

Form (C)

Distribution of effective hours in the academic syllabus (King Saud University, College of Computer and Information Sciences, IT Department)

Table-1 Distribution of credits in the department study plan

Requirements	Type	Credit Hours	% of total program credit hours	Total hours	Comments
University Requirements	Compulsory	4	3%	4	
	Electives	4	3%	4	
College Requirements	Compulsory from common 1 st year	32	25%	46	
	Compulsory from departments	14	11%		
	Electives	0	0%	0	
Department Requirements	Core IT	49	39%	61	
	Core Science	3	3%		
	Core Math	9	7%		
	Track Electives	12	9%	12	Specialty Tracks
Total		127			

Table 2: University requirements

Course	Credit Hour
IC107 Professional Ethics	2
IC 108 Current Issues	2
IC 10x One KSU Requirement Course	2
IC 10x One KSU Requirement Course	2
Total	8

Table 3: College requirements

Course	Credit Hour	Prerequisite
ENGL 100 English I	6	
STAT 101 Probability & Statistics	3	
CHEM 101 General Chemistry I	4	
ENT 101 Entrepreneurship	1	
ARAB 100 Writing Skills	2	
ENGL 101 English II	6	
MATH 101 Differential Calculus	3	
CN 101 Computer Skills	3	
EPH 101 Health education and Fitness	1	
CUR 101 University Skills	3	
CSC111 Computer Programming I	4 (3-2-1)	CT 101
CSC113 Computer Programming II	4 (3-2-1)	CSC111
CSC 112 Data Structures	3(3-0-1)	CSC 113
CSC 227 Operating Systems	3(3-0-1)	CSC 212
Total	46	

Table 4: Department requirements

Course number	Course name	Credit Hour	Prerequisite (Corequisite)
Math 106	Integral Calculus	3 (3-0-2)	Math 101
Math 151	Discrete Mathematics	3 (3-0-2)	Math 101
Math 244	Linear Algebra	3 (3-0-2)	Math 106
IT 219	Physics for IT	3 (2-2-0)	
IT 210	Information Technology Fundamentals	3 (2-2-0)	
IT 223	Computer Organization & Architecture	3 (3-0-2)	Math 151 + IT210
IT 214	User Experience Design	3 (2-2-0)	CS111
IT 222	Database Principles	3 (2-2-1)	IT210
IT 324	Information Security	3 (3-0-2)	(IT 328)
IT 312	Web Applications Engineering	3 (2-2-0)	CSC 113 + IT 222
IT 328	Network Principles	4 (3-2-0)	IT 219
IT 320	Practical Software Engineering	4 (3-2-1)	IT 312, IT 214
IT 326	Data Mining	3 (2-2-0)	IT 222 + IT 212
IT 329	Advanced Web Technologies	3 (2-2-0)	IT 312 + IT 328
IT 426	Artificial Intelligence Systems	3 (3-0-2)	CSC212 + Math 244
IT 423	Introduction to Project Management	3 (2-2-0)	IT 322
IT 427	IT Entrepreneurship & Innovation	3 (3-0-0)	IT 320
IT 479	Practical Training	2 (2-0-0)	completing at least 90 credit hours
IT 496	Project -1	3 (3-0-0)	IT320, CSC212 + completing at least 90 credit hours
IT 497	Project -2	3 (3-0-0)	IT 496
Total		61	

Table 5: Department Tracks (Electives)

Course Number	Course Name	Track	Credit Hours		Pre(Co)
IT 362	Principles of Data Science (Concentration Core # 1)	Data Science (DS)	3	(3+0+2)	CSC212
IT 461	Practical Machine Learning (Concentration Core # 2)		3	(2+2+0)	IT 326
IT 462	Big Data Systems		3	(2+2+0)	IT 326
IT 463	E-Commerce		3	(2+2+0)	IT 461
IT 464	Data Management Systems		3	(2+2+1)	IT 222
IT 465	Data Analytics & Visualization.		3	(2+2+0)	IT362
IT 466	Selected Topics in Data Science		3	(3+0+1)	IT 362
IT 371	Application Security (Concentration Core # 1)	Cyber Security (CYS)	3	(2+2+0)	IT 324
IT 471	Cyber Security Governance (Concentration Core # 2)		3	(3+0+1)	IT 324
IT 472	Cybercrime and Digital forensics		3	(2+2+0)	IT 371
IT 473	System Security		3	(2+2+0)	IT 371
IT 474	Network Security		3	(3+0+1)	IT 324
IT 475	Information Assurance Compliance and Audit		3	(3+0+1)	IT 471
IT 476	Selected Topics in Cyber Security		3	(3+0+1)	IT 371
IT 381	Wireless & Mobile Computing (Concentration Core # 1)	Networks & IOT Engineering (NIE)	3	(2+2+1)	IT 328
IT 481	Introduction to IoT (Concentration Core # 2)		3	(3+0+2)	IT 328
IT 482	Sensor and Ad hoc Networks		3	(2+2+0)	IT381
IT 483	IoT Services & Applications		3	(2+2+0)	IT481 , IT312
IT 484	Cloud Computing		3	(2+2+1)	IT 328
IT 485	Robotics fundamentals		3	(2+2+1)	
IT 486	Selected Topics in Networks &IoT		3	(3+0+1)	IT481

Table 6: IT Study Plan

Level ONE				Level TWO			
Course#	Course Name	Credits	Pre(Co)	Course#	Course Name	Credit Hours	Pre(Co)
ENGL 100	English	6		ENGL 101	English	6	
STAT101	Statistics	3		MATH 101	Differential Calculus	3	
CHEM	General	4		CT 101	Computer Skills	3	

101	Chemistry		
ENT 101	Entrepreneurship	1	
ARAB 100	Writing Skills	2	
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Level THREE			
Course#	Course Name	Credit Hours	Pre(Co)
CSC 111	Computer Programming 1	4 (3+2+1)	CT 101
IT 219	Physics for IT	3 (2-2-0)	
Math 151	Discrete Mathematics	3 (3+0+2)	Math 101
IT 210	Information Technology Fundamentals	3 (2+2+0)	
IC xxx	IC Elective #1	2 (2+0+0)	

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Level FIVE			
Course#	Course Name	Credit Hours	Pre(Co)
CSC 212	Data Structures	3 (3+0+1)	CSC 113
IT 324	Information Security	3 (3+0+2)	(IT328)
IT 312	Web Applications Engineering	3 (2+2+0)	CSC113, IT 222
Math 244	Linear Algebra	3 (3+0+2)	Math 106
IT 328	Network Principles	4 (3+2+1)	IT219
IC 107	Professional Ethics	2 (2+0+0)	

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Level SEVEN			
Course#	Course Name	Credit Hours	Pre(Co)
IT 426	Artificial Intelligent Systems	3 (3+0+2)	CSC212, Math244
IT 423	Introduction to Project Management	3 (2+2+0)	IT 320
IT 496	Project -1	3 (3+0+0)	IT320,CSC212 + completing at least 90 credit hours
IT xxx	Concentration core #2	3	
IT 479	Practical Training	2	completing at least 90 credit hours

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EPH 101	Health education and Fitness	1	
CUR 101	University Skills	3	
		16	

Level FOUR			
Course#	Course Name	Credit Hours	Pre(Co)
CSC 113	Computer Programming 2	4 (3+2+1)	CSC 111
IT 223	Computer Organization & Architecture	3 (3+0+2)	Math151, IT210
IT 222	Database Principles	3 (2+2+1)	IT 210
IT 214	User Experience Design	3 (2+2+0)	CS111

Math 106	Integral Calculus	3 (3+0+2)	Math 101
IC xxx	IC Elective #2	2 (2+0+0)	
		18	

Level SIX			
Course#	Course Name	Credit Hours	Pre(Co)
IT 326	Data Mining	3 (2+2+0)	IT 222, CSC212

CSC 227	Operating Systems	3 (3+0+1)	CSC 212
IT 320	Practical Software Engineering	4 (3+2+1)	IT 312, IT 214
IT 329	Advanced Web Technologies	3 (2+2+0)	IT312, IT328
IT xxx	Concentration core #1	3	
IC 108	Current Issues	2 (2+0+0)	

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Level EIGHT			
Course#	Course Name	Credit Hours	Pre(Co)
IT xxx	Concentration (Elective)	3	
IT 427	IT Entrepreneurship & Innovation	3 (3+0+0)	IT323
IT 497	Project -2	3 (3+0+0)	IT496
IT xxx	Concentration (Elective)	3	

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Total = 127