

Bachelor in Computer Science (CCS)

First Year

Fall Semester

Code	Title	Credits	Prerequisites	Corequisites
CSCI200	Introduction to Computers	3	ENGL051	
MATH210	Calculus II	3	MATH161 - MATH160	
ENGL201	Composition and Research Skills	3	ENGL151	
CSCI205	Computer Science Overview	3	ENGL101	
MATH225	Linear Algebra with Applications	3	ENGL051 - MATH161	
CULT200	Introduction to Arab - Islamic Civilization	3		
Total		18		

Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
ENVR200L	Environmental Science Lab	1		ENVR200
ENGL251	Communication Skills	3	ENGL201	
ENVR200	Environmental Science	3	ENGL101	ENVR200L
ARAB200	Arabic Language and Literature	3		
CSCI250	Introduction to Programming	3	CSCI205 - CSCI200	ENGL101 - CSCI250L
CSCI250L	Introduction to Programming Lab	1	CSCI205 - CSCI200	ENGL101 - CSCI250
MATH260	Discrete Mathematics	3	MATH225	
Total		17		

Second Year

Fall Semester

Code	Title	Credits	Prerequisites	Corequisites
CSCI300	Intermediate Programming with Objects	3	CSCI250L - CSCI250	CSCI300L
CSCI342	Fundamentals of Networking Technologies	3	CSCI250	
CSCI300L	Intermediate Programming with Objects Lab	1	CSCI250	CSCI300
CSCI345	Digital Logic	3	CSCI250	
CSCI335	Database Systems	3	CSCI250	
	Elective	3		
Total		16		

Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
CSCI378	Data Structures and Algorithms	3	CSCI300	
CSCI380	Software Engineering	3	ENGL201 - CSCI335	
CSCI392	Computer Networks	3	CSCI345 - CSCI342	
CSCI351	Concepts of Programming Languages	3	CSCI300	
CSCI390	Web Programming	3	CSCI300	
	Elective	3		
Total		18		

Third Year

Fall Semester

Code	Title	Credits	Prerequisites	Corequisites
CSCI435	Computer Architecture	3	CSCI345	
CSCI430L	Operating Systems Lab	1	CSCI392	CSCI430

CSCI430	Operating Systems	3	CSCI392	CSCI430L
MATH310	Probability & Statistics for Scientists & Engineers	3	MATH210 - ENGL201	
	Elective	3		
	Elective	3		
Total		16		

Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
MATH375	Numerical Methods for Scientists & Engineers	3	ENGL051 - MATH225	
CSCI450	Theory of Computation	3	CSCI378	
	Elective	3		
CSCI490	Information System Development	3	CSCI425 - CSCI410 - CSCI430 - CSCI380	
CSCI451	Parallel Processing	3	CSCI430	
Total		15		

Major Elective Courses

Code	Title	Credits	Prerequisites	Corequisites
CSCI361	Introduction to Cryptography	3	CSCI300	
CSCI362	Network Security	3	CSCI342 - CSCI300	
CSCI371	Knowledge Representation & Reasoning	3	CSCI300	
CSCI372	Natural Language Processing	3	CSCI300	
CSCI373	Robotics Design & Coding	3	CSCI300 - CSCI250	
CSCI375	Web Programming Client Side	3	CSCI250	
CSCI410	Mobile Application	3	CSCI335 - CSCI375	
CSCI412	Application Software Security	3	CSCI362	
CSCI425	Web Programming Server Side	3	CSCI335 - CSCI375	
CSCI441	Machine Learning	3	CSCI378	
CSCI443	Game Development	3	CSCI378	
CSCI471	Deep Learning	3	CSCI441	
CSCI475	Artificial Intelligence	3	CSCI378	
CSIT430	Internetworking and Routing Protocols	3	CSCI392	
CSIT480	Interconnecting Networks	3	CSIT430	