



ESM 610: Cost Estimating

What is Cost Estimating?

Cost estimating is a predictive process used to quantify, cost, and price the resources required by the scope of an investment option, activity, or project. As a predictive process, estimating must address risks and uncertainties. The outputs of estimating are used primarily as inputs for budget, cost, or value analysis, decision making in business, asset and project planning, or for project cost and schedule control processes.

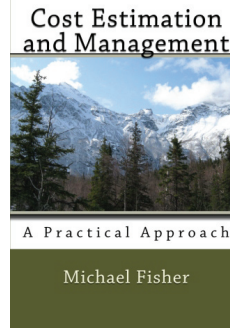
Costs are at the heart of every technical decision an engineering or technical manager makes; whether making an equipment selection, conducting cost comparisons, or pricing a new product or service, no decision is made without the complete understanding of the costs.

The objective of the Cost Estimating course is to examine the development of estimates, how they are made, the kinds and accuracies of estimates, and where they should be used in order to allow the engineering or technical manager to perform at their best. It is not the intent of the course to make the students professional estimators or quantity surveyors, but rather to give an understanding of how estimates are performed so that as a manager the student is capable of asking the right questions, assuring that comparisons are done on an equivalent basis, and facilitating the work of the professionals they manage.

Course Topics:

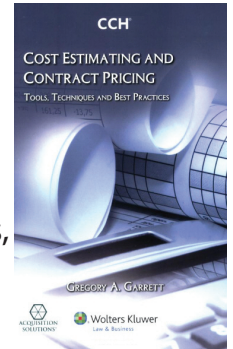
- Fundamentals of Cost Estimating
- Cost Accounting
- Cost Classification
- Estimation of O&M Costs
- Estimation of Capital Costs
- Alternatives Analysis
- Contracting
- Funding and Financing
- Life Cycle Cost Analysis
- Cost Control and Earned Value Management
- Adjusting Costs for Time and Location
- Operations Research and Modeling Techniques
- Risk Analysis Techniques for Cost Estimating
- Global Issues in Cost Estimating

Textbooks:



Cost Estimation and Management:
A Practical Approach
by Michael Fisher

Cost Estimating and Contract Pricing: Tools, Techniques and Best Practices
by Gregory A. Garrett



For more information, please contact the ESM Department or the instructor, Mike Fisher, at afmhf@uaa.alaska.edu.

About the Instructor:

Mike Fisher, MSPM, MBA, PMP, is a Project Consultant at Northern Economics. Mike provides business and financial consulting services and expertise in value-added data analysis, risk assessment, and the application of business and financial principles to problem solving. He also teaches Operations Research in the ESM Program, Project Cost Management in the PM Program, and the Cost and Risk segments of the Project Management Professional certification prep course. He can be reached at afmhf@uaa.alaska.edu.