



Course Specification

Course Name: [Internet Technology]

Course Code: [IT223]

I. Basic Course Information

Major or minor element of program: [General]

Department offering the course: [All Departments]

Academic level: [200 Level]

Semester in which course is offered: [First (fall) semester]

Course pre-requisite(s): [IT222 (Computer Networks - 1)]

Credit Hours: 3

Contact Hours Through:

Lecture	Tutorial *	Practical *	Total
2.5	0.0	1.5	4.0

* 1.5 hours for **either** Tutorial or Practical

Approval date of course specification: [September 2014]

II. Overall Aims of Course

[The objective of the course is to understand the essentials background of the Internet (Protocols, domains, addressing, infrastructure, and accessing) to produce Web-Enabled applications]

III. Program ILOs covered by course

Program Intended Learning Outcomes (By Code)			
Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
[K2,K3,K6,K7]	[I1,I4,I6]	[P6,P8]	[G1,G2,G3,G8]



Course Specification

IV. Intended Learning Outcomes of Course (ILOs)

a. Knowledge and Understanding

On completing the course, students should be able to:

- K.1 Explain the internet protocol suite, the concepts and fundamentals of TCP/IP.
- K.2 Identify and explain the functionality of each layer in the layered structure protocols.
- K.3 Demonstrate an understanding of the various techniques and algorithms assigned to the internet protocol suite.
- K.4 Illustrate the various web designing tools used to build the web pages.]

b. Intellectual/Cognitive Skills

On completing the course, students should be able to:

- I.1 Distinguish between the different protocol suites and the different functions associated in each layer.
- I.2 Design, set up models using the TCP/IP internet protocol suite.
- I.3 Set up and evaluate some of the internet protocol functions (security, addressing resolution, internet control messaging,...)
- I.4 Analyse problems and drawbacks/solutions concerning internet technology and web designing tools.]

c. Practical/Professional Skills

On completing the course, students should be able to:

- P.1 Apply the principles of web designing tools including text, images, sound, and video, resolving security issues.
- P.2 Design, implement, maintain, document, and manage web pages, using appropriate tools.
- P.3 Employ publicly available software (such as APIs or open source software) to solve problems.
- P.4 Apply and implement some algorithms used by internet protocols.]

d. General and Transferable Skills

On completing the course, students should be able to:

- G.1 Demonstrate ability in time management, organization skills, and communication skills.
- G.2 Demonstrate ability to work as a team member.
- G.3 Manage one's own learning and development, and demonstrate the ability to use a variety of learning resources.
- G.4 Enhance information retrieval skills over the internet.
- G.5 Appreciate the need for life-long learning of the advancements in the internet technology.]



Course Specification

Course Matrix Contents

	Main Topics / Chapters	Duration (Weeks)	Course ILOs Covered by Topic (By ILO Code)			
			K & U	I.S.	P.S.	G.S.
1-	Introduction to TCP/IP	0.5	K1,K2,K3	I1		All
2-	IP layer	1	K1,K2,K3	I2,I3	P4	All
3-	TCP/UDP layer	1	K1,K2,K3	I2,I3	P4	All
4-	Mobile IP	1	K1,K2,K3	I2, I3	P4	All
5-	Application layer	1	K1,K2,K3	I2, I3	P4	All
6-	Internet security	2.5	K1,K2,K3	I3	P4	All
7-	HTML/JavaScript	1.5	K4	I4	P1,P2,P3	All
8-	PHP	1	K4	I4	P1,P2,P3	All
9-	MySQL	1.5	K4	I4	P1,P2,P3	All
10-	Integrating all	2	K4	I4	P1,P2,P3	All
Net Teaching Weeks		13				

V. Course Weekly Detailed Topics / hours / ILOs

Week No.	Sub-Topics	Total Hours	Contact Hours	
			Theoretical Hours	Practical Hours *
1	Introduction to TCP/IP	2.5	2.5	
2	IP layer/IP addressing.	4	2.5	1.5
3	HTML tags / IPv6	4	2.5	1.5
4	HTML tags examples /ICMP	4	2.5	1.5
5	CSS attributes and how to use it/ mobile IP	4	2.5	1.5
6	How to program with JavaScript/ internet security	4	2.5	1.5
7	Midterm Exam			
8	Integrating JavaScript with HTML/ internet security	4	2.5	1.5
9	PHP Language basics / TCP	4	2.5	1.5
10	Using JavaScript in building websites/ UDP	4	2.5	1.5
11	Advanced PHP syntax and usages/ application layer	4	2.5	1.5
12	MYSQL basics and how to use it	4	2.5	1.5
13	MYSQL advanced and integration	4	2.5	1.5
14	Integrate technologies to build a website	4	2.5	1.5
15	Final Exam			
Total Teaching Hours		51	33	18

- No Practical/Tutorial during the first week of the semester



Course Specification

VI. Teaching and Learning Methods

Teaching/Learning Method	Selected Method	Course ILOs Covered by Method (By ILO Code)			
		K & U	Intellectual Skills	Professional Skills	General Skills
Lectures & Seminars	X	K1,K2,K3	I1,I2,I3,I4	P4	G1,G3,G5
Tutorials	X	K1,K2,K3	I2	P4	G1,G3,G4
Computer lab Sessions	X	K4	I5	P1,P2,P3	G1,G2,G4
Practical lab Work	X	K4	I5	P1,P2,P3	G1,G2,G4
Reading Materials					
Web-site Searches	X			P1,P2,P3	G3,G4,G5
Research & Reporting					
Problem Solving / Problem-based Learning					
Projects	X	K4		P1,P2,P3	G2,G4,G5
Independent Work					
Group Work	X				G2,G4,G5
Case Studies					
Presentations					
Simulation Analysis					
Others (Specify):					

VII. Assessment Methods, Schedule and Grade Distribution

Assessment Method	Selected Method	Course ILOs Covered by Method (By ILO Code)				Assessment Weight / Percentage	Week No.
		K & U	I.S.	P.S.	G.S.		
Midterm Exam	X	K1,K2,K3	I1,I2,I3,I4	P4		20%	7
Final Exam	X	K1,K2,K3	I1,I2,I3,I4	P4		60%	15
Quizzes							
Course Work	X	K1,K2,K3	I1,I2,I3,I4	P1,P2,P3,P4	All	10%	
Report Writing							
Case Study Analysis							
Oral Presentations							
Practical	X	K4		P1,P2,P3,P4	All	5%	
Group Project	X	K4		P1,P2,P3	All	5%	
Individual Project							
Others (Specify):							



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VIII. List of References

Essential Text Books	•	TCP/IP protocol suite, 4 th edition, Behrouz A. Forouzan
Course notes	•	None
Recommended books	•	
Periodicals, Web sites, etc....	•	

IX. Facilities required for teaching and learning

List the facilities required
<ul style="list-style-type: none">• White board• Data show• Internet access• Computer Lab

Course coordinator: [Dr. Amira Kotb]

Head of Department: [Prof. Reda Abdel-Wahab]

Date: [September 2014]