

Course Title: AIChE's Chemical Process Economics Evaluations

Course ID:	Course Type:
ELA151	eLearning Course
http://www.aiche.org/ela151	

Course Outline

- Lesson 1: Introduction
 - Working with an evaluation client
 - Looking for value opportunities
 - Levels of evaluation
 - Determination of the value of 1% selectivity to global ethylene oxide producers
- Lesson 2: Process Design
 - Heat and Material Balances
 - Unit Operations
 - Flowsheet Considerations
 - Shortcut Design for your Toolbox
 - Lesson 2 Worked Exercise
- Lesson 3: Costs of Production and Pricing
 - Variable Costs
 - Fixed Costs
 - Raw Material and Product Pricing
 - Utility Pricing
 - Glossary
 - Lesson 3 Worked Exercise
- Lesson 4: Capital Cost Estimating
 - Scope of ISBL and OSBL
 - Estimate Classification
 - Sources of Estimates
 - Equipment Specifications
 - Working with Estimates
 - Lesson 4 Worked Exercise
- Lesson 5: Cash Flow Analysis
 - Time value of money
 - Project Considerations

- Depreciation and Taxes
 - Working Capital
 - Cash Flows and Metrics
 - Non-Standard Periods
 - Lesson 5 Worked Exercise
- Lesson 6: Putting it All Together
 - Sensitivity Analysis
 - Dashboards
 - Break Even Plots
 - Tornado Diagrams
 - Evaluations Course Summary
- Final Exam