

المركز الوطني للتقويم والاعتماد الأكاديمي

**National Center for Academic Accreditation and Evaluation**

**T6. COURSE SPECIFICATIONS**

**(CS)**

**عال 305**

**Network 2**

**1440**

**Course Specifications**

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| Institution: **Shaqra University** | Date: **4/1/1440** |
| College/Department : **Thadiq College of Sciences & Humanities / Computer Department** | |

**A. Course Identification and General Information**

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| 1. Course title and code: **305 عال** |
| 2. Credit hours: : **3 hours** |
| 3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs): **COMPUTER PROGRAM** |
| 4. Name of faculty member responsible for the course: |
| 5. Level/year at which this course is offered: **The 8th level** |
| 6. Pre-requisites for this course (if any): **202 تقن** |
| 7. Co-requisites for this course (if any): |
| 8. Location if not on main campus: **Thadiq College of Sciences & Humanities** |
| 9. Mode of Instruction (mark all that apply):  a. traditional classroom What percentage?  **100%**  **√**  b. blended (traditional and online) What percentage?  c. e-learning What percentage?  d. correspondence What percentage?  f. other What percentage?  Comments |

**B. Objectives**

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| 1. What is the main purpose for this course?  (a) An ability to apply knowledge of computing, science, and engineering.  (b) An ability to design and conduct experiments, as well as to analyze and interpret data.  (c) An ability to design a system, component, or process to meet desired needs within realistic  Constraints such as economic, environmental, social, political, ethical, health and safety,  Manufacturability and sustainability.  (e) An ability to identify, formulates, and solves engineering problems.  (g) An ability to communicate effectively.  (k) An ability to use the techniques, skills, and modern engineering tools necessary for engineering |

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| 2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)  **Several websites are visited for more practice concerning each branch of networking where students need to practice creating there own network using cisco packet tracer.** |

**C. Course Description** (Note: General description in the form used in Bulletin or handbook)

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| 1. Topics to be Covered | | |
| List of Topics | No. of Weeks | Contact hours |
| Network layer + link layer | **2** | **8** |
| Network management | **1** | **4** |
| Multimedia Networking | **1** | **4** |
| Wireless and Mobile Networks | **2** | **8** |
| Network security | **2** | **8** |
| IP addressing | 2 | 8 |
| subnetting | 2 | 8 |
| Routing protocols and static route | 2 | 8 |
| Configuring LAN and wireless LAN | 2 | 8 |

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| 2. Course components (total contact hours and credits per semester): | | | | | | | |
|  | | Lecture | Tutorial | Laboratory/  Studio | Practical | Other: | Total |
| Contact  Hours | Planed | **60 hours** |  |  |  |  | **60 hours** |
| Actual | **60 hours** |  |  |  |  | **60 hours** |
| Credit | Planed | **60 hours** |  |  |  |  | **60 hours** |
| Actual | **60 hours** |  |  |  |  | **60 hours** |

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| 3. Additional private study/learning hours expected for students per week: **2 hours** |

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| 4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy | | | |
| **On the table below are the five NQF Learning Domains, numbered in the left column.**  **First**, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.) | | | |
| **Code**  **#** | **NQF Learning Domains**  **And Course Learning Outcomes** | **Course Teaching**  **Strategies** | **Course Assessment**  **Methods** |
| **1.0** | **Knowledge** | | |
| **1.1** | Network layer + link layer | **Lecture with PowerPoint presentations** | **first & Final exams** |
| **1.2** | Network management | **Lecture with PowerPoint presentations** | **first & Final exams** |
| **1.3** | Multimedia Networking | **Lecture with PowerPoint presentations** | **first & Final exams** |
| **1.6** | Data link layer | **Lecture with PowerPoint presentations** | **first & Final exams** |
| **1.7** | Physical layer | **Lecture with PowerPoint presentations** | **first & Final exams** |
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| **2.0** | **Cognitive Skills** | | |
| **2.1** | Wireless and Mobile Networks | **Lecture with PowerPoint presentations** | **Midterm & Final exams** |
| **2.2** | Network security | **Lecture with PowerPoint presentations** | **Midterm & Final exams** |
| **2.3** | Configuring access point | **Lecture with PowerPoint presentations** | **Midterm & Final exams** |
| **2.3** | Wireless protocols | **Lecture with PowerPoint presentations** | **Midterm & Final exams** |
| **2.3** |  |  |  |
| **2.3** |  |  |  |
| **2.3** |  |  |  |
| **3.0** | **Interpersonal Skills & Responsibility** | | |
| **3.1** | IP addressing | **Lecture with PowerPoint presentations** | **midterm & Final exams** |
| **3.2** | IP classes | **Lecture with PowerPoint presentations** | midterm & Final exams |
| **3.3** | subnetting | **Lecture with PowerPoint presentations** | Final exams |
| **3.4** | Subnet mask | **Lecture with PowerPoint presentations** | Final exams |
| **3.5** | Wide card mask | **Lecture with PowerPoint presentations** | Final exams |
| **3.6** | Routing protocols and static route | **Lecture with PowerPoint presentations** | Final exams |
| **3.7** | Default route | **Lecture with PowerPoint presentations** | Final exams |
| **3.8** | Default gate way | **Lecture with PowerPoint presentations** | Final exams |
| **3.9** |  |  |  |
| **4.0** |  |  |  |
| **4.1** |  |  |  |
| **3.0** |  | | |
| **3.1** |  | | |
| **4.0** | **Communication, Information Technology, Numerical** | | |
| **5.0** | **Psychomotor** | | |

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| 5. Schedule of Assessment Tasks for Students During the Semester: | | | |
|  | Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation) | Week Due | Proportion of Total Assessment |
| **1** | **The first midterm exam** | **The 7th week** | **20%** |
| **2** | **The second midterm exam** | **The 12th week** | **20%** |
| **3** | **Attendance & participation** | **Throughout the course** | **10%** |
| **4** | **Paper research** | **Throughout the course** | **10%** |
| **4** | **Final exam** | **The 16th week** | **40%** |

**D. Student Academic Counseling and Support**

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| 1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)  **The course is allocated two office hours for individual student consultations & academic advice. These hours are known to the students from the very beginning of the course. Students know they can see the teacher during these hours to seek any help or clarification.** |

**E. Learning Resources**

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| 1. List Required Textbooks:  Required:  1. Tanenbaum, A. Computer Networks. 5th Edition. Pearson Education. 2013. 1292024224 978-  1292024226  Recommended References  1. ``Computer Networks: A Systems Approach,'' by Larry L. Peterson and Bruce S. Davie.  2. Stallings, W. Data and Computer Communications. 10th Edition. Pearson Education. 2013. |
| 2. List Essential References Materials (Journals, Reports, etc.): |
| 3. List Electronic Materials, Web Sites, Facebook, Twitter, etc. |
| 4. Other learning material such as computer-based programs/CD, professional standards or regulations and software. Cisco packet tracer simulation |

**F. Facilities Required**

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| Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.) |
| 1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)**:**  **Lecture room with smart board and data show.** |
| 2. Technology resources (AV, data show, Smart Board, software, etc.)**:**  **Computer, Internet connection & data show.** |
| 3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list): |

**G. Course Evaluation and Improvement Processes**

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| 1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching:  **Classroom observation - questionnaires - interviews with students** |
| 2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department:  **Classroom visits by colleagues and head of the department.** |
| 3. Processes for Improvement of Teaching  **Holding seminars at the level of the department to share information on innovated teaching methods - attending workshops on teaching held by the university – obtaining recent references on teaching for the department library.** |
| 4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)  **Having a colleague evaluate a sample of student work.** |
| 5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.  **A meeting is held at the end of the semester at the level of the department to discuss course reports and suggest improvement.** |

Name of Course Instructor: \_\_\_Bamdan Badwan\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date Specification Completed: \_\_\_\_\_\_\_\_\_\_\_\_

Program Coordinator: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date Received: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_