DEPARTMENT OF MECHANICAL AND INDUSTRIAL ENGINEERING
INDUSTRIAL ENGINEERING PROGRAM, BSC.

Course Syllabus

1. **Course number and name**
   IE 420 Engineering Cost Analysis

2. **Credits and contact hours**
   (3+0) 3 credit hours, 3 contact hours

3. **Course Type**
   Onsite

4. **Instructor's or course coordinator's name**
   Dr. Nader Al Theeb

5. **Textbook information**
   Horngren, C., Datar, S., and Rajan, M., "Cost Accounting: A managerial Emphasis", 14th edt. Pearson education, 2012.

   a. **Other supplemental materials**
   -handouts.

6. **Specific course information**
   a. **Catalog description**

Cost behavior, cost analysis, job costing, process costing, Activity Based Costing (ABC), departmental costing, by-product and Joint product costing, variance analysis.

   b. **Prerequisites or co-requisites**

Prerequisite: Fourth year level

   c. **The course is:**
   Required in the Industrial Engineering program.

7. **Specific goals for the course**
   a. **Course outcomes:**
   After completion of the course, students are expected to be able to:
      1. Read and write Accounts and construct financial statements.
      2. Discuss the importance of direct and indirect costs
      3. Describe the process of Job, and activity-based costing and compare between them
      4. Describe the process costing with its all cases

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b. The following student outcomes are addressed by the course:

SO-(e) an ability to identify, formulate, and solve engineering problems.

SO-(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context

8. Learning Outcomes and their Alignment with Program Educational Objective (PEO's), Methods of Delivery, and Assessment Methods:

Learning Outcomes	Program PEOs	Method of Delivery	Assessment Method
Course Outcomes			
CO(1): Read and write Accounts and construct financial statements.	-	Lectures	Assignment, quiz, and Discussion
CO(2): Discuss the importance of direct and indirect costs	-	Lectures (Example and Problems)	Assignment and Quiz
CO(3): Describe the process of Job, and activity-based costing and compare between them	-	Lectures (Example and Problems)	Assignment and Quiz
CO(4): Describe the process costing with its all cases	-	Lectures (Example and Problems)	Assignment and Quiz
Student Outcomes			
SO-(e) an ability to identify, formulate, and solve engineering problems.		Lectures (Example and Problems)	Midterm Exam, assignments, and project
SO-(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context		Lectures (Example and Problems)	Midterm Exam, assignments, and project

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9. Weekly Teaching Plan

Lecture	Topic	Method of Delivery
Lec_1	Handout: Introduction to Accounting	Lecture
Lec_2	Handout: Introduction to Accounting	Lecture
Lec_3	Handout: Introduction to Accounting	Lecture
Lec_4	Handout: Introduction to Accounting	Lecture
Lec_5	Handout: Introduction to Accounting	Lecture
Lec_6	Chapter - 02: An Introduction to Cost Terms and Purposes	Lecture
Lec_7	Chapter - 02: An Introduction to Cost Terms and Purposes	Lecture
Lec_8	Chapter - 02: An Introduction to Cost Terms and Purposes	Lecture
Lec_9	Chapter - 02: An Introduction to Cost Terms and Purposes	Lecture
Lec_10	Chapter - 02: An Introduction to Cost Terms and Purposes	Lecture
Lec_11	Chapter - 03: Cost-Volume-Profit Analysis	Lecture
Lec_12	Chapter - 03: Cost-Volume-Profit Analysis	Lecture
Lec_13	Chapter - 03: Cost-Volume-Profit Analysis	Lecture
Lec_14	Chapter - 03: Cost-Volume-Profit Analysis	Lecture
Lec_15	Chapter - 03: Cost-Volume-Profit Analysis	Lecture
Lec_16	Chapter - 04: Job Costing	Lecture
Lec_17	Chapter - 04: Job Costing	Lecture
Lec_18	Chapter - 04: Job Costing	Lecture
Lec_19	Chapter - 04: Job Costing	Lecture
Lec_20	Chapter - 04: Job Costing	Lecture
Lec_21	Chapter - 04: Job Costing	Lecture
Lec_22	Chapter - 04: Job Costing	Lecture
Lec_23	Chapter - 04: Job Costing	Lecture
Lec_24	Chapter - 04: Job Costing	Lecture
Lec_25	Chapter - 05: Activity based Costing	Lecture
Lec_26	Chapter - 05: Activity based Costing	Lecture
Lec_27	Chapter - 05: Activity based Costing	Lecture
Lec_28	Chapter - 05: Activity based Costing	Lecture
Lec_29	Chapter - 05: Activity based Costing	Lecture
Lec_30	Chapter - 05: Activity based Costing	Lecture
Lec_31	Chapter - 11: Decision Making and Relevant Information	Lecture

Lec_32	Chapter - 11: Decision Making and Relevant Information	Lecture
Lec_33	Chapter - 11: Decision Making and Relevant Information	Lecture
Lec_34	Chapter - 12: Pricing Decisions and Cost Management	Lecture
Lec_35	Chapter - 12: Pricing Decisions and Cost Management	Lecture
Lec_36	Chapter - 12: Pricing Decisions and Cost Management	Lecture
Lec_37	Chapter - 17: Process Costing	Lecture
Lec_38	Chapter - 17: Process Costing	Lecture
Lec_39	Chapter - 17: Process Costing	Lecture
Lec_40	Chapter - 17: Process Costing	Lecture
Lec_41	Chapter - 17: Process Costing	Lecture
Lec_42	Chapter - 17: Process Costing	Lecture
Lec_43	Chapter - 17: Process Costing	Lecture
Lec_44	Chapter - 17: Process Costing	Lecture
Lec_45	Chapter - 17: Process Costing	Lecture

10. Grade distribution

Assessment	Grade	Date
- Midterm Exam	30%	
-Project Reports /Quizzes/ Seminar /Homeworks ….)	20%	
- Final Examination	50%	

Make-up exams will be offered for valid reasons. It may be different from regular exams in content and format.