

PROJECT MANAGEMENT SYLLABUS

This course examines project management roles and environments, the project life cycle and various techniques of work planning, and control and evaluation to achieve project objectives. The tools currently available to project managers are discussed throughout this course.

Topics and Objectives

Project Management Concepts

- ◆ Define the characteristics of a project.
- ◆ Explain the need for project management.
- ◆ Compare and contrast the roles of project managers in organizational environments.
- ◆ Describe the systems development cycle.
- ◆ Explain the roles of systems analysis and systems management in the life cycle of a project.

Project Organizational Structures

- ◆ Describe the ways groups are organized into projects.
- ◆ Explain the roles and responsibilities of project team members.
- ◆ Explain the relationship between project managers and line managers, especially in terms of the division of responsibility and authority.

Project Organizational Behaviors

- ◆ Identify leadership styles of project managers.
- ◆ Describe techniques used to manage groups and individuals in order to increase the effectiveness of working on a project team.
- ◆ Identify sources of diversity, either corporate or ethnic, that impact project team effectiveness.



Applied Project Planning

- ◆ Produce a statement of work (SOW) and decompose overall project goals.
- ◆ Develop a work breakdown structure (WBS), using established tools and techniques, to achieve stated project objectives.
- ◆ Produce a task-flow network, using established tools and techniques, and analyze the contingencies, interrelationships, and critical path(s) of the work elements.
- ◆ Produce a Gantt chart, using established tools and techniques, to schedule the completion of all work elements.

Resource Allocation

- ◆ Analyze optimal labor utilization for cost effectiveness and schedule efficiency by using a resource-loading chart.

Cost Estimating and Budgeting

- ◆ Develop cost estimates and budgets with cost accounts to plan project expenditures.
- ◆ Develop cost summaries for tracking project expenditures to budgeted costs.
- ◆ Develop cost forecasts to proactively control future planned expenditures.

Project Performance Measurement and Control

- ◆ Define the concept of earned value performance measurement.
- ◆ Describe how project management information systems (PMIS) are used to monitor, evaluate, and control planned cost and schedule performance.

Project Evaluation and Termination

- ◆ Describe the procedure for conducting periodic project performance evaluation audits.
- ◆ Explain how project managers must communicate audit results to customers and management in order to manage expectations.
- ◆ Describe how, as a result of project audits, project managers conduct trade-off analyses of project performances versus cost and schedule constraints.
- ◆ Identify causes associated with project success and failure.
- ◆ Specify ways in which a project can be terminated upon completion.

STRATEGIC MANAGEMENT OF CROSS-FUNCTIONAL PROJECTS

This section provides participants with insight into the management of cross-functional projects. Participants will learn the value of aligning a project's goals and objectives with the organization's goals and objectives. Participants will learn the nature of cross-functional projects and project teams, and how project teams are used to accomplish continuous improvement and to significantly change the organization.

Topics and Objectives

The Project Management Approach

- ◆ Restate the role that project management plays in organizations.
- ◆ Identify how the use of the project team contributes to the success of given projects.
- ◆ List the features of the project management process including strategic views of the project life cycle.



The Strategic Context of Projects

- ◆ List reasons for using the project management approach to organize work.
- ◆ Explain how projects serve as the building blocks in the design and execution of organizational strategies.
- ◆ Defend the position that a project's objectives should be integrated with an organization's strategies.

Stakeholder Management

- ◆ Identify a project's key stakeholders.
- ◆ Determine how stakeholders' interests in a project can be satisfied.

Strategic Issues in Project Management

- ◆ Assess the strategic issues facing a project team.
- ◆ Analyze the approaches to managing a project's strategic issues.

Project Structure and Governance

- ◆ Describe how to build and work with cross-functional teams within a project.
- ◆ Support the need for defining the elements of authority, responsibility, and accountability in a project.

The Strategic View of Project Operations

- ◆ Describe how to accomplish project planning with a strategic perspective.
- ◆ Associate the project's information systems with the strategic need to communicate.
- ◆ Support the strategic values of project control systems.

Continuous Improvement through Projects

- ◆ Analyze the relationship between organizational continuous improvement and a project's strategic objectives.

Cultural Considerations

- ◆ Defend the need for conformance of project management to organizational culture.
- ◆ Support the value of diversity in a project team.

CONTRACTING AND RISK MANAGEMENT FOR PROJECT MANAGERS

This section addresses the contract management process, global contracting, contracting methods and phases, contract administration, and pricing. The course also examines risk in the context of project life cycles. Participants will learn how to identify critical risk factors and engage in case studies and scenarios to apply their skills.

Topics and Objectives

Contract Management Planning

- ◆ Define contract administration and its role in project management.
- ◆ Explain how contract administration is related to the project's success.
- ◆ List the steps in planning for contract administration.

Procurement Process

- ◆ Explain the procurement cycle.
- ◆ Describe contract administration policies and procedures.
- ◆ Select contract types for various situations.

Contract Proposal Development

- ◆ Explain the proposal preparation process.
- ◆ List the vendor selection criteria.
- ◆ List the tools of contract administration.

Contract Negotiation

- ◆ Conduct a contract negotiation process.



Problems and Remedies of Contracts

- ◆ Diagnose and propose remedies for problems related to preparing and defending claims and reimbursing and suspending contracts.

Contract Completion

- ◆ Describe the contract termination procedure.

Risk Management Process

- ◆ Analyze the risk management process cycle within a company, using observation or case study.
- ◆ Defend the role of risk management in overall project management.
- ◆ Identify risk management activities throughout the project life cycle.
- ◆ Identify the risk management process.

Adaptations of Risk Management

- ◆ Describe risk management from a contractor's viewpoint.
- ◆ List the short cuts of risk management.
- ◆ Support cross-functional representation as optimal for risk management.

PROJECT ESTIMATING AND CONTROL

Project managers of the most successful project groups critically analyze alternatives and control the performance of their organization by relying heavily on accounting and financial tools. This section develops the skills required to analyze, evaluate, and control programs and projects. Participants work in groups to analyze problems, and work situations.

Topics and Objectives

Overview of Finance and Accounting for Projects

- ◆ Explain income statements, balance sheets, and cash flow statements in terms of their application to projects.
- ◆ Apply present value, future value, compounding, and annuities to given scenarios of project use.
- ◆ Use the financial calculator to perform common financial calculations, including present value, future value, compounding interest, and annuities.

Selecting the Project from Alternatives

- ◆ Assess a project's potential profit.
- ◆ Evaluate and rank projects using a matrix.
- ◆ Adapt an existing evaluation from a matrix to criteria for a project.
- ◆ Select relevant financial data for decision making.
- ◆ Assess project portfolio risk using quantitative measures.

Planning the Project

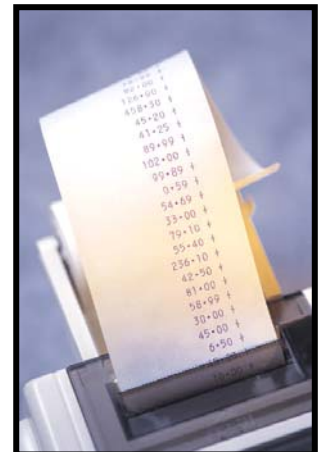
- ◆ Determine the project break-even point.
- ◆ Determine product or service pricing strategy.
- ◆ Determine the impact of financial leverage on project cost, risk, and success.
- ◆ Apply activity-based costing using cost allocation techniques.

Monitoring and Controlling the Project

- ◆ Support the importance of monitoring and controlling.
- ◆ Establish performance milestones including "go" and "no-go" decision points.
- ◆ Use earned-value concepts for project milestone control.
- ◆ Describe job-order process costing techniques.
- ◆ Apply process costing to projects.
- ◆ Develop project costs from direct, overhead, and burden rates.
- ◆ Use variance analysis to assess project performance.
- ◆ Calculate the impact of change on project cost and performance.

Project Termination and Follow-up

- ◆ Describe strategies for project termination.
- ◆ Support the need for developing warranties.
- ◆ Record lessons learned for future use and communication with other company projects.



PROJECT MANAGEMENT TEAM PROJECTS

This section consists of a project that is designed to apply the key concepts studied in prior classes. The project simulates a common situation found in the workplace environment. That is, how to implement and then maximize the value of a project management group within the organization

Topics and Objectives

Scope Definition

- ◆ Define the scope of the final project selected.

Project Time Management

- ◆ Develop preliminary Work Breakdown Structure (WBS), linear responsibility chart, and schedule of activities.
- ◆ Define the elements of project time management.
- ◆ Apply project time management concepts to the final project.

Project Integration Management

- ◆ Define the elements of project integration management.
- ◆ Apply project integration concepts to the final project.

Project Risk Management

- ◆ Define the elements of project risk management.
- ◆ Apply project risk concepts to the final project.

Project Cost Management

- ◆ Define the elements of project cost management.
- ◆ Apply project cost concepts to the final project.

Project Quality Management

- ◆ Define the elements of project quality management and apply them to the final project.

Project Procurement Management

- ◆ Define the elements of project procurement management.
- ◆ Apply project procurement concepts to the final project.

Project Human Resources Management

- ◆ Define the elements of project human resource management.
- ◆ Apply human resources concepts to the final project.

