Minor Changes in the structure of undergraduate programs in computer science under UGCF (admissions 2024 onwards)

Proposed (w.e.f Admissions 2025 onwards).

BSc(H) CS			BSc(P) with CS			BA(P) with CS	
Sem I	Sem II		Sem I	Sem II		Sem I	Sem II
Object Oriented Programming using Python, Computer System Architecture, Mathematics for Computing	Programming using C++, Discrete Mathematical Structures, Probability for computing		Programming Using C++	Data Structures		Programming Using C++ Programming using Python	Data Structures Data Analysis and Visualization using Python
Proposed (w.e.f Admissions 2024 onwards).							
Sem III	Sem IV		Sem III	Sem IV		Sem III	Sem IV
Data Structures, Operating Systems, Artificial Intelligence	Design and Analysis of Algorithms, Database Management Systems, Computer Networks		Design and Analysis of Algorithms	Operating Systems		Design and Analysis of Algorithms Data Mining (syllabus attached for	Operating Systems Artificial Intelligence

						approval)	
Sem V	Sem VI		Sem V	Sem VI		Sem V	Sem VI
Algorithms and Advanced Data Structures (Prereq: Algo), Machine Learning Software Engineering	Theory of Computation, Deep Learning (Prereq: Machine Learning) Computer Graphics		Database Management Systems	Computer Networks		Database Management Systems Machine Learning	Computer Networks Deep Learning
Sem VII	Sem VIII		Sem VII	Sem VIII		Sem VII	Sem VIII
Cloud Computing (Prereq: Computer Networks)	Information Security		Software Engineering	Information Security		Software Engineering	Information Security

Proposed (w.e.f Admissions 2024 onwards).

DSEs

Odd		Even	
Sem III		Sem IV	
Object Oriented Programming using Python, Data Mining, Artificial Intelligence Android Programming using		Data Analysis and Visualization using Python, Artificial Intelligence, Combinatorial Optimization, Introduction to Web	

Java, Cyber Security		Programming Graph Theory Network Security	
Sem V		Sem VI	
Algorithms and Advanced Data Structures (Prereq: a course in Design and Analysis of Algorithms) , Machine Learning, Data Mining, Data Privacy Web Programming Unix Network Programming Web Design and Development Quantum Computing		Theory of Computation , Deep Learning (Prereq: Machine Learning) , Computer Graphics Ethical Hacking, Social Network Analytics, Research Methodology Cyber Forensics	
Sem VII[#]		Sem VIII[#]	
Digital Image Processing Advanced Algorithms Cyber Forensics Research Methodology Machine learning Deep learning Computer Graphics Social Network Analytics		Information and Image Retrieval Natural Language Processing BlockChain and its application Cloud Computing Reinforcement Learning Ethical Hacking Deep learning Computer Graphics	

Compiler Design			

Proposed (w.e.f Admissions 2024 onwards) (No change in first year)

GEs

Odd		Even	
Sem I		Sem II	
Programming Using Python		Data Analysis and Visualization using Python	
Programming Using C++		Data Analysis and Visualization using Spreadsheet	
		Computer System Architecture	
Sem III		Sem IV	
Database Management Systems		Data structures using C++	
JAVA Programming		Introduction to Web Programming	
		Software Engineering	
Sem V		Sem VI	
Operating Systems		Computer Networks	
Advanced Web Programming		Advanced Web Programming	
Java Based Web App Development		Artificial Intelligence	

		Data Privacy	

[#]All the elective courses in Sem VII and VIII should be available in Sem V and VI for those not going to the 4th year. To keep option of going to 4th year open, the student be advised not to take the courses that are core in the 4th year as elective in 3rd year.