



# Course Specification

— (Bachelor)

**Course Title:** Enterprise Cybersecurity

**Course Code:** IT462

**Program:** Information Technology

**Department:** Information Technology

**College:** College of Computer and Information Sciences

**Institution:** Majmaah University

**Version:** 2

**Last Revision Date:** 30 September 2022



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## A. General information about the course:

### 1. Course Identification

1. Credit hours: 3 (3,0,1 )

#### 2. Course type

A.  University  College  Department  Track  Others  
 B.  Required  Elective

3. Level/year at which this course is offered: ( )

#### 4. Course general Description:

Enterprise Cybersecurity course presents a comprehensive framework for managing all aspects of an enterprise cybersecurity program. It enables an enterprise to architect, design, implement, and operate a coherent cybersecurity program that is seamlessly coordinated with policy, programmatic, IT life cycle, and assessment. Topics include Cybersecurity Challenge, Enterprise Cybersecurity Architecture, Implementing Enterprise Cybersecurity, Operating Enterprise Cybersecurity, Enterprise Cybersecurity and the Cloud, Enterprise Cybersecurity for Mobile, building an Effective Defense, responding to Incidents, Managing a Cybersecurity Crisis.

#### 5. Pre-requirements for this course (if any):

70 Cr.

#### 6. Pre-requirements for this course (if any):

IT343

#### 7. Course Main Objective(s):

Analyze and resolve security issues in networks and computer systems to secure an IT infrastructure. Design, develop, test and evaluate secure software. Develop policies and procedures to manage enterprise security risks.

### 2. Teaching mode (mark all that apply)



No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> <li>Traditional classroom</li> <li>E-learning</li> </ul>		
4	Distance learning		

### 3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	45
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	15
5.	Others (specify)	
<b>Total</b>		<b>60</b>

### B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
<b>1.0</b>	<b>Knowledge and understanding</b>			
1.1				
1.2				
...				
<b>2.0</b>	<b>Skills</b>			
2.1	CLO4. Analyze a cybersecurity program's policy, people, technology, budget, and assessment.	S3	Classroom Teaching	Assignments
2.2				
...				



Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1	CLO 1- Discover how enterprise cybersecurity is evolving	V2	Classroom Teaching	Tests, Exam, Exam Mid Final
3.2	CLO 2. Know and apply the methodology of targeted attacks	V2	Classroom Teaching	Tests, Exam, Exam Mid Final
3.3	CLO 3 Understand why cybersecurity capabilities are the foundation of effective cyber defenses.	V2	Classroom Teaching	Tests, Exam, Exam Mid Final
3.4	CLO4. Analyze a cybersecurity program's policy, people, budget, technology, and assessment.	V1	Classroom Teaching	Case Study
3.5	CLO 5. Understand the operational processes and supporting information systems of a successful enterprise cybersecurity	V2	Classroom Teaching	Tests, Exam, Exam Mid Final

### C. Course Content

No	List of Topics	Contact Hours
1.	Cybersecurity Challenges	4
2.	Enterprise Cybersecurity Architecture	8
3.	Implementing Enterprise Cybersecurity	6
4.	Operating Enterprise Cybersecurity	8
5.	Enterprise Cybersecurity and the Cloud	8





6.	Enterprise Cybersecurity for Mobile	6
7.	Building an Effective Defense	4
8.	Responding to Incidents	6
9.	Managing a Cybersecurity Crisis	6
10.	Revision	4
<b>Total</b>		<b>60</b>

## D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Tests	3,12	20%
2.	Assignments and Case study	5,11	20%
3.	Mid Exam	8	20%
4.	Final Exam	16	40%

\*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

## E. Learning Resources and Facilities

### 1. References and Learning Resources

<b>Essential References</b>	Scott Donaldson , Stanley Siegel , Chris K. Williams, Abdul Aslam , Enterprise Cybersecurity: How to Build a Successful Cyberdefense Program Against Advanced Threats, Apress, 1st ed. Edition, 2018, ISBN-13: 978-1430260820
<b>Supportive References</b>	<p>1. Aaron Woody, Enterprise Security: A Data-Centric Approach to Securing the Enterprise, 2013, ISBN-13: 978-1849685962</p> <p>2. Brian J Allen, Rachele Loyear , Enterprise Security Risk Management: Concepts and Applications, 2017, Rothstein Associates, Incorporated, ISBN-13: 978-1944480448</p>
<b>Electronic Materials</b>	
<b>Other Learning Materials</b>	

### 2. Required Facilities and equipment

Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	<b>Classroom</b>





Items	Resources
<b>Technology equipment</b> (projector, smart board, software)	<b>PC or Laptop with Windows/Linux, Smart Board, Projector</b>
<b>Other equipment</b> (depending on the nature of the specialty)	

## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Student	Indirect
Effectiveness of Students assessment	Instructor	Direct
Quality of learning resources	Instructor	Direct
The extent to which CLOs have been achieved	Student	Indirect
Other		

**Assessors** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

## G. Specification Approval

<b>COUNCIL /COMMITTEE</b>	
<b>REFERENCE NO.</b>	
<b>DATE</b>	

