



Study Plan for Bachelor's Degree in Cybersecurity Program

The Bachelor's Degree in Cybersecurity Program awarded at Princess Sumaya University for Technology after the successful completion of 132 Credit Hours distributed as follows:-

University Requirements (27 CHs)

1. Compulsory Requirements (18 CHs)

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|--------------------------------------------------|--------------|------------------------|------------|
| 11100 | Computer Skills (Remedial) | 0 | | |
| 31021 | Arabic Language Communication Skills (Remedial) | 0 | | |
| 31022 | English Language Communication Skills (Remedial) | 0 | | |
| 31112 | Arabic Language Communication Skills | 3 | 31021 | |
| 31122 | English Language Communication Skills | 3 | 31022 | |
| 31151 | National Education | 3 | | |
| 31160 | Leadership and Societal Responsibility | 0 | | |
| 31251 | Military Science | 3 | | |
| 31254 | Entrepreneurship and Innovation | 3 | Finish 60 Credit Hours | |
| 31374 | Life Skills | 3 | Finish 60 Credit Hours | |

2. Elective Requirements (9 CHs)

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|-----------------------------------------------|--------------|--------------|------------|
| 20251 | History of Science | 3 | | |
| 31100 | Sports and Health | 3 | | |
| 31130 | Foreign languages | 3 | | |
| 31152 | Arabic Islamic Civilization | 3 | | |
| 31211 | Arabic Literature | 3 | 31112 | |
| 31252 | Governance and Development | 3 | | |
| 31260 | Human Rights | 3 | | |
| 31261 | Introduction to Politics and Economic Science | 3 | | |
| 31264 | Introduction To Psychology | 3 | | |
| 31272 | Development and Environment | 3 | | |
| 31311 | Scientific Research Methods | 3 | | |
| 31351 | Contemporary Issues in the Arab World | 3 | | |
| 31352 | Jerusalem : History and Facts | 3 | | |
| 31362 | Philosophy and Critical Thinking | 3 | | |

School Requirements (25 CHs)

1. Compulsory Requirements (25 CHs)

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|----------------------------------|--------------|--------------|------------|
| 11102 | Introduction to Computer Science | 3 | | |
| 11103 | Structured Programming | 3 | 11102 | |
| 11151 | Structured Programming Lab | 1 | | 11103 |
| 20132 | Calculus (1) | 3 | | |



Study Plan for Bachelor's Degree in Cybersecurity Program

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|--------------------------------------------|--------------|--------------|------------|
| 20133 | Calculus (2) | 3 | 20132 | |
| 20134 | Discrete Mathematics (1) | 3 | | |
| 20200 | Technical Writing and Communication Skills | 3 | 31112,31122 | |
| 20233 | Statistical Methods | 3 | | |
| 20234 | Linear Algebra | 3 | 20133 | |

Program Requirements (80 CHs)

1. Compulsory Requirements (68 CHs)

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|--------------------------------------------------|--------------|------------------------|------------|
| 11213 | Data Structures and Algorithms for Cybersecurity | 3 | 15230 | |
| 11223 | Database Fundamentals | 3 | 15230 | |
| 11254 | Database Fundamentals Lab. | 1 | | 11223 |
| 11335 | Operating Systems | 3 | 11213 | |
| 11355 | Operating Systems Lab | 1 | | 11335 |
| 11449 | Computer and Society | 1 | Finish 90 Credit Hours | |
| 12241 | Website Design And Web Graphics | 3 | 15230 | |
| 15110 | Cybersecurity Fundamentals | 3 | 11102 | |
| 15220 | Networks Fundamentals | 3 | 15110 | |
| 15230 | Programming for Security Professionals | 3 | 11103 | |
| 15231 | Programming for Security Professionals Lab | 1 | | 15230 |
| 15232 | Secure Assembly Coding | 1 | 11103 | |
| 15321 | Network Security and Protocols | 3 | 15220 | |
| 15322 | Network Security and Protocols Lab | 1 | | 15321 |
| 15330 | Secure Coding | 3 | 11223,12241 | |
| 15331 | Secure Coding Lab | 1 | | 15330 |
| 15333 | Malicious Software Analysis | 3 | 15232 | |
| 15360 | Database Security | 3 | 11223 | |
| 15361 | Secure Systems Development and Design | 3 | 11223 | |
| 15370 | Cryptography Principles and Practice | 3 | 15110,20134,20234 | |
| 15420 | Mobile and Wireless Security | 3 | 15220 | |
| 15421 | Network and Cloud Monitoring & Documenting | 3 | 15321 | |
| 15450 | Digital Forensics and Incident Response | 3 | 11335 | |
| 15451 | Digital Forensics and Incident Response Lab | 1 | | 15450 |
| 15460 | Hacking Techniques and Intrusion Detection | 3 | 15450 | |
| 15483 | Information systems risk management | 3 | 15110 | |
| 15490 | Practical Training | 3 | Finish 90 Credit Hours | |
| 15491 | Graduation Project1 | 1 | Finish 90 Credit Hours | |
| 15492 | Graduation Project 2 | 2 | 15491 | |

2. Elective Requirements (12 CHs)

| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|----------------------------------|--------------|--------------|------------|
| 14468 | Security and Privacy of Big data | 3 | 15330 | |



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| Course Number | Course Title | Credit Hours | Prerequisite | Concurrent |
|---------------|-------------------------------------------------------------|--------------|--------------|------------|
| 15260 | E- Business Security | 3 | 12241 | |
| 15362 | Biometric Security | 3 | 15110 | |
| 15422 | Multimedia Security | 3 | 11213 | |
| 15423 | Cloud Computing Security | 3 | 15321 | |
| 15430 | Mobile Secure Coding | 3 | 15330 | |
| 15431 | Web Secure Coding | 3 | 12241 | |
| 15432 | Advanced System Administration—Windows Linux/UNIX Server | 3 | 11335 | |
| 15440 | Machine learning and Big Data | 3 | 15330 | |
| 15441 | Open Source Analysis | 3 | 15330 | |
| 15442 | Intelligent Threat Detection | 3 | 15330 | |
| 15452 | Advanced Forensics | 3 | 15450 | |
| 15461 | Smart Cards/Tokens Security and Applications | 3 | 15110 | |
| 15470 | Advanced Applied Cryptography | 3 | 15370 | |
| 15480 | Security Testing Theory and Practice | 3 | 15321 | |
| 15481 | Electronic Crime for Law Enforcement | 3 | 15333 | |
| 15482 | System Auditing and Security Polices | 3 | 15333 | |
| 15493 | Special Topics in Cybersecurity (1) | 3 | | |
| 15494 | Special Topic Cybersecurity (2) | 3 | | |
| 15495 | Open Innovation for Cyber Security | 3 | | |