

# B.Sc. in Computer Information System 2020- 2021

## Components of Curriculum

<b>B.Sc. Computer Science</b>	<b>132 Credit Hours</b>
<b>University Requirement</b>	<b>27</b>
Cumplutory University Requiriement	12
Requirements Field 1	6
Requirements Field 2	6
Requirements Field 3	3

<b>Faculty Compulsory Requirement</b>	<b>24</b>
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<b>Department Requirement</b>	<b>78</b>
Cumplutory Department Requirement	66
Elective Department Requirement	12

<b>Domain Title</b>	<b>Domain Number</b>
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
Practical Training	8
Special Topics, Graduation Project	9

### Compulsory Faculty Courses (27) Credit Hours

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

### Obligatory Speciality Courses (66) credit hours

Course No.	Course Name	Credit Hours	Theoretical	Practical	Simultaneous
2201122	Introduction to Programming Lab	1	0	3	2201121
2201124	Object Oriented Programming Lab	1	0	3	2201123
2201213	Algorithms	3	2	1	
2201214	Algorithms Lab	1	0	3	2201213
2201262	Introduction to Database Lab	1	0	3	2201261
2201265	Database Programming	3	2	1	
2201351	Computer Network	3	3	0	
2201353	Computer and Network Security	3	3	0	
2201354	Computer and Network Security Lab	1	0	3	2201353
2201361	Computer Graphics	3	2	1	
2201431	Operating System	3	3	0	
2201368	Distributed Database	3	3	0	
2202223	Internet Programming	3	2	1	
2202321	Visual Programming	3	2	1	
2202242	Management Information System	3	3	0	
2202363	System Analysis and Design	3	3	0	
2202363	Software Project Management	3	3	0	
2202371	Human Computer Interaction	2	2	1	

2201381	Practical Training	0	0	3	
2202441	Database Management Systems	3	3	0	
2202445	Database Warehouse	3	2	1	
2201491	Graduation Project-1	1	1	0	
2201492	Graduation Project-2	2	2	0	
2202471	New Innovations in Information Systems Technology	3	3	0	
2202460	Introduction to Artificial Intelligence	3	3	0	
2202467	Artificial Intelligence Lab	1	0	3	2202460
2202464	Information Systems Retrieval	3	3	0	
2203260	Fundamental of Software Engineering	3	3	0	
	<b>Total</b>	<b>66</b>			

### Elective Speciality Courses (12) Credit Hours

Course No.	Course Name	Credit Hours	Theoretical	Practical	Simultaneous
0301323	Numerical Analysis -1	3	3	0	
0405131	Logic Design	3	3	0	
0405231	Fundamental of Computer Architecture IT students	3	3	0	
2202221	Programming using Java	3	3	0	
2202222	Programming using Java Lab	1	0	3	2202221
2202323	Multimedia Programming	3	3	0	
2202325	Advanced Internet Programming	3	3	0	
2202327	Computer Animation				
2202343	Data Science	3	3	0	
2202344	Geographic Information Systems	3	2	1	
2202351	Network Management	3	2	1	
2202411	Natural Language Processing	3	3	0	
2202412	Machine Learning	3	3	0	
2202413	Computer Vision	3	3	0	
2202443	Data Mining	3	3	0	
2202469	Game Design and Programming	3	3	0	
2202468	Parallel and Distributed Systems				
2202493	Special Topics in CIS	1	0	3	
	<b>Total</b>	<b>44</b>			