



Making Project Management Work

Certified Cost Professional/Certified Cost Technician Examination Preparation Course



This course is primarily aimed at equipping delegates with the knowledge needed to pass the Association for the Advancement of Cost Engineering's (AACE) challenging Certified Cost Professional (CCP) or Certified Cost Technician (CCT) Certification Exam and technical paper submission.

Course Format

The practical and “hands-on” approach to this course will benefit any cost engineer or individual who is working in a cost control/project management environment wanting to advance their knowledge of cost engineering and enhance their cost, planning and control techniques. The aim of each session is to equip delegates with practical skills and knowledge to become better cost engineers. It is more than just a course to make delegates pass a certification exam.

The Certified Cost Professional/ Certified Cost Technician course is primarily aimed at equipping Cost Engineers with the knowledge needed to pass the Association for the Advancement of Cost Engineering’s (AACE) challenging Certified Cost Professional (CCP) or Certified Cost Technician (CCT) Certification Exam and technical paper submission. ProjectLink is an AACE International Approved Education Provider (AEP).

Delegates attend 5 contact sessions over 5 weeks. The 5th day takes the form of a workshop to work through typical exam problem questions and to discuss the technical paper that is required for the CCP certification. An optional mock exam is scheduled 4 weeks after the last contact session. The mock exam takes about 4 hours and is a simulation of the CCT/CCP certification exam.

As cost engineers at both CCT and CCP levels are often required to perform the same functions and require the same skills, the Certified Cost Technician and Certified Cost Professional courses are thus combined. The CCP/CCT course teaches all the material that is required for delegates to sit either the Certified Cost Professional or Certified Cost Technician exam.

Course Duration

This course is 1 day a week for 5 consecutive weeks.

Course Benefits

Equips delegates with the necessary knowledge to:

- Conduct a financial evaluation of projects.
- Perform project estimation of 1st principles.
- Conduct controls and Earned Value Management on a project.

Who should attend this course?

- Quantity Surveyors
- Project Engineers
- Cost Estimators
- Project Managers
- Project Planners
- Project Controllers
- Cost Engineers
- Project Schedulers
- Project Accountants
- PMO Managers

Included

Delegates will receive the following items on the course:

- Course file with all the course presentations and exercises
- A scientific calculator.
- Course flash drive with a selection of supplementary reading.
- AACE International's Skills and Knowledge of Cost Engineering guide.
- Project Management for Engineering, Business and Technology 5th Edition- John M. Nicholas and Herman Steyn.
- A certificate of attendance.
- 1 year post course assistance with technical paper for CCP delegates.

Course Syllabus

MODULE 1

Cost

Due to the importance of the term "cost", the basic anatomy of costing is discussed in this module. By dissecting how cost is organized, categorized, and what makes up its parts, as it relates to activities and/or assets, a solid knowledge foundation is laid for the succeeding modules that build upon it.

Upon completion of this module, the participant will:

Understand what makes up cost i.e., the basic resources (material, labour, etc.) that are needed to perform an activity or create an asset.

Understand the distinction between cost elements that are both directly and indirectly applied to an asset.

Relate the cost elements to the life cycle of the asset i.e., acquisition, use, and disposal.

Use the understanding of cost elements to further understand how cost is measured, applied and recorded to arrive at the total activity and/or asset cost.

MODULE 2

Cost Estimating

Project success cannot be supported without accurate knowledge of the cost limits to which the project must be controlled. The cost limits are imposed by budgets derived from cost estimates. Upon completion of this module, professionals will better understand cost estimating, and will be able to:

Explain the common industry classifications of cost estimates.

Explain common methodologies applied to prepare cost estimates of the various classifications.

Explain how to apply risk analysis techniques to determine appropriate contingency for an estimate.

MODULE 3

Project Planning

Good planning is the foundation of successful project implementation. The project planning team is tasked to use their knowledge, experience, resources, and supporting tools to plan the effective implementation of each major element of the project. The team may be composed of different, highly skilled individuals at different stages of the project who are able to implement their particular responsibilities to the benefit of the established project goals. Planning is a synergistic process and is iterative. Planning must consider all the elements appropriate to the effort being undertaken, consider all stakeholder's interest and concerns, develop effective alternatives, support negotiations to reach the most effective alternative, and monitor implementation. Upon completion of this module, delegates will better understand planning and will be able to:

Set goals and objectives that a planned endeavor must meet.

Collect stakeholder input and information.

Determine feasible alternative plans and choose the best alternative.

Communicate the project plan to all the stakeholders.

Implement the project according to the plan.

Adjust the plan to meet new conditions as they arise through the implementation of the project.

Review the effectiveness of the plan against attainment of objectives.

Scheduling

Scheduling is the process that converts a project work plan into a roadmap which, if followed, will assure timely project completion.

Schedules provide a baseline against which progress is monitored, measured, reported and controlled, and schedules are used to assess time impact of changes to work scope. Scheduling provides a way of contributing input during project execution concerning the means, methods, techniques, sequences, or other conditions affecting the project plan's outcome. Upon completion of this module, professionals will better be able to:

Convert the project plan into a schedule.

Utilize schedules to monitor, control, and report work progress. Update for progress and incorporate changes.

Analyse the schedule to identify critical activities and work paths, and forecast future trends.

Progress and Cost Control

Upon completion of this module delegates will be able to define and explain the process, purpose, and advantages and disadvantages of project progress and cost control in terms of the following:

Measuring work progress.

Using earned value to report on past performance and predict future performance.

Cost and schedule performance.

Productivity.

Fixed budget earned value.

Variable budget earned value. Budget and schedule baselines. Control account baselines.

Performance analysis, trending, and forecasting.

Project Management

In today's difficult global business environment it is vital that project management identifies and controls risks, maximizes cost savings, minimizes schedule delays, and improves economic return. This can only be achieved with effective and meaningful project planning and organization. In this module the following topics are covered:

Delineate the role of the project manager in project planning.

State common planning strategies.

List and explain the major components of project planning.

Explain the importance of project planning.

Calculate installed quantities (progress) for construction activities.

Define how actual labor work hours are collected using time cards.

Analyse labor cost performance using earned value, unit rates, and variance analysis.

Define the three components of labor costs i.e., quantities, installed production rates, and wage rates.

List and explain the basic requirements of a contract.

Understand how contracts may become defective and possibly unenforceable.

State the types of contracts typically employed in capital projects, their requirements, and the potential advantages and disadvantages of each.

Relate typical project delivery methods to provisions of the contracts that are employed for each method.

State and explain various key clauses in contracts.

Clarify what types of claims may arise on contracts for capital projects.

State how disputes arising under contracts may be resolved.

MODULE 7 Economic Analysis

Engineering economic analysis is a technique that assists in the solution of substantial engineering problems where economic aspects dominate over a considerable period of time. In this module, the delegate will review the techniques of engineering economic analysis, and upon completion of this module will be able to:

Calculate simple and compound interest rates, as well as solve interest problems using basic single payments, uniform series, and gradient formulas.

Calculate present value, future value, and equivalent uniform annual value of a cash flow series.

Determine the discounted rate of return of a cash flow series.

Evaluate and select the best alternative using present value, future value, equivalent uniform annual value, and a discounted rate of return.

Compare alternatives using the benefit-cost ratio.

MODULE 8 Statistics, Probability, & Risk Management

A successful company collects information so that when analyzed, good decisions can be made. Statistics provides methods useful for the analysis of this information. An important part of project planning is risk management, and one of the greatest risks to projects is the lack of adequate and appropriate planning. Risk management, both in its simple and complex forms, will have a positive effect on the implementation of projects. Upon the completion of this module, the participant will be able to:

Explain basic definitions and terminologies in probability and statistics.

Describe frequency distribution, the cumulative probability curve, and the normal curve.

Apply statistical techniques in decision making such as market and/or risk analysis.

Explain basic steps of a risk management process.

Describe risk mitigation options. Apply decision tree analysis.

Prerequisites for Certification Exam

Delegates who wish to take the CCT certification exam must have 4 years industry related experience or 4-year industry related university or university of technology degree. Delegates who wish to take the CCP certification exam must have 8 years industry related experience, or 4 years industry related experience and a 4-year industry related degree. In addition to writing the CCP certification exam, delegates must also submit a 2500-word technical paper to the AACE.

Quality Assurance:



ProjectLink has been reviewed and approved as a provider of project management training by the Project Management Institute (PMI)® (REP2525), an Approved Education Provider (AEP no. 161310) for the AACE® International in Southern Africa, and an Oracle Silver Partner.

For more information:



www.projectlink.co.za



sales@projectlink.co.za