



University/Academy: Arab Academy for Science and Technology & Maritime Transport

Faculty/Institute: College of Computing and Information Technology

Program: Computer Science / Information Systems / software Engineering

**Form No. (12)
Course Specification**

1- Course Data

Course Code: CS481	Course Title: Computers & Society	Academic Year/Level: Year 4 / Semester 8
Specialization: Computer Science	No. of Instructional Units: 2 hrs lecture 2 hrs lab	Lecture:

2- Course Aim

The course covers the following topics: A Survey of major computer applications; The impact on automation with the concurrent risk of disqualification; The role of computers in simulation and modeling; Computers in business, management and the decision-making process; Social obligations of the computer professional; Computer networks and the potential information utility; Current status of artificial intelligence including robotics, pattern recognition, picture processing and theorem proving; Use of computers in the medical area; Computer in the home; Special topics such as: privacy, electronic funds transfer and security. The role of computers in manufacturing; Impact of computers on requirements of skilled and unskilled work.

3- Intended Learning Outcome:

a- Knowledge and Understanding

Students will be able to demonstrate knowledge of:

K1. Essential facts, concepts, principles and theories relating to computing and information and computer applications as appropriate to the program of study.

K9. Professional, moral and ethical issues involved in the exploitation of computer technology and be guided by the appropriate professional, ethical and legal practices relevant to the computing and information industry.

- Understand the effect of technology advances in different applications
- Understand The effect of the advancement of the internet and web in daily lives
- Understand the different technical medical applications and the effect on medical care.
- Be familiar with Biometrics and their applications
- Understand effect of Computers in the workspace.

	<ul style="list-style-type: none"> • Understand Ethical and privacy issues in Computer applications
b- Intellectual Skills	<p><u>By the end of the course, the student acquires high skills and an ability to understand:</u></p> <p>I7. Achieve judgments considering balanced costs, benefits, safety, quality, reliability, and environmental impact.</p> <p>I8. Be familiar with the professional, legal, moral and ethical issues relevant to the computing industry.</p> <ul style="list-style-type: none"> • Achieve judgments considering balanced costs, benefits, safety, quality, reliability, and environmental impact. • Judge the effect of social media in the community • Achieve judgments considering balanced costs, benefits, safety, quality, and reliability in medicine • Achieve judgments considering balanced costs, benefits, safety, quality, and reliability in authentication • Achieve judgments considering balanced costs, benefits, safety, quality, and reliability in the workplace • Be familiar with the professional, legal, moral and ethical issues relevant to the computing industry.
c- Professional Skills	<p><u>By the end of the course the student will have the ability to:</u></p> <p>P4. Apply computing information retrieval skills in computing community environment and industry.</p> <p>P5. Prepare technical reports, and a dissertation, to a professional standard; use IT skills and display mature computer literacy.</p> <ul style="list-style-type: none"> • Employ the ethical, social, legal, and professional issues surrounding the emerging information technologies. • Use skills in moral reasoning, imagination, and behavior. • Apply a coherent set of positions on the issues in this course, and a plan for implementing them in his professional life. • Develop a complete project and be able to present it effectively orally
d- General Skills	<p><u>Students will be able to:</u></p> <p>G1. Show the use of general computing facilities.</p> <p>G2. Use an appropriate mix of tools and aids in preparing and presenting reports for a range of audiences, including management, technical, users, industry or the academic community.</p> <p>G4. Reveal communication skills, public speaking and presentation skills, and delegation, writing skills, oral delivery, and effectively using various media for a variety of audiences.</p> <p>G6. Demonstrate skills in group working, team management, time management and organizational skills.</p> <p>G7. Demonstrate the ability to make use of a range of learning resources and to manage one's own learning.</p>

4- Course Content	1	Understand the ethical, social, legal, and professional issues surrounding the emerging information technologies.
	2	Sharpen his skill in moral reasoning, imagination, and behavior.
	3	Develop a coherent set of positions on the issues in this course, and a plan for implementing them in his professional life.
5- Teaching and Learning Methods	Lectures, Labs, Projects, Individual study & self-learning.	
6- Teaching and Learning Methods for Students with Special Needs	<ul style="list-style-type: none"> • Students with special needs are requested to contact the college representative for special needs (currently Dr Hoda Mamdouh in room C504) • Consulting with lecturer during office hours. • Consulting with teaching assistant during office hours. • Private Sessions for redelivering the lecture contents. • For handicapped accessibility, please refer to program specification. 	
7- Student Assessment:		
a- Procedures used:	Exams and Projects	
b- Schedule:	Week 7 exam Assignments and presentations Week 15 Final Project and Presentation	
c- Weighing of Assessment:	7 th week exam 30% Lab work 30% Final evaluation 40%	
8- List of References:		
a- Course Notes		
b- Required Books (Textbooks)	Paul De Palma (Editor), “ Annual Editions: Technologies, Social Media, and Society 11/12 ”, 17 th Edition, McGraw-Hill, 2011.	
c- Recommended Books		

d- Periodicals, Web Sites, ..., etc.

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Course Instructor:

Head of Department:

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