



Course Specifications

Course Title:	IT System Component
Course Code:	CYB 0102
Program:	Computer Science (Cybersecurity)
Department:	Applied Sciences
College:	Applied College
Institution:	Imam Muhammad Bin Saud Islamic University

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A. Course Identification

1. Credit hours: 3(3 theory)
2. Course type
a. University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: Third Semester
4. Pre-requisites for this course (if any): None
5. Co-requisites for this course (if any): None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3hours\week	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	22
2	Laboratory/Studio	22
3	Tutorial	
4	Others (specify)	
	Total	44

B. Course Objectives and Learning Outcomes

1. Course Description

It provides a general introduction to common IT system components and general cybersecurity implications with them.

2. Course Main Objective

This course should provide topics regarding protection of network peripherals, Storage devices, system structures and cloud computing. The CPU and Memory, Storage and I/O, The Binary Numbering System, the Operating System, Computer Networks, Software, Programming and Programming Languages, Information Security, The Windows Operating System. Controlling systems like supervisory Control and Data Collection (SCADA) and Response Environments instantaneous and critical infrastructure local networks.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Identify the components of information technology systems, including hardware and software, and clarify their basic functions.	2ع,1ع
1.2	Explain the main effects of cyber security in current and future IT environments.	5ع
1.3	Expressing common cyber security systems, their components, activities and values in relation to cyber security.	4ع
2	Skills :	
2.1	Analyze the IT system and improve the skill of dealing with securing the systems.	2م,1م
2.2	Discuss securing the IT environment.	3م
3	Values:	
3.1	Work effectively on team to accomplish a specific goal regarding securing IT systems.	7م,2ق,1ق

C. Course Content

No	List of Topics	Contact Hours
1	The CPU and Memory	4
2	Storage and I/O	4
3	The Operating System	8
4	Computer Networks	4
5	Software	4
6	Programming and Programming Languages	4
7	Information Security	4
8	The Windows Operating System	4
Total		36

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Identify the components of information technology systems, including hardware and software, and clarify their basic functions.	Class lectures Class Discussion Questions/Answers sessions in class	Quizzes Homework and Assignments. Written exams

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
		Home work assignments Quizzes Case studies and Analysis.	(Midterm and final). Writing reports.
1.2	Explain the main effects of cyber security in current and future IT environments.	Class lectures Class Discussion Questions/Answers sessions in class Home work assignments Quizzes Case studies and Analysis.	Quizzes Homework and Assignments. Written exams (Midterm and final). Writing reports. Study cases.
1.3	Expressing common cyber security systems, their components, activities and values in relation to cyber security.	Class lectures Class Discussion Questions/Answers sessions in class Home work assignments Quizzes Case studies and Analysis.	Quizzes Homework and Assignments. Written exams (Midterm and final). Writing reports. Study cases.
2.0	Skills		
2.1	Analyze the IT system and improve the skill of dealing with securing the systems.	Class lectures Class Discussion Questions/Answers sessions in class Home work assignments Quizzes Case studies and Analysis.	Quizzes Homework and Assignments. Written exams (Midterm and final). Writing reports. Study cases.
2.2	Discuss securing the IT environment.	Class lectures Class Discussion Questions/Answers sessions in class Home work assignments Quizzes Case studies and Analysis.	Quizzes Homework and Assignments. Written exams (Midterm and final). Writing reports. Study cases.
3.0	Values		
3.1	Work effectively on team to accomplish a specific goal regarding securing IT systems.	Class lectures Class Discussion Questions/Answers sessions in class Home work assignments	Quizzes Homework and Assignments. Written exams (Midterm and final). Writing reports.

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
		Quizzes Case studies and Analysis.	Study cases.

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quizzes	Week3,5	10%
2	Midterm	Week 7	20%
3	Lab Assignments group or individual /Class Assignments group or individual	Week4,7,9	15%
4	Lab Evaluations or project	All Semester	15%
5	Final	Week12	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

6 office hours per week.
3 hours of weekly meetings
Contact through the LMS
Communication/interact via e-mails with students

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	Information Technology An Introduction for Today's Digital World, By Richard Fox,2021, 2nd edition, ISBN 9780367820213.
Essential References Materials	Information Technology: An Introduction for Today's Digital World February 8, 2013 by Chapman and Hall/CRC, Author(s): Richard Fox.
Electronic Materials	Online resources will be provided during class lectures.
Other Learning Materials	N/A

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Lecture room with Smart board Lab with 25 Pcs
Technology Resources (AV, data show, Smart Board, software, etc.)	PC and WiFi Internet access within the class room

Item	Resources
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	N/A

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Student	Indirect using course evaluation survey
Quality of learning resources	Student and Faculty	Indirect using course evaluation and faculty survey

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	