

**INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI**

**Department of Computer Science & Engineering.**

**B.Tech - CSE (Revised Curriculum, wef 2025 admissions)**

**Credit Split-up [BSE=68, HSS=24, DC=113, DE=65, OE=12, Others=10, Total =292]**

Code	Subject	L-T-P	Credit	Category
old/new	<b>Semester 1</b>			
MA1110H	Single Variable Calculus	3-1-0 (H)	4	BSE
MA1113H	Multi Variable Calculus	3-1-0 (H)	4	BSE
CS1113/CS1001	Introduction To Programming	3-0-0	6	BSE
CS1114/CS1002L	Programming Lab	0-1-3	5	BSE
EE1101H	Electric Circuits	3-0-0(H)	3	BSE
EE1105H	Digital and Analog Electronics	3-0-0 (H)	3	BSE
EE1109L	Basic Electronics Lab	0-0-3	3	BSE
CS1116H/CS1101H	Introduction to Computer Systems	3-0-0 (H)	3	BSE
CS1115/CS1003	Discrete Mathematics	3-0-0	6	BSE
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	<b>Semester 2</b>			
PH1201H	Introductory Electromagnetics	2-1-0 (H)	3	BSE
PH1211H	Introductory Quantum Mechanics	2-1-0 (H)	3	BSE
MA1201H	Linear Algebra	3-1-0 (H)	4	BSE
CS1001H/CS1004H	Introduction to Probability *	3-0-0 (H)	3	BSE
CS1002H/CS1005H	Introduction to Statistical Analysis *	3-0-0 (H)	3	BSE
CS1213/CS1006	Data Structures	3-0-0	6	DC
CS1214/CS1007L	Object Oriented Programming & Data Structure Lab	2-0-3	7	DC
CS1225/CS1201	Digital Design	3-0-0	6	DC
CS1216H/CS1008H	Elementary Graph Theory	3-0-0 (H)	3	BSE
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MA	* Applicable only from 2026 admissions, Probability and Random Process (2025 admission only)	3-1-0	8	BSE
	<b>Semester 3</b>			
CS2001	Optimization Methods	3-0-0	6	BSE
CS2002	Design and Analysis of Algorithms	3-0-0	6	DC
CS2003	Formal Language and Automata Theory	3-0-0	6	DC
CS2202L	Hardware Lab	0-1-3	5	DC
CS2201	Computer Organization and Architecture	3-0-0	6	DC
HSS	HSS-1	3-0-0	6	HSS
CS2101L	System Software Lab	0-0-3	3	DC
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	<b>Semester 4</b>			
CS2302L	Data Visualization Lab	0-1-3	5	DC
CS2301	Machine Learning	3-0-0	6	DC
CS2102	Compiler Design	2-0-2	6	DC
CS2103	Operating Systems	3-0-0	6	DC
CS2104L	Operating Systems Lab	0-0-4	4	DC
HSS	HSS-2	3-0-0	6	HSS
BT	Evolution and Genetics	3-0-0 (H)	3	BSE
BT	Bioenergtics and Human Diseases	3-0-0 (H)	3	BSE

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	<b>Semester 5</b>			
CS3101	Computer Networks	3-0-0	6	DC
CS3102L	Networks Lab	0-0-4	4	DC
CS3103	Database Management Systems	2-0-3	7	DC
CS3301	Deep Learning	3-0-0	6	DC
HSS	HSS-3	3-0-0	6	HSS
CS3901	Mini Project - Phase 1	0-0-3	3	DE
Non-CS/DS/MnC	Open Elective or Mini Project in Other Dept	3-0-0	6	OE / BSE
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	<b>Semester 6</b>			
CS3201	High Performance Computer Architecture	3-0-0	6	DC
CS3104	Security In Computing	3-0-0	6	DC
CS3106H	Introduction to NoSQL	2-0-2 (H)	3	DC
CS3105H	Software Engineering	1-0-4 (H)	3	DC
CS3902	Mini Project - Phase 2	0-0-8	8	DE
HSS	HSS-4	3-0-0	6	HSS
CS5XXX	Department Elective	3-0-0	6	DE
			<b>38</b>	