

**Government College of Engineering, Karad**  
**SCHEME OF INSTRUCTION & SYLLABI**

**Scheme of Instruction for First Year of M. Tech. (PG) Degree in Computer Science and Engineering**  
**Semester – I (W.E.F. AY. 2023-24)**

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs./Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	PCC	CS2101	Mathematical foundations of Computer Science	3	-	-	3	3	20	20	60	100
2	PCC	CS2102	Advanced Data Structures and Algorithms	3	-	-	3	3	20	20	60	100
3	PEC	CS21*3	Program Elective I	3	-	-	3	3	20	20	60	100
4	PEC	CS21*4	Program Elective II	3	-	-	3	3	20	20	60	100
5	MDC	CS2105	Research Methodology	2	-	-	2	2	20	20	60	100
6	PCC	CS2106	Laboratory 1(Advanced Data Structures and Algorithms)	-	-	4	4	2	-	25	25	50
7	PEC	CS2107	Laboratory 2 (Based on Elective I & II)	-	-	4	4	2	-	50	-	50
8	OEC	OE21*8	Open Elective	3	-	-	3	3	20	20	60	100
9	MNC	AU21*9	Audit Course I	2	-	-	2	Audit	-	-	-	-
Total				19	-	8	27	21	120	195	385	700

L- Lecture

T-Tutorial

P-Practical

MSE- Mid Semester Examination

ISE- In Semester Evaluation

ESE- End Semester Examination (For Laboratory End Semester performance)

\*- Program Elective- I and II, Audit Course I, Open Elective list is provided at the end of structure.

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**SCHEME OF INSTRUCTION & SYLLABI**  
**Scheme of Instruction for First Year of M. Tech. (PG) Degree in Computer Science and Engineering**  
**Semester – II (W.E.F. AY. 2023-24)**

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	PCC	CS2201	Advanced Computer Networks	3	-	-	3	3	20	20	60	100
2	PCC	CS2202	Soft Computing	3	-	-	3	3	20	20	60	100
3	PEC	CS22*3	Program Elective III	3	-	-	3	3	20	20	60	100
4	PEC	CS22*4	Program Elective IV	3	-	-	3	3	20	20	60	100
5	PEC	CS22*5	Program Elective V	3	-	-	3	3	20	20	60	100
6	PCC	CS2206	Laboratory 3 (Based on cores)	-	-	4	4	2	-	25	25	50
7	PCC	CS2207	Laboratory 4 (Based on Elective III & IV)	-	-	4	4	2	-	50	-	50
8	P/S/IT	CS2208	Seminar	-	-	4	4	2	-	100	-	100
9	MNC	AU22*9	Audit Course II	2	-	-	2	Audit	-	-	-	-
			Total	17	-	12	29	21	100	225	325	700

L- Lecture

T-Tutorial

P-Practical

MSE- Mid Semester Examination

ISE- In Semester Evaluation

ESE- End Semester Examination (For Laboratory End Semester performance)

\*- Program Elective- III, IV and V, Audit Course II list is provided at the end of structure.

# Government College of Engineering, Karad

## SCHEME OF INSTRUCTION & SYLLABI

### Scheme of Instruction for Second Year of M. Tech. (PG) Degree in Computer Science and Engineering Semester – III (W.E.F. AY. 2024-25)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	P/S/IT	CS2301	Dissertation Phase-I	-	-	14	14	07	-	100	100	200
2	MOOC	CS2302	MOOCs / OPEN COURSE (8-12 weeks)	-	-	-	-	03	-	-	100	100
			Total	00	00	14	14	10	-	100	200	300

Note:

1. CS2302 will be decided by respective Guide in Consultation with Program Coordinator. Course is mandatory for student and candidate dissertation phase I will be considered incomplete without this Mandatory MOOC Course.
2. In Case, the course offered online are not completely relevant with the topic of dissertation then any course suggested by NASSCOM on recent technologies can be opted by candidate.

L- Lecture

T-Tutorial

P-Practical

MSE- Mid Semester Examination

ISE- In Semester Evaluation

ESE- End Semester Examination (For Laboratory End Semester performance)

**Government College of Engineering, Karad**  
**SCHEME OF INSTRUCTION & SYLLABI**

**Scheme of Instruction for Second Year of M. Tech. (PG) Degree in Computer Science and Engineering**  
**Semester – IV (W.E.F. AY. 2024-25)**

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	P/S/IT	CS2401	Dissertation phase-II	-	-	32	32	16	-	100	200	300
			Total	-	-	32	32	16	-	100	200	300

L- Lecture

T-Tutorial

P-Practical

MSE- Mid Semester Examination

ISE- In Semester Evaluation

ESE- End Semester Examination (For Laboratory End Semester performance)

# Government College of Engineering, Karad

## SCHEME OF INSTRUCTION & SYLLABI

Scheme of Instruction for First Year of M. Tech. (PG) Degree in Computer Science and Engineering

### List of Electives

<b>Program Elective I</b>	<b>Program Elective II</b>	<b>Program Elective III</b>	<b>Program Elective IV</b>	<b>Program Elective V</b>
<b>Semester - I</b>	<b>Semester - I</b>	<b>Semester - II</b>	<b>Semester - II</b>	<b>Semester – II</b>
<b>CS2113:</b> Machine Learning	<b>CS2114:</b> Data Science	<b>CS2213:</b> Data Preparation and Analysis	<b>CS2214:</b> Human Computer Interaction	<b>CS2215:</b> Mobile Technologies and Services
<b>CS2123:</b> Wireless Sensor Networks	<b>CS2124:</b> Advanced Distributed Systems	<b>CS2223:</b> Cloud Computing And Applications	<b>CS2224:</b> GPU Computing	<b>CS2225:</b> Compiler for HPC
<b>CS2133:</b> Introduction to Intelligent Systems	<b>CS2134:</b> Internet of Things	<b>CS2233:</b> Computer Vision	<b>CS2234:</b> Digital Forensics	<b>CS2235:</b> Optimization Techniques

<b>Audit Course I</b>	<b>Audit Course II</b>	<b>Open Elective</b>
<b>Semester – I</b>	<b>Semester – II</b>	<b>Semester - I</b>
<b>AU2119:</b> Research Paper Writing	<b>AU2219:</b> Constitution of India	<b>OE2118:</b> Business Analytics
<b>AU2129:</b> Disaster Management	<b>AU2229:</b> Pedagogy Studies	<b>OE2128:</b> Industrial Safety
<b>AU2139:</b> Sanskrit for Technical Knowledge	<b>AU2239:</b> Stress Management by Yoga	<b>OE2138:</b> Operations Research
<b>AU2149:</b> Value Education	<b>AU2249:</b> Personality Development through Life Enlightenment Skills	<b>OE2148:</b> Cost Management of Engineering Projects
		<b>OE2158:</b> Composite Materials
		<b>OE2168:</b> Waste to Energy

