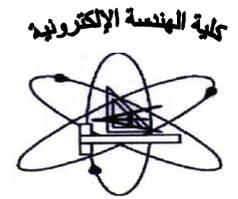


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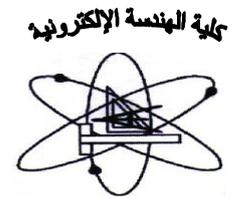
Department offering the program: Electronics and Electrical Communications
Department offering the course: Physics and Engineering Mathematics

Course Specification

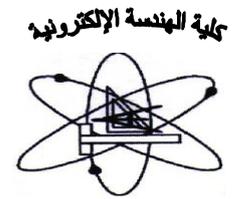
1- Course basic information :		
Course Code: UR 027 Univ. Requirement	Course Title: Engineering History	Academic year: 2015/2016 Level (0) – Semester : 2nd
Field: Humanities and Social Science	Teaching hours: Lecture <input type="text" value="2"/>	Tutorial <input type="text" value="0"/> Lab <input type="text" value="0"/>

2- Course Objectives	<ol style="list-style-type: none"> 1. To provide students with the definition of art, science, technology and engineering. 2. To inform students definition of Cultural heritage, its source, ups and downs, objectives and motivations. 3. To throw light on some of the scientific facts brought about by human civilization. 4. To inform students the relation between engineering development and society development. 5. To introduce students to the development of selected industries.
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3- Intended Learning Outcomes: ARS		Course ILOs
A- Knowledge and Understanding:	A.9) Outline topics related to humanitarian interests and moral issues.	A9.1) Outline the definitions of art, science, technology and engineering. A9.2) Outline Cultural heritage, its source, ups and downs, objectives and motivations. A9.3) Outline scientific facts brought about by human civilization. A9.4) Outline the relation between engineering development and society development. A9.5) Outline the development of selected industries e.g. textiles, garment, plastics, refrigeration, pumps, electric, etc.
	A.11) Define professional ethics and impacts of engineering solutions on society and environment.	A.11.1) Define impacts of arts, science, technology and engineering on society and environment. A.11.2) Define impacts of Cultural heritage, objectives and motivations on society and environment. A.11.3) Define impacts of scientific facts brought about by human civilization on society and environment. A.11.4) Define impacts of engineering development on society development. A.11.5) Define impacts of the development of some industries e.g. textiles, garment, plastics, refrigeration, pumps, electric on society and environment.



B- Intell. Skills	None	None
C- Prof. Skills	C.12. Prepare and present technical reports.	C12.1 Prepare and present technical reports on topics related to arts, science, technology and engineering. C12.2 Prepare and present technical reports on topics related to Cultural heritage. C12.3 Prepare and present technical reports on topics related to scientific facts brought about by human civilization. C12.4 Prepare and present technical reports on topics related to the relation between of engineering development and society development. C12.5 Prepare and present technical reports on topics related to the development of selected industries.
D- General Skills	D.3) Communicate effectively. D.6) Effectively manage tasks, time, and resources.	D3.1) Communicate effectively in lecture time. D6.1) Effectively manage tasks, time, and resources when writing a report or at exam times.
4- Course Contents	Definition of art, science, technology and engineering. Definition of Cultural heritage, its source, ups and downs, objectives and motivations, throwing light on some of the scientific facts brought about by human civilization. Relation between of engineering development and society development. Development of selected industries (textiles, garment, plastics, refrigeration, pumps, electric, etc.).	
5- Teaching and Learning Methods	<ul style="list-style-type: none"> - Lectures - Repots 	
6- Teaching and Learning Methods for disable students	<ul style="list-style-type: none"> • Assign a portion of the office hours for those students. • Arrange meetings for more discussion and declaration. • Repeat the explanation of some of the material during lecture time. 	
7- Student Assessment		
2- Assessment Methods	<ul style="list-style-type: none"> - Reports - Quizzes. - Midterm, and final exams 	
b- Assessment Schedule	<ul style="list-style-type: none"> - Quizzes - Mid-Term exam: - Final – term examination: 	<ul style="list-style-type: none"> Week 4 and 12 Week <u>no</u> 8 Week <u>no</u> 16



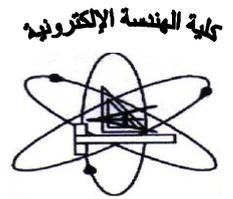
c- Weighting of Assessment	- Quizzes - Mid-term examination: - Final – term examination: Total	15 % 15 % <u>70 %</u> 100 %
8- List of text books and references:		
a- Course notes	There are lectures notes prepared in the form of a book authorized by the department	
b- Text books	[1] Ervan G. Garrison, History of Engineering and Technology: Artful Methods, CRC Press, 1998.	
c- Recommended books	[1] Richard Shelton Kirby, Engineering in History, Courier Corporation, 1990.	
d- Periodicals, Web sitesetc	Web sites related to history of engineering sciences	

Course contents - ILOs Matrix

Content Topics	Week	A- Knowledge & Understanding	B- Intellectual skills	C- Professional and practical skills	D- General and transferable skills
Definition of art, science, technology and engineering.	1-2	A9.1, A11.1		C12.1	D3.1, D6.1
Definition of Cultural heritage, its source, ups and downs, objectives and motivations	3-4	A9.2, A11.2		C12.2	D3.1, D6.1
Throwing light on some of the scientific facts brought about by human civilization.	5-7	A9.3, A11.3		C12.3	D3.1, D6.1
Relation between of engineering development and society development.	9-10	A9.4, A11.4		C12.4	D3.1, D6.1
Development of selected industries (textiles, garment, plastics, refrigeration, pumps, electric, etc.).	11-15	A9.5, A11.5		C12.5	D3.1, D6.1

Teaching and Learning Methods - ILOs Matrix

Teaching and Learning Methods	A- Knowledge & Understanding	B- Intellectual skills	C- Professional and practical skills	D- General and transferable skills
Lectures	A.9, A.11		C.12	D.3
Reports	A.9, A.11		C.12	D.3,D.6



Assessment Methods - ILOs Matrix

Assessment Methods	A- Knowledge & Understanding	B- Intellectual skills	C- Professional and practical skills	D- General and transferable skills
Reports	A.9, A.11		C.12	D.3, D.6
Quizzes, Midterm, and Final Written exams	A.9, A.11		C.12	D.6

Authorized from department board at 15/05/2016

Authorized from college board at 05/06/2016

Course coordinator:
Prof. Dr. Atef AboAlazm

Head of Department:
Prof. Fathi El-Sayed Abd El-Samie

