Quick Links

Departmental Directory (cse_directory.html)
Student Achievement (CSE_Student_Achievement.html)
Projects (CSE_Projects.html)
Publications (cse_publications.html)
Patent (Patent.html)
Time Table (cse-time-table.html)
Newsletters (Newsletters.html)
Contact Us (cse_contact_us.html)

B. Tech. (4 years)

B. Tech. in Computer Science and Engineering

The curriculum consists of a mixture of well thought-out courses in the following broad categories: Language, Mathematics, Science, Engineering Science, Humanities/Social Sciences/Management, Professional Courses, Elective Courses, Laboratory Courses, Project Courses. A semester-wise structure of the curriculum for each Programme, currently being followed, is given below. However, the semester-wise structure is not followed rigidly. In fact, the students are encouraged to change the structure of their curriculum, to the extent feasible and desirable, to accommodate their own aspirations. The curriculum of is reviewed, periodically, with a view to incorporate the latest advances pertaining to the Programme.

Program Educational Objectives (PEOs)

PEO1: Be able to apply the principles of computer science and engineering, mathematics, and relevant sciences to solve problems requiring knowledge of the discipline.

PEO2: Be able to identify and analyze technology-related real-life problems and propose the models, designs and solutions addressing all relevant challenges.

PEO3: Be engaged in research and life-long learning, adapting new ideas, modern tools and technologies in multi-disciplinary projects by being a competent leader or a team member while possessing ethical values and effective communication skills.

PEO4: Be a professional, responsible for the environment and its sustainability and aware of contemporary socio-economic, cultural, and legal issues.

Program Specific Outcomes (PSOs)

PSO1: Analyze, design, develop, deploy, and evaluate information technology based solutions for real-world problems using knowledge of mathematics, software engineering, data communication technologies, algorithms, data structures, databases, and software frameworks over appropriate infrastructure.

PSO2: Create and deploy integrated system-based prototypes and solutions by applying concepts of digital systems, computer organization, operating systems, computer networks and database systems.

PSO3: Apply techniques from emerging areas including but not limited to, data science, artificial intelligence, machine learning, computer security, and cyber physical systems, to address real-world problems.

Program Outcomes (POs)

PO1 - Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and engineering specialization to the solution of complex engineering problems.

PO2 - Problem analysis: Identify, formulate, research literature, and analyze engineering problems to arrive at substantiated conclusions using first principles of mathematics, natural, and engineering sciences.

PO3 - Design/development of solutions: Design solutions for complex engineering problems and design system components, processes to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4 - Conduct investigations of complex problems: Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 - Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6 - The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 - Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 - Individual and team work: Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.

PO10 - Communication: Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear instructions.

PO11 - Project management and finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team. Manage projects in multidisciplinary environments.

PO12 - Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Curriculum:

The curriculum is a fair mix of following types of courses:

a. Institute Core – courses common for students across all branches
b. Programme Core - mandatory courses for students enrolled in programme
c. Programme Electives - programme specific courses, chosen by students as per interest
d. Other Electives - courses offered across Departments, chosen by students as per interest

The total number of credits for the B.Tech. (CSE) programme are 149. This curriculum has been effective since July 2017.

Institute Core Courses	48
Program Core Courses	56
Program Elective Courses	27
Other Elective Courses	12
BTP (Institute Core)	06
Total Credits	**149**

The detailed curriculum structure of the B.Tech. (CSE) programme is as follows:

1st Semester:							
S. No.	**Course Code**	**Course Description**	**Type**	**L**	**T**	**P**	**Credits**

1	PHY102	Classical Physics	IC	3	1	0	4
2	MTH102	Mathematics – I	IC	3	1	0	4
3	ECE105	Basic Electronics	IC	3	1	0	4
4	ECE106	Basic Electronics Lab	IC	0	0	3	2
5	CSE104	Computer Programming	IC	3	0	0	3
6	CSE104(L)	Computer Programming Lab	IC	0	0	3	2
7	ENG105(B)	Technical Communication in English	IC	3	0	0	3
							Total Credits = 22

2nd Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	MTH108	Mathematics – II	IC	3	1	0	4
2	PHY113	UG Physics Laboratory	IC	0	0	3	2
3	CSE213	Data Structures and Algorithms	IC	3	0	0	3
4	CSE213(L)	Data Structures and Algorithms Lab	IC	0	0	2	1
5	HSS102	Value Education and Ethics	IC	3	0	0	3
6	MME201	Environmental Ecology & Biology	IC	2	0	2	3
7	CSE119	Discrete Mathematical Structures	PC	3	0	0	3
8	CSE111	Digital Systems	PC	3	0	0	3
9	PHY114	Introduction to Modern Physics *	OE	3	0	0	3
							Total Credits* = 22

3rd Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	MTH213	Mathematics – III	IC	3	1	0	4
2	HSS204 / HSS203	Economics for Engineers /Psychology, Technology and Society	IC	3	0	0	3
3	CSE216	Computer Organization and Architecture	PC	3	0	2	4
4	CSE226	Advanced Programming	PC	3	0	2	4
5	CSE227	Information and Database Management Systems	PC	3	0	2	4
6	CSE228	Optimization Techniques and Applications	PC	3	0	0	3
							Total Credits = 22

4th Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	HSS204 / HSS203	Economics for Engineers/ Psychology, Technology and Society	IC	3	0	0	3
2	MTH222	Probability and Statistics	PC	3	1	0	4
3	CSE325	Design and Analysis of Algorithms	PC	3	0	0	3
4	CSE331	Theory of Computation	PC	3	0	0	3
5	CSE222	Operating Systems	PC	3	0	2	4
6	CSE332	Computer Networks	PC	3	0	2	4
7		Program Elective – 1	PE	3	0	0	3
							Total Credits =24

5th Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	CSE328	Artificial Intelligence	PC	3	0	0	3
2	CSE329	Computer Security	PC	3	0	0	3
3	CSE327	Introduction to Data Science	PC	3	0	0	3
4	CSE321	Software Engineering	PC	3	0	0	3
5	CSE330	Integrated Software Development Lab	PC	0	0	3	2
6		Program Elective – 2	PE	3	0	0	3
7		Program Elective – 3	PE	3	0	0	3
							Total Credits = 20

6th Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	CSE437	Compiler Design	PC	3	0	0	3
2		BTP	IC	3	0	0	3
3		Program Elective – 4	PE	3	0	0	3
4		Program Elective – 5	PE	3	0	0	3
5		Program Elective – 6	PE	3	0	0	3
							Total Credits = 15

7th Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1		BTP	IC	3	0	0	3

2		Program Elective – 7	PE	3	0	0	3
3		Program Elective – 8	PE	3	0	0	3
4		Other Elective – 1	OE	3	0	0	3
5		Other Elective – 2	OE	3	0	0	3
							Total Credits = 15

8th Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1		Program Elective – 9	PE	3	0	0	3
2		Other Elective – 3	OE	3	0	0	3
3		Other Elective – 4	OE	3	0	0	3
							Total Credits = 9

* A student can take Introduction to Modern Physics course in 2nd semester in lieu of one Other Elective in remaining semesters.

Total Credits	149

OTHER LINKS

- Director's Message (../../aboutus/directorsmessage.html)
- Photo Gallery (../../Photo_Gallery.html)
- Webmail (https://www.google.com/a/lnmiit.ac.in)
- Course Management System (../../Course_Management.html)
- Bus Time Table (../../Bus_Time_Table.html)
- Foundation (../../aboutus/foundation.html)
- WAY TO LNMIIT (../../uploaded_files/Way to LNMIIT.pdf)
- Plagiarism Prevention Software (../../Library/plagiarism_prevention_software.html)
- Rules & MOA (../../Rules_MOA.html)
- Tender Notification (../../Tender_Notification.html)
- Sankalp (https://sankalp.lnmiit.ac.in/)

- UGC (https://www.ugc.ac.in/)
- ASME LNMIIT (https://asme.lnmiit.ac.in)
- Counselling Cell (../../Councelling Cell.html)
- CSI (https://csi.lnmiit.ac.in)
- Vivacity (https://vivacity.lnmiit.ac.in/)
- E-Cell (https://ecell.lnmiit.ac.in/)
- SAE LNMIIT (https://saeindia.lnmiit.ac.in/)
- IEEE Student Branch (https://ieee.lnmiit.ac.in/)
- IUPC (https://iupc.lnmiit.ac.in/)
- Plinth (https://plinth.lnmiit.ac.in/)
- Innovation Club (https://innovationclub.lnmiit.ac.in/)
- Desportivos (https://desportivos.lnmiit.ac.in/)
- Archive Information (https://www.lnmiit.ac.in/Archive.aspx)

 Designed by MasterSoft (https://www.iitms.co.in/)