



Study Plan for Bachelor's Degree in Networks and Information Security Engineering for year 2017-2018

The Bachelor's Degree in Networks and Information Security Engineering awarded at Princess Sumaya University for Technology after the successful completion of 160 Credit Hours distributed as follows:-

University Requirements (27 CHs)

1. Compulsory Requirements (12 CHs)

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|--|--------------|--------------|------------|
| 11100 | Computer Skills (Remedial) | 0 | | |
| 31019 | Arabic Language (Remedial) | 0 | | |
| 31029 | English Language (Remedial) | 0 | | |
| 31111 | Arabic Language | 3 | 31019 | |
| 31121 | English Language | 3 | | 31029 |
| 31151 | National Education | 3 | | |
| 31153 | Introduction to Society, Technology and Environment Protection | 0 | | |
| 31251 | Military Science | 3 | | |

2. Elective Requirements (15 CHs)

2.1. Elective University Requirements (General) (6 CHs)

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|---|--------------|--------------|------------|
| 20251 | History of Science | 3 | | |
| 20252 | Arab Islamic Scientific Heritage | 3 | | |
| 31100 | Sports and Health | 3 | | |
| 31152 | Arabic Islamic Civilization | 3 | | |
| 31161 | Introduction to Library Science | 3 | | |
| 31211 | Arabic Literature | 3 | 31111 | |
| 31252 | Governance and Development | 3 | | |
| 31261 | Introduction to Politics and Economic Science | 3 | | |
| 31262 | Introduction to Educational Science | 3 | | |
| 31271 | Environmental Science | 3 | | |
| 31351 | Contemporary Issues in the Arab World | 3 | | |
| 31352 | Jerusalem : History and Facts | 3 | | |
| 31361 | Introduction to Philosophy | 3 | | |
| 31371 | Health Education | 3 | | |

2.2. Elective University Requirements (Scientific, Practical) (9 CHs)

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|-------------------------------|--------------|------------------------|------------|
| 31130 | Foreign languages | 3 | | |
| 31255 | Entrepreneurship for Business | 3 | Finish 60 Credit Hours | |
| 31311 | Scientific Research Methods | 3 | | |
| 31372 | Business Skills | 3 | Finish 60 Credit Hours | |

School Requirements (30 CHs)

1. Compulsory Requirements (30 CHs)



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| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|--|--------------|------------------------|------------|
| 11103 | Structured Programming | 3 | 11100 | |
| 11151 | Structured Programming Lab | 1 | | 11103 |
| 20132 | Calculus (1) | 3 | | |
| 20133 | Calculus (2) | 3 | 20132 | |
| 20141 | Physics (1) | 3 | | |
| 20142 | Physics (2) | 3 | 20141 | |
| 20148 | Physics (1) Lab | 1 | | 20141 |
| 20149 | Physics (2) Lab | 1 | | 20142 |
| 20200 | Technical Writing and Communication Skills | 3 | 31111,31121 | |
| 20231 | Calculus (3) | 3 | 20133 | |
| 21218 | Engineering Drawing Lab | 1 | | |
| 21219 | Engineering Workshop | 1 | | |
| 24411 | Engineering Ethics | 1 | Finish 99 Credit Hours | |
| 32431 | Engineering Economics | 3 | Finish 99 Credit Hours | |

Program Requirements (103 CHs)

1. Compulsory Requirements (97 CHs)

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|--|--------------|--------------|------------|
| 11206 | Object Oriented Programming | 3 | 11103 | |
| 11212 | Data Structures and Introduction to Algorithms | 3 | 11206,20134 | |
| 11240 | Web Site Development Programming | 3 | 11103 | |
| 11253 | Object Oriented Programming Lab | 1 | | 11206 |
| 11323 | Database Systems | 3 | 11212 | |
| 11335 | Operating Systems | 3 | 11212 | |
| 11355 | Operating Systems Lab | 1 | | 11335 |
| 11437 | Network Programming | 3 | 11335,25341 | |
| 11465 | Operating System Security | 3 | 11335 | |
| 11466 | Secure Software Development | 3 | 11335 | |
| 11469 | Secure Software Development Lab | 1 | | 11466 |
| 20134 | Discrete Mathematics (1) | 3 | | |
| 20232 | Engineering Mathematics(1) | 3 | 20133 | |
| 20234 | Linear Algebra | 3 | 20132 | |
| 20331 | Engineering Mathematics(2) | 3 | 20231,20232 | |
| 20334 | Applied Probability | 3 | 20231 | |
| 21232 | Digital Electronics Fundamentals | 3 | 22241,24223 | |
| 22241 | Digital Logic Design | 3 | | |
| 22340 | Microprocessors & Embedded Systems | 3 | 21232,22241 | |
| 22348 | Digital Logic Lab | 1 | 22241 | |
| 22444 | Computer Architecture & Organization (1) | 3 | 22241 | |
| 22448 | Embedded Systems Lab | 1 | 22340 | |
| 23354 | Data Communications | 3 | 20232 | |
| 24223 | Electric Circuits | 3 | 20142 | |
| 25341 | Telecommunications and Computer Networks | 3 | 23354 | |



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| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|--|--------------|-------------------------|------------|
| 25347 | Cryptography | 3 | 20134 | |
| 25441 | Wireless Networks | 3 | 25341 | |
| 25443 | Information and Networks Security Fundamentals | 3 | 25341 | |
| 25444 | Wireless Networks Security | 3 | 25347,25441 | |
| 25445 | Wireless Networks Lab | 1 | 25441 | |
| 25446 | Network Protocols | 3 | 23354 | |
| 25447 | Telecommunications and computer Networks Lab | 1 | 25341 | |
| 25490 | Practical Training | 3 | Finish 99 Credit Hours | |
| 25542 | Cyber Laws | 3 | 25443 | |
| 25543 | Intrusion Detection & Network Forensics | 3 | 25443 | |
| 25545 | Network Security Lab | 1 | 25444 | |
| 25549 | Ethical Hacking Techniques Lab | 1 | | 25543 |
| 25581 | Information Systems Security Assessment | 1 | 25443 | |
| 25591 | Senior Project (1) | 1 | Finish 120 Credit Hours | |
| 25592 | Senior Project (2) | 2 | 25591 | |

2. Elective Requirements (6 CHs)

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|--|--------------|--------------|------------|
| 11467 | Database Security | 3 | 11323,25443 | |
| 11468 | Secure Code Analysis | 3 | 11466 | |
| 22581 | Special Topics in Computer Engineering | 3 | | |
| 23575 | Coding Algorithms | 3 | 23354 | |
| 25541 | Cloud Computing & Security | 3 | 25446 | |
| 25576 | Network Performance Analysis | 3 | 20334,25446 | |
| 25582 | Operation & Administration of Security Centers | 3 | 25443,25446 | |
| 25583 | IT Audit | 3 | 25443,25446 | |
| 25584 | Risk Management | 3 | 20334,25443 | |
| 25585 | Multimedia Networks | 3 | 25446 | |
| 25586 | Hardware Security | 3 | 22444,25443 | |
| 25587 | Secure System Architecture | 3 | 25443,25446 | |
| 25593 | Special Topics in Network Security Engineering (1) | 3 | | |
| 25594 | Special Topics in Network Security Engineering (2) | 3 | | |
| 25595 | Special Topics in Information Security (1) | 3 | | |
| 25596 | Special Topics in Information Security (2) | 3 | | |