

**DEPARTMENT OF INDUSTRIAL ENGINEERING  
COURSE SYLLABUS**

<i>COURSE TITLE</i>	<i>ENGLISH CODE/NO</i>	<i>ARABIC CODE/NO.</i>	<i>CREDITS</i>			
			<i>Th.</i>	<i>Pr.</i>	<i>Tr.</i>	<i>Total</i>
<b>Engineering Cost Analysis</b>	<b>IE 454</b>	حص ٤٥٤	3	1	-	3
<i>Pre-requisites:</i>	IE 255					
<i>Course Role in Curriculum</i>	<i>Required or Elective:</i>		Elective			
<b><i>Catalogue Description:</i></b> Importance of cost analysis in engineering. Cost terms and concepts. Cost estimation for decision making: cost-volume-profit analysis, measuring relevant costs and revenues, cost assignment and activity-based costing. Cost evaluation of engineering alternatives. Case studies.						

**Textbooks:**

MANAGEMENT ACCOUNTING FOR BUSINESS, Colin Drury, (2005), Thomson Learning, ISBN: 1-84480-152-7.

**References:**

**Resources Material:** All Material is available on the website [www.wahmad.net](http://www.wahmad.net) /[www.wahmad.com](http://www.wahmad.com). You need to register yourself in order to access the resource material. Your computer No is your user name select your password accordingl

**Supplemental Materials:**

**Course Learning Outcomes:**

*By the completion of the course the student should be able to:*

1. Understand the concepts of cost analysis, cost terms and management accounting.
2. Calculate and apply Cost-Volume-Profit Analysis.
3. Make decisions by Measuring relevant cost and revenues.
4. Calculate and explain the cost assignment.
5. Compute and explain Activity based costing.
6. Use the techniques, skills, and modern engineering tools necessary for cost decision practices.

<b><u>Topics to be Covered:</u></b>		<b><u>Duration in Weeks</u></b>
1	Introduction to Cost Analysis and Management Accounting	1
2	Introduction to Cost Terms	1.5
3	Cost-Volume-Profit Analysis	1.5
4	Measuring Relevant Costs and Revenues for Decision-Making	2
5	Cost Assignment	2.5
6	Distinguish between cause-and-effect and arbitrary cost	2.5
7	Activity Based costing	3

**Student Outcomes addressed by the course:** (Put a  $\checkmark$  sign)

(a)	an ability to apply knowledge of mathematics, science, and engineering	$\checkmark$
(b)	an ability to design and conduct experiments, as well as to analyze and interpret data	
(c)	an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	
(d)	an ability to function on multidisciplinary teams	
(e)	an ability to identify, formulate, and solve engineering problems	$\checkmark$
(f)	an understanding of professional and ethical responsibility	
(g)	an ability to communicate effectively	
(h)	the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context	
(i)	a recognition of the need for, and an ability to engage in life-long learning	
(j)	a knowledge of contemporary issues	
(k)	an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	$\checkmark$

**Key Student Outcomes assessed in the course:** ( ) and ( )

***Instructor or course coordinator:*** Dr. Manzoor Hussain Sheikh

***Last updated:*** Jan. 2014