



Course Descriptor
INTE309 Computer Networks II

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|-------------------------------|------------|------------------------------------|-------------------------|
| Proposed Academic Year | 2021/ 2022 | Last Reviewed Academic Year | 2020/2021 |
| Course Code | INTE309 | Course Title | Computer Networks II |
| Credit hours | 3 | Level of study | Undergraduate-Year Four |
| College / Centre | COBA | Department | MIFS |
| Co-requisites | None | Pre-requisites | INTE207 |

1. COURSE OUTLINE

[The internet protocols play a significant role in the communications industry. This course will equip the student with an advanced level of knowledge of computer network concepts, Computer Networks architectures, communication protocol, and performance analysis to make the Internet work. Students will develop critical insight into the design, and implement all aspects of a computer network through homeworking.]

2. AIMS

[This course aims are to enable students to broaden understanding of the practical implementation of all aspects of computer networking.]

3. LEARNING OUTCOMES, TEACHING, LEARNING ,ASSESSMENT METHODS , and Graduate Attributes Mapping

| Learning Outcomes (Definitive) | Teaching and Learning methods (Indicative) | Assessment (Indicative) | |
|---|--|--|---|
| Upon successful completion of this course, students will be able to: | | | |
| 1 explain the core concept of information such as confidentiality, integrity, and Availability (CIA) in the perspective of Information Assurance; coherent the threats to information, will be able to analyze a given architecture, and provide a physical, logical, or administrative controls to mitigate the threat; | e.g, lectures, online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation. | e.g., tests, assignments, individual or group project, participation | Knowledge of a discipline. Commitment to national development and Omani ethical values. Innovative spirit. Global insight. |
| 2 Explain the core concept of information such as confidentiality, Describe the software, hardware, and the services that comprise a network, and will be able to articulate how these components can integrate to form a network. | e.g, lectures, online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation. | e.g., tests, assignments, individual or group project, participation | Knowledge of a discipline. |



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| 3 Demonstrate and explain the core networking protocols and their relationship in the context of designing a conceptual model. | e.g, lectures, online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation. | e.g., tests, assignments, individual or group project, participation | Knowledge of a discipline |
| 4 configure a network architecture with multiple hosts for given business requirements and constraints; with configuring operating systems, network-specific services, switching, routing, and remote access solutions; | e.g, lectures, online videos tutorials and seminars, online group discussions using LMS, independent readings, individual or group work, presentation. | e.g., tests, assignments, individual or group project, participation | Knowledge of a discipline |

4. ASSESSMENT WEIGHTING

| Assessment | Percentage of final mark (%) |
|---------------|------------------------------|
| Mid-term Exam | 30 |
| Final Exam | 30 |
| Assignments | 30 |
| Participation | 10 |
| | |
| TOTAL | 100% |

5. ACHIEVING A PASS

Students will achieve 3 credit hours for this course by achieving a minimum overall score of 50%
NB *Ensure that ALL learning outcomes are taken into account

6. COURSE CONTENT (Indicative)

| LECTURE TOPIC | TIME (HOURS) |
|---|--------------|
| Chapter 1: Introduction to advance computer network | 6 |
| Chapter 2: The Internet address architecture | 6 |
| Chapter 3: link layer | 6 |
| Chapter 4, address resolution protocol | 6 |
| Chapter 5: the internet protocol | 6 |
| Chapter 6: System configuration | 5 |
| Chapter 7: firewalls | 5 |

