

<p>Kingdom of Saudi Arabia Ministry of Higher Education Qassim University College of Engineering</p>		<p>المملكة العربية السعودية وزارة التعليم العالي جامعة القصيم كلية الهندسة</p>
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CE 621 Cost Analysis and Control

College: Engineering

Department: Civil

First: Course Definition

1- Course Code: CE 621

2- Units: 3

3- Semester:

4- Prerequisite:

5- Co-requisite:

6- Location (if not on main Campus):

Second: Course Objectives

- 1 Applying the basic principles of cost accounting, financial analysis, and cost control.
2. Providing experiences in the Integration of scheduling and cost control.
3. Learn about Systematic cost control as related to job production and historical data

1- Topics to be covered		
Subject	No of Weeks	Units
Course overview, expectations and teaming	1	3
Cost terms and purposes	1	3
Cost volume profit and analysis	1	3
Job costing	1	3
Activity based costing/management	1	3
Master budget/responsibility accounting	1	3
Flexible budgets, direct cost- variances, team self assessments due as needed.	1	3
Capacity analysis, decision making-relevant information	2	6
Strategy balance scorecard	1	3

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Pricing decisions/cost management	1	3
Allocations/profitability analysis	1	3
Management control systems, transfer pricing.	2	6

2- Course components (Total hrs in a semester): 42

Lecture	Excercise	Other
42	-	0

3- Intended Learning Outcomes of the Course (ILO's)

a. Knowledge

i) Description of the knowledge to be acquired:

- The nature of costs, what causes them to be incurred, and how to control them in a variety of industries.
- The application of cost analysis & control concepts using job order and process costing.
- The identification of cost terms and classification.
- Analysis of cost volume profit.
- Determination of breakeven point and output to achieve target income.
- Description of different methods of costing by products and joint products.
- The concept of activity cost based costing.
- The techniques of good cost analysis.
- The correct use of cost information, process and customer related decisions.

ii) Teaching strategies to be used to develop that knowledge

- Class lectures.
- Term projects.
- Students' presentations.
- Group Discussion

iii) Methods of assessment of knowledge acquired

- Exams.
- Quizzes.
- Homework assignments.
- Term projects.

b- Cognitive (Intellectual) Skills

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i) Cognitive skills to be developed

- The ability to accumulate costs for a job order cost system and a process cost system.
- The ability to calculate cost and variance for material, labor and overhead in the manufacturing of products.
- The ability to prepare cost analysis for decision making.
- The ability to perform variance analysis.
- The ability to prepare a performance report.

ii) Teaching strategies to be used to develop these cognitive skills

- Case studies analysis.
- Class lectures.
- Term projects.

iii) Methods of assessment of students' cognitive skills

- Students' seminars and presentations.
- Term projects.
- Written reports.

c. Interpersonal Skills and Responsibility

i) Description of the interpersonal skills and capacity to carry responsibility to be developed

- Communication skills.
- Decision making based on engineering analysis.
- Team work.

ii) Teaching strategies to be used to develop these skills

- Case studies analysis.
- Class lectures.
- Term projects.

iii) Methods of assessment of students' interpersonal skills and capacity to carry responsibility

- Term project.
- Students' seminars and presentations.
- Written reports.

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d. Communication, Information Technology and Numerical Skills

i) Description of the skills to be developed in this domain

- Literature research.
- Problems modeling.
- Utilization of computer applications in Cost Analysis and Control

ii) Teaching strategies to be used to develop these skills

- Class lectures.
- Case studies analysis.
- Computer lab sessions.
- Term projects.

iii) Methods of assessment of students numerical and communication skills

- Term projects.
- Written reports.
- Students' seminars and presentations

e. Psychomotor (if applicable) & Other Non-cognitive Skills

i) Description of the psychomotor or other skills to be developed and the level of performance required

- NA

ii) Teaching strategies to be used to develop these skills-

- NA
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iii) Methods of assessment of student's psychomotor skills

- NA

4- Student Assessment Schedule

Serial	Assessment tool (test, group project, examination etc.)	Week due	Weight
1	Term Project – 1	3 rd	15 %
2	Mid Term Exam -1	7 th	15 %
3	Term Project – 2	10 th	15 %
4	Term Project – 3	13 th	15 %

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5	Final Exam	16 th	40 %
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5- Student Support

- Providing electronic library of textbooks and scientific periodicals.
- Providing the necessary computer applications for the course.

6- Learning Resources

i) Essential Books (References)

- Dagastino, F. & Leslie Feigenbaum, L. "Estimating in Building Construction". Prentice, Hall, 7th Edition, 2011. ISBN-10: 0-13-119952-8, ISBN-13: 978-0-13-119952-1
- Associated General Contractors of America, "Construction Estimating and Bidding in Building Construction", 2nd Edition, 2005.

ii) Course Notes

- NA'

iii) Recommended Books

- Hansen, D.R. & Mowen, M.M & Guan, L. "Cost Management: Accounting and Control", South- Western College Publishing, 6th Edition, 2007.
- Horngren, C.T. "Cost Accounting". Pearson Press, 14th Edition, 2011.
- Humphreys, K.K. "Basic Cost Engineering",. CRC Press. 3rd Edition, 1995.
- Tagayun, V.A. "Estimating Bill of Materials". National Bookstore, 2nd Edition, 2002
- Younker, D. "Value Engineering: Analysis & Methodology(Cost Engineering)". CRC Press, 2003.

iv) Electronic Books & Web Sites:

- Scientific journals and forums.
- Instructor's instruction.

v) Periodicals

- ASCE *Journal of Construction Engineering and Management*
- International Journal of Construction Management
- Journal of Cost Analysis and Management.

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7- Course Evaluation and Improvement Processes

i) Strategies for Obtaining Student Feedback on Effectiveness of Teaching

- Students' questioners.
- Students' evaluation of course and instructor.

ii) Other Strategies for Evaluation of Teaching by the Instructor or by the Department

- Public faculty seminars.
- Assessment by external evaluators of students achievements.

iii) Processes for Improvement of Teaching

- Assessment of students' work by external examiners.
- Analysis of students' evaluation of course and instructor.
- Seminars by industry professionals.

iv) Processes for verifying standards of student achievement

- Check marking by an independent faculty member of a sample of student work.
- Periodic exchange and remarking of a sample of assignments/exams with a external evaluator.

v) Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

- Assessment and evaluation of the level of achieving the course outcomes through a continuous improvement process (part of a quality assurance system established by the university),
- Consequently, actions are to be taken to improve the course delivery when necessary.
- Review of the course objectives, outcomes and curriculum every 2 years.