

Computer Science Curriculum

BS-CS Curriculum

First Semester						
Code	Title	Credit	Theory	Practice	Pre-Requirement	Type
78001	Introduction to Computer Science-I	3	2	1	None	Core
78002	Introduction to Computer Programming Using C	4	2	2	None	Core
78003	Basic Electronics	3	3	-	None	Core
78004	Calculus-I	4	4	-	None	Core
78005	Islamic Study	3	3	-	None	General
78006	English	3	3	-	None	General
Total Credits		20				
Second Semester						
Code	Title	Credit	Theory	Practice	Pre-Requirement	Type
78007	Object Oriented Programming Using C++	4	2	2	78002	Core
78008	Introduction to Computer Science-II	4	3	1	78001	Core
78009	Data Structure	4	3	1	78002	Specialist
78010	Discrete Math	4	4	0	None	Core
78011	English Composition	3	3	1	None	General
Total Credits		19				

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Third Semester						
Code	Title	Credit	Theory	Practice	Pre-Requirement	Type
78012	RDBMS-I	3	2	1	78010	Specialist
78013	Object Oriented Programming Using Java	4	2	2	78002	Specialist
78014	Calculus-II	4	4	-	78004	Core
78015	Computer Network-I	4	2	2	78008,78010	Specialist
78016	Algorithms && Graph Theory	4	3	1	78009	Specialist
Total Credits		18				
Forth Semester						
Code	Title	Credit	Theory	Practice	Pre-Requirement	Type
78017	Software Engineering Principle and Tools-I	4	4	-	78013	Specialist
78018	Probability	4	4	-	78010	Core
78019	GUI Programming Using Java	3	1	2	78013	Specialist
78020	Computer Network-II	4	2	2	78015	Specialist
78021	Technical Business Writing	3	3	-	None	General
Total Credits		18				
Fifth Semester						
Code	Title	Credit	Theory	Practice	Pre-Requirement	Type

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78022	Database Development Using SQL Server (RDBMS-II)	4	2	2	78012	Specialist
78023	Web Development	3	2	1	78008	Specialist
78024	Visual Programming-I	3	2	1	78019	Specialist
78025	Wireless Communication	3	2	1	78020	Specialist
78026	Linear Algebra with Application	4	4	-	78004	Core
78027	Software Engineering Principle and Tools-II	2	2	-	78017	Specialist
Total Credits		19				
Sixth Semester						
Code	Title	Credit	Theory	Practice	Pre-Requirement	Type
78028	Statistics	3	3	-	78014	Core
78029s	Operating System	3	2	1	78016	Specialist
78030	Advance Web Development	3	1.5	1.5	78023	Specialist
78031	Visual Programming-II	3	1.5	1.5	78024	Specialist
78000	Elective-I	3	2	1	-	Elective
78032	Multimedia	3	3	-	78008	Specialist
Total Credits		18				
Seventh Semester						
Code	Title	Credit	Theory	Practice	Pre-Requirement	Type

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78034	Computer Architecture	3	2	1	78016	Specialist
78035	Artificial Intelligence	4	2	2	78018	Specialist
78000	Elective-II	4	2	2	-	Elective
78000	Elective-III	4	2	2	-	Elective
Total Credits		18				
Eight Semester						
Code	Title	Credit	Theory	Practice	Pre-Requirement	Type
78000	Elective-IV	4	2	2	-	Elective
78000	Elective-V	4	2	2	-	Elective
78036	Project	6	-	-	-	Specialist
Total Credits		14				
Grand Total		140				

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Group A- Elective Courses

Code	Course Title	Credit	Semester
78037	Computer Graphics	3	Fifth, Sixth
78038	Interactive Programming in Python	3	Fifth, Sixth
78033	Digital Image Processing	3	Fifth, Sixth

Group B- Elective Courses

Code	Course Title	Credit	Semester
78040	Mobile Computing	4	Fifth, Sixth
78041	Cryptography-I	4	Seventh
78044	Network Security	4	Seventh
78053	Mobile Development-I, (Android)	4	Seventh

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Group C- Elective Courses

Code	Course Title	Credit	Semester
78046	Mobile Development-II (Android)	4	Eight
78047	Cryptography-II	4	Eight
78045	Real Time and Embedded Systems	4	Eight
78049	Data Mining	4	Eight
78050	Computational Intelligence	4	Eight
78051	Parallel Computing	4	Eight
78052	Network Security	4	Eight