University / Academy : Menoufiya University

Collge / Institute : Faculty of Electronic Engineering

Department : Computer science and Engineering

Course Specification

1- Course basic information :						
Course Code: CSE 466	Course Title LABORATORY IV	Academic year: Level <mark>(4)</mark> – Semester : 2				
Department requirement	Teaching hours: Lecture	Lab 3				

2- Aim of the course	Understand the principles of Networks, protocols and	network elements
	Understand the network operations	
	Understand how to construct a LAN and to use its reso	ources
	Routing protocols principles	
	Configuration of different Routers	
2 1 1 1 1 1 1 1 1 1 1		
3- Intended Learning	Outcomes:	
A- Knowledge and		
Understanding:		
B- Intellectual Skills	B6- Investigate the failure of components, systems,	
	and processes.	
	B9- Judge engineering decisions considering balanced	
	costs, benefits, safety, quality, reliability, and	
	P10 Incorporate economic cosistel environmental	
	dimensions and risk management in design	
		l

C- Professional Skills	 C3- Create and/or re-design a process, component or system, and carry out specialized engineering designs. C4- Practice the neatness and aesthetics in design and approach. C5- Use computational facilities and techniques, measuring instruments, workshops and laboratory equipment to design experiments, collect, analyze and interpret results. C6- Use a wide range of analytical tools, techniques, equipment, and software packages pertaining to the discipline and develop required computer programs. C13- Design and operate computer-based systems specifically designed for business applications. C14- Use appropriate specialized computer software, computational tools and design packages throughout the phases of the life cycle of system development; 				
D- General Skills	 d1. Collaborate effectively within multidisciplinary team. d2. Work in stressful environment and within constraints. d3. Communicate effectively. d4. Demonstrate efficient IT capabilities. d5. Lead and motivate individuals. d6. Effectively manage tasks, time, and resources. 				
4- Course Contents	1 Introduction to routing and packet forwarding				
	2 Static routing				
	3 Introduction to dynamic routing protocol				
	4 RIP Version 1				
	5 Distance vector routing protocol				
	6 VLSM and CIDR				
	7 RIP version 2				
	8 EIGRP				
	9 Link state routing protocols and OSPF				

5- Teaching and Learning Methods	 Lectures Tutorials Research assignments Lap application 					
Learning Methods for disable students	NA					
7- Student Assessment						
a- Assessment Methods	 Weekly sheet exercises at class room Quizzes Mid term, and final exams 					
b- Assessment Schedule	- Exercise sheet/ Lab assignment :Weekly- Quizz-1:Week no 4- Mid-Term exam:Week no 8- Quizz-2:Week no 10- Final – term examination:Week no 15					
c- Weighting of Assessment	- Class tutorial and quizzes : 10 % - Mid-term examination: 15 % - Final – term examination: 60 % - Other types of assessment: 15 % Total 100 %					
8- List of text books and references:						
a- Course notes						
b- Text books	[1] Laboratory computer networks CCNA Exploration 2					
c- Recommended books						
d- Periodicals, Web sitesetc	IEEE transactions on computers and software. Programming web sites.					

Content Topics	Week	A- Knowledge	B- Intellectual skills	C- Professional	D- General and
		&		and practical skills	transferable skills
		Understanding			
1 Introduction	1		B6, b9	C3, c4, c5	D1, d2, d3
to routing and					
packet					
forwarding					
2 Static routing	2		B6, b9	C3, c4, c5	D1, d2, d3
3 Introduction	3		B6, b9	C3, c4, c5	D1, d2, d3
to dynamic			B10	C6	
routing			510		
protocol					
4 Distance	4, 5		B6, b9	C3, c4, c5	d1, d2, d3
vector routing			R10	6	
protocol			810	20	
5 RIP Version 1	6		B6, b9	C3, c4, c5	d1, d2, d3, d4
			B10	C6	
6 VLSM and	7		B6, b9	C3, c4, c5	d2, d3,d5, d6
CIDR			B10	C6	
7 RIP version 2	9, 10		B6, b9	C3, c4, c5	d3, d4, d5
			B10	C13	
8 EIGRP	11, 12		B6, b9	, c5, C6, c13, c14	d3, d4, d5, d6
			B10		
9 Link state	13, 14		B6, b9	C3, , c5	d3, d4, d5, d6
routing			B10	C6 c13 c14	
protocols and			510		
OSPF					
1	1	1	1	1	1

Course coordinator:

Head of Department:

Prof. Dr. Nawal A. El-Fishawy

Prof. Dr. Nawal A. El-Fishawy

Date: / /