

CENTRAL UNIVERSITY OF KASHMIR

Tulmulla, Ganderbal, Jammu and Kashmir, 191131



Bachelors in Technology (B. Tech) **Computer Science & Engineering (CS&E)**

COURSE STRUCTURE AICTE and NEP-2020

[BoS 16/04/2026]

For 2026 Batch

School of Engineering & Technology
Department of Information Technology

Course Structure for B.Tech. Computer Science & Engineering

Semester I								
S.NO.	Course Code	Course Title	L	T	P	Total Credit	CIA	ESE
1.	TAA.11.101	Computer Fundamentals and Applications.	3	0	0	3	50	50
2.	TAA.13.101	Basic Electrical Engineering / (MDC)	3	0	1	4	50	50
3.	TAA.15.101	Engineering Drawing / (SEC)	2	0	0	2	50	50
4.	GDA.13.101	Discrete Mathematics / (MDC)	3	0	0	3	50	50
5.	GDB.12.102	Engineering Physics	3	0	1	4	50	50
6.		IKS-I (Sociology & Elements of Modern Indian History for Engineers)	2	0	0	2	50	50
7.		AEC-I (Soft Skills / English)	2	0	0	2	50	50
8.		Induction / (Clubs/Intxns)	0	0	0			
		Total				20		

Semester II								
S.NO.	Course Code	Course Title	L	T	P	Total Credit	CIA	ESE
1.	TAA.11.155	Engineering Workshop	2	0	0	2	50	50
2.	TAA.11.156	Computer Programming	4	0	2	6	50	50
3.	TAA.11.157	Introduction to AI and Applications (Basics of Prompt Engineering)	2	0	0	2	50	50
4.	TAA.11.158	Engineering Mechanics	3	0	0	3	50	50
5.	GDA.13.151	Mathematics II (Linear Algebra & Differential Calculus) / (MDC)	3	0	0	3	50	50
6.	GDC.12.153	General Chemistry	3	0	1	4	50	50
7.		Universal Human Values, Understanding Harmony / (VBC)	2	0	0	2	50	50
8.		Sport and Yoga / (VBC)	0	0	0	0	0	0
		Total				22		

Course Structure for B.Tech. Computer Science & Engineering

Semester III								
S.NO.	Course Code	Course Title	L	T	P	Total Credit	CIA	ESE
1.	TAA.11.207	Object-Oriented Programming	4	0	2	6	50	50
2.	TAA.11.208	Basic Electronics	3	0	1	4	50	50
3.	TAA.11.209	Data Structures	3	0	1	4	50	50
4.	TAA.11.210	Database Management Systems	3	0	1	4	50	50
5.	GDA.13.201	Mathematics III (Differential Equation) / (MDC)	3	0	0	3	50	50
6.		Humanities I / (VBC)	3	0	0	3	50	50
		Total				24		

Semester IV								
S.NO.	Course Code	Course Title	L	T	P	Total Credit	CIA	ESE
1.	TAA.11.251	Design and Analysis of Algorithms	4	0	0	4	50	50
2.	TAA.11.257	Computer Organization and Architecture	4	0	0	4	50	50
3.	TAA.11.258	Python Programming	3	0	1	4	50	50
4.	TAA.11.259	Digital Electronics & Logic Design	3	0	1	4	50	50
5.	TAA.11.260	Economics for Engineers	2	0	0	2	50	50
6.		Mathematics-IV (Prob. & Stats)	3	0	0	3	50	50
7.	TAA.16.252	Environment / (VBC)	0	0	0	0	100	0
8.		Management 1 / (MDC)	3	0	0	3	0	0
		Total				24		

Course Structure for B.Tech. Computer Science & Engineering

Semester V								
S.NO.	Course Code	Course Title	L	T	P	Total Credit	CIA	ESE
1.	TAA.11.305	Operating Systems	4	0	0	4	50	50
2.	TAA.11.308	Machine Learning	3	0	1	4	50	50
3.	TAA.11.309	Web design and development	3	0	1	4	50	50
4.	TAA.11.310	Finance and Stock Market	3	0	0	3	50	50
5.	TAA.11.311	Entrepreneurship	2	0	0	2	0	0
6.		Humanities II / (VBC)	3	0	0	3	50	50
7.		Constitution of India/ Essence of Indian Knowledge Tradition / (VBC)	0	0	0	0	100	0
		Total				20		

Semester VI								
S.NO.	Course Code	Course Title	L	T	P	Total Credit	CIA	ESE
1.	TAA.11.353	Theory of Computation	4	0	0	4	50	50
2.	TAA.11.356	Software Analysis, Design & Engineering	4	0	0	4	50	50
3.	TAA.11.357	Computer Networks	4	0	2	6	50	50
4.		Open Elective I	3	0	0	3	50	50
5.		Program Elective I	3	0	0	3	50	50
6.	TAA.18.351	Project I (Minor Project)	2	0	0	2	100	
		Total				22		

Course Structure for B.Tech. Computer Science & Engineering

Semester VII

S.NO.	Course Code	Course Title	L	T	P	Total Credit	CIA	ESE
1.	TAA.18.402	Project II (Pre Project)	2	0	0	2	100	0
2.	TAA.11.403	Compiler Design	4	0	0	4	50	50
3.	TAA.11.406	Network Security	4	0	2	6	50	50
4.	TAA.17.401	Industrial Training/Internship	4	0	0	4	100	0
5.		Program Elective II	3	0	0	3	50	50
		Total				19		

Semester VIII

S.NO.	Course Code	Course Title	L	T	P	Total Credit	CIA	ESE
1.	TAA.18.402	Project- III	8	0	0	8	50	50
2.		Program Elective-III	3	0	2	3	50	50
		Total				11		

The total number of credits for all semesters = 162

Course Structure for B.Tech. Computer Science & Engineering

Honors				
S.NO.	Course Title	Credits	CIA	ESE
1.	Internship	2	50	50
2.	Honours Basket	18	50	50
Total Credits		163+20=183		

Honors with Research				
S.NO.	Course Title	Credits	CIA	ESE
1.	Internship	2	50	50
2.	Research Paper Accepted	4 / 8	100	
3.	Honours Basket	14 / 10	50	50
Total Credits		162+20=182		

Honors Basket/Electives for 6th Semester			
S.NO.	Course Code	Course Title	Credits
1.	TAA.11.371	Cloud Computing	4
2.	TAA.11.373	Big Data	4
3.	TAA.11.374	Simulation and Modelling	4
4.	TAA.11.375	Introduction to Data Science	4
5.	TAA.11.375	Management Information Systems	4
6.		SWAYAM MOOC Course (Department Approved)	

Internship in 6th Semester			
S.NO.	Course Code	Course Title	Credits
1.	TAA.17.351	Cloud Computing	4

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Honors Basket/Electives for 7th Semester

S.NO.	Course Code	Course Title	Credits
1.	TAA.11.421	Internet of Things	4
2.	TAA.11.422	Optimization Techniques	4
3.	TAA.11.423	Deep Learning	4
4.	TAA.11.424	Computer Vision	4
5.	TAA.11.425	Advanced Algorithms	4
6.	TAA.11.426	Optimization Techniques	4
7.	TAA.11.427	Blockchain Technology	
8.		SWAYAM MOOC Course (Department Approved)	

Honors Basket/Electives for 8th Semester

S.NO.	Course Code	Course Title	Credits
1.	TAA.11.471	Neural Networks	4
2.	TAA.11.472	Robotics	4
3.	TAA.11.473	Advanced Computer Architecture	4
4.	TAA.11.474	Quantum Computing	4
5.	TAA.11.475	Wireless Communication	4
6.	TAA.11.476	Natural Language Processing	4
7.		SWAYAM MOOC Course (Department Approved)	

Internship in 8th Semester

S.NO.	Course Code	Course Title	Credits
1.	TAA.17.451	Internship	2