

CE 503: Construction Finance and Business Management

Course Description:

Fundamental theories and applied methods for financial management of construction projects and companies. Construction accounting, cash flow analysis, financial planning and management, and risk analysis. Case studies.

Course objectives (course designed to provide students with):

This course introduces fundamental theories and applied methods of accounting, financial management of construction projects and construction companies. Specific topics include construction accounting, financial management, cash flow analysis, financial planning, risk analysis, project financing, etc.

Student Competencies (students should be able to):

1. Apply knowledge of mathematics, science, and engineering.
2. Identify, formulate, and solve engineering problems.
3. Use the techniques, skills, and modern engineering tools necessary for engineering practice.
4. Explain basic concepts in management, business, public policy, and leadership.

Course Topics

- Construction Financial Management
- Construction Accounting Systems
- Analysis of Financial Statements & Managing Costs
- Managing Overhead Costs & Profit Margin Analysis
- Cash Flows & Taxes for Construction Projects
- Time Value of Money & Evaluating Investments
- Financing Company Financial Needs
- Making Capital Investment Decisions
- Financial Risk Management Policies