

Department Name: Computer Science Course BSc(Computer Science Major) Minor-Elect/Stat/Maths

Level	SEM	Disciplinary Major Mandatory	DSE Electives	Minor			OE	VC/SEC
				Electronics	Mathematics	Statistics		
4.5	I	4Cr(Th) N23-CSDSC111 Problem Solving using Computers and C Programming 2Cr(Th) N23-CSDSC112 Database Management Systems			--		2Cr: N23-OE113 - OE 2Cr: N23-OE114	VC : 2Cr(Pr) N23-CSVC115 C Programming Practical SEC : 2Cr (Pr) N23-CSSEC116 Database Management Systems practical
4.5	II	4Cr(Th) N23-CSDSC121 Data Structures Using C 2Cr(Th) N23-CSDSC122 Relational Database Management System		2Cr (Th)N23-CSMinEI123 Instrumentation System & Programming using Arduino	2 Cr(Th)-N23-CSMinM123 Discrete Mathematics	2 Cr(Th)N23-CSMinS123 Exploratory Data Analysis and Data visualisation	2Cr:(Th) N23-OE124 2Cr:(Th)N23-OE125	VC : 2Cr(Pr) N23-CSVC126 Data structure Practical SEC : 2Cr (Pr) N23-CSSEC127 Relational database Management Practical
Cumulative		12		2			8	8
Certificate on Exit + 4 credit Bridge Course								

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5	III	4Cr(Th) N23-CSDSC211 Object Oriented using C++ 4Cr(Th) N23-CSDSC212 Data Communication & Computer Networks		2Cr(Th) N23-CSMinEI213 Digital Communication & Networking 2Cr(Pr)- N23-CSMinEI214 Practicals on Communication & Networking	2Cr(Th) N23-CSMinMI213 Linear Algebra 2 Cr(Pr) N23-CSMinEI214 Effective Problem Solving via algorithm	2Cr(Th) N23-CSMinSI213 Counting Principles and discrete Probability distributions 2Cr(Pr) N23-CSMinS I214 Introduction to R-Software	2Cr:(Th) N23-OE215	VC : 2Cr(Pr) N23-CSVC216 - Object Oriented using C++ Practical
5	IV	4Cr(Th) N23-CSDSC221 Object Oriented Programming Using Java 4Cr(Th) N23-CSDSC222 Internet Technologies- (HTML & CSS & PHP)		2Cr(Th) N23-CSMinE223-System on Chip Programming + 2Cr(Pr)-N23-CSMinE224 Practicals on Raspberry Pi	2Cr(Th)N23-CSMinM223 Numerical Techniques 2 Cr(Pr) N23-CSMinM224Computational Techniques Using Python	2 Cr(Th) N23-CSMinS223Continuous probability distributions and simulation of data 2 Cr. (Pr) N23-CSMinS224 Understanding the data using R software	2Cr:N23-OE225	SEC : 2Cr(Pr) N23-CSSEC226 JAVA Lab
Cumulative		28		10			12	12
Diploma on Exit + 4 credits of NSQF and Internship								

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5.5	V	4Cr(Th) N23-CSDSC311 Object oriented Software engineering 4Cr(Th) N23-CSDSC312 Python Programming 2Cr(Th) N23-CSDSC313 System Programming	2Cr(Th) N23-CSDSE314 - Data Science 2Cr(Pr) N23-CSDEC315 Data Science Practical using R	2Cr(Th) N23-CSMinE316- Wireless Communication & Industrial IOT + 2Cr(Pr) N23-CSMinE317- Practicals on Wireless Communication & IOT Applications	2 Cr(Th) N23-CSMinM316 Computational Geometry and Algebra 2Cr(Pr) N23-CSMinM317 Visualization techniques using Python	2Cr.(Th) N23-CSMinS316 Learning Technique for judgement of predicative analysis 2Cr(Pr) N23-CSMinS317 Testing using R software		VC : 2Cr(Pr) N23-CSVC318 Python Practical
5.5	VI	4Cr(Th) N23-CSDSC321 Theoretical Computer Science 4Cr(Th)CS N23-CSDSC322 Information & Computer Networks Security 2Cr(Th) N23-CSDSC323 Operating System	2Cr(Th) N23-CSDSE324 BlockChain Technology 2C(Pr) N23-CSDSC325 Operating System Practical	2Cr(Th)N23-CSMinE326 - Embedded Systems Design + 2Cr(Pr)N23-CSMinE327- Practicals on Embedded System Applications	2Cr(Th) N23-CSMinE327 Optimization Techniques 2Cr(Pr) N23-CSMinE327 Problem Course based on Optimization Techniques	2Cr(Th)N23-CSMinE326 Time Seires Analysis 2Cr.(Pr)N23-CSMinE327 Statistics Using Python		
Cumulative		48	8	18			12	14
Award of Degree								

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				Electronics	Mathematics	Statistics		
6	VII	4Cr(Th) N23-CSDSC411 Data Analytics 4Cr(Th) N23-CSDSC412 Design and Analysis of Algorithms 2Cr(Th) N23-CSDSC413 Database Technologies 2Cr(Pr) N23-CSDSC414 NOSQL Practical 2Cr(Pr) N23-CSDSC415 Data Analytics Practical	2Cr(Th) N23-CSDSE416 Cloud Computing + 2 Cr(Pr) N23-CSDSE417 Cloud Computing Practical	RM : 4Cr N23-CSMinRM418- Research Methodology				

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				Electronics	Mathematics	Statistics		
6	VIII	4Cr(Th) N23-CSDSC421 Software Project Management 4Cr(Th) N23-CSDSC422 Artificial Intelligence & Applications 2Cr(Th) N23-CSDSC423 Mobile Technologies 2Cr(Pr) N23-CSDSC424 Mobile Technologies Practical) 2Cr(Pr) N23-CSDSC425 Artificial Intelligence Practical	CS- 2Cr(Th) N23-CSDSE426 Machine Learning + 2Cr(Pr) N23-CSDSE427 Machine Learning					
		Cumulative	76	16	22	12	14	
Four Year UG Honours Degree								