



Course Specification

(Bachelor)

Course Title: Risk management

Course Code: CYB 0201

Program: Computer Science(Cybersecurity)

Department: Applied Science

College: Applied Collage

Institution: Imam Muhammad Bin Islamic Universirty

Version: Course Specification Version Number

Last Revision Date: Pick Revision Date.





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A. General information about the course:

1. Course Identification

1. Credit hours: (3(2 Theory, 2 Lab))

2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
B. ☒ Required ☐ Elective

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

4. Course General Description:

This course introduces students to the management of information related risks in the area of computer security. Students will learn the knowledge and skills of the models, methodologies and processes for assessing, managing and dealing with cyber risks.

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

CYB 0209 (Operating System Security)

6. Co-requisites for this course (if any):

None

7. Course Main Objective(s):

- Understand risk management fundamentals and classify information and assets
- Demonstrate an understanding of the concepts of assessment, assets, vulnerabilities, threats, and risks
- Identify and analyze risks, threats and vulnerabilities impacting an organization
- Identify and analyze risks, threats and vulnerabilities impacting an organization
- Explain the difference between Disaster Recovery, and Business Continuity



2. Teaching mode (mark all that apply)

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



3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	24
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	24
5.	Others (specify)	
Total		48

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

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Demonstrate the main risk management methodologies and Relate risk to a cybersecurity policy.	K1	Class Discussion Questions/Answers sessions in class Case studies and analysis. Project and students	Quizzes, Exams, Project, Presentation
1.2	Demonstrate an understanding of the concepts of assessment, vulnerabilities, threats, and risks	K2	Class Discussion Questions/Answers sessions in class Case studies and analysis. Project and students	Quizzes, Exams, Project, Presentation
1.3	Explain correct practices in alignment with cybersecurity legislation, controls and standards	K3 	Class Discussion Questions/Answers sessions in class Case studies and analysis. Project and students	Quizzes, Exams, Project, Presentation
2.0	Skills			
2.1	Identify and analyze risks, threats and vulnerabilities impacting an organization and identify Relate risk to a cyber-security policy.	S1	Class Discussion Questions/Answers sessions in class Case studies and analysis. Project and students	Quizzes, Exams, Project, Presentation
2.2	Perform a risk assessment and choosing the appropriate methodology	S2	Class Discussion Questions/Answers sessions in class	Quizzes, Exams, Project, Presentation



Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
	for dealing with cyber risks		Case studies and analysis. Project and students	
2.3	Evaluate and categorize risk with respect to technology, individuals and entities.	 S4	Class Discussion Questions/Answers sessions in class Case studies and analysis. Project and students	Quizzes, Exams, Project, Presentation
3.0	Values, autonomy, and responsibility			

C. Course Content

No	List of Topics	Contact Hours
1.	Risk Management Fundamentals.	4
2.	-Principles and Concepts of Cyber-security Risk Analysis and Management.	6
3.	Risk Management Lifecycle and Steps	6
4.	Cyber Risk Assessment and Analysis Methodologies, Methodologies for Measuring and Evaluating Cyber Risk.	6
5.	Cyber Risk Management Standards and Frameworks -National and International Cybersecurity Standards and Controls (e.g. Essential Cybersecurity Controls (ECC) issued by the National Cybersecurity Authority, HIPAA, ISO 27001, PCI DSS)	6
6.	Cyber Risk Management Processes Across Levels in the Organization and Cyber Risks Acceptance and Mitigation Economics.	6
7.	Cyber Risks Policies for Technologies, Individuals and Entities. -Judicial Authorities, Agreements, Treaties and International Organizations Related to Cybersecurity	6
8.	Characteristics of Organizations that Influence Cyber Risk Analysis and Management.	4
9.	-Communication of Cyber Risks, Accepting and mitigation of Cyber Risks. -Best Practices for Aligning with Cybersecurity Legislation, Controls and Standards	4
Total		48



D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizes	3, 8	10%
3.	Midterm	7	20%
4.	Lab Assignments group or individual /Class Assignments group or individual	4,7,9	15%
4.	Lab Evaluations	All Semester	15%
5.	Project	10	10%
6.	Final	13, 14	30%

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

E. Learning Resources and Facilities



1. References and Learning Resources

Essential References	The Security Risk Assessment Handbook, A Complete Guide for Performing Security Risk Assessments, Second Edition, By Douglas Landoll · 2016 Gibson, D., Igonor, A., 2020, Managing Risk in Information Systems, Jones & Bartlett Learning; 3rd edition
Supportive References	Jones, A. and Ashenden, D., 2005. Risk management for computer security. Oxford: Butterworth-Heinemann
Electronic Materials	Online resources will be provided during class lectures
Other Learning Materials	N/A

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Lecture room with Smart board Lab with 25 Pcs
Technology equipment (projector, smart board, software)	PC and WiFi Internet access within the classroom
Other equipment (depending on the nature of the specialty)	N/A



F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Student	Indirect using course evaluation survey
Effectiveness of Students assessment	Student	Indirect using course evaluation survey
Quality of learning resources	Student and Faculty	Indirect using course evaluation and faculty survey
The extent to which CLOs have been achieved		
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	

