Government College of Engineering, Karad

SCHEME OF INSTRUCTION & SYLLABI

Programme: Information Technology

Scheme of Instructions: Final Year B. Tech. in Information Technology

Semester – VII (w.e.f. AY. 2024-25)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Course Credits	CT-1	CT-2	TA/CA	ESE	TOTAL
									EXAM SCHEME				
1	HSMC	IT2701	Law for Engineers	3	-	-	3	3	15	15	10	60	100
2	OEC	IT2702	Robotics and Automation	3	-	-	3	3	15	15	10	60	100
3	PEC	IT27*3	Elective – III	3	-	-	3	3	15	15	10	60	100
4	PEC	IT27*4	Elective – IV	3	-	-	3	3	15	15	10	60	100
5	PCC	IT2705	Information Security	3	-	-	3	3	15	15	10	60	100
6	PCC	IT2706	Cloud Computing and Infrastructure Services	3	-	-	3	3	15	15	10	60	100
7	OEC	IT2707	Robotics and Automation Lab	-	-	2	2	1	-	-	25	-	25
8	PEC	IT27*8	Elective – III Lab	-	-	2	2	1	-	-	25	-	25
9	PCC	IT2709	Information Security Lab	-	-	2	2	1	-	-	25	25	50
10	PCC	IT2710	Cloud Computing and Infrastructure Services Lab	-	-	2	2	1	-	-	25	25	50
11	P/S/IT	IT2711	Seminar	-	1	-	1	1	-	-	25	25	50
12	P/S/IT	IT2712	Industrial Training	-	-	2	2	1	-	-	50	-	50
13	**Audit**	**IT27*5**	**Audit Course- Lab I**	**-**	**-**	**4**	**4**	**Audit**	**-**	**-**	**-**	**-**	**-**
			Total	**18**	**01**	**14**	**33**	**24**	**90**	**90**	**235**	**435**	**850**

L- Lecture T-Tutorial P-Practical

CT1- Class Test 1 TA/CA- Teacher Assessment/Continuous Assessment

CT2- Class Test 2 ESE- End Semester Examination (For Laboratory End Semester performance)

Course Category	HSMC (Hum., Soc. Sc, Mgmt.)	BSC (Basic Sc.)	ESC (Engg. Sc.)	PCC (Programme Core courses)	PEC (Programme Elective courses)	OEC (Open Elective courses from other discipline)	MCC (Mandatory Courses)	Project / Seminar / Industrial Training
Credits	03	--	--	08	07	04	--	02
Cumulative Sum	10	22	24	51	13	16	Yes	06

PROGRESSIVE TOTAL CREDITS : 118+24 = 142

Government College of Engineering, Karad
SCHEME OF INSTRUCTION & SYLLABI
Programme: Information Technology
Scheme of Instructions: Final Year B. Tech. in Information Technology (ACADEMIC MODE)
Semester – VIII (w.e.f. AY. 2024-25)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Course Credits	EXAM SCHEME				
									CT-1	CT-2	TA/CA	ESE	TOTAL
1	PEC	IT28*2	Elective – V	3	-	-	3	3	15	15	10	60	100
2	PEC	IT28*4	Elective – V Lab	-	-	2	2	1	-	-	50	-	50
3	P/S/IT	IT2805	Project	-	-	20	20	10	-	-	200	200	400
4	OEC	IT2809	Augmented Reality and Virtual Reality	3	-	-	3	3	15	15	10	60	100
5	OEC	IT2810	Augmented Reality and Virtual Reality Lab	-	-	2	2	1	-	-	50	50	100
6	**Audit**	**IT28*1**	**Audit Course- Lab II**	**-**	**-**	**4**	**4**	**Audit**	**-**	**-**	**-**	**-**	**-**
			Total	**06**	**00**	**28**	**34**	**18**	**30**	**30**	**320**	**370**	**750**

L- Lecture   T-Tutorial   P-Practical

CT1- Class Test 1   TA/CA- Teacher Assessment/Continuous Assessment

CT2- Class Test 2   ESE- End Semester Examination (For Laboratory End Semester performance)

Course Category	HSMC (Hum., Soc. Sc, Mgmt.)	BSC (Basic Sc.)	ESC (Engg. Sc.)	PCC (Programme Core courses)	PEC (Programme Elective courses)	OEC (Open Elective courses from other discipline)	MCC (Mandatory Courses)	Project / Seminar / Industrial Training
Credits	--	--	--	---	04	04	--	10
Cumulative Sum	10	22	24	51	17	20	Yes	16

PROGRESSIVE TOTAL CREDITS:142+18= 160

Government College of Engineering, Karad

SCHEME OF INSTRUCTION & SYLLABI

Programme: Information Technology

Scheme of Instructions : Final Year B. Tech. in Information Technology (INDUSTRY MODE)

Semester – VIII (w.e.f. AY.2024-25)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Course Credits	CT-1	CT-2	TA/CA	ESE	TOTAL
1	MOOC	IT2806	MOOC – 1	-	-	-	-	4	-	-	-	100	100
2	MOOC	IT2807	MOOC – 2	-	-	-	-	4	-	-	-	100	100
3	P/S/IT	IT2808	Project	-	-	-	-	10	-	-	250	300	550
			Total	**00**	**00**	**00**	**00**	**18**	**00**	**00**	**250**	**500**	**750**

L- Lecture   T-Tutorial   P-Practical

CT1- Class Test 1   TA/CA- Teacher Assessment/Continuous Assessment

CT2- Class Test 2   ESE- End Semester Examination (For Laboratory End Semester performance)

Course Category	HSMC (Hum., Soc. Sc, Mgmt.)	BSC (Basic Sc.)	ESC (Engg. Sc.)	PCC (Programme Core courses)	PEC (Programme Elective courses)	OEC (Open Elective courses from other discipline)	MCC (Mandatory Courses)	Project / Seminar / Industrial Training	MOOC
Credits	--	--	--	--	--	--	--	10	08
Cumulative Sum	10	22	24	51	13	16	Yes	16	08

PROGRESSIVE TOTAL CREDITS :142+18= 160

List of Elective subject:

Elective-I	Elective-II	Elective-III	Elective-IV	Elective-V
IT2515: Artificial Intelligence	**IT2613:**Soft Computing	**IT2713:**Machine Learning	**IT2714:**Cognitive Computing	**IT2812:**Natural Language Processing
IT2525: Signals and Systems	**IT2623:**Digital Signal Processing	**IT2723:** Gaming Architecture and Design	**IT2724:** Human Computer Interface	**IT2832:**Software Testing and Quality Assurance
IT2535: Advanced Database Management System	**IT2633:**Data warehousing and Data Mining	**IT2733:**Information Retrieval	**IT2734:**ERP and Business Intelligence	**IT2842:**High Performance Computing
IT2545: Operating System and Design	**IT2643:**Advanced Computer Networks	**IT2743:**Distributed Systems	**IT2744:**Object Oriented Modelling and Design	**IT2852:** Computer Graphics

Elective-III Lab	Elective-V Lab
IT2718: Machine Learning Lab	**IT2814:**Natural Language Processing Lab
IT2728: Gaming Architecture and Design Lab	**IT2834:**Software Testing and Quality Assurance Lab
IT2738: Information Retrieval Lab	**IT2844:**High Performance Computing Lab
IT2748: Distributed Systems Lab	**IT2854:** Computer Graphics Lab

	Audit Course Lab I	**Audit Course Lab II**
AIMLDS	**IT2715**: Foundations of Data Science and Machine Learning Lab	**IT2811:** Advanced AI Techniques and Applications Lab
AIOT	**IT2725:** AIoT Development Lab	**IT2821:** Advance AI and IoT Integration Lab
ARVR	**IT2735:** Immersive Game Development Lab	**IT2831:**Advanced ARVR Techniques and Applications Lab
SAP ERP	**IT2745:** ABAP Programming for SAP HANA Lab	**IT2841:** ABAP programming in Eclipse LAB
Electric vehicle Mechanical Perspective	**IT2755:** EV design and 3D Modeling lab	**IT2851: :** EV design analysis and Simulation Lab
Electric vehicle Electrical Perspective	**IT2765**: : Foundation of Electrical Vehicle Lab	**IT2861:** Advanced Electrical Vehicle Lab
Image Processing	**IT2775:** Fundamentals of Image Processing Lab	**IT2871:** Advanced Image Processing Lab