

Philadelphia University Faculty of Information Technology

Study Plan for Bachelor Degree in Information Security and Cybersecurity (132 Credit Hours)



Department of Information Security and Cybersecurity (2021/2022)

First: University Requirements (27 Credit Hours)

a- University Compulsory: (18 Credit Hours)

| Module No. | Module Name | Credit Hours | Prereq. | Mark |
|---------------|---------------------------------------|-----------------|---------|------|
| 111100 | Military Sciences ** | 3 | | |
| 111101 | National Education | 3 | | |
| 114103 | Communication skill (Arabic language) | 3 | 114099 | |
| 115102 | Leadership and social responsibility | 1 | | |
| 130107 | Communication skills (English 1) | 3 | 130099 | |
| 130108 | Communication skills (English 2) | 3 | 130107 | |
| 170101 | Life Skills | 1 | | |
| 330103 | Leadership and innovation | 1 | | |

 $[\]ensuremath{^{**}}$ Compulsory for Jordanian students and elective for Non-Jordanians

b- University Electives: (9 credit hours)

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|---|------------------------------------|-----------------|---------|------|
| Module | Module Name | Credit Hours | Prereq. | Mark |
| 111133 | (1)Thought and Human Civilization | 3 | | |
| 140111 | (1)Language Skills | 3 | | |
| 140112 | (2)Language Skills | 3 | | |
| 170102 | Thinking skill | 3 | | |
| 670101 | development and environment | 3 | | |
| 320104 | Economic culture | 3 | | |
| 330111 | Introduction to Project Management | 3 | | |
| 420140 | Human Rights | 3 | | |
| 420143 | Legal Culture | 3 | | |
| 750101 | Digital culture | 3 | | |
| 750102 | Data analysis skills | 3 | | |
| 910102 | Health Education | 3 | | |

Second: Faculty Requirements (24 Credit Hours)

| Module No. | Module Name | Credit hours | Prereq. | Mark |
|------------|--|-----------------|---------|------|
| 0721223 | Object Oriented Programming * | 3 | 0750114 | |
| 0721250 | Computing Ethics and technical writing | 3 | 0750114 | |
| 0721345 | Mobile computing technology | 3 | 0731213 | |
| 0731110 | Introduction to Information Systems and Technology | 3 | | |
| 0731213 | Introduction to Web Programming | 3 | 0750113 | |
| 0750113 | Programming Fundamentals (1) * | 3 | - | |
| 0750114 | Programming Fundamentals (2) * | 3 | 0750113 | |
| 0750215 | Visual Programming * | 3 | 0721223 | |

Third: Major Requirements (81

(81 Credit Hours)

| a- Compulsory Modules (45 Credit Hours) | | | | |
|---|---|--------|----------|------|
| Module No. | Module Name | Credit | Prereq. | Mark |
| 0790110 | Information Security Fundamentals | 3 | | |
| 0790211 | Principles of Cryptography | 3 | 0750120 | |
| 0790220 | Programming Language in Information Security* | 3 | 0721223 | |
| 0790312 | Database Administration Security * | 3 | 0731221 | |
| 0790321 | Cyber Crimes and Networks | 3 | 0790220 | |
| 0790322 | Wireless Computer Networks | 3 | 0731340 | |
| 0790323 | Linux Operating Systems * | 3 | 0731340 | |
| 0790324 | Information Security Protocols | 3 | 0731340 | |
| 0790325 | Forensic and Investigations * | 3 | 0790321 | |
| 0790330 | Practical Training ** | 3 | 90 hours | |
| 0790420 | Network Operating Systems * | 3 | 0790323 | |
| 0790421 | Networks Surveillance and Documentations * | 3 | 0790324 | |
| 0790422 | Networks Security * | 3 | 0790324 | |
| 0790423 | Information Security Risks Management | 3 | 0790422 | |
| 0790440 | Research Project 1 * | 1 | 90 hours | |
| 0790441 | Research Project 2 * | 2 | 0790440 | |

b- Supplementary Requirements (27 Credit Hours)

| Module No. | Module Name | Credit hours | Prereq. | Mark |
|------------|--|-----------------|---------|------|
| 0250101 | Differentiation and Integration(1) | 3 | | |
| 0250241 | Linear Algebra (1) | 3 | 0250101 | |
| 0250231 | Introduction to Statistics and Probabilities | 3 | | |
| 0721224 | Data Structures * | 3 | 0721223 | |
| 0731221 | Database Fundamentals * | 3 | 0721223 | |
| 0731321 | Systems Analysis and Design | 3 | 0731221 | |
| 0731340 | Computer Networks Fundamentals * | 3 | 0790110 | |
| 0750120 | Discrete Mathematics | 3 | 0750099 | |
| 0750323 | Algorithms | 3 | 0721224 | |

c- Elective Modules (9 Credit Hours)

| Module No. | Module Name | Credit | Prereq. | Mark |
|------------|--|--------|---------------|------|
| 0750352 | Data science and artificial intelligence | 3 | 0750114 | |
| 0790326 | Intrusion Detection and Prevention Systems * | 3 | 0790321 | |
| 0790424 | Mobile Devices Security | 3 | 0790322 | |
| 0790426 | Social Engineering | 3 | 790321 | |
| 0790427 | Special topics in Information & Cyber Security | 3 | Dept Approval | |
| 0790428 | CryptoCurrency and BlockChain Technology | 3 | 0790211 | |
| 0790429 | Ethical Hacking | 3 | 790325 | |

*All major modules include at least 25% Practical work, Tutorial, Lab., and Assignment

All students must apply for exam in Arabic and English languages and computer

Date: 3/08/2021