DEPARTMENT OF INDUSTRIAL ENGINEERING
COURSE SYLLABUS

COURSE TITLE	*ENGLISH CODE/NO*	*ARABIC CODE/NO.*	*CREDITS*			
			Th.	*Pr.*	*Tr.*	*Total*
Feasibility Studies	**IE 456**	هـ ص ٤٥٦	3	1	-	3
Pre-requisites:	IE 255, IE 352					
Course Role in Curriculum	*Required or Elective:*		Elective			

Catalogue Description:
Introduction to feasibility studies: project identification, product mix and scope. Marketing feasibility: present and future market study, demand, pricing, and revenue. Technical feasibility: site selection, material, labor, equipment, knowhow, and shipping. Financial feasibility: project financing, production cost, break-even analysis, profitability analysis Organizational and administrative feasibility: Organizational structure, governmental regulations, safety and environmental standards, patents and human relations. Reporting and presentation. Case studies.

***Textbooks*:**
FEASIBILITY STUDY: PREPARATION AND ANALYSIS, PCH Publications (Editors), ASIN:B000VFH16K

***References*:**

- MANUAL FOR THE PREPARATION OF INDUSTRIAL FEASIBILITY STUDIES (2007, Revised Edition), W. Behrens, P. M. Hawranek; Published by United Nations Industrial Development Organization, (UNIDO), Order No.ID/372
- SYSTEM ANALYSIS & DESIGN FOR THE GLOBAL ENTERPRISE(2007), Bentley, L & Whitten, J; 7th Edition
- HOW TO PREPARE A FEASIBILITY STUDY: A STEP-BY-STEP GUIDE INCLUDING 3 MODEL STUDIESRobert R. Stevens Prentice-Hall (1982) ISBN-10: 0134292413, ISBN-13: 978-0134292410
- START YOUR OWN BUSINESS (2007), RievaLesonsky, Entrepreneur Press; 4 edition ISBN-10: 1599180812, ISBN-13: 978-1599180816.
- FEASIBILITY STUDIES, Adel taha, 2003G, aldaaralhandsyh.
- THE FEASIBILITY STUDY OF CAPITAL PROJECTS, 2005G, Ameenlotfi, aldaaraljamyh

***Supplemental Materials*:**

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

1. Create a technically and economically feasible concept.
2. Present an idea or project to secure the required funding and support and convince stakeholders.
3. Present problems in a way which does not prejudice the project's prospects.

4. Accurately analysis and properly assess the potential and viability of the venture.
5. Study a project and optimize it before starting to save time and money.
6. Effectively plan and schedule projects.
7. Comprehensively analyze market, prepare cash flow projections.
8. Do critical and sensitivity analysis.
9. Use COMFAR, UNIDO's Computer Model for Feasibility Analysis and Reporting.

Topics to be Covered:		***Duration in Weeks***
1	Introduction to feasibility studies	1
2	Basic aspects of pre-investment studies and the investment project	1
3	Project / product identification, determining product portfolio	1.5
4	Financial feasibility, marketing research, breakeven analysis	2
5	Implementation planning and financial analysis and investment appraisal	1.5
6	Technical feasibility, raw materials, engineering and technology, organization and overhead costs, human resources	2
7	Profitability analysis, administrative feasibility	1
8	Organizational structure, governmental regulations, safety and environmental standards	1
9	Software for feasibility study preparation, COmputer Model for Feasibility Analysis and Reporting (COMFAR) and PROPSPIN	1
10	Case studies	2

Student Outcomes addressed by the course: (Put a √ sign)

(a)	an ability to apply knowledge of mathematics, science, and engineering	√
(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	√
(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.	√

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

Instructor or course coordinator: Dr. Said Ali Hassan El-Quliti

Last updated: Jan. 2014