



Study Plan

Degree : Bachelor Faculty : Jubail Industrial College Plan Hrs.: 121
 Semester : 461 Department : Computer and Information T Plan Type : Major
 Edition : 7 Gender : Both
 Major : 1-3-104 Computer Science

Council Session: Deanship Session : Faculty Session : Dept Session:
 Council Date: Deanship Date: Faculty Date: Dept Date :

Group Type : Compulsory 1

First						
code	course name	H	G	L	H	requisite
CS 110	Computer Programming	3				-
ENGL 119	Academic Writing	3				-
IAS 111	Arabic Language Foundation	2				-
MATH 111	Calculus I	4				-
PE 111	Physical Education I	1				-
PHYS 111	General Physics I	4				MATH 111 - / C
Total						17

Second						
code	course name	H	G	L	H	requisite
CS 120	Programming I	3				-
ENGL 129	Professional Communication	3				ENGL 119 - / P
IAS 121	Islamic Culture	2				-
MATH 121	Calculus II	4				MATH 111 - / P
PHYS 121	General Physics II	4				MATH 121 - / C PHYS 111 - / P
Total						16

Third						
code	course name	H	G	L	H	requisite
CS 230	Digital Logic Design	4				PHYS 121 - / P
CS 231	Programming II	4				CS 120 - / P
CS 232	Discrete Structures I	3				MATH 111 - / P
ENGL 213	Technical Writing	3				ENGL 129 - / P
MATH 211	Calculus III	3				MATH 121 - / P
Total						17

Fourth						
code	course name	H	G	L	H	requisite
CS 240	Discrete Structures II	3				CS 232 - / P
CS 241	Data Structures	4				CS 231 - / P
CS 242	Computer Architecture and Organization	4				CS 230 - / P

Group Type : Compulsory 1

Fourth						
code	course name	H	G	L	H	requisite
IAS 221	Arabic Communication Skills	2				IAS 111 - / P
MATH 222	Differential Equations and Linear Algebra	3				MATH 211 - / P
Total						16

Fifth						
code	course name	H	G	L	H	requisite
CS 351	Design and Analysis of Algorithms	3				CS 240 - / P CS 241 - / P
CS 352	Computer Network Systems	4				CS 242 - / P
CS 353	Software Engineering	3				CS 241 - / P
CS 354	Database Systems	3				CS 241 - / P
IAS 212	Professional Ethics in Islam	2				IAS 121 - / P
MATH 250	Probability and Statistics	3				MATH 121 - / P
Total						18

Sixth						
code	course name	H	G	L	H	requisite
CS 360	Operating Systems	4				CS 241 - / P CS 242 - / P
CS 362	Web Engineering and Development	3				CS 354 - / P
CS 364	Capstone Project I	1				CS 353 - / P CS 354 - / P
CS 365	Cybersecurity	3				CS 352 - / P
CS 366	Introduction to Artificial Intelligence	3				CS 351 - / P
Total						14

Seventh						
code	course name	H	G	L	H	requisite
BUS 482	Business Principles and Practices	3				-
CS 471	Social and Ethical Issues of Computing	3				CS 353 - / P
CS 472	Programming Languages	3				CS 241 - / P
CS 481	Capstone Project II	2				CS 364 - / P



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Group Type : Compulsory 1

Seventh						
Total						11

Eighth						
code	course name	H	G	L	H	Yrl
CS 494	Field Training	3				-
Total						3

Category : College Requirement

Group Type : Elective 1 (9)

code	course name	H	G	L	H	requisite	Yr
CS 372	Cloud Computing	3				CS 352 - / P	-
CS 373	Data Warehousing and Data Mining	3				CS 354 - / P	-
CS 374	Special Topics	3				CS 352 - / P	-
						CS 354 - / P	-
CS 464	Human Computer Interaction	3				CS 231 - / P	-
Total							12

code	course name	H	G	L	H	requisite	Yrl
CS 474	Mobile Application Development	3				CS 241 - / P	-
CS 475	Systems and Network Administration	3				CS 352 - / P CS 360 - / P	-
CS 476	Advanced Network Security	3				CS 365 - / P	-
CS 477	Cryptography	3				CS 365 - / P	-
CS 478	Web Security	3				CS 362 - / P	-
CS 479	Penetration Testing and Ethical Hacking	3				CS 352 - / P CS 365 - / P	-
CS 480	Machine Learning	3				CS 366 - / P MATH 250 - / P	-
Total							21