and business sponsors. Attendees should be familiar with the phased, stage-gated process for project development as well as basic project concepts.

KEY BENEFITS

- **Understand** the critical drivers of complex project success
- **Learn** different strategies required for large, complex projects versus smaller, less complex projects
- **Discover** the risks for defining and executing complex projects and risk mitigation approaches
- **Understand** the project leader's role in generating successful project outcomes
- **Gain** insights into different contracting approaches and their effects on outcomes
- **Identify** the key criteria to select complex projects that best meet business needs
- **Recognize** the resourcing needs to effectively manage, plan, and execute a complex project
- **Implement** a formal opportunity shaping process to stabilize the project environment

REQUEST INFO

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EARN 22 PDUs

THE IPA INSTITUTE

Advancing Project Knowledge

Why the IPA Institute? The IPA Institute is the training and education division of Independent Project Analysis (IPA), the world's leading advisory firm on capital projects. Our courses equip industry leaders and capital project practitioners with Best Practices for projects, portfolio, and project system management/delivery. All course instruction, presentations, and supplementary course materials are rooted in IPA's unparalleled capital project knowledge.

COURSE BACKGROUND

All course instruction, presentations, and supplementary course materials are rooted in IPA's decades of experience evaluating projects and project systems and conducting quantitative research into capital project issues and trends. IPA maintains a proprietary projects database with detailed information on hundreds of complex projects in the petroleum, minerals, chemicals, and power industries. These projects represent an average cost of \$3.5 billion (in 2010 terms) and over 80 sponsor organizations. Each project is characterized by over 3,000 project attributes that enable IPA to perform detailed analyses of the project phases, project management practices, and performance.

COURSE TOPICS

IPA Data and Methodology	Introduction to the IPA approach. The basics of benchmarking. Essential terms and concepts. Overview of IPA's database.
Outcomes and Trade-Offs	Complex project outcomes. Understanding trade-offs. Trade-off patterns for complex projects. Misguided trade-offs.
The Opportunity Shaping Process	Defining shaping and its importance. Shaping process steps. Creating clear objectives.
Devising the Shaping Strategy	Overview of shaping strategy. Shaping and project development process coordination. Linking shaping errors and omissions to failure. Successful and unsuccessful shaping examples.
Basic Data	The meaning of basic data. When the basic data should be complete and available. Risk areas for basic data problems. Consequences of incorrect basic data. Root causes of basic data mistakes.
Teams and Leadership	The critical role that owner teams and their leadership play in project success. The project leader's role in delivering successful results. The characteristics of successful complex project leaders versus unsuccessful leaders.
Organizing Teams for Complex Projects	Complex project organizational challenges. The role of organizational charts. Organizational models.
Translating Ideas and Data to Scope (FEL 2)	The goals of Front-End Loading (FEL) 2. FEL 2A: Scope selection. FEL 2B: Scope completion.
Preparing to Execute (FEL 3)	Measuring FEL. The role of FEL in maintaining value. Complex project FEL challenges. Critical project context areas. FEL duration considerations.
Contracting	Contracting approaches. Contracts and project outcomes. Relating success to contract types. Contract selection decision making. The role of external financing. Use of a project managing contractor.
Control of Execution Risks	Overview of project controls. Monitoring and control priorities during execution. The importance of detailed engineering slip. The effect of labor availability and productivity. Practices to address labor-short environments. Risk management.
Complex Projects and Corporate Governance	The connection between complex projects and corporate governance. Historical trends. The business/engineering interface problem. The trap of outsourcing.