Course Name	Course Name Foundations of Cybersecurity			أساسيات الأمن السيبر اني		
Course Information		Course Code	Course No.	Credit Hour	Prerequisite(s)	
		0914611	CS 611	3 (3-0-6)	None	
Course Track	Program	m Core 🗌 Ele	ctives			

Course Description

Cybersecurity aims to protect the computer system's resources like hardware, software and information. This course This course provides students with understanding of the core concepts of cybersecurity: concepts for confidentiality, integrity and availability; threats, vulnerabilities, threat modeling, risks and access control. This course will also cover basic concepts of application security including secure software system development and operating system security focusing on Windows and Linux. Concepts in secure software development will include security architecture and models. Business continuity planning, disaster recovery, legal aspects of security, physical security and human aspects of cyber security will also be discussed in this course.

Course Outcomes

After the completion of this course, the student will be able to:

- 1. **Describe** the concepts and theories related to the domain of cybersecurity including threats, vulnerabilities and threat modeling. [A]
- 2. Select appropriate security architectures and models for the system under consideration. [B]
- 3. Describe concepts related to access control and identity management. [A]
- 4. **Relate** and adapt secure practices for software development security and operating system security. [C]
- 5. Identify the role of physical security, laws and humans in cybersecurity. [A]

6.	Analyze and plan	for business co	ontinuity and	disaster recoverv in o	case of a failure. [C]
0.	Think y 20 and pran		ontennancy and		

Assessment	Assignments	15%	Quiz	15%	Project	-			
Policy	Midterm	30%	Final	40%	Others	-			
Textbook	Charles J. Brooks, Christopher Grow, Philip Craig, Donald Short, "Cybersecurity Essentials", John Wiley & Sons, 2018. ISBN-13: 978-119362395.								
References	 Stuart Jacobs, "Engineering Information Security", 2nd Edition, Wiley-IEEE Press, 2015. ISBN-13: 978-1119101604. Jason Andress, "The Basics of Information Security, Understanding the Fundamentals of InfoSec in Theory and Practice", 2nd Edition, Syngress, 2014. ISBN-13: 978-0128007440. Ross J. Anderson, "Security Engineering: A Guide to Building Dependable Distributed Systems", 2nd Edition, Wiley, 2008. ISBN-13: 978-0470068526. 								