B.Tech. – III Year I Semester

S.No.	Category	Title	L	T	P	Credits
1	Professional Core	Advanced Java	3	0	0	3
2	Professional Core	Computer Networks	3	0	0	3
3	Professional Core	Automata Theory & Compiler Design	3	0	0	3
4	Professional Elective-I	1. Object Oriented Analysis and Design 2. Cyber Security 3. Artificial Intelligence 4. Data Warehousing & Data Mining 5. 12-week MOOC Swayam/ NPTEL course recommended by the BoS	3	0	0	3
5	Open Elective- I		3	0	0	3
6	Professional Core	Advanced Java Lab	0	0	3	1.5
7	Professional Core	Computer Networks Lab	0	0	3	1.5
8	Skill Enhancement course	Full Stack Development 1	0	1	2	2
9	Engineering Science	User Interface Design using Flutter / SWAYAM Plus - Android Application Development (with Flutter)	0	0	2	1
10	Evaluation of Community Service Internship		-	-	-	2
Total			15	1	10	23
MC	Minor Course (Student may select from the same specialized minors pool)		3	0	0	3
MC	Minor Course through SWAYAM/NPTEL (minimum 12 week, 3 credit course)		3	0	0	3
HC	Honors Course (Student may select from the same honors pool)		3	0	0	3
HC	Honors Course (Student may select from the same honors pool)		3	0	0	3

B.Tech. III Year II Semester

S.No.	Category	Title	L	T	P	Credits
1	Professional Core	Cloud Computing	3	0	0	3
2	Professional Core	Cryptography & Network Security	3	0	0	3
3	Professional Core	Machine Learning	3	0	0	3
4	Professional Elective-II	1. Software Testing Methodologies 2. Augmented Reality & Virtual Reality 3. DevOps 4. Generative AI 5. 12-week MOOC Swayam/NPTEL course recommended by the BoS	3	0	0	3
5	Professional Elective-III	1. Software Project Management 2. Mobile Adhoc Networks 3. Natural Language Processing 4. Distributed Operating System 5. 12-week MOOC Swayam/NPTEL course recommended by the BoS	3	0	0	3
6	Open Elective – II		3	0	0	3
7	Professional Core	Cloud Computing Lab	0	0	3	1.5
8	Professional Core	Machine Learning Lab	0	0	3	1.5
9	Skill Enhancement course	Soft skills / / SWAYAM Plus - 21st Century Employability Skills	0	1	2	2
10	Audit Course	Technical Paper Writing & IPR	2	0	0	-
Total			**20**	**1**	**08**	**23**
Mandatory Industry Internship / Mini Project of 08 weeks duration during summer vacation						
MC	Minor Course (Student may select from the same specialized minors pool)		3	0	3	4.5
HC	Honors Course (Student may select from the same honors pool)		3	0	0	3

* Under Industry Internship interested students can pursue SWAYAM Plus courses viz., Hands-on Master class on Data Analytics OR Artificial Intelligence for Real- World Application

B.Tech. IV Year I Semester

S.No.	Category	Title	L	T	P	Credits
1	Professional Core	Internet of Things	3	0	0	3
2	Management Course- II	Human Resources & Project Management	2	0	0	2
3	Professional Elective-IV	1. Software Architecture & Design Pattern 2. Deep Learning 3. Computer Vision 4. Block chain Technology 5. 12-week MOOC Swayam/NPTEL course recommended by the BoS	3	0	0	3
4	Professional Elective-V	1. Agile methodologies 2. Big Data Analytics 3. Mobile Computing 4. Cyber Physical Systems 5. 12-week MOOC Swayam/NPTEL course recommended by the BoS	3	0	0	3
5	Open Elective-III		3	0	0	3
6	Open Elective-IV		3	0	0	3
7	Skill Enhancement Course	Mean Stack Technologies/ SWAYAM Plus - Certificate program in Prompt Engineering and ChatGPT	0	1	2	2
8	Audit Course	Constitution of India	2	0	0	-
9	Internship	Evaluation of Industry Internship / Mini Project	-	-	-	2
		Total	**19**	**1**	**02**	**21**
MC	Minor Course (Student may select from the same specialized minors pool)		3	0	0	3
HC	Honors Course (Student may select from the same honors pool)		3	0	0	3
HC	Honors Course (Student may select from the same honors pool)		3	0	0	3

B.Tech. IV Year II Semester

S.No.	Category	Title	L	T	P	Credits
1	Internship & Project Work	Full semester Internship / Project Work	0	0	24	12

Note: ***Student need to do at least ONE MOOC/NPTEL Course (of 3 credits out of 160 credits) to meet the mandatory requirement (11th criteria, as per R23 Regulations); they are allowed to register one semester in advance***

Open Electives, offered to other department students:

Open Elective I: Principles of Operating Systems/ Computer Organization and Architecture
Open Elective II: Principles of Database Management Systems
Open Elective III: Object Oriented Programming Through Java
Open Elective IV: Principles of Software Engineering /Computer Networks

Minor Engineering

Note:

1. *To obtain Minor Engineering, student needs to obtain 18 credits by successfully completing any of the following courses in the concern stream.*
2. *During Minor/Honors Course selection, there should not be any overlapping with Regular/Major/OPEN Electives*

Minor in IT

1. Principles of Database Management Systems 3-0-3-4.5 (II-II)
2. Principles of Software Engineering 3-0-0-3 (III-I)
3. Advanced Data Structures & Algorithm Analysis 3-0-3-4.5 (III-II)
4. Principles of Operating Systems 3-0-0-3 (IV-I)

Any of the following 12 Week 3 credit NPTEL MOOC Courses

5. Artificial Intelligence: Knowledge Representation and Reasoning
6. Computer Networks and Internet Protocol
7. Machine Learning and Deep Learning - Fundamentals and Applications
8. The Joy of Computing using Python
9. Discrete Mathematics for CS
10. Human Computer Interaction (In English)
11. Data Analytics with Python
12. Foundations of Cyber Physical Systems