

# Curriculum for B.Tech

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Computer Science and Engineering

From The Academic Year 2025

(Approved in Senate 60)



Indian Institute of Information Technology Design and Manufacturing, Kancheepuram

Chennai-600 127

Semester 1					
Category	Course Name	L	T	P	C
BSC	Calculus	3	1	0	4
BSC	Physics for Engineers	3	0	2	4
BEC	Basic Electrical Engineering	3	1	0	4
ITC	Problem Solving and Programming	3	0	2	4
DSC	Concepts in Engineering Design	2	0	2	3
BEC	Engineering Skills Practice	0	0	2	1
HMC	Effective Language and Communication Skills	1	0	2	2
HMC	NSO/NCC/SSG/NSS/YOGA	0	0	2	P/F
					<b>22.0</b>
Semester 2					
Category	Course Name	L	T	P	C
BSC	Differential Equations	3	1	0	4
SEC	Dept. Specific Science Elective I	3	0	0	3
BEC	Engineering Graphics and Modeling	2	0	2	3
ITC	Data Structures and Algorithms	3	0	2	4
DSC	Design Realization	2	0	2	3
PCC	Discrete Structures for Computer Science	3	1	0	4
HMC	Earth, Environment and Design	1	0	0	P/F
					<b>21.0</b>
Semester 3					
Category	Course Name	L	T	P	C
SEC	Dept. Specific Science Elective II [ Linear Algebra ]	3	0	0	3
ITC	Introduction to AI with Python	2	0	2	3
PCC	Object Oriented Programming	2	0	4	4
PDC	Digital Systems Design	3	0	2	4
PCC	Design & Analysis of Algorithms	3	0	2	4
PDC	Database Systems Design	3	0	2	4
PCC	Computing Paradigms	2	0	0	2
HMC	Indian Constitution and Essence of Indian Traditional Knowledge	1	0	0	P/F
					<b>24.0</b>
Semester 4					
Category	Course Name	L	T	P	C
SEC	Dept. Specific Science Elective III [ Probability and Statistics ]	3	0	0	3
ITC	Applied Data Science	2	0	2	3
PDC	Computer Organization	3	0	2	4
PCC	Machine Learning Algorithms	3	0	2	4
PCC	Operating Systems	3	0	2	4
PCC	Theory of Computation	3	1	0	4
HMC	Human Values and Stress Management	1	0	0	P / F
					<b>22.0</b>

Semester 5					
Category	Course Name	L	T	P	C
HMC	Entrepreneurship and Management Functions	1	0	2	2
PCC	Computer Networks	3	0	2	4
PDC	Compiler Design	3	0	2	4
PCC	Prompt Engineering	1	0	2	2
PDC	Human Computer Interaction	2	0	2	3
PDC	Computer Architecture	3	0	2	4
PEC	Program Elective 1	3	1	0	4
HMC	Professional Ethics and Organizational Behaviour	1	0	0	P/F
					<b>23.0</b>
Semester 6					
Category	Course Name	L	T	P	C
PCD	Product Design and Prototyping	0	0	2	1
PDC	Full Stack Development	2	0	2	3
PCC	Software Engineering	3	0	2	4
PCC	Cyber Security	3	0	2	4
PEC	Program Elective 2	3	1	0	4
ELC	Open Elective 1	3	0	0	3
HMC	Professional Communication	1	0	2	2
HMC	Intellectual Property Rights	1	0	0	P/F
					<b>21.0</b>
	<b>Summer</b>				
<b>PCD</b>	<b>Summer Internship MID MAY to MID JULY</b>				<b>P/F</b>
Semester 7					
Category	Course Name	L	T	P	C
PEC	Program Elective 3	3	0	0	3
ELC	Open Elective 2	3	0	0	3
ELC	Open Elective 3	3	0	0	3
ELC	Open Elective 4	3	0	0	3
ELC	Open Elective 5	3	0	0	3
PCD	Comprehensive Exam				P/F
HMC	Invited Expert Lectures*	0	0	0	P/F
	<b>* 6 Expert lectures to be attended from Sem 1 to Sem 7</b>				<b>15.0</b>
Semester 8					
Category	Course Name	L	T	P	C
PCD	B.Tech. Project (BTP)	0	0	18	9
					<b>9.0</b>

9 Credits for the BTP can be earned by any of the following:

1. Fully In-house BTP at the institute.
2. BTP IITs/IISc/IISERs/TIFR/ISI/DRDO/ISRO, etc if 148 credits are completed by the end of 7th semester
3. Three Program Elective courses, each with a minimum of three credit, in lieu of BTP.
4. Industry Internship/Training in lieu of BTP at the company selected through the Institute Placement Cell and if 148 credits are completed by the end of 7th semester.

<b>Semester wise Credit Distribution</b>	<b>Credits</b>									
<b>Category</b>	<b>S1</b>	<b>S2</b>	<b>S3</b>	<b>S4</b>	<b>S5</b>	<b>S6</b>	<b>S7</b>	<b>S8</b>	<b>Total</b>	<b>%</b>
Basic Science Course (BSC)	8	4	0	0	0	0	0	0	12	7.6
Science Elective Course (SEC)	0	3	3	3	0	0	0	0	9	5.7
Basic Engineering Course (BEC)	5	3	0	0	0	0	0	0	8	5.1
Design Course (DSC)	3	3	0	0	0	0	0	0	6	3.8
IT Skill Course (ITC)	4	4	3	3	0	0	0	0	14	8.9
Program Core Course (PCC)	0	4	10	12	6	8	0	0	40	25.5
Program Design Course(PDC)	0	0	8	4	11	3	0	0	26	16.6
Program Elective Course (PEC)	0	0	0	0	4	4	3	0	11	7.0
Elective Course (ELC)	0	0	0	0	0	3	12	0	15	9.6
Humanities and Management Course (HMC)	2	0	0	0	2	2	0	0	6	3.8
Professional Career Development (PCD)	0	0	0	0	0	1	0	9	10	6.4
<b>Total</b>	22	21	24	22	23	21	15	9	157	100
	<b>22</b>	<b>43</b>	<b>67</b>	<b>89</b>	<b>112</b>	<b>133</b>	<b>148</b>	<b>157</b>	<b>157</b>	