

**DAYANANDA SAGAR UNIVERSITY**

**SCHOOL OF ENGINEERING**



**SCHEME FOR  
MASTER OF TECHNOLOGY (M. Tech)**

**COMPUTER SCIENCE & ENGINEERING  
(Artificial Intelligence & Machine Learning)  
(1<sup>st</sup> to 4<sup>th</sup> Semester)**

**Graduation Batch: 2026-2028**

**SCHEME - M.TECH – 2026-28**  
**I SEM – CSE (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)**

SL.NO	Course Type	Course Name	Teaching Hours / Week				Examination			
			Lecture	Tutorial	Practical	Project	CIE Marks	SEE Marks	Total Marks	Credit
			L	T	P	J				
1	PCC	Mathematics for Machine Learning	3	1	0	0	60	40	100	04
2	IPCC	Advanced Networking & Security	3	0	2	0	60	40	100	04
3	IPCC	Advanced Machine Learning	2	0	2	2	60	40	100	04
4	IPCC	Advanced Algorithms	3	0	2	0	60	40	100	04
5	PCC	Responsible AI	2	1	0	0	60	40	100	03
6	PCC	Research Methodology	3	0	0	0	100	--	100	03
7	PrSI	Seminar-I	0	0	0	4	100	--	100	02
		<b>Total</b>	16	02	06	06				24

IPCC-Integrated Professional Core Course, PCC-Professional Core Courses, PrSI-Project Seminar and Internship, L – Lecture, T – Tutorial, P – Practical, J –Project, C – No. Of Credits

**II SEM – ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

Sl.No	Course Type	Course Name	Teaching Hours / Week				Examination			
			Lecture	Tutorial	Practical	Project	CIE Marks	SEE Marks	Total Marks	Credit
			L	T	P	J				
1	IPCC	Image Processing and Computer Vision	3	0	2	0	60	40	100	04
2	IPCC	Deep Learning	2	0	2	2	60	40	100	04
3	IPCC	Generative-AI	3	0	2	0	60	40	100	04
4	IPCC	MLOPS	3	0	2	0	60	40	100	04
5	PEC	Professional Elective-I	3	0	0	0	60	40	100	03
6	PEC	Professional Elective-II	3	0	0	0	60	40	100	03
7	PrSI	Seminar-II	0	0	0	4	100	--	100	02
		<b>Total</b>	17	00	08	06				24

IPCC-Integrated Professional Core Course, PEC-Professional Elective Courses, PrSI-Project Seminar and Internship, L – Lecture, T – Tutorial, P – Practical, J- Project, C – No. Of Credits

**III SEM – ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

Sl.No	Course Type	Course Name	Teaching Hours / Week				Examination			
			Lecture	Tutorial	Practical	Project	CIE Marks	SEE Marks	Total Marks	Credit
			L	T	P	J				
1	PEC	Professional Elective-III	3	0	0	2	60	40	100	04
2	PEC	Professional Elective-IV	3	0	0	2	60	40	100	04
3	PrSI	Capstone Project-I	-	-	-	12	100	--	100	06
		<b>Total</b>	6	0	0	16				14

PrSI-Project Seminar and Internship, PEC-Professional Elective Courses, L – Lecture, T – Tutorial, P – Practical, J-Project, C – No. Of Credits

**IV SEM – ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

Sl.No	Course Type	Course Name	Teaching Hours / Week				Examination			
			Lecture	Tutorial	Practical	Project	CIE Marks	SEE Marks	Total Marks	Credit
			L	T	P	J				
1	PrSI	Capstone Project-II	-	-	-	28	60	40	100	14
2	PrSI	Industry/Research Internship	-	-	-	8	100	--	100	04
		<b>Total</b>	-	-	-	36				<b>18</b>

PrSI-Project Seminar and Internship, L – Lecture, T – Tutorial, P – Practical, J – Project, C – No. Of Credits

**Professional Elective Courses -I (PEC-I) Language Perception Offering**

Sl.No	Course Type	Course Name	Lecture	Tutorial	Practical	Project	CIE Marks	SEE Marks	Total Marks	Credit
			L	T	P	J				
1	PEC	Natural Language Models	3	0	0	0	60	40	100	03
2	PEC	Large Language Models	3	0	0	0	60	40	100	03
3	PEC	Spoken Language Understanding	3	0	0	0	60	40	100	03
4	PEC	Text and Speech Generation using Advanced Models	3	0	0	0	60	40	100	03
5	PEC	Social Media Analytics	3	0	0	0	60	40	100	03
6	PEC	Optimisation in NLP	3	0	0	0	60	40	100	03
7	PEC	Cognitive Linguistics	3	0	0	0	60	40	100	03
8	PEC	Computational Models	3	0	0	0	60	40	100	03
9	PEC	Multimodal and Multilingual Language Perception	3	0	0	0	60	40	100	03
10	PEC	Conversational AI	3	0	0	0	60	40	100	03

**Professional Elective Courses -II (PEC-II) Agentic AI Offering**

Sl.No	Course Type	Course Name	Lecture	Tutorial	Practical	Project	CIE Marks	SEE Marks	Total Marks	Credit
			L	T	P	J				
1	PEC	Intelligent Agents & Multi-Agent Systems	3	0	0	0	60	40	100	<b>03</b>
2	PEC	Agentic AI Architectures	3	0	0	0	60	40	100	<b>03</b>
3	PEC	Automated Planning & Sequential Decision Making	3	0	0	0	60	40	100	<b>03</b>
4	PEC	Cognitive Architectures for AI Agents	3	0	0	0	60	40	100	<b>03</b>
5	PEC	Human-AI Collaboration & Trustworthy Agents	3	0	0	0	60	40	100	<b>03</b>
6	PEC	Ethics, Safety & Governance of Agentic AI	3	0	0	0	60	40	100	<b>03</b>

**Professional Elective Courses –III (PEC-III) AI applications Offering**

Sl. No	Course Type	Course Name	Lecture	Tutorial	Practical	Project	CIE Marks	SEE Marks	Total Marks	Credit
			L	T	P	J				
1	PEC	AI in Robotics and Autonomous Systems	3	0	0	02	60	40	100	<b>04</b>
2	PEC	AI in Finance and FinTech Applications	3	0	0	02	60	40	100	<b>04</b>
3	PEC	AI for Agriculture	3	0	0	02	60	40	100	<b>04</b>
4	PEC	Cognitive Science and Human-AI Interaction	3	0	0	02	60	40	100	<b>04</b>
5	PEC	Blockchain for Cybersecurity and Data Privacy	3	0	0	02	60	40	100	<b>04</b>
6	PEC	AI for Healthcare	3	0	0	02	60	40	100	<b>04</b>
7	PEC	Green AI and Sustainable Edge Computing	3	0	0	02	60	40	100	<b>04</b>
8	PEC	IoT	3	0	0	02	60	40	100	<b>04</b>
9	PEC	Quantum Machine Learning	3	0	0	02	60	40	100	<b>04</b>

**Professional Elective Courses -IV (PEC-IV) Speech/Audio and Vision Offering**

Sl. No	Course Type	Course Name	Lecture	Tutorial	Practical	Project	CIE Marks	SEE Marks	Total Marks	Credit
			L	T	P	J				
1	PEC	Computational Imaging	3	0	0	02	60	40	100	<b>04</b>
2	PEC	Contemporary Computer Graphics	3	0	0	02	60	40	100	<b>04</b>
3	PEC	Speech Recognition Systems	3	0	0	02	60	40	100	<b>04</b>
4	PEC	Video Analysis and Surveillance	3	0	0	02	60	40	100	<b>04</b>
5	PEC	Multimodal Speech Interfaces	3	0	0	02	60	40	100	<b>04</b>