

University / Academy: Menoufia University

College / Institute: Faculty of Electronic Engineering

Department: Computer Science and Engineering

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Course Specification

1- Course basic information :		
Course Code: CSE 363	Course Title: Computer Networks	Academic year: 2011/2012 Level (3) – Semester : 1
University requirement	Teaching hours: Lecture <input type="text" value="2"/> Tutorial <input type="text" value="2"/> Lab <input type="text" value="-"/>	

2- Aim of the course	<ul style="list-style-type: none">• To understand the Data Communication.• To understand the computer networks basics, components and Media Access Control.• To understand the Different kinds of networks.• To understand the networking technologies.• To understand the up-to-date information on computer networks.
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3- Intended Learning Outcomes:

A- Knowledge and Understanding:	a1. Concepts and theories of mathematics and sciences, appropriate to the computer science and engineering. a2. Basics of information and communication technology (ICT) a5. Methodologies of solving engineering problems, data collection and interpretation a8. Current engineering technologies as related to computer science and engineering. a9. Topics related to humanitarian interests and moral issues. a16. Related research and current advances in the field of computer software and hardware. a18. Modern trends in information technology and its fundamental role in business enterprises.
B- Intellectual Skills	b1. Select appropriate mathematical and computer-based methods for modeling and analyzing problems.

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	<p>b2. Select appropriate solutions for engineering problems based on analytical thinking.</p> <p>b8. Select and appraise appropriate ICT tools to a variety of engineering problems.</p> <p>b12. Create systematic and methodic approaches when dealing with new and advancing technology.</p> <p>b15. Select, synthesize, and apply suitable IT tools to computer engineering problems.</p>
C- Professional Skills	<p>c1. Apply knowledge of mathematics, science, information technology, design, business context and engineering practice integrally to solve engineering problems.</p> <p>c2. Professionally merge the engineering knowledge, understanding, and feedback to improve design, products and/or services.</p> <p>c14. Use appropriate specialized computer software, computational tools and design packages throughout the phases of the life cycle of system development;</p>
D- General Skills	<p>d3. Communicate effectively.</p> <p>d4. Demonstrate efficient IT capabilities.</p> <p>d9. Refer to relevant literatures.</p>
4- Course Contents	<p>Computer network introduction - Topology, Protocols and Architecture - The OSI model and the TCP\IP Protocol Suite - Principles of internetworking, The Internet and routing protocols - Transport services and Protocol mechanisms - Network security - requirements and techniques - Introduction to distributed applications.</p>
5- Teaching and Learning Methods	<ul style="list-style-type: none"> - Lectures - Exercises and tutorials - Research assignments
6- Teaching and Learning Methods for disable students	<ul style="list-style-type: none"> - NA
7- Student Assessment	
a- Assessment Methods	<ul style="list-style-type: none"> - Weekly sheet exercises at class room - Quizzes - Mid term, and final exams

b- Assessment Schedule	- Exercise sheet/assignment : - Quizz-1: - Mid-Term exam: - Quizz-2: - Final – term examination:	Weekly Week no 3 Week no 8 Week no 11 Week no 15
c- Weighting of Assessment	- Class tutorial and quizzes: - Mid-term examination: - Other types of assessment: - Final – term examination:	10 % 15 % 5 % 70 %
		Total <u> </u> 100 %

8- List of text books and references:

a- Course notes	Lectures notes prepared in the form of a book authorized by the department.
b- Text books	<ul style="list-style-type: none"> • William. Stalling’s Books included the topics mentioned above. • Andrew S. Tanenbaum’s Books included the topics mentioned above.
c- Recommended books	<ul style="list-style-type: none"> • William. Stalling’s Books included the topics mentioned above. • Andrew S. Tanenbaum’s Books included the topics mentioned above.
d- Periodicals, Web sitesetc	<ul style="list-style-type: none"> • All the Journals, and Magazines, ...etc their title deal with any of the following: Digital Data and Data transmission, Data Communications, Computer Networks, • All web sites which included all the titles mentioned above.

Course contents - ILOs Matrix

Content Topics	Week	A- Knowledge & Understanding	B- Intellectual skills	C- Professional and practical skills	D- General and transferable skills
Computer network introduction -	1-3	a1,a2,a5,a8, a9,a16, a18	b1,b2,b8, b12,b15	c1,c2,c14	d3,d4,d9
Topology, Protocols and Architecture -	4, 5	a1,a2,a5,a8, a9,a16, a18	b1,b2,b8, b12,b15	c1,c2,c14	d3, d4,d9

The OSI model and the TCP\IP Protocol Suite -	6-8	a1,a2,a5,a8, a9,a16, a18	b1,b2,b8, b12,b15	c1,c2,c14	d3,d4, d9
Principles of internetworking, The Internet and routing protocols -	9, 10	a1,a2,a5,a8, a9,a16, a18	b1,b2,b8, b12,b15	c1,c2,c14	d3,d4, d9
Transport services and Protocol mechanisms -	11	a1,a2,a5,a8, a9,a16, a18	b1,b2,b8, b12,b15	c1,c2, c14	d3,d4,d9
Network security - requirements and techniques -	12	a1,a2,a5,a8, a9,a16, a18	b1,b2,b8, b12,b15	c1,c2, c14	d3,d4,d9
Introduction to distributed applications.	13,14	a1,a2,a5,a8, a9,a16, a18	b1,b2,b8, b12,b15	c1,c2,c14	d3,d4,d9

Course coordinator:

Dr. Ehab Aziz Khalil

Head of Department:

Prof. Dr. Nawal El-Feshawy

Date: / /