RINKER SCHOOL OF CONSTRUCTION MANAGEMENT UNIVERSITTY OF FLORIDA

CONSTRUCTION VALUE MANAGEMENT

COURSE NUMBER: *ICM 6440*

NUMBER OF CREDIT HOURS: 3

"Value Management is a vigorous, systematic effort to improve the value and optimize the life cycle cost of a facility."

INSTRUCTORS: Abdol Chini (chini@ufl.edu) and Robert Ries (rries@ufl.edu)

COURSE WEBSITE: http://elearning.ufl.edu/

REFERENCES:

- 1. Dell'Isola, A., 1997, Value Engineering: Practical Applications for Design, Construction, Maintenance, and Operations. RS Means, Kingston, MA.
- 2. RS Means Costworks on-line cost data
- 3. Dell'Isola A, Kirk, S, 2003, Life Cycle Costing for Facilities. Reed Construction Data
- 4. Younker, DL, 2003, Value Engineering. Marcel Dekker, New York, NY.

COURSE DESCRIPTION:

Classical value management/value engineering principles; practical applications for designers, contractors, suppliers, and other construction functions. Students conduct full-scale VM/VE studies of recent international projects.

PREREQUISITE KNOWLEDGE AND SKILLS:

Graduate standing

PURPOSE OF COURSE:

The student will understand the role of VE in construction. Classical VE principles will be emphasized and practical applications for construction managers, contractors, and other construction functions will be described.

COURSE LEARNING OUTCOMES:

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

- 1. Understand the concepts of Value Engineering with emphasis on Functional Analysis and Life-Cycle Costing.
- 2. Understand the use of VE in the construction industry
- 3. Develop and apply creativity skills
- 4. Apply VE to construction company business and industry technical situations
- 5. Understand and apply VE problem solving techniques as a management tool

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 at the completion of module 4 (submission of assignment 4). Likewise, Tests 2 shall be taken at the completion of module 8 (submission of assignment 8). The final exam is comprehensive and covers modules 1 thru 10.

UF POLICIES:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES:

Students requesting accommodation for disabilities must first register with the Dean of Students Office (https://disability.ufl.edu/). 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<u>https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/</u>. 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
- (352) 392-HELP select option 2
- <u>https://lss.at.ufl.edu/help.shtml</u>

GRADING POLICIES:

Test 1 (Modules 1-4)	18%
Test 2 (Modules 5-8)	18%
Assignments	38%
Final Exam (Modules 1-10)	26%
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	А	A-	B+	В	B-	C+	С	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 professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

COURSE SCHEDULE:

<u>MODUE</u> 1	<u>SUBJECT AND COVERAGE</u> Introduction Value Engineering history and concepts	<u>ASSIGNMENT</u> Assignment # 1
2	Planning for VE services	Assignment # 2
3	Project scope and budget	Assignment # 3
4	Modeling techniques	Assignment # 4
	Modules 1, 2, 3, and 4	Test #1
5	Value analysis study plan	Assignment # 5
6	Function analysis and FAST diagrams	Assignment # 6
7	Creative problem solving	Assignment# 7
8	Decision Making Techniques	Assignment # 8
	Modules 5, 6, 7, and 8	Test #2
9	Life Cycle Costing	Assignment # 9
10	Case Studies	Assignment # 10
	Modules 1 thru 10	Final Exam

<u>Disclaimer</u>: 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.