



# NATIONAL INSTITUTE OF TECHNOLOGY SIKKIM

Ravangla Campus

Barfung Block, Ravangla Sub Division, South Sikkim-737139

## *Department of Computer Science and Engineering*

### Course Curriculum for B.Tech(CSE)

Semester	Subject Code	L-T-P	Subject Name	Credit
1 <sup>st</sup>	ZZ1004	2-0-0	Computer Programming	2
	MA1001	3-1-0	Mathematics-I	3
	CY1001	3-0-0	Chemistry	3
	MS1001	3-0-0	Professional Communication	3
	ZZ1001	3-1-0	Engineering Mechanics	3
	CY1094	0-0-2	Chemistry Laboratory	1
	ZZ1091	0-0-3	Workshop-I	2
	ZZ1094,3,5	0-0-3	Ph. Edn, Value Edn, NSS	3
<b>Total Credits</b>				<b>20</b>
2 <sup>nd</sup>	MA1002	3-1-0	Mathematics-II	3
	PH1001	3-0-0	Physics	3
	EE1001	3-0-0	Electrical Science	3
	ZZ1002	1-0-3	Engineering Graphics	3
	CS1001	2-0-0	Foundations of Computing	2
	PH1091	0-0-2	Physics Laboratory	1
	ZZ1092	0-0-3	Workshop-II	2
<b>Total Credits</b>				<b>17</b>
3 <sup>rd</sup>	MA2001	3-1-0	Mathematics-III	3
	CS2001	3-0-2	Logic Design	4
	CS2002	4-0-0	Foundations of Programming	4
	EC2014	3-0-0	Signals and Systems	3
	CS2091	1-0-3	Logic Design Laboratory	3
	CS2092	1-0-3	Programming Laboratory	3
<b>Total Credits</b>				<b>20</b>
4 <sup>th</sup>	MA2002	3-1-0	Mathematics-IV	3
	CS2004	3-0-2	Computer Organization	4
	CS2005	4-0-0	Data Structures and Algorithms	4
	CS2006	4-0-0	Discrete Structures	4
	CS4001	3-0-0	Environmental Studies	3
	CS2093	1-0-3	Hardware Laboratory	3
	CS2094	1-0-3	Data Structures Laboratory	3
<b>Total Credits</b>				<b>24</b>

5 <sup>th</sup>	CS3001	4-0-0	Theory of Computation	4
	CS3002	3-0-2	Database Management System	4
	CS3003	3-0-2	Operating System	4
	CS3004	3-0-2	Software Engineering	4
			Elective-I	4
	CS3092	1-0-3	Operating System Laboratory	3
	<b>Total Credits</b>			<b>23</b>
6 <sup>th</sup>	CS3006	3-0-2	Computer Networks	4
			Elective-II	4
			Elective-III	4
			Elective-IV	4
	CS3093	1-0-3	Network Laboratory	3
	<b>Total Credits</b>			<b>19</b>
7 <sup>th</sup>	CS3005	3-0-2	Compiler Design	4
	MS4003	3-0-0	Econimics	3
			Elective-V	4
			Elective-VI	4
			Elective-VII	4
	CS4098	0-0-2	Seminar	1
	CS4099	0-0-6	Project	3
	<b>Total Credits</b>			<b>23</b>
8 <sup>th</sup>	ME4104	3-0-0	Principles of Management	3
			Elective-VIII	4
			Elective-IX	4
			Elective-X	4
	CS4099	0-0-10	Project	5
	<b>Total Credits</b>			<b>20</b>

## **Elective Subjects for B.Tech(CSE)**

<b>Subject Code</b>	<b>L-T-P</b>	<b>Subject Name</b>	<b>Credit</b>
CS4021	3-0-2	Number Theory and Cryptography	4
CS4022	3-0-2	Principles of Programming Languages	4
CS4023	3-0-2	Computational Intelligence	4
CS4024	4-0-0	Information Theory	4
CS4025	4-0-0	Graph Theory and Combinatorics	4
CS4026	3-0-2	Combinatorial Algorithms	4
CS4027	4-0-0	Topics in Algorithms	4
CS4028	4-0-0	Quantum Computation	4
CS4029	4-0-0	Topics in Theory of Computation	4
CS4030	4-0-0	Computational Complexity	4
CS4031	3-0-2	Computational Algebra	4
CS4032	3-0-2	Computer Architecture	4
CS4033	3-0-2	Distributed Computing	4
CS4034	3-0-2	Middleware Technologies	4
CS4035	3-0-2	Computer Security	4
CS4036	3-0-2	Advanced Database Management Systems	4
CS4037	3-0-2	Cloud Computing	4
CS4038	3-0-2	Data Mining	4
CS4039	3-0-2	Multi Agent Systems	4
CS4040	3-0-2	Bioinformatics	4
CS4041	3-0-2	Natural Language Processing	4
CS4042	3-0-2	Web Programming	4
CS4043	3-0-2	Image Processing	4
CS4044	3-0-2	Pattern Recognition	4
CS4045	3-0-2	Medical Image Processing	4
CS4046	3-0-2	Computer Vision	4
CS4047	3-0-2	Computer Graphics	4
CS4048	3-0-2	Topics in Compilers	4
CS4049	3-0-2	Advanced Computer Networks	4
CS4050	3-0-2	Design and Analysis of Algorithms	4
CS4051	3-0-2	Coding Theory	4
CS4052	3-0-2	Logic for Computer Science	4
CS4053	3-0-2	Advance Data Structure and Algorithm	4