

**RINKER SCHOOL OF CONSTRUCTION MANAGEMENT  
UNIVERSITY OF FLORIDA**

## **COST ANALYSIS**

**COURSE NUMBER:** BCN 5625

**NUMBER OF CREDIT HOURS:** 3

*“No one disputes the importance of the cost and financial aspects of a project, or the particular difficulty of estimating and controlling costs. Cost remains a constant source of concern in virtually all construction projects.”*

**INSTRUCTOR:** Abdol Chini (chini@ufl.edu)

**RECOMMENDED MATERIALS:**

*Project and Cost Engineers Handbook (PCEH), Fourth Edition, Edited by Kenneth K. Humphreys, A Publication of AACE International - – the Association for the Advancement of Cost Engineering, 2004*

*Project Scheduling and Cost Control: Planning, Monitoring and Controlling the Base line (PSCC), By James Taylor, J Ross Publishing, 2008*

*Skills & Knowledge of Cost Engineering (SKCE), Fifth Edition, Edited by Scott Amos, A Publication of AACE International – the Association for the Advancement of Cost Engineering*

*Certification Study Guide (CSG), Second Edition, A Publication of AACE International.*

**COURSE DESCRIPTION:**

*Study of cost engineering and cost distribution and comparative analysis of actual and estimated cost as used for project control.*

**PREREQUISITE KNOWLEDGE AND SKILLS:**

*BCN 4612C/BCN 5618C and BCN 4720/BCN 5722, or permission of the instructor*

**PURPOSE OF COURSE:**

*This course covers a systematic approach to managing cost throughout the life cycle of any project. It is accomplished through the application of cost engineering and cost management principles, proven methodologies and the latest technology in support of the management process.*

## **COURSE LEARNING OUTCOMES:**

*Upon completion of the course students will demonstrate their ability to:*

- *apply cost engineering techniques used during preconstruction, construction, and post construction*
- *relate the cost elements to the life cycle of the asset; and examine how cost is measured, applied, and recorded to arrive at the total activity cost*
- *assess project control baselines and how to track project costs and schedule performance from reports, and analyze project reports to identify trends and forecast potential problems*
- *analyze risk and assess risk items in terms of occurrence, impact, and mitigation; apply quantitative risk analysis and use risk analysis software*

## **COURSE POLICIES:**

### **ASSIGNMENT POLICY:**

*Assignments are due at the end of each module and before beginning of the next module. All work turned in for this course is expected to be of professional quality in content and presentation.*

### **EXAM POLICY:**

*Tests are open-book but are limited in time. Test 1 shall be taken upon completion of module 3 and submission of assignment 3. Likewise, Tests 2 shall be taken upon completion of module 6 and submission of assignment 6.*

### **CASE STUDY REQUIREMENTS:**

*Develop a case study / problem exercise for use in a future Cost Analysis course. This should include a short description of the scenario and the "cost information" that the participant will use to come up with a solution. Please provide your recommended solution to the case. The case subject should be related to modules 7, 8, and 9.*

## **UF POLICIES:**

### **UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES:**

*Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.*

## UNIVERSITY POLICY ON ACADEMIC MISCONDUCT:

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at

<http://www.dso.ufl.edu/students.php>. Although joint work on assignments may be acceptable in some cases, duplication of an assignment, both manually or by computer will be considered an act of academic dishonesty and dealt with accordingly. On all work submitted for credit by students at the university, the following pledge is either required or implied: **"On my honor, I have neither given nor received unauthorized aid in doing this assignment."**

## GETTING HELP:

For issues with technical difficulties for E-learning in Canvas, please contact the UF Help Desk at:

- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

## GRADING POLICIES:

| Assignment              | Percentage |
|-------------------------|------------|
| Test 1 (Modules 1-3)    | 25%        |
| Test 2 (Modules 4-6)    | 25%        |
| 8 Assignments @ 4% each | 32%        |
| Case Study              | 18%        |
| Total                   | 100%       |

## GRADING SCALE:

Grades will be computed according to the following scale:

A=93-100; A- =90-92.9; B+ =87-89.9; B=83-86.9; B- =80-82.9; C+ = 77-79.9; C=73-76.9; C- =70-72.9; D+ =67-69.9; D=63-66.9; D- =60-62.9; E<60.

| Grade Values for Conversion |     |      |      |      |      |      |      |      |      |      |     |                   |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|-----|-------------------|
| Letter Grade                | A   | A-   | B+   | B    | B-   | C+   | C    | C-   | D+   | D    | D-  | E, I, NG, S-U, WF |
| Grade Points                | 4.0 | 3.67 | 3.33 | 3.00 | 2.67 | 2.33 | 2.00 | 1.67 | 1.33 | 1.00 | .67 | 0.00              |

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu>.

## COURSE SCHEDULE:

| <b>Module</b> | <b>Subject and Coverage</b>        | <b>Reading</b>                   | <b>Assignment</b>   |
|---------------|------------------------------------|----------------------------------|---------------------|
| 1             | <i>Cost and Pricing</i>            | <i>SKCE Ch.1&amp;2</i>           | <i>Assignment 1</i> |
| 2             | <i>Schedule and Cost Control</i>   | <i>PSCC Ch.1</i>                 | <i>Assignment 2</i> |
| 3             | <i>Economic Costs</i>              | <i>SKCE Ch.7, 27&amp;28</i>      | <i>Assignment 3</i> |
|               | <b>Test 1</b>                      | <b>MODULES 1-3</b>               |                     |
| 4             | <i>Monitoring and Control</i>      | <i>SKCE Ch.14, 15, 16&amp;17</i> | <i>Assignment 4</i> |
| 5             | <i>Labor Cost Control</i>          | <i>SKCE Ch.4 &amp;21</i>         | <i>Assignment 5</i> |
| 6             | <i>Risk Management</i>             | <i>SKCE Ch.29, 30&amp;31</i>     | <i>Assignment 6</i> |
|               | <b>Test 2</b>                      | <b>Modules 4-6</b>               |                     |
| 7             | <i>Cost Control Worldwide</i>      | <i>PCEH Ch. 10</i>               | <i>Assignment 7</i> |
| 8             | <i>Technology and Cost</i>         | <i>PCEH Ch. 11</i>               | <i>Assignment 8</i> |
| 9             | <i>Ethics and Cost Engineering</i> | <i>PCEH Ch. 12</i>               |                     |
|               | <b>Case Study</b>                  | <b>Module 7-9</b>                |                     |

*Disclaimer: This syllabus represents the current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.*