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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

(SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Name of Course. ***B.Tech. in Computer Science & Engineering (Specialization in Computer Science, Cyber Security, Data Science)***

Semester: 1

S. No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted (Course Wise)			Total Credits
			Theory			Practical			Total Marks	Period Per Week			
			End Term Evaluation	Mid Term Evaluation	ABC Evaluation	End Term Evaluation	Lab Work and Sessional	PBL/Mini Project		L	T	P	
1	CSL0101	Essentials of Information Technology	60	20	20	60	20	20	200	2	1	2	4
2	MAL0101	Calculus for Engineers	60	20	20	-	-	-	100	3	1	0	4
3	**EEL0106	Basics of Electricals and Electronics Engineering	60	20	20	60	20	20	200	3	1	2	5
4	MEL0102	Engineering Graphics	60	20	20	60	20	20	200	3	0	2	4
5	CSP0101	Design Thinking	-	-	-	60	20	20	100	0	0	2	1
6	CSL0102	Programming and problem solving in C	60	20	20	60	20	20	200	2	0	4	4
7	*NCC-0101	NCC	60	20	20	60	20	20	200	1	0	2	2
										Total Credits			**22**

1. *NCC is a choice-based Course. Credits will be added if the Course will be opted.
2. **The course Basics of Electrical and Electronics Engineering will encompass topics related to Electronics, Electrical systems, and the Principles of Digital Computers.

ITM UNIVERSITY
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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

(SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Name of Course: *B.Tech. in Computer Science & Engineering (Specialization in* Artificial Intelligence & Machine Learning)

Semester: 1

S. No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted (Course Wise)			Total Credits
			Theory			Practical			Total Marks	Period Per Week			
			End Term Evaluation	Mid Term Evaluation	ABC Evaluation	End Term Evaluation	Lab Work and Sessional	PBL/Mini Project		L	T	P	
1	PHL0101	Engineering Physics	60	20	20	60	20	20	200	2	1	2	4
2	MAL0102	Linear Algebra	60	20	20	-	-	-	100	3	1	0	4
3	HUL0101	Communication Skills	60	20	20	60	20	20	200	2	0	2	3
4	CSL0107	Fundamental of Artificial Intelligence	60	20	20	60	20	20	200	3	0	2	4
5	CSP0103	Web Technology	-	-	-	60	20	20	100	0	0	4	2
6	CSL0102	Programming and problem solving in C	60	20	20	60	20	20	200	2	0	4	4
7	**AU-102	Sports and Yoga	-	-	-	-	-	-	-	0	0	2	0
8	*NCC-0101	NCC	60	20	20	60	20	20	200	1	0	2	2
										Total Credits			**21**

1. *NCC is a choice-based Course. Credits will be added if the Course will be opted.
2. **AU represents a Non-Graded Mandatory Audit Course. Activities under NSS will also be considered in this course.

ITM UNIVERSITY
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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

(SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Name of Course: ***B.Tech. in Computer Science & Engineering (Specialization in Computer Science, Cyber Security, Data Science)***

Semester:2

S. No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted (Course Wise)			Total Credits
			Theory			Practical			Total Marks	Period Per Week			
			End Term Evaluation	Mid Term Evaluation	ABC Evaluation	End Term Evaluation	Lab Work and Sessional	PBL/Mini Project		L	T	P	
1	CSP0201	Web Technology	-	-	-	60	20	20	100	0	0	4	2
2	MAL0201	Statistics for Engineers	60	20	20	-	-	-	100	3	1	0	4
3	CSL0205	Object Oriented Programming using C++	60	20	20	60	20	20	200	2	0	4	4
4	HUL0201	Communication Skills	60	20	20	60	20	20	200	2	0	2	3
5	PHL0201	Engineering Physics	60	20	20	60	20	20	200	2	1	2	4
6	GSDS-01	Gandhi and Gandhian way	60	20	20	-	-	-	100	2	0	0	2
7	AU-102	Sports and Yoga	-	-	-	-	-	-	-	0	0	2	0
8	*NCC0202	NCC	60	20	20	60	20	20	200	1	0	2	2
9	**CSD0210	Minor Project-I				60	20	20	100	0	0	4	2
10	***IKS-01	Indian Knowledge System (IKS)	-	-	-	-	-	-	-	-	-	-	2
										Total Credits			21

1. **NCC is a choice-based Course. Credits will be added if the Course will be opted.
2. **Minor project is an Added Course and Applicable to BTech Hons Course. Credits will be added if the Course will be opted. The main focus of the minor project is to develop a graphical use interface-based application to achieve the objective of collaborative problem-solving and software development skills.
3. ***IKS is an audit course with credit earned through the participation in the events announced by the university
4. Students will go for Industrial training in summer break.

ITM UNIVERSITY
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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

(SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Name of Course: *B.Tech. in Computer Science & Engineering (Specialization in* Artificial Intelligence & Machine Learning)

Semester:2

S. No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted (Course Wise)			Total Credits
			Theory			Practical			Total Mark	Period Per Week			
			End Term Evaluation	Mid Term Evaluation	ABC Evaluation	End Term Evaluation	Lab Work and Sessional	PBL/Mini Project		L	T	P	
1	CSL0204	Data Structure and Algorithms	60	20	20	60	20	20	200	3	0	2	4
2	MAL0201	Statistics for Engineers	60	20	20	-	-	-	100	3	1	0	4
3	CSL0205	Object Oriented Programming using C++	60	20	20	60	20	20	200	2	0	4	4
4	CSP0201	Design Thinking	-	-	-	60	20	20	100	0	0	2	1
5	*EEL0201	Basics of Electricals and Electronics Engineering	60	20	20	60	20	20	200	2	1	2	4
6	GSDS-01	Gandhi and Gandhian way	60	20	20	-	-	-	100	2	0	0	2
8	**NCC0202	NCC	60	20	20	60	20	20	200	1	0	2	2
9	***CSD0210	Minor Project-I	-	-	-	60	20	20	100	0	0	4	2
10	***IKS-01	Indian Knowledge System (IKS)	-	-	-	-	-	-	-	-	-	-	2
										Total Credits			21

1. * The course Basics of Electrical and Electronics Engineering will encompass topics related to Electronics, Electrical systems, and the Principles of Digital Computers.
2. **NCC is a choice-based Course. Credits will be added if the Course will be opted.
3. **Minor project Will be an Added Course and Applicable to BTech Hons Course Only. Credits will be added if the Course will be opted. The main focus of the minor project is to develop a graphical use interface-based application to achieve the objective of collaborative problem-solving and software development skills.
4. Students will go for Industrial training in summer break.

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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

(SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Name of Course: ***B.Tech. in Computer Science & Engineering (Specialization in Computer Science, Cyber Security, Data Science, Artificial Intelligence & Machine Learning)***

SEMESTER:3

S. No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted (Course Wise)			Total Credits
			Theory			Practical			Total Marks	Period Per Week			
			End Term Evaluation	Mid Term Evaluation	ABC Evaluation	End Term Evaluation	Lab Work and Sessional	PBL/Mini Project		L	T	P	
1	CSP0301	Programming In Java	-	-	-	60	20	20	100	0	0	6	3
2	CSL0313 CSL0312	Data structures and Algorithms – CS/Cyber/DS Data Analytics using Python - AIML	60	20	20	60	20	20	200	2	0	4	4
3	CSL0310	Computer System Organization	60	20	20	60	20	20	200	3	0	2	4
4	CSL0311	Database Management System	60	20	20	60	20	20	200	2	0	4	4
5		Specilization-1 CS/Cyber/DS/AIML	60	20	20	60	20	20	200	2	0	4	4
6	MAL0305	Discrete Structures	60	20	20	-	-	-	100	3	0	0	3
7	HUL0301	Making of Morden India	60	20	20	-	-	-	100	2	0	0	2
8	***CSD0301	Seminar I	-	-	-	60	20	20	100	0	0	2	1
9	**CSD0302	Minor Project-II	-	-	-	60	20	20	100	0	0	4	2
10	*NCC-0303	NCC	60	20	20	60	20	20	200	1	0	2	2
										Total Credits			25

1. **NCC is a choice-based Course. Credits will be added if the Course will be opted.
2. **Minor project Will be an Added Course and Applicable to BTech Hons Course Only. Credits will be added if the Course will be opted. The main focus of the minor project is to design and develop a networked system to achieve the objective of networking and database integration.
3. Massive Open Online Courses (MOOC) – will be declared later
4. In Computer System Organization Course, I unit of Digital Electronics will be included
5. ***In seminar -I-Evaluation of Industrial Training-I/Internship-I

UNIVERSITY
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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

(SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Name of Course: ***B.Tech. in Computer Science & Engineering (Specialization in Computer Science, Cyber Security, Data Science, Artificial Intelligence & Machine Learning)***

Semester:4

S. No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted (Course Wise)			Total Credits
			Theory			Practical			Total Marks	Period Per Week			
			End Term Evaluation	Mid Term Evaluation	ABC Evaluation	End Term Evaluation	Lab Work and Sessional	PBL/Mini Project		L	T	P	
1	CSL0402	Data Communication and Computer Networks	60	20	20	60	20	20	200	2	0	2	3
2	*****CSL0410	Operating Systems	60	20	20	60	20	20	200	3	0	2	4
3	CSL0411	Design & Analysis of Algorithms	60	20	20	60	20	20	200	2	0	2	3
4	CSP0406	Web Apps Using Java	-	-	-	60	20	20	100	0	0	6	3
5		Specilization-2 CS/Cyber/DS/AIML	60	20	20	60	20	20	200	2	0	4	4
6	CSL0412	Software Engineering	60	20	20	-	-	-	100	3	0	0	3
7	**CSD0402	Minor Project-III	-	-	-	60	20	20	100	0	0	4	2
8	***MCL0401	Environmental Sciences	-	-	-	-	-	-	-	2	0	0	0
9	****IKS-02	Indian Knowledge System (IKS)	-	-	-	-	-	-	-	-	-	-	2
10	*NCC0403	NCC	60	20	20	60	20	20	200	1	0	2	2
										Total Credits			22

1. *NCC is a choice-based Course. Credits will be added if the Course will be opted.
2. **Minor project Will be an Added Course and Applicable to BTech Hons degree only. The main focus of the minor project is to develop a mobile app or related type of app with backend integration to achieve the objective of enrichment of industry-relevant skills in app designing and cloud computing.
3. ***Environmental Sciences Will be Mandatory Audit course
4. ****IKS is an audit course with credit earned through the participation in the events announced by the university
5. *****Linux platform will be used for the Practical of Operation System.
6. Students will go for Industrial training in summer break

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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

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Name of Course: ***B.Tech. in Computer Science & Engineering (Specialization in Computer Science, Cyber Security, Data Science, Artificial Intelligence & Machine Learning)***

Semester:5

S. No.	Course Code	Course Name	Maximum Marks Allotted							Credits allotted (Course Wise)			Total Credits
			Theory			Practical			Total Marks	Period Per Week			
			End Term Evaluation	Mid Term Evaluation	ABC Evaluation	End Term Evaluation	Lab Work and Sessional	PBL/Mini Project		L	T	P	
1	CSL0509	Cryptography	60	20	20	60	20	20	200	3	0	2	4
2	CSL0502	Theory of Computation	60	20	20	60	20	20	200	3	0	0	3
3	CSL0504	Data Warehousing & Data Mining	60	20	20	60	20	20	200	2	0	2	3
4		Specilization-3 CS/Cyber/DS/AIML	60	20	20	60	20	20	200	2	0	2	3
5		Specilization-4 CS/Cyber/DS/AIML	60	20	20	60	20	20	200	2	0	2	3
6	HUP0502	Personality Development and Communication Skills	-	-	-	60	20	20	100	0	0	4	2
7	****AU501	Constitution of India	-	-	-	-	-	-	-	2	0	0	0
8	***CSD0502	Seminar II	-	-	-	60	20	20	100	0	0	2	1
9	**CSD0503	Minor Project-IV	-	-	-	60	20	20	100	0	0	4	2
10	*NCC-0505	NCC	60	20	20	60	20	20	200	1	0	2	2
										Total Credits			21

1. *NCC is a choice-based Course. Credits will be added if the Course will be opted.
2. Massive Open Online Courses (MOOC) – will be declared later
3. ***In Seminar II -Evaluation of Industrial training-II/Internship-II
4. **The main focus of the minor project is to develop a machine learning models for predictions to achieve the objective of application of data analytics and machine learning techniques to solve real-world problems.
5. ****is an audit course.
6. Specialization Courses are mentioned in Specialization Cluster

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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

(SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Name of Course: ***B.Tech. in Computer Science & Engineering (Specialization in Computer Science, Cyber Security, Data Science, Artificial Intelligence & Machine Learning)***

SEMESTER-6

S. No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted (Course Wise)			Total Credits
			Theory			Practical			Total Marks	Period Per Week			
			End Term Evaluation	Mid Term Evaluation	ABC Evaluation	End Term Evaluation	Lab Work and Sessional	PBL/Mini Project		L	T	P	
1	CSL0609	Cloud Computing	60	20	20	60	20	20	200	3	0	2	4
2	CSL0601	Internet of Things	60	20	20	60	20	20	200	3	0	2	4
3		Specilization-5 CS/Cyber/DS/AIML	60	20	20	60	20	20	200	2	0	4	4
4		Specilization-6 CS/Cyber/DS/AIML	60	20	20	60	20	20	200	2	0	4	4
5	E001	Pathways to Entrepreneurship	60	20	20	-	-	-	100	3	0	0	3
6	*CSD0603	Minor Project-V	-	-	-	60	20	20	100	0	0	4	2
7	**NCC-0606	NCC	60	20	20	60	20	20	200	1	0	2	2
8	***IKS-03	Indian Knowledge System (IKS)	-	-	-	-	-	-	-	-	-	-	2
										Total Credits			23

1. Massive Open Online Courses (MOOC) – will be declared later.
2. *The main focus of the minor project is to develop an IoT based application to achieve the objective of integration of machine learning and IoT technologies.
3. **NCC is a choice-based Course. Credits will be added if the Course will be opted.
4. ***IKS is an audit course with credit earned through the participation in the events announced by the university
5. Specialization Courses are mentioned in Specialization Cluster

ITM UNIVERSITY
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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

(SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Name of Course: ***B.Tech. in Computer Science & Engineering (Specialization in Computer Science, Cyber Security, Data Science, Artificial Intelligence & Machine Learning)***

Semester:7

S. No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted (Course Wise)			Total Credits
			Theory			Practical			Total Marks	Period Per Week			
			End Term Evaluation	Mid Term Evaluation	ABC Evaluation	End Term Evaluation	Lab Work and Sessional	PBL/Mini Project		L	T	P	
1	HUP0705	Competitive Coding & Logical Reasoning	-	-	-	60	20	20	100	0	0	4	2
2		Specilization-7 CS/Cyber/DS/AIML	60	20	20	60	20	20	200	2	0	4	4
3		Specilization-8 CS/Cyber/DS/AIML	60	20	20	60	20	20	200	2	0	4	4
4		Specilization-9 CS/Cyber/DS/AIML	60	20	20	60	20	20	200	2	0	4	4
5	**CSD0705	Major Project	-	-	-	60	20	20	100	0	0	4	2
6	***CSD0702	Seminar III	-	-	-	60	20	20	100	0	0	4	2
7	*MOOC	MOOC	60	20	20	-	-	-	100	-	-	-	2
												Total Credits	20

1. *Massive Open Online Courses (MOOC) – will be declared later
2. **Major Project I Advanced Trends in Computing (Research oriented)
3. ***In Seminar III -Evaluation of Industrial training-III/Internship-III
4. Specialization Courses are mentioned in Elective Cluster.

ITM UNIVERSITY
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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

(SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Name of Course: ***B.Tech. in Computer Science & Engineering (Specialization in Computer Science, Cyber Security, Data Science, Artificial Intelligence & Machine Learning)***

Semester: 8

S. No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted (Course Wise)			Total Credits
			Theory			Practical			Total Marks	Period Per Week			
			End Term Evaluation	Mid Term Evaluation	ABC Evaluation	End Term Evaluation	Lab Work and Sessional	PBL/Mini Project		L	T	P	
1	*CSL0803	MOOC Course	-	-	-	60	20	20	100	0	0	4	2
2	CSP0805	Entrepreneurship and Startup Culture	60	20	20	-	-	-	100	2	0	0	2
3	CSD0802	Comprehensive Viva	-	-	-	60	20	20	100	0	0	4	2
4	**CSD0804	Internship/Capstone Project	-	-	-	60	20	20	100	-	-	20	10
5	***IKS-04	Indian Knowledge System (IKS)	-	-	-	-	-	-	-	-	-	-	2
												Total Credits	18

1. *Massive Open Online Courses (MOOC) – will be declared later
2. **Final Capstone project will be developed by the students to achieve the delivery of a project for real-world implementation.
3. ***IKS is an audit course with credit earned through the participation in the events announced by the university

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BATCH:2025-2029

STUDY AND EVALUATION SCHEME

(SUBJECT WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

LIST OF SPECIALIZATION WISE ELECTIVES

Computer Science			Data Science			Cyber Security			Artificial Intelligence & Machine Learning		
Course Code	**Course Name**	**Semester**	**Course Code**	**Course Name**	**Semester**	**Course Code**	**Course Name**	**Semester**	**Course Code**	**Course Name**	**Semester**
CSE0309	Advanced Web Technologies	III	CSE0315	Data Visualization & preprocessing Using Python	III	CSE0309	Advanced Web Technologies	III	CSE0314	Machine Learning	III
CSE0414	Python Programming	IV	CSE0412	Introduction to Machine Learning	IV	CSE0414	Python Programming	IV	CSE0415	Deep Learning	IV
CSE0531	Introduction to AI	V	CSE0525	Natural language Processing	V	CSE0532	AI for Cyber Security	V	CSE0534	Computer Vision	V
CSE0513	Blockchain Technology	V	CSE0534	Computer Vision	V	CSE0530	Ethical Hacking fundamentals	V	CSE0525	Natural language Processing	V
CSE0535	Machine Learning	V	CSE0538	Statistical Modelling & Inference	V	CSE0629	Network Security	VI	CSE0537	Soft Computing	V
CSE0631	Full Stack Development	VI	CSE0536	Deep Learning	V	CSE0630	Application Security	VI	CSE0526	Digital Image Processing	V
CSE0635	Data Science & Analytics	VI	CSE0631	Full Stack Development	VI	CSE0631	Full Stack Development	VI	CSE0635	Advanced Deep Learning Architectures	VI
CSE0644	Salesforce Administrator	VI	CSE0645	Big Data Analytics	VI	CSE0644	Salesforce Administrator	VI	CSE0636	AI in Healthcare	VI
CSE0611	Compiler Design	VI	CSE0633	Predictive Analytics & Forecasting	VI	CSE0730	Digital Forensics	VII	CSE0637	Blockchain & Decentralize AI	VI
CSE0732	Dev Ops	VII	CSE0637	Blockchain & Decentralize AI	VI	CSE0729	Advanced Threat Intelligence	VII	CSE0645	Big Data Analytics	VI
CSE0710	Software Testing	VII	CSE0733	Business Analytics	VII	CSE0731	Generative AI	VII	CSE0736	Generative AI	VII
CSE0717	Quantum Computing Basics	VII	CSE0734	Data Governance	VII	CSE0739	Salesforce Developer	VII	CSE0737	Reinforcement learning for Advanced Systems	VII
CSE0739	Salesforce Developer	VII	CSE0710	Bioinformatics	VII				CSE0738	AI Ethics and Fairness	VII
			CSE0736	Generative AI	VII				CSE0739	Cognitive Computing and Human-AI Symbiosis	VII
									CSE0740	Cybersecurity for AI System	VII
									CSE0741	ML Ops & Model Deployment	VII
									CSE0742	Quantum Computing	VII
									CSE0714	Human Computer Interaction	VII
									CSE0744	Parallel and Distributed Computing	VII