CET 240 Cost Engineering

Course Description: A course on how budgets evolve as projects move from pre-design through construction. Topics include: types of estimates employed at each phase, formulating unit prices, time value of money and true profit, cash flow, cost indices, and using estimating software.

Prerequisites(s): CET 135 **Corequisite(s):** None

Lecture Hours: 2	Lab Hours: 2	Credit Hours: 3
Lab Fee: $70	Supplemental Fee: $0	Purpose:
☐ Transfer Assurance Guide Course (TAG)	☐ Transfer Module Course (TM)	
Course Format: Lec/Lab	Grading: A/B/C/D/F/I	
Delivery Method: □ Web	□ Hybrid	☒ Classroom
Semesters Offered: ☒ Fall	☒ Spring	☒ Summer

Course Primary Text:

Title: Cost Engineering	Edition: 1st
Author(s): John Buttelwerth	
Publisher: College Duplicating Center	

Supplemental Materials:

Sage Timberline Estimating Extended construction estimating software

Course Outcomes:

1	ABET (A), Reinforced: an ability to apply knowledge, techniques, skills and modern tools of the discipline to narrowly defined engineering technology activities.
2	ABET (D), Reinforced: an ability to function effectively as a member of a technical team.
3	ABET (F), Reinforced: an ability to apply written, oral and graphical communications in both technical and non-technical environments; an ability to identify and use appropriate technical literature.
4	ABET (I), Reinforced: a commitment to quality, timeliness and continuous improvement.
5	ACCE 5, Assessed: Interpret construction documents (contracts, specifications, and drawings) used in managing a construction project.
6	ACCE 6, Assessed: Apply basic principles of construction accounting.

Course Topics:

Week 1	Introduction to course. One-Story - vs. – Two-Story
Week 2	Evolution of the Project
Week 3	Phases of Design

Week 4	Evolution of the Budget
Week 5	Types of Estimates
Week 6	Productivity, Equipment, Labor Rates, and Crew Mix
Week 7	What is a Unit Cost and What is a Unit Price?
Week 8	Time Value of Money.
Week 9	Construction Loans, Cash Flow, Payment Submittals, and True Profit.
Week 10	Construction Cost Indices.
Week 11	Buy - vs. - Rent Scenarios and Life-Cycle Costing.
Week 12	Timberline Computer Estimating
Week 13	Timberline Computer Estimating
Week 14	Timberline Computer Estimating
Week 15	Timberline Computer Estimating

Methods of Evaluation/Assessment

Student Unit Price Project = 15%
Homework = 10%
Exercises = 25%
(2) or (3) Tests = 50%

Course Keeper: ~~John Buttelwerth~~
Course Keeper: Carol Morman

Date Completed: 09/09/13
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