

AACE Chinook-Calgary Section

Presents:

SKILLS AND KNOWLEDGE WORKSHOPS 2007

Program Outline:

Session No.	Date	Topic
Session 1	September 22, 2007 AM	Planning & Scheduling
Session 2	October 20, 2007 AM/PM	Cost Risk Analysis
Session 3	November 17, 2007 AM / PM	Cost & Change Management Interactive Session
Session 4	December 8, 2007 AM	Cost Estimating Basics Interactive Session
Session 4 Optional	December 8, 2007 PM	Certification Exam Review - Optional

Note: All courses are held in North Side Theatre, Nexen Tower
801 – 7th Avenue SW, Calgary

AM Session: 9:00 – 12:00 noon
PM Session: 1:00 – 4:00

Session 1 – Planning & Scheduling Basics and Interactive Session

Instructor: Peter George- AMEC

Course Outline:

- Planning and Scheduling In Perspective
 - Purpose of Planning and Scheduling – Time Control
 - Trade-offs – Time, Cost and Quality
 - Planning Vs. Scheduling
 - Critical Path Method – What Is It?
 - Keys to Successful Planning and Scheduling
- Planning
 - Importance of Planning
 - Planning Steps and Tools
 - Work Breakdown Structure
 - Modeling the Project (Logic Diagramming)
 - Activity Relationships and Project Constraints
 - Interactive (Participative) Planning
- Scheduling Basics and Techniques
 - Hierarchy of Schedule Documentation
 - Bar Chart and Critical Path Methods and Benefits
 - Scheduling Steps
 - Calculating Start and Finish Dates
 - Defining the Critical Path
 - Resource Analysis
- Advanced Scheduling Techniques
 - Schedule Compression
 - Contingency Planning
 - Schedule Risk Analysis
 - Change Management in the Schedule
- Computerized Scheduling
 - Software Types
 - Application of Software
 - Information Explosion and Keeping It Simple
 - Effective Reporting

Recommended Reading: *Skills and Knowledge of Cost Engineering*, 5th Edition by
AACE International – Chapters 12 & 13

Certification Study Guide, AACE International, 2nd Edition, May
1999 – Chapter 11 (or new 3rd Edition)

Session 2 – Risk Management

Cost Risk Analysis

Instructor: John Zhao - Suncor Energy

Course Outline:

- Risk ...qualification
“RISK” has become a buzz word in Project Management arena and unfortunately it is the least understood concept in both the field of Project Management and the construction industry as a whole.
- Risk ...quantification
Monte Carlo simulation is often used to quantify project risks and their impacts and therefore derive the contingency amount for a project. It is however often dubbed as a “black-box” even to project controls.
- Risk ...Contingency
Project “contingency” has long been causing controversial discussions in Project Controls. The depletion and management of contingency are mysterious in both academia and industry realities.

Schedule Risk Analysis

Instructor: Jason Verschoor – Suncor Energy

Course Outline:

- What is Monte Carlo Schedule Analysis
- How to do a Monte Carlo Analysis
- Benefits of a Monte Carlo Schedule Analysis
- Examples using risk analysis

Session 3 – Cost and Change Management

Instructor: Hassan Halepota - Bantrel Inc.

Course Outline:

- Progress and Cost Control Basics
 - Measuring Work Progress
 - Rules of Credit Examples
 - Earned Value for Fixed Budgets
 - Cost and Schedule Performance
 - Productivity
- Progress and Cost Control Continued
 - Earned Value for Variable Budgets
 - Quantity Adjusted Budgets
 - Cost and Schedule Performance II
 - Productivity Analysis
- Progress and Cost Control Reporting
 - Cost Control versus Financial Control
 - Budget and Schedule Baselines
 - Work, Cost and Schedule Statusing
 - Cost and Schedule Performance Curves
 - Productivity Tracking
- Cost Monitoring
 - Labour, Equipment, Material and Subcontract Cost Monitoring
 - Backcharges and Other cost Monitoring
- Change Management
 - Understand Change and Trend Process
 - Trends, Scope Trends and Non Scope Trends

Recommended Reading: *Skills and Knowledge of Cost Engineering*, 5th Edition by
AACE International – Chapters 14 to 17

Certification Study Guide, AACE International,
2nd Edition, Chapter 12 (or new 3rd Edition)

Session 4 – Cost Estimating Basics & Review for Certification Exam

Cost Estimating Basics

Instructor: Raivo Kelder - Colt WorleyParsons

Course Outline:

- Estimating Personnel
- What is an Estimate?
- Who does it involve?
- What constitutes a good estimate?
- Estimate Classification
- Estimating Tools and Systems
- Estimate Preparation Process
- Estimate Reviews
- Definition Direct Field Costs
- Definition Indirect Field Costs
- Definition Home Office Costs
- Definition Other Costs
- Basic types of estimates
- Timing for Estimates
- Capacity Factored
- Equipment Factored
- Detailed Estimate

Recommended Reading: *Skills and Knowledge of Cost Engineering*, 5th Edition by
AACE International – Chapters. 1 to 11

Certification Study Guide, AACE International,
2nd Edition, May 1999 – Ch. 4, 5, 6, 7

Certification Exam Review

Instructors: Tanveer Ahmed & Hassan Halepota - AACEI Directors

- Certification Requirements
 - Objective
 - Area of Cert. Specialization
 - Eligibility
 - Maintenance
 - Fees
 - Use of CCE & CCC Designation
 - Suspension or revocation of Certification
 - Canon of Ethics