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|  | Hashemite University |  |
| | Prince Al-Hussein bin Abdullah II Faculty for Information Technology | |
| | Department of Computer Information Systems | |

Course Syllabus

Year: 2018-2019

Semester: (1)

| Course No. | Course Title | Designation | Prerequisite | Co-requisite | Credit Hours Lectures /Lab. |
|------------|--------------------|-------------|--------------|--------------|--------------------------------|
| 151002420 | Network Management | Required | 161001320 | - | 3 / 0 |

| Instructor Name | E-mail | Office No. | Office ext. | Office Hours |
|---------------------|------------------|------------|-------------|--------------------------|
| Dr. Nabhan Hamadneh | nabhan@hu.edu.jo | IT 241 | 4150 | Sun, Tue, Thu (11-12) |

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| Coordinator's Name: | Dr. Nabhan Hamadneh |
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| Course Description | This course is designed for second year undergraduate students and it is a comprehensive study of the principles and practices of computer system security including , the OSI security architecture, security attacks, security mechanisms, symmetric ciphers, Classical encryption techniques, data encryption standards (DES), primary numbers, introduction to number theory, public-key cryptosystems, RSA algorithm, message authentication, digital signature, Hash function. |
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| a) Textbook(s): |
| 1. Mani Subramanian “Network Management: Principles and Practice”, 2nd Edition, Prentice Hall, 2010. |
| b) Additional References: |
| 2. Stallings, William. “SNMP, SNMPv2, SNMPv3 and RMON 1 and 2: The Practical Guide to Network Management Standards” 3rd Edition, Addison-Wesley.. |

| Course Learning Outcomes CLOs |
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| 1. Demonstrate a good working knowledge of (OSI, Internet, TMN) standards and the literature of SNMP protocol |
| 2. Describe the need for and issues associated with different SNMP versions of network management systems |
| 3. Describe the tools and models that can be used to address issues in architecting network management solutions. |
| 4. Analyze a specific network management problem and apply concepts and issues learnt to design one or more aspects of a network management solution |
| Addressed Student Learning Outcomes (SLOs) |
| 6 |

| Topic | CLO number | Reference | No. of Weeks | Contact *hours |
|---|-------------------|------------------|---------------------|-----------------------|
| 1. Data Communications and NM Overview | 1 | Ch1 | 2 | 6 |
| 2. Computer Network Technology | 2 | Ch2 | 2 | 6 |
| 3. Basic Foundations: Standards, Models, and Language | 3 | Ch3 | 2 | 6 |
| 4. SNMPv1: Organization and Information Models | 2 | Ch4 | 2 | 6 |
| 5. SNMPv1: Communication and Functional Models | 4 | Ch5 | 2 | 6 |
| 6. SNMPv2 | 2 | Ch6 | 2 | 6 |
| 7. SNMPv3 | 2 | Ch7 | 3 | 3 |
| 8. RMON | 3 | Ch8 | 3 | 3 |
| Total | | | 15 | 45 |

| Assessment method | Grade | Comments |
|--------------------------|--------------|-------------------|
| First Exam | 30% | TBA |
| Second Exam | 30% | TBA |
| Final Exam | 40% | Covers all topics |
| Total | 100% | |