



M.E. Semester –I (Computer Engineering)
Choice Based Credit Grading Scheme (CBCGS 2023)

Course Description			Teaching Scheme (Academic)				Examination scheme(Academic)					
Sr. No.	Course Code	Course Title	Hours Per Week			Contact Hours	Credits	Modes of Continuous Assessment / Evaluation				
			Theory	Tutorial	Practical			Theory(100)		Practical/Oral/Presentation (25) PR/OR	Term Work(25/50) TW	Total
								IA(25/15)	ESE(75/35)			
1	PCC-CSME101	Applied Statistics & Exploratory Data Analytics	3	-	-	3	3	25	75	-	-	100
2	PCC-CSME102	Machine Learning	3	-	-	3	3	25	75	-	-	100
3	PEC-CSME101X	Program Elective 1*	3	-	-	3	3	25	75	-	-	100
4	PEC-CSME102X	Program Elective 2*	3	-	-	3	3	25	75	-	-	100
5	MC-CSME101	Research Methodology & IPR	2	-	-	2	2	15	35	-	-	50
6	AC-CSME00X	Audit Course	2	-	-	2	-	-	-	-	50	50
7	LC-CSME101	Laboratory I (Based on Core Courses)	-	-	4	4	2	-	-	25	25	50
8	LC-CSME102	Laboratory II (Based on Electives)	-	-	4	4	2	-	-	25	25	50
9	IC-CSME2	Industry Certification#	-	-	4	4	2			25	25	50
Total			16	-	12	28	20	Total marks				650



Program Electives

Sr. No.	Course Code	Program Elective 1	Course Code	Program Elective 2	Domain Specialization*
1	PEC-CSME1011	Big Data Analytics	PEC-CSME1021	Basics of Data Science	Data Science
	PEC-CSME1012	Distributed Systems	PEC-CSME1022	Data Security and Access Control	
	PEC-CSME1013	Data Preparation and Analysis	PEC-CSME1023	Data Storage Technologies and Networks	
2	PEC-CSME1014	Applied Natural Language Programming	PEC-CSME1024	Computer Vision & Image Processing	Artificial Intelligence
	PEC-CSME1015	Conversational AI	PEC-CSME1025	Robotics & Automation	
	PEC-CSME1016	Reinforcement Learning	PEC-CSME1026	Advanced Soft Computing	
3	PEC-CSME1017	Web Development 1-Front End Development	PEC-CSME1027	Mobile Application Development	Software Development
	PEC-CSME1018	Software Engineering	PEC-CSME1028	Project Management	

Audit Course		
Sr. No.	Course Code	Course Title
1	AC-CSME001	English for Research Paper Writing
2	AC-CSME002	Disaster Management
3	AC-CSME003	Sanskrit for Technical Knowledge
4	AC-CSME004	Value Education
5	AC-CSME005	Constitution of India
6	AC-CSME006	Pedagogy Studies
7	AC-CSME007	Stress Management by Yoga
8	AC-CSME008	Personality Development through Life Enlightenment Skills

* Students opting for a particular Domain Specialization Track in all the semesters & Industry Certification will be eligible for domain specialization by Institute.

Students are required to do industry certification from the selected specialization.



M.E. Semester –II (Computer Engineering)
Choice Based Credit Grading Scheme (CBCGS 2023)

Course Description			Teaching Scheme (Academic)					Examination scheme(Academic)				
								Modes of Continuous Assessment / Evaluation				
Sr. No.	Course Code	Course Title	Hours Per Week			Contact Hours	Credits	Theory(100)		Practical/ Oral/Pres entation (25/50)	Term Work(25/50)	Total
			Theory	Tutorial	Practical			IA(25)	ESE(75)			
1	PCC-CSME201	Advanced Data Structures & Algorithms	3	-	-	3	3	25	75	-	-	100
2	PCC-CSME202	Advance Database Management	3	-	-	3	3	25	75	-	-	100
3	PEC-CSME201X	Program Elective 3*	3	-	-	3	3	25	75	-	-	100
4	PEC-CSME202X	Program Elective 4*	3	-	-	3	3	25	75	-	-	100
5	AC-CSME00X	Audit Course	2	-	-	2	-	-	-	-	50	50
6	MC-CSME201	Research & Scientific paper writing and Communication	2	-	-	2	2	15	35	-	-	50
7	LC-CSME201	Laboratory III (Based on Core Courses)	-	-	4	4	2	-	-	25	25	50
8	LC-CSME202	Laboratory IV (Based on Electives)	-	-	4	4	2	-	-	25	25	50
9	LC-CSME203	Mini Project with Seminar	-	-	4	4	2	-	-	50	-	50
Total			16	-	12	28	20	Total marks (Academic)				650



Program Elective

Sr. No.	Corse Code	Program Elective 3	Corse Code	Program Elective 4	Domain Specialization
1	PEC-CSME2011	Data Visualization	PEC-CSME2021	Recommender System	Data Science
	PEC-CSME2012	Deep Learning	PEC-CSME2022	Predictive Analytics	
	PEC-CSME2013	Social Media Analytics	PEC-CSME2023	Knowledge Discovery	
2	PEC-CSME2014	Game Design	PEC-CSME2024	Advanced Machine Learning	Artificial Intelligence
	PEC-CSME2015	Web Analytics and Development	PEC-CSME2025	Human Machine Interaction	
	PEC-CSME2016	AI in BlockChain	PEC-CSME2026	Sentiment Analysis	
3	PEC-CSME2017	Web Development 2-Back End Development	PEC-CSME2027	Dashboard Creation	Software Development
	PEC-CSME2018	Software process Automation	PEC-CSME2028	Software Testing	

* Students opting for a particular Domain Specialization Track in all the semesters & Industry Certification will be eligible for domain specialization by Institute.

M.E. Semester –III (Computer Engineering)
Choice Based Credit Grading Scheme (CBCGS 2023)

Course Description			Teaching Scheme (Academic)				Examination scheme(Academic)					
Sr. No.	Course Code	Course Title	Hours Per Week			Contact Hours	Credits	Theory(100)		Practical/Oral /Presentation (25/50)	Term Work (25/50)	Total
			Theory	Tutorial	Practical			IA	ESE			
1	PEC-CSME301X	Program Elective 5*	1	-	-	1	1	-	-	25	25	50
2	OEC-CSME30X	Open Elective@	1	-	-	1	1	-	-	25	25	50
3	D1-CSME301	Dissertation –I/ Industry Project	-	-	36	36	18	-	-	50	50	100
Total			2	-	36	38	20	Total marks (Academic)			200	

Sr. No.	Course code	Program Elective 5	Domain Specialization
1	PEC-CSME3011	GPU Computing	Data Science
	PEC-CSME3012	Cloud Computing	
	PEC-CSME3013	Optimization Methodologies	
2	PEC-CSME3014	Cognitive Computing	Artificial Intelligence
	PEC-CSME3015	Explainable AI	
	PEC-CSME3016	Generative AI	
3	PEC-CSME3017	Devops	Software Development
	PEC-CSME3018	UI/UX Designing	

Open Elective

Sr. No.	Course Code	Course Title
1	OEC-CSME301	Business Analytics
2	OEC-CSME302	Industrial Safety
3	OEC-CSME303	Operations Research
4	OEC-CSME304	Cost Management of Engineering Projects
5	OEC-CSME305	Composite Materials
6	OEC-CSME306	Waste to Energy

* Students may complete Sem III Program Elective courses through MOOCs/self-learning mode.

@Students may complete Sem III Open Elective courses through MOOCs/self-learning mode.

Dissertation-I should be preferably based on industrial /research project carried out in industry or institute /research organization.



M.E. Semester –IV (Computer Engineering)
Choice Based Credit Grading Scheme (CBCGS 2023)

Course Description			Teaching Scheme (Academic)				Examination scheme(Academic)					
Sr. No.	Course Code	Course Title	Hours Per Week			Contact Hours	Credits	Theory(100)		Practical/Ora l/Presentation	Term Work	Total
			Theory	Tuto rial	Practi cal			IA	ESE			
1	D2- CSME401	Dissertation –II / Industry Project	-	-	40	40	20	-	-	100	100	200
Total			-	-	40	40	20	Total marks (Academic)			200	

Dissertation-I should be preferably based on industrial /research project carried out in industry or institute /research organization.

Th : Theory	IA- In-Semester Assessment
Tut:Tutorial	ESE- End Semester Examination
Pr:Practical	PR- Practical Examination
PCC: Professional Core Courses	TW – Term Work Examination
PEC: : Professional Elective Courses	OR- Oral Examination
MC: Mandatory Courses	AC- Activity
AC: Audit Courses	@ITP :Integrated Theory/Practice
LC: Laboratory Courses	@CL/PL: Collaborative/Peer Learning
OEC: Open Elective Courses	
D: Dissertation	



Program Elective

Sr. No.	Program Elective 1	Program Elective 2	Program Elective 3	Program Elective 4	Program Elective 5	Domain Specialization
1	Big Data Analytics/ Distributed Systems/ Data Preparation and Analysis	Basics of Data Science / Data Security and Access Control / Data Storage Technologies and Networks	Data Visualization/ Deep Learning / Social Media Analytics	Recommender System/ Predictive Analytics/ Knowledge Discovery	GPU Computing/ Cloud Computing/ Optimization Methodologies	Data Science
2	Applied Natural Language Processing/ Conversational AI/ Reinforcement Learning	Computer Vision & Image Processing/ Robotics & Automation/ Advanced Soft Computing	Game Design/ Web Analytics and Development/ AI in BlockChain	Advanced Machine Learning/ Human Machine Interaction/ Sentiment Analysis	Cognitive Computing/ Explainable AI/ Conversational AI	Artificial Intelligence
3	Web Development 1- Front End Development/ Software Engineering	Mobile Application Development/ Project Management	Web Development 2-Back End Development/ Software process Automation	Dashboard Creation / Software Testing	Devops UI/UX Designing	Software Development