



جامعة فهد بن سلطان  
FAHAD BIN SULTAN UNIVERSITY

Fahad Bin Sultan University  
College of Computing

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# College of Computing

## Bachelor of Cybersecurity Program

## 1. Overview

This program is designed to grant students the Bachelor of Science in Cybersecurity upon completing the four-year program.

## 2. University Graduation Requirements

To graduate with a Bachelor of Science in Cybersecurity, students must complete a four-year program consisting of 139 credit hours. The distribution of courses is as follows:

## 3. Degree Requirements

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	13	34	24.5%
	Elective	1	3	0.02%
College Requirements	Required	15	37	26.5%
	Elective			
Program Requirements	Required	22	50	36%
	Elective	5	15	11%
Capstone Course/Project		2	4	
Field Experience/ Internship		1	1	
Others				
<b>Total</b>		<b>55</b>	<b>139</b>	<b>100%</b>

## 4. University Requirements

University Requirements consist of 37 credit hours distributed as follows:

Course Code	Course Title	Pre-Requisite Courses	Credit Hours
ENGL 100	General English		3
ENGL 206	Technical Writing	ENGL 102	3
MATH 100	Mathematics I		3
PHE 101	Physical and Health Education		1
ENGL 101	Basic Academic English I		3



SOCS 101	Islamic Civilization I		3
ENGL 102	Basic Academic English II	ENGL 101	3
ARAB 101	Basic Academic Arabic		3
ARAB 201	Advanced Academic Arabic	ARAB 101	3
ENGL 203	Advanced Academic English I	ENGL 102	3
STAT 100	Introduction to Probability and Statistics	MATH 100	3
IT 100	Information Technology		3
<b>Total</b>			<b>34</b>

**University Compulsory Requirements (34 Cr.)**

**A Free Elective Course: 3 credit hours from the following list:**

Course Code	Course Title	Pre-Requisite Courses	Credit Hours
FREN 101	Basic French I		3
CIT 101	Future Technologies		3
PHED 101	Physical Education I		3
SOCS 201	Islamic Civilization II	SOCS 101	3
SOCS 202	World Civilization		3
SOCS 203	History of the Kingdom of Saudi Arabia		3
ASTR 150	Introduction to Astronomy		3
CHEM 150	Chemistry & Society		3

## 5. College Requirements

College Requirements consist of 37 credit hours distributed as follows:

Course Code	Course Title	Pre-Requisite Courses	Type of requirements (Institution, College or Department)	Credit Hours
CSC 100	Introduction to Computing		C	3
MATH 101	Calculus I		C	3
PHYS 101	General Physics I		C	3
PHYS 101L	General Physics I Lab	PHYS 101	C	1
MATH 102	Calculus II	MATH 101	C	3
STAT 230	Probability and Statistics	MATH 201	C	3
CEN 220	Logic Design	MATH 211(co)	C	3
CEN 220L	Logic Design Lab	CEN 220	C	1
CSC 102	Computer Programming, I	CSC 100	C	3
CSC 102L	Computer Programming, I Lab	CSC 102	C	1
CSC 212	Algorithms and Data Structure	CSC 102	C	3
CEN 221	Computer Organization and Assembly Language		C	3
CEN 221L	Computer Organization and Assembly Lang. Lab	CEN 221	C	1
CSC 492	Computing Ethics		C	3
CEN 320	Computer Architecture	CEN 221	C	3
<b>Total</b>				<b>37</b>

## 6. Program Specialization Requirements

Program specialization requirements consist of 65 credit hours; 50 compulsory credit hours and 15 elective credit hours distributed as follows:

### 6.1 Compulsory Specialization Requirements: (50 credit hours)

Course Code	Course Title	Credits	Pre-Requisites
MATH 211	Discrete Mathematics	3	MATH 102
MATH 215	Linear Algebra and Numerical Techniques	3	MATH 102
CSC 201	Computer Programming II	3	CSC 102
CSC 201L	Computer Programming II Lab	1	CSC 201 (co)
CSC 212L	Algorithms and Data Structure Lab	1	CSC 212 (co)
CSC 356	Design and Analysis of Algorithms	3	CSC 212
CSC 357	Theory of Computation	3	MATH 211
CSC 358	Programming Languages	3	CSC 212
CSC 360	Internet Programming and Web Design	3	CSC 201
CSC 360L	Internet Programming and Web Design Lab	1	CSC 360 (co)
CSC 372	Operating Systems	3	CSC 358
CSC 372L	Operating Systems Lab	1	CSC 372 (co)
CSC 382	Software Engineering*	3	CIT 350
CSC 387	Artificial Intelligence	3	MATH 211
CIT 472	Human-Computer Interaction	3	CSC 358
CIT 350	Database Systems	3	CSC 212
CIT 350 L	Database Systems Lab	1	CIT 350 (co)
CEN 340	Computer Networks	3	CEN 221
CEN 340L	Computer Networks Lab	1	CSC 340 (co)
CSC 398	Internship	1	ENGL 206
CSC 498	Final Year Project I	1	Senior Standing
CSC 499	Final Year Project II	3	CSC 498
Total		50	



**6.2 Program specialization electives (15 credit hours) of cybersecurity courses could be selected from the following list:**

Course Code	Course Title	Pre-Requisite Courses	Credit Hours
CSC 481	Introduction to Computer Security	CSC 356	3
CEN 434	Cryptography and Computer Security		3
CEN 441	Information Theory	<i>CEN 240</i>	3
CEN 442	IoT/ Coding Theory	<i>STAT 230, MATH 215</i>	3
CEN 451	Internet Engineering	<i>CEN 340</i>	3
CIT 475	Information Security		3
CSC 412	Selected topics in cybersecurity		3
CSC 487	Computer Security		3



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