

B.Sc. in Computer Science 2020-2021

Components of Curriculum

B.Sc. Computer Science	132 Credit Hours
University Requirement	27
Cumplusory University Requiriement	12
Requirements Field 1	6
Requirements Field 2	6
Requirements Field 3	3

Faculty Compulsory Requirement	24
---------------------------------------	-----------

Department Requirement	78
Cumplsory Department Requirement	66
Elective Department Requirement	12

Domain Title	Domain Number
Introduction	0
Algorithms and Computation	1
Programming	2
Computer Components	3
Information Systems	4
Network	5
Data Science and Applications	6
Internet Systems and Applications	7
Pratical Training	8
Special Topics, Graduation Project	9

Compulsory Faculty Courses (27) Credit Hours

Course No.	Course Name	Credit Hours	Theoretical	Practical	Simultaneous	Pre-Requsst
0301101	Calculus 1	3	3	0		
0301131	Principles of Statistics and Probability	3	3	0		0301101
2201111	Discrete Mathmatics	3	3	0		
2201121	Introduction to Programming	3	3	0		
2201123	Object Oriented Programming	3	3	0		2201121
2201211	Data Structure	3	2	1		2201121
2201261	Introduction to Database	3	3	0		2201123
2202111	Introduction to Information Technology	3	3	0		
2203202	Computer Ethics and Communication Skills	3	3	0		30 Hours
	Total	27				

Obligatory Speciality Courses (66) credit hours

Course No.	Course Name	Credit Hours	Theoretical	Practical	Simultaneous	Pre-Requsst
0301242	Linear Algebra	3	3	0		0301131
0301323	Numerical Analysis -1	3	3	0		2201111
0302101	Physics -1	3	3	0		
0302111	Physics-1 Lab	1	0	3	0302101	
0405131	Digital Logic Design	3	3	0		2202111
0405231	Fundemental of Computer Architecture IT students	3	3	0		0405131
2201122	Introduction to Programming Lab	1	0	3	2201121	
2201124	Object Oriented Programming Lab	1	0	3	2201123	
2201213	Algorithms	3	2	1		2201211
2201214	Algorithms Lab	1	0	3	2201213	
2201262	Introduction to Database Lab	1	0	3	2201261	
2201265	Database Programming	3	2	1		2201261
2201311	Computational Theory	3	3	0		2201213
2201351	Computer Network	3	3	0		2201265
2201353	Computer and Network Security	3	3	0		2201351
2201354	Computer and Network Security Lab	1	0	3	2201353	
2201361	Computer Graphics	3	2	1		2201213
2201369	Image Processing	2	2	1		2201361
2201381	Practical Training	0	0	3		90 Hours
2201431	Operating System	3	3	0		2201213
2201451	Wireless Computer Networks	3	2	1		2201353
2201491	Graudation Project-1	1	1	0		100 Hours

2201492	Graduation Project-2	2	2	0		2201491
2202223	Internet Programming	3	2	1		2201261
2202321	Visual Programming	3	2	1		2202223
2202460	Introduction to Artificial Intelligence	3	3	0		2201431
2202467	Artificial Intelligence Lab	1	0	3	2202460	
2202468	Distributed and Parallel Systems	3	3	0		2202460
2203260	Fundamental of Software Engineering	3	3	0		2201261
	Total	66				

Elective Speciality Courses (12) Credit Hours

Course No.	Course Name	Credit Hours	Theoretical	Practical	Simultanous	Pre-Requrst
0301102	Calculus -2	3	3	0		0301101
0302102	Physics-2	3	3	0		0302101
2201321	Advanced Object Oriented Programming	3	2	1		2202223
2201322	Mobile Application Programming	3	2	1		2201265
2201355	Fundamental of Cyber Security	3	3	0		2201353
2201392	Special Topics in Computer Science	3	3	0		100 Hours
2201411	Statistical Modeling and Data Analysis	3	3	0		2201265
2201432	Computer Design and Organization	3	3	0		2201265
2201453	Computer Network - 2	3	2	1		2201351
2201454	Digital Evidence and Ethical Hacking	3	2	1		2201451
2201455	Network Security Monitoring and Risk Assessment	3	3	0		2201451
2201461	Biometrics	3	3	0		2202460
2201493	Special topics in Cyber Security	3	3	0		2201451
2201495	Special Topics in Computer Graphics	3	3	0		2201361
2202221	Programming using Java	3	3	0		2201123
2202222	Programming using Java Lab	1	0	3	2202221	
	Total	46				