هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	NetworkSecurity
Course Code:	0216 شبك
Program:	Cybersecurity - Networks
Department:	Applied Sciences
College:	Applied College
Institution:	Imam Mohammad Bin Saud Islamic University
Version:	1st version
Last Revision Date:	2023/02/26

Table of Contents:

A. General information about the course:

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: 3rd Level					
4. Course general Description: Students explore how information is exchanged on the Internet and the security issues that arise due to information exchange between different technologies. Students learn concepts of authentication, authorization, access control in network security. Students gain knowledge about Use of cryptography for data and network security. Students are introduced to the topics such as firewalls, public key infrastructure, security standards and protocols, virtual private networks, and wireless network security.					
5. Pre-requirements for this course (if any):					
6. Co- requirements for this course (if any): N/A					
7. Course Main Objective(s):					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom		
2.	E-learning		
3.	Hybrid • Traditional classroom • E-learning	60	100%
4.	Distance learning		

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	12
2.	Laboratory/Studio	48
3.	Field	
4.	Tutorial	
5.	Others (specify)	150
	Total	210

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

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.1	Understand basic concept of how to protect and design private network.	ع1، ع5	Class lectures. Class discussion. Questions/Answers session in class. Home work. Learning by discovery. Self-education. Brainstorming. Online search. KWL learning table. Mind maps. Concept maps.	Quizzes. Homework and Assignments. Written and online exams. Writing reports. Presentations. Discussion and debate. Achievement file. Performance
1.2	Understand how to protect security of information	ع1، ع5		
1.3	Use theoretical and practical knowledge in securing data transfer and authentication	ع1، ع5		
2.0	Skills			
2.1	Attacker goals, capabilities, and motivations (such as underground economy, digital espionage, cyberwarfare, insider threats, hacktivism, advanced persistent threats)	ع1، ع5	Class lectures. Class discussion. Questions/Answers session in class. Home work. Learning by discovery. Self-education. Brainstorming. Online search. Mind maps. Concept maps.	Quizzes. Homework and Assignments. Written and online exams. Writing reports. Presentations. Discussion and debate. Achievement file. Performance tests.
2.2	Architectures for secure networks (e.g., secure channels, secure routing protocols, secure DNS, VPNs, anonymous communication protocols, isolation)	ع1، ع5		
2.3	Use of cryptography for data and network securit	ع1، ع5		
3.0	Values, autonomy, and responsibility			
3.1	Collaboration, teamwork, and professional ethics.	ق1	Class lectures. Class discussion. Questions/Answers session in class. Home work. Learning by discovery. Self-education. Brainstorming. Online search. Mind maps. Concept maps.	Quizzes. Homework and Assignments. Written and online exams. Writing reports. Presentations. Discussion and debate. Achievement file. Performance.
3.2	Take the responsibility for continuous learning, and self-development.	ق2		
3.3	Effective and efficient time management when applying acquired knowledge and skills.	ق3		

C. Course Content

No	List of Topics	Contact Hours
1.	**Introduction:** ○ Computer Security Concepts ○ The OSI Security Architecture ○ Security Attacks ○ Security Services ○ Security Mechanisms ○ A Model for Network Security	4
2.	**Network Security:** ○ Security Through Network Devices ○ Security Through Network Technology ○ Security Through Network Design Elements	8
3	**Firewalls:** ○ The Need for Firewalls ○ Firewall Characteristics ○ Types of Firewalls ○ Firewall Basing ○ Firewall Location and Configurations	8
4	**Cryptography:** ○ Algorithms ○ Hashing Functions ○ Symmetric Encryption ○ Asymmetric Encryption	3
5	**Public Key Infrastructure:** ○ The Basics of Public Key Infrastructures ○ Certificate Authorities ○ Registration Authorities ○ Certificate Repositories ○ Trust and Certificate Verification ○ Digital Certificates	4
6	**Security Standards and Protocols:** ○ PKIX and PKCS ○ X.509 ○ SSL/TLS ○ ISAKMP ○ CMP ○ PGP ○ HTTPS ○ IPsec ○ Common Criteria for Information Technology Security (Common Criteria or CC) ○ ISO/IEC 27002	5
7	**Authentication and Remote Access:** ○ The Remote Access Process ○ SSH/Telnet	5

	○ IEEE 802.1X ○ RADIUS ○ TACACS+ ○ Authentication Protocols ○ FTP/FTPS/SFTP ○ VPNs ○ IPsec ○ Vulnerabilities of Remote Access Methods	
8	**IDS/IPS** ○ Explain the functions and operations of IDS and IPS systems. ○ Describe the characteristics of IPS signatures	4
9	**Virtual Private Networks:** ○ VPN Fundamentals ○ VPN Management ○ VPN Technologies	4
10	**Wireless Network Security:** ○ Introduction to Wireless Networking ○ 802.11Attacking, New Security Protocols, and Implementation	3
Total		48

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Mid-term	Week 7	20%
2.	Quizzes (From 3-4 Quizzes)	Week 5, 10	10%
3.	1st Practical Evaluation	Week 2-11	15%
4	2nd Practical Evaluation	Week 11	10%
5	Participation	Week 1-11	5%
6	Final	Week 12	40%
7	Total Marks		100%

*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	○ Network Security, Firewalls, and VPNS, by J. Michael Stewart, 2010, ISBN 10: 076379130X ○ Cryptography and Network Security: Principles and Practices by W.Stallings, Prentice Hall, 5 th Edition, ISBN-10: 0136097049 ○ Principles of Computer Security: CompTIA Security+ and Beyond by Wm.A. Conklin et al., McGraw Hill, 3 rd Edition, ISBN-10: 0071786198
Supportive References	N/A
Electronic Materials	Online resources will be provided during class lectures on LMS.
Other Learning Materials	N/A

2. Required Facilities and equipment

Items	Resources
Facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom – A computer lab equipped and connected to a shared printer and the internet.
Technology equipment (projector, smart board, software)	Smart board, data projector, Microsoft Visio or Edraw Max and Internet browser.
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	Peer references – students.	1.Questionnaires and referendums approved by the department. 2.Peer evaluation of faculty members. 3.Review the results of the students' evaluation.
Effectiveness of students assessment	Peer references - program leaders - faculty members – students.	1.Questionnaires and referendums approved by the department. 2.Review course descriptions and course reports periodically.

Assessment Areas/Issues	Assessor	Assessment Methods
		3.Peer evaluation and periodic exchange of correction and scrutiny among fellow faculty members. 4.Review samples of students' work.
Quality of learning resources	Program leaders - faculty members - students	1.Questionnaires and referendums approved by the department. 2.Write-offs and monitoring.
The extent to which CLOs have been achieved	Program leaders - faculty members.	1.Review the course report. 2. Analysis of exams forms, grades, students' work and records of achievement.
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	Department of Applied Sciences – Applied College
REFERENCE NO.	
DATE	

هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**Graduation Project**
Course Code:	**NET 0222**
Program:	**Computer Science (Networking)**
Department:	**Applied Sciences**
College:	**Applied Collage**
Institution:	**Al Imam Muhammad bin Saud Islamic University**
Version:	**1**
Last Revision Date:	**29/11/2023 G 17/05/2023 H**

Table of Contents:

A. General information about the course:

Course Identification					
1. Credit hours:	2 hours (1 hours Lecture, 2 hours Lab)				
2. Course type:					
a.	University ☐	College ☐	Department☐	Track☒	Others☐
b.	Required ☒	Elective☐			
3. Level/year at which this course is offered: Five/ Two					
4. Course general Description: The Graduation Project in networking is a capstone course designed to provide students with an opportunity to apply the knowledge and skills acquired throughout their networking diploma program. Students will work on a substantial project or research topic related to networking, demonstrating their ability to analyze, design, implement, and evaluate solutions to real-world networking challenges. This course conducted under the general guidance of an approved faculty member. The course will allow the student to develop various skills, within a context that students will find relevant and engaging. Towards the end of the semester, the students should submit a project report and give a formal presentation.					
5. Pre-requirements for this course (if any): None					
6. Co- requirements for this course (if any): None					
7. Course Main Objective(s) The main objective is to provide students with an opportunity to apply the knowledge and skills acquired throughout their Networking diploma program. By the end of the course, students will be able to: 1. Formulate a comprehensive project proposal that addresses a significant networking issue or research question. 2. Apply relevant networking concepts, principles, and techniques to analyze, design, and develop a solution or research methodology. 3. Conduct in-depth research and critically analyze existing literature and practices related to the chosen project topic. 4. Implement and test the proposed solution or research methodology, considering cybersecurity best practices and ethical considerations. 5. Evaluate the effectiveness and impact of the project, considering relevant metrics and criteria. 6. Communicate project findings effectively through written reports and oral presentations. 7. Apply project management fundamentals 8. Demonstrate professionalism, teamwork, and time management skills throughout the project duration. (become familiar with teamwork: team size of 3 to 5 students)					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom		
2.	E-learning		
3.	Hybrid • Traditional classroom • E-learning	36	100%
4.	Distance learning		

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	12
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	12
5.	Others (specify) Seminars: The course emphasizes group work, guided by weekly face to face (or online) meetings with the advisor (group project supervisor)	12
	Total	36

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

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Identify a networking problem	ع1، ع2، ع5	-Classroom Lectures. -Discussions. -Experimental Learning. -Self Learning. -Brainstorming	-Tutorials
1.2	Demonstrate in-depth knowledge and understanding of networking concepts, principles, and technologies.	ع1، ع2، ع5		
1.3	Familiarity with international and national regulations and systems related to networking.	ع1، ع2، ع4		
1.4	Develop robust project management techniques	ع1، ع2، ع5		
2.0	Skills			
2.1	Apply critical thinking and problem-solving skills to identify and address networking challenges.	م1، م2، م3	-Classroom Lectures. -Discussions. -Experimental Learning. -Self Learning. -Brainstorming. -Seminars.	-Tutorials.
2.2	Conduct independent research and analysis to propose innovative solutions in networking.	م1، م2، م3، م4، م7		
2.3	Provide a link to the practical experiences of industry professionals, showcasing the relevance of computer security in real-world scenarios.	م1، م2 ، م4، م6، م7		

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.4	Deliver plans clearly and concisely orally, visually and in a written form.	م1، م2، م6، م7		
3.0	Values, autonomy, and responsibility			
3.1	Cooperation, teamwork, and professional ethics.	ق1	-Projects. -Teamwork. -Discussions. -Brainstorming - Class Activity.	-Group project Report.
3.2	Take responsibility for continuous learning and continuing personal development.	ق2		
3.3	Efficient and effective time management when applying acquired knowledge and skills.	ق3		

C. Course Content

No	List of Topics	Contact Hours
1.	Project Proposal Development: • Identifying a networking problem or research question with a clear problem statement, objectives, and methodology. • Conducting a literature review and gap analysis • Conducting a feasibility study and assessing the resources required.	8 hours
2.	Project Planning and Management: • Project planning, including defining project milestones, tasks, and deliverables. • Risk assessment and mitigation strategies. • Project scheduling and time management.	6 hours
3.	Project Implementation and Testing: • Designing and developing the proposed solution or research methodology. • Implementing networking controls and measures.	6 hours

	• Conducting testing, data collection, and analysis. • Iterative development and refinement. • Addressing security, privacy, and quality assurance considerations.	
4.	Project Documentation and Reporting: • Writing technical reports and documentation following industry standards. • Creating project artifacts, such as design documents, user manuals, and system documentation. • Presenting project findings and results effectively.	6 Hours
5.	Project Evaluation and Documentation: • Evaluating the effectiveness and impact of the project. • Assessing project outcomes against predefined metrics and criteria. • Documenting project findings, including lessons learned and recommendations. • Writing a comprehensive project report.	6 Hours
6.	Project Presentation: • Preparing and delivering a professional oral presentation. • Demonstrating effective communication skills. • Responding to questions and feedback.	4 Hours
Total		36

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes and Assignments	Week 2, Week 5 Week 7	30%
2.	Project	Week 5, Week 10	30%
5.	Final Exam	Week 12	40%
6.	Total		100%

*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	N/A
Supportive References	N/A
Electronic Materials	Online resources will be provided during class lectures on LMS.
Other Learning Materials	N/A

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms
Technology equipment (Projector, smart board, software)	PC and WIFI Internet access within the classroom Projector.
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 strategies	Students – Peers	1. Questionnaires and surveys approved by the department. 2. Peers' assessments by faculties. 3. Reviewing the results of the students' evaluation.
Effectiveness of students' assessment	Peers, Program Leaders, Faculty, Students.	1. Questionnaires and surveys approved by the department.

Assessment Areas/Issues	Assessor	Assessment Methods
		2. Review course specifications and course reports periodically. 3. Peers assessments. 4. Review samples of students works.
Learning Resources	Program Leaders, Faculty, Students.	1. Questionnaires and surveys approved by the department. 2. Students transcripts.
Quality of learning resources	Program Leaders, Faculty.	1. Review course report. 2. Analyze exam models and students grade records.
The extent to which CLOs have been achieved		
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	COMPUTER PROGRAMS DEVELOPMENT COMMITTEE – APPLIED COLLAGE
REFERENCE NO.	SECOND- THE FIFTH SEMESTER OF THE YEAR 1445
DATE	29 / 11 / 2023 G, 15/ 05 /1444 H

هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**Emerging Trends in information technology**
Course Code:	**Cs 262**
Program:	**Computer Science**
Department:	**(Cybersecurity – Programming -Networks)**
College:	**Applied College**
Institution:	**Al Imam Mohammed Bin Saud Islamic University**
Version:	*Course Specification Version Number*
Last Revision Date:	*Pick Revision Date.*

Table of Contents:

A. General information about the course:

Course Identification					
1. Credit hours:	3				
2. Course type					
a.	University ☐	College ☐	Department☒	Track☐	Others☐
b.	Required ☒	Elective☐			
3. Level/year at which this course is offered: Level 5					
4. Course general Description In this course, the student is introduced to a group of modern topics in the field of computers and information technology that keep pace with the rapid development the world is witnessing in these fields. Throughout the semester, the course includes an integrated case study in which one of the course tools is used in addition to the experiences gained in the relevant courses to build an integrated project.					
5. Pre-requirements for this course (if any): None					
6. Co- requirements for this course (if any): None					
7. Course Main Objective(s) This course aims to enable the student to learn about the most prominent progress and innovation witnessed in science and technology in the various fields of technology, to spread awareness about the most important emerging issues in computer science and information technology.					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom		
2.	E-learning		
3.	Hybrid • Traditional classroom • E-learning	33	100%
4.	Distance learning		

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	33
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others **(Assignments, self-study, projects, research, tests, and group work)**	110
	Total	143

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

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Knowledge of emerging issues in computer science and information technology, their importance and areas of employment.	ع1، ع5	• Class lecture • Discussion • Survey • Discovery learning • Self-education • Developed lecture • Brainstorming • survey • KWL learning schedule • Mind maps Concept maps	Achievement tests Class questions Assignments Presentations Discussion Achievement file
2.0	Skills			
2.1	Analyze and evaluate the information, knowledge and concepts acquired.	م1، م2، م7	• Practical demonstration • Developed lecture • Discovery learning • Peer learning • Self-education • Discussion • Survey • Brainstorming • Cooperative learning • Problem Solving Project-based learning	• Presentations • Performance tests • Production metrics • Observation • Software projects • Achievement file • Peer evaluation Self-evaluation
2.2	Apply information and findings from emerging technologies to new situations.	م1، م2، م7		
2.3	Searching for emerging technologies through the latest studies and scientific sources.	م1، م2، م7		
2.4	Using information and communications technology to communicate, exchange ideas, scientific research, and perform tasks and costs.	م1، م2، م7		
2.5	Practicing critical thinking and solving problems facing the learner in the course in creative ways.	م1، م2، م7		

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
3.0	Values, autonomy, and responsibility			
3.1	Cooperation, teamwork, and professional ethics.	ق1	• Project-based learning • Cooperative learning • Discussion • Practical lecture • Modeling and role modeling Survey	Observation cards Discussion Class questions Rating scales Self-assessment value scales Peer evaluation Achievement file
3.2	Take responsibility for continuous learning and continued personal development.	ق2		
3.3	Manage time efficiently and effectively when applying acquired knowledge and skills.	ق3		

C. Course Content

No	List of Topics	Contact Hours
1.	Artificial intelligence	6
2.	Application design and programming	9
3	Big data	3
4	Internet of things	6
5	Cloud computing	3
6	Blockchain Technology	3
7	Privacy and personal data regulations	3
Total		65

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm	Week 6	20%
2.	Quizzes	Week 3,9	10%
3.	Project	Week 10	30%
4	Final Exam	Week 12	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

Essential References	1. artificial intelligence illuminated , Ben Coppin 2. Artificial Intelligence A Modern Approach , stuart Russell and Peter Norvig 3. Big Data: A Very Short Introduction , Dawn E. Holmes · 4. Introduction to IoT ,Sudip Misra, Anandarup Mukherjee, Arijit Roy 5. Internet of Things (IoT): Principles, Paradigms and Applications of IoT ,Dr Kamlesh Lakhwani, Dr Hemant Kumar Gianey, Joseph Kofi Wireko, Kamal Kant Hiran 6. Blockchain Technology and Applications , edited by Pethuru Raj, Kavita Saini, Chellammal Surianarayanan 7. Cloud Computing A Hands-on Approach 8. Data Protection and Privacy: (In)visibilities and Infrastructures ,edited by Ronald Leenes, Rosamunde van Brakel, Serge Gutwirth, Paul De Hert The implementing regulation of the personal data protection law ,Saudi law , SDAIA
Supportive References	--
Electronic Materials	The course website through the blackboard platform
Other Learning Materials	--

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom Lab equipped with modern technologies in course vocabulary.
Technology equipment (projector, smart board, software)	Smartboard Projector
Other equipment (depending on the nature of the specialty)	---

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Peer reviewer - student	1. Questionnaires and referendums approved by the department. 2. Peer evaluation of faculty members. 3. Review student assessment results.
Effectiveness of students assessment	Peer references - program leaders - faculty members - students	1. Questionnaires and referendums approved by the department. 2. Review course descriptions and course reports periodically. 3. Peer evaluation and periodic exchange of correction and auditing among fellow faculty members. 4. Review samples of student work.
Quality of learning resources	Program leaders - faculty members - Students	1. Questionnaires and referendums approved by the department. 2. Delisting and monitoring lists.
The extent to which CLOs have been achieved	Program leaders - faculty members	1. Review the rapporteur's report. 2. Analyze test forms, grades, student work, and records of achievement.

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	

هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

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Course Specification

هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**Wide Area Network Protocols**
Course Code:	**NET 212**
Program:	**Computer Science (Networking)**
Department:	**Applied Sciences**
College:	**Applied Collage**
Institution:	**Al Imam Muhammad bin Saud Islamic University**
Version:	**1**
Last Revision Date:	**17/11/2023 G, 03/05/2023 H**

Table of Contents:

A. General information about the course:

Course Identification					
1. Credit hours:	3 hours (2 hours Lecture, 2 hours Lab)				
2. Course type:					
a.	University ☐	College ☐	Department☐	Track☒	Others☐
b.	Required ☒	Elective☐			
3. Level/year at which this course is offered: Five/ Two					
4. Course general Description: This course provides an in-depth understanding of the various protocols used in wide area networking. This includes the study of different WAN protocols such as Frame Relay, ATM, MPLS, leased lines, and VPNs. Also, it aims to teach students how these protocols work, their advantages and disadvantages, and how they are used to establish and maintain connections over a wide geographical area.					
5. Pre-requirements for this course (if any): None					
6. Co- requirements for this course (if any): None					
7. Course Main Objective(s) The main objective is to equip students with the knowledge and skills to design, implement, troubleshoot, and optimize WAN connections. Students will learn about routing protocols, circuit-switching, packet-switching, and many other protocols that are relevant to WANs.					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom		
2.	E-learning		
3.	Hybrid ☐ Traditional classroom ☐ E-learning	44	100%
4.	Distance learning		

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	22
2.	Laboratory/Studio	22
3.	Field	
4.	Tutorial	
5.	Others (specify)	110
	Total	154

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

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Familiarity with Networks models and LAN.	ع1، ع2، ع5	-Classroom Lectures. -Discussions. -Survey. -Experimental Learning. -Self Learning. -Development Lectures. -Brainstorming - Web Survey. -KWL - Learning Schedule. - Mind Maps. -Concept Maps.	-In-person and Online Exams. -Classroom Questions. -Assignments. -Participations. - Presentations -Discussions. -Debates. -Cognitive Tests. -Student Activity File.
1.2	Knowledge of basic skills for WANs, their protocols, and technologies and how to use it.	ع1، ع2، ع3، ع4، ع5		
2.0	Skills			
2.1	Distinguishing between types of networks, and types of setting up a network, routing and switching.	م1، م2، م3، م5، م8	-Classroom Lectures. -Discussions. -Survey. -Experimental Learning. -Self Learning. -Development Lectures. -Brainstorming - Web Survey. -KWL - Learning Schedule. - Mind Maps. -Concept Maps.	-In-person and Online Exams. -Classroom Questions. -Assignments. -Participations. - Presentations -Discussions. -Debates. -Cognitive Tests. -Student Activity File.
2.2	Designing the optimal wide area network.	م1، م2، م3، م4، م5، م6، م8		
2.3	Proficiency in using WAN protocols.	م1، م2، م3، م4، م5، م8		
2.4	Distinguish between the technologies used in WAN.	م1، م2، م8		
2.5	The use of information and communication technology in communication, exchanging ideas, scientific research, and tasks accomplishments.	م1، م2، م8		
2.6	Practicing critical thinking and solving problems that the learner faces in the course in creative ways.	م1، م2، م8		
3.0	Values, autonomy, and responsibility			
3.1	Cooperation, teamwork, and professional ethics.	ق1	-Projects. -Teamwork.	-Notes. -Discussions.

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
3.2	Take responsibility for continuous learning and continuing personal development.	ق2	-Labs. -Discussions. -Brainstorming - Web Survey. -Auditions.	-Classroom Questions. -Rubrics. -Scale Measurements. -Peer Assessments. -Self Assessment. -Student Activity File.
3.3	Efficient and effective time management when applying acquired knowledge and skills.	ق3		

C. Course Content

No	List of Topics	Contact Hours
1.	Overview of Networks: 1. Definition of a network. 2. Types of networks based on the communication media: a. Wired. b. Wireless. 3. Types of network topologies. a. Wired topology. i. Bus topology. ii. Ring topology. iii. Star topology. iv. Mesh topology. b. Wireless topology. i. Infrastructure wireless topology. ii. Ad Hoc wireless topology. iii. Wireless Mesh topology. iv. Hybrid topology. 4. Types of networks based on the geographical areas. a. LANs. b. WLANs. c. WANs. d. MANs. e. CANs. f. SANs. g. PANs. 5. Router Device. 6. Switch Device. 7. Routing: a. Static routing b. Dynamic routing 8. Switching methods:	8 hours

	a. Packet switching b. Circuit switching c. Comparing between packet switching and circuit switching. d. Virtual Circuits.	
2.	Introduction to WAN: 1. Overview of WANs. 2. Characteristics of WANs. 3. Why are WANs Necessary? 4. The Evolving Enterprise. 5. WAN Topologies. a. Point to point topology. b. Hub and spoke. c. Full Mesh. d. Dual-homed topology. 6. WANs in the OSI Model. 7. Common WAN terminology. a. Customer Premises Equipment (CPE). b. Data Communications Equipment (DCE). c. Data Terminal Equipment (DTE). d. Local loop. e. Demarcation point. f. Central office. 8. WAN architecture. 9. WAN devices. a. Modem. b. CSU/DSU. c. WAN switch. d. Router. e. Core router.	8 hours
3.	WAN link connection: 1. WAN access ways: a. Private WAN infrastructure. i. Dedicated 1. Leased Lines. 2. Concept. a. How it works. b. Advantages. c. Disadvantages. 3. Types of T-carrier lines. a. T1. b. T2. c. T3. d. T4. ii. Circuit Switched 1. PSTN public switched telephone network.	8 hours

	2. ISDN Integrated Services Digital Network. a. Concept. b. How it works. c. Advantages. d. Disadvantages. e. Two Defined interface standards: i. Basic Rate Interface (BRI). ii. Primary Rate Interface (PRI). iii. Packet Switched 1. Asynchronous Transfer Mode (ATM) technology: a. Concept. b. How it works. c. Advantages. d. Disadvantages. 2. Frame Relay a. Concept. b. Advantages. c. Disadvantages. d. How it works. b. Public WAN infrastructure. i. Internet. 1. Broadband VPN.	
4.	Other WAN Technologies: 1. High Level Data Link Control (HDLC). a. Concept. b. How it works. c. Advantages. d. Disadvantages. 2. Point to Point Protocol (PPP). a. Concept. b. How it works. c. Advantages. d. Disadvantages. 3. Different between PPP and HDLC protocols. 4. Encapsulate point to point protocol over Ethernet (PPPoE). a. Concept. b. How it works. c. Advantages. d. Disadvantages. 5. Metro Ethernet (Metropolitan Ethernet). a. Definition. b. Benefits of Metro Ethernet. 6. Dynamic Multipoint VPN (DMVPN).	8 Hours

	a. Concept. b. How it works. c. Advantages. d. Disadvantages. 7. Multiprotocol Label Switching (MPLS). a. Concept. b. How it works. c. Advantages. d. Disadvantages.	
5.	VPN Technology: 1. Definition 2. Characteristics 3. Components of the VPN connections. 4. VPN Benefits Access a. Cost Saving b. Security. c. Scalability. d. Compatibility with broadband technology. 5. Disadvantages. 6. Types of VPN Access a. Site to site VPNs. b. Remote access VPNs.	8 Hours
6.	Internet Connection Options: 1. DSL Internet Access. a. ADSL b. SDSL. c. IDSL. d. VDSL. e. HDSL. 2. Cable Modem. 3. Broadband Wireless. 4. Fiber Optic. 5. Dial – UP. 6. Satellite Internet Access.	4 Hours
Total		44

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Two Midterms (Theorical +Practical)	Week 6 Week 10	30
2.	Quizzes	The whole semester	10
3.	Lab project	Week 10	15

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
4.	Attendance and Classroom Participation	The whole semesters	5
5.	Final Exam	Week 12	40
6.	Total		100

*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	Accessing the WAN CCNA Exploration Companion Guide, by Bob Vachon and Rick Graziani. CompTIA Network+ Certification All-in-One Exam Guide, by Scott Jernigan, 6th Edition.
Supportive References	Networking Fundamentals by Crystal Panek.
Electronic Materials	Course Lectures on the Blackboard.
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. Lab room.
Technology equipment (Projector, smart board, software)	PC and WIFI Internet access within the classroom projector, and packet tracer.
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 strategies	Students – Peers	1. Questionnaires and surveys approved by the department. 2. Peers' assessments by faculties. 3. Reviewing the results of the students' evaluation.
Effectiveness of students' assessment	Peers, Program Leaders, Faculty, Students.	1. Questionnaires and surveys approved by the department.

Assessment Areas/Issues	Assessor	Assessment Methods
		2. Review course specifications and course reports periodically. 3. Peers assessments. 4. Review samples of students works.
Learning Resources	Program Leaders, Faculty, Students.	1. Questionnaires and surveys approved by the department. 2. Students transcripts.
Quality of learning resources	Program Leaders, Faculty.	1. Review course report. 2. Analyze exam models and students grade records.
The extent to which CLOs have been achieved		
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	COMPUTER PROGRAMS DEVELOPMENT COMMITTEE – APPLIED COLLAGE
REFERENCE NO.	SECOND- THE FIFTH SEMESTER OF THE YEAR 1445
DATE	17 / 11 / 2023 G, 03/ 05 /1444 H

الكلية التطبيقية
توصيف المقرر الدراسي
(دبلوم متوسط)

اسم المقرر:	أخلاقيات المهنة
رمز المقرر:	سلك 215
البرنامج:	العلوم الإنسانية والإدارية – إدارة أعمال
الكلية:	الكلية التطبيقية
المؤسسة:	جامعة الإمام محمد بن سعود الإسلامية

المحتويات:

أ. التعريف بالمقرر الدراسي:

1.الساعات المعتمدة: 2
2.نوع المقرر: ☐√*-إجباري ☐اختياري
3. السنة / المستوى الذي يقدم فيه المقرر
4.المتطلبات السابقة لهذا المقرر (إن وجدت) لا يوجد
5.المتطلبات المتزامنة مع هذا المقرر (إن وجدت)

6. **نمط الدراسة** (اختر كل ما ينطبق)

م	نمط الدراسة	عدد الساعات التدريسية	النسبة
1	**المحاضرات التقليدية**	10	% 40
2	**التعليم المدمج**	1	%10
3	**التعليم الإلكتروني**	1	%10
4	**التعليم عن بعد**	10	%40
5	**أخرى**		

7. **ساعات الاتصال** (على مستوى الفصل الدراسي)

م	النشاط	ساعات التعلم
1	محاضرات	**22 ساعة**
2	معمل أو أستوديو	-
3	حلقات بحث	-
4	أخرى (تذكر)	-
الإجمالي		

ب-هدف المقرر ومخرجاته التعليمية:

1. الوصف العام للمقرر:

يتضمن هذا المقرر تعريف الطالب بأخلاقيات المهنة ومكانتها في الإسلام وتطبيقاتها في أنظمة المملكة العربية السعودية، وتوضيح الأهمية النظرية والتطبيقية من الالتزام بالمواثيق الأخلاقية لتعزيز التزام الطالب بها في نفسه وبيئة عمله.

2. الهدف الرئيس للمقرر

يهدف هذا المقرر إلى تنمية الحس الأخلاقي عند الطالب وجعل أخلاقيات المهنة ضرورة مهنية يجب الالتزام بها، وتوضيح قواعد السلوك الوظيفي والأنظمة الخاصة بالعمل والأهمية النظرية والتطبيقية من الالتزام بالمواثيق الأخلاقية.

3. مخرجات التعلم للمقرر:

	مخرجات التعلم للمقرر	رمز مخرج التعلم المرتبط للبرنامج
1	**المعرفة والفهم**	ع
1.1	**أن يتعرف الطالب على مفهوم الأخلاق وعوامل الاهتمام بعلم الأخلاقيات**	ع
1.2	**أن يتعرض للمفهوم النظري لأخلاقيات المراجعة الداخلية ومواثيقها**	ع
1.3	**أن يتعرف الطالب على مفهوم الاخلاق وعوامل الاهتمام بعلم الاخلاقيات**	ع
2	**المهارات**	
2.1	**أن يدرك الازمة الاخلاقية في المؤسسات المختلفة**	م

	مخرجات التعلم للمقرر	رمز مخرج التعلم المرتبط للبرنامج
2.2	ان يتعرف على الصورة الذهنية للأخلاقيات في المنظمات المختلفة	م
2.3	ان يتنبأ بالصورة المستقبلية لأخلاقيات المراجعة الداخلية	م
2.4	أن يدرك مهارة تحقيق الانضباط والالتزام الوظيفي	م
3	**القيم**	
3.1	ينجح الطالب في تطبيق هذه المهارات في حياته العملية	ق
3.2	يجيد الطالب بناء علاقات في بيئة العمل قائمة على القيم الأخلاقية	ق
3.3	ينجح الطالب في تطبيق هذه المهارات في المواقف الحياتية المختلفة	ق

ج. موضوعات المقرر

م	قائمة الموضوعات	ساعات الاتصال
1	مفهوم ومعنى الأخلاق، وأهميتها ومكانتها بالنسبة لأي مهنة	2
2	العوامل التي أدت للاهتمام بأخلاقيات المهنة مصادر أخلاقيات المهنة	4
3	أخلاقيات العمل الوظيفي والانضباط والالتزام الوظيفي	2
4	قيم وأخلاقيات المهنة (الصدق، الأمانة، العدل، الإتقان، حسن التعامل، الايجابية ...)	2
5	أخلاقيات المهنة في أنظمة المملكة العربية السعودية (أنظمة وزارة الموارد البشرية، هيئة الرقابة ومكافحة الفساد)	4
6 7 8	الثقافة التنظيمية وأخلاقيات العمل أخلاقيات العمل ومهارات التواصل مع الآخرين (الفساد الإداري، السرقة والرشوة، الغش، إفشاء أسرار العمل وما يتعلق بالمخالفات الشرعية في المهنة، لوساطة المذمومة ...).	8
	المجموع	22

د. التدريس والتقييم:

1. ربط مخرجات التعلم للمقرر مع كل من استراتيجيات التدريس وطرق التقييم

الرمز	مخرجات التعلم	استراتيجيات التدريس	طرق التقييم
1.0	**المعرفة والفهم**		
1.1	ان يتعرف الطالب على مفهوم الأخلاق وعوامل الاهتمام بعلم الأخلاقيات	العروض التقديمية	تقييم التكاليف
1.2	أن يفهم الطالب العلاقة بين الثقافة التنظيمية وأخلاقيات العمل	العروض التقديمية	أسئلة النقاش
…	أن يعرف مفهوم المسؤولية الاجتماعية لمنظمات الأعمال والأخلاقيات المرتبط بذلك	المحاضرة المطورة	تقييم دراسة الحالة
2.0	**المهارات**		
2.1	أن يحقق الطالب مهارة الانضباط والالتزام الوظيفي		تقويم الأقران لقياس مستوى التعاون وتحمل المسؤولية
2.2	يكتسب الطالب مهارة تقويم أخلاقيات العمل		▪ المناقشة والحوار
…	يجيد الطالب مهارة التواصل داخل المجموعات الصغيرة والعمل ضمن الفريق		تقويم الأقران لقياس مستوى التعاون وتحمل المسؤولية
3.0	**القيم**		
3.1	ينجح الطالب في تطبيق هذه المهارات في المواقف العملية والحياتية المختلفة		تقييم المشاريع
3.2	.يجيد الطالب بناء علاقات انسانية مع الاخرين قائمة على الصدق والامانة		الاختبارات التحريرية والشفهية

2. أنشطة تقييم الطلبة

م	أنشطة التقييم	توقيت التقييم (بالأسبوع)	النسبة من إجمالي درجة التقييم
1	الحضور والمشاركة	طوال الفصل الدراسي	%10
2	التكليفات العملية والمناقشة والمشاركة الفعالة	طوال الفصل الدراسي	%20
3	الاختبارات المفاجئة والواجبات المنزلية	الاسبوع الثاني	%10
4	اختبارات الاعمال الفصلية	6 - 9	%20
5	الاختبار النهائي	13	%40

أنشطة التقييم (اختبار تحريري، شفهي، عرض تقديمي، مشروع جماعي، ورقة عمل الخ)

هـ - أنشطة الإرشاد الأكاديمي والدعم الطلابي:

- توزيع الأدلة الإرشادية المعدة من قبل عمادة شؤون القبول والتسجيل.
- تسليم مفردات المقرر والخطة الدراسية خلال الأسبوع الأول
- لهذا المقرر ساعة مكتبية يتم إعلام الطلاب بساعات تواجد استاذ المقرر في مكتبه لتقديم المشورة الأكاديمية.

و – مصادر التعلم والمرافق:

1. قائمة مصادر التعلم:

المراجع الرئيسة للمقرر	عصام عبد المحسن الحميدان -أخلاقيات المهنة في الإسلام القيم المهنية، أ.د محمود عطا عقل أخلاقيات الإدارة في الوظيفة العامة وتطبيقاتها في المملكة العربية السعودية. د. فهد العثيمين.
المراجع المساندة	أخلاقيات الوظيفة العامة. د. عبد القوي الصباح، عبد الرحمن -مبادئ الرقابة الإدارية -دار الزهران للنشر والتوزيع أخلاقيات العمل بين الدين والمجتمع. أحمد جابر حسنين وزارة الخدمة المدنية، أخلاقيات الوظيفة العامة، الرياض، الطبعة الثانية، ١٤٢٥ ه وزارة الخدمة المدنية، مرشد الموظف الجديد، الرياض، الطبعة الثالثة، ١٤٢٥ هـ عصام عبد المحسن الحميدان، أخلاقيات المهنة في الإسلام وتطبيقاتها في أنظمة المملكة العربية السعودية. "الوجيز في أخلاقيات العمل، أ.د .أحمد بن داود المزجاجي الأشعري، خوارزم العلمية للنشر والتوزيع الشنواني، صلاح -التنظيم الإداري في قطاع الأعمال -دار المعارف – مصر 1966
المصادر الإلكترونية	▪ المكتبة الرقمية السعودية https://sdl.edu.sa/SDLPortal/Publishers.aspx
أخرى	

2.المرافق والتجهيزات التعليمية والبحثية المطلوبة:

العناصر	متطلبات المقرر
المرافق (القاعات الدراسية، المختبرات، قاعات العرض، قاعات المحاكاة ... إلخ)	▪ قاعة دراسية تستوعب ٣٠ طالب طوال اليوم الدراسي ▪
التجهيزات التقنية (جهاز عرض البيانات، السبورة الذكية، البرمجيات)	جهاز عرض البيانات السبورة الذكية جهاز حاسب لي مزود ببرامج حديثة شبكة إنترنت حديثة
تجهيزات أخرى (تبعاً لطبيعة التخصص)	شبكة إنترنت

ز. تقويم جودة المقرر:

مجالات التقويم	المقيمون	طرق التقييم
فاعلية التدريس	المراجع النظير– الطلاب	الاستبانات والاستفتاءات معتمدة من القسم. تقويم الأقران من أعضاء هيئة التدريس. مراجعة نتائج تقويم الطلاب.
فاعلية طرق تقييم الطلاب	المراجع النظير– قيادات البرنامج – أعضاء هيئة التدريس -الطلاب	الاستبانات والاستفتاءات المعتمدة من القسم. مراجعة تواصيف المقررات وتقارير المقررات بشكل دوري. تقويم الأقران والتبادل الدوري للتصحيح والتدقيق بين الزملاء من أعضاء هيئة التدريس. مراجعة عينات من أعمال الطلاب.
مصادر التعليم	قيادات البرنامج – أعضاء هيئة التدريس – الطلاب	الاستبانات والاستفتاءات المعتمدة من القسم قوائم الشطب والرصد
المرافق	أعضاء هيئة التدريس	الاستبانات -المقابلات
مدى تحصيل مخرجات التعلم للمقرر	قيادات البرنامج -أعضاء هيئة التدريس	مراجعة تقرير المقرر. تحليل نماذج الاختبارات والدرجات وأعمال الطلاب وسجلات إنجازهم.

مجالات التقويم (مثل. فاعلية التدريس، فاعلة طرق تقييم الطلاب، مدى تحصيل مخرجات التعلم للمقرر، مصادر التعلم ... إلخ)
المقيمون (الطلبة، أعضاء هيئة التدريس، قيادات البرنامج، المراجع النظير، أخرى (يتم تحديدها)
طرق التقييم (مباشر وغير مباشر)

ح. اعتماد التوصيف

جهة الاعتماد	لجنة البرامج والخطط – الكلية التطبيقية
رقم الجلسة	
تاريخ الجلسة	