Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur

Curriculum and Structure
For
Final Year B.Tech
Electronics Engineering
(Under Graduate Programme)
From
Academic Year 2020-2021

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for
Second Year B.Tech. Program in Electronics Engineering Semester-III

Course Code	Curriculum component	Course	Teaching scheme				Evaluation Scheme			
			L	T	P	Credits	Scheme	Marks		
								Max	Min	
UELN0301	BS	Engineering Maths-III	3	1	-	4	ISE-I	10		
							MSE	30		40
							ISE-II	10		
							ESE	50	20	
UELN0302	PC	Electronic Devices and Circuits	3	-	-	3	ISE-I	10		
							MSE	30		40
							ISE-II	10		
							ESE	50	20	
UELN0303	PC	Digital Design using HDL	3	-	-	3	ISE-I	10		
							MSE	30		40
							ISE-II	10		
							ESE	50	20	
UELN0304	PC	Network Analysis	3	1	-	4	ISE-I	10		
							MSE	30		40
							ISE-II	10		
							ESE	50	20	
UELN0305	PC	Electronic Measurement and Instrumentation	3	-	-	3	ISE-I	10		
							MSE	30		40
							ISE-II	10		
							ESE	50	20	
UELN0361	Audit-I	Environmental Studies	2	-	-	-	-	100	40	40
UELN0331	PC	Electronic Devices and Circuits LAB	-	-	2	1	ISE	50	20	
							ESE (POE)	50	20	
UELN0332	PC	Electronic Measurement and Instrumentation LAB	-	-	2	1	ISE	50	20	
UELN0333	PC	Digital Design using HDL LAB	-	-	2	1	ISE	50	20	
							ESE(POE)	50	20	
UELN0334	PC	Computer Aided Design LAB	-	-	2	1	ISE	50	20	
							ESE(POE)	50	20	
UELN0351	PRJ	Micro project- I LAB	-	-	2	1	ISE	50	20	
Total			15+2	2	10	22	-	900 (+100 Audit)	360(+40 Audit)	

Total Credits: 22
Total Contact Hours/Week: 29Hrs

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for
Second Year B.Tech. Program in Electronics Engineering Semester-IV

Course Code	Curriculum compone	Course	Teaching scheme				Evaluation Scheme			
			L	T	P	Credits	Scheme	Marks		
								Max	Min	
UELN0401	PC	Linear Integrated Circuits	3	-	-	3	ISE-I	10		40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0402	PC	Analog Circuit Design	4	-	-	4	ISE-I	10		40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0403	PC	Control System Engineering	3	-	-	3	ISE-I	10		40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0404	PC	Analog Communication	3	-	-	3	ISE-I	10		40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0405	PC	Signals & Systems	3	1	-	4	ISE-I	10		40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0461	Audit -II	Content Creation using Information and web Technologies	2	-	-	-	ESE	100	40	40
UELN0431	PC	Linear Integrated Circuits LAB	-	-	2	1	ISE	50	20	
							ESE(POE)	50	20	
UELN0432	PC	Analog Circuit Design LAB	-	-	2	1	ISE	50	20	
							ESE(POE)	50	20	
UELN0433	PC	Analog Communication LAB	-	-	2	1	ISE	50	20	
							ESE (POE)	50	20	
UELN0434	PC	Control System Engineering LAB	-	-	2	1	ISE	50	20	
UELN0451	PRJ	Micro project-II LAB	-	-	2	1	ISE	50	20	
Total			16+2	1	10	22	-	900 (+100 Audit)	360 (+40 Audit)	

Total Credits: 22
Total Contact Hours/Week: 29 Hrs

Note:

- **ESE:** End Semester Examination, **MSE:** Mid Semester Examination, **ISE:** In Semester Evaluation.
- **HS:** Humanities, Social science and Management, **BS: Basic sciences including mathematics**
- **ES:** Engineering Science,**PC:** Professional Core,**PE:** Professional Elective
- **OEL:** Open elective, **PRJ**: Project work, Seminar, Internship in industry etc.
- ** :Course code for Open Elective
- XX : Course code for Professional Elective
- $$: Course code for Audit Course

List of Audit Courses

Year	Course Code	Audit Course	Audit Course
Second Year B.Tech-I	UELN0361	Audit Course-I	Environmental Studies
Second Year B.Tech-II	UELN0461	Audit Course-II	Content Creation using Information and web Technologies

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for
Third Year B.Tech. Program in Electronics Engineering Semester-V

Course Code	Curriculum	Course	L	T	P	Credits	Scheme	Max	Min	
			Teaching scheme				**Evaluation Scheme**			
			L	T	P	Credits	Scheme	**Weightage**		
								Max	Min	
UELN0501	PC	Electromagnetic Engineering	3	1	-	4	ISE-I	10	-	40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0502	PC	Digital Communication	3	-	-	3	ISE-I	10	-	40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0503	PC	Power Electronics	3	-	-	3	ISE-I	10	-	40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0504	PC	Microcontrollers	4	-	-	4	ISE-I	10	-	40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN05XX	PE	Professional Elective-I	3	-	-	3	ISE-I	10	-	40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0561	Audit-III	Industry 4.0	2	-	-	-	ESE	100	40	40
UELN0531	PC	Digital Communication LAB	-	-	2	1	ISE	50	20	
							ESE(OE)	50	20	
UELN0532	PC	Power Electronics LAB	-	-	2	1	ISE	50	20	
							ESE(POE)	50	20	
UELN0533	PC	Microcontroller LAB	-	-	2	1	ISE	50	20	
							ESE(POE)	50	20	
UELN05XX	PE	Professional Elective-I LAB	-	-	2	1	ISE	50	20	
UELN0551	PRJ	Micro project-III LAB	-	-	2	1	ISE	50	20	
Total			16+2	1	10	22	-	900 (+100 Audit)	360 (+40 Audit)	

Total Credits: 22
Total Contact Hours/Week: 29Hrs

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for
Third Year B.Tech. Program in Electronics Engineering Semester-VI
(Third Year B.Tech-II)

Course Code	Curriculum component	Course	L	T	P	Credits	Scheme	Ma	Min
UELN0601	PC	Computer Architecture and Operating System	4	-	-	4	ISE-I	10	-	40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0602	PC	Digital Signal Processing	3	-	-	3	ISE-I	10	-	40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0603	PC	Data Structures and Algorithms	3	-	-	3	ISE-I	10	-	40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UOEL06**	OE	Open Elective-I	3	-	-	3	ISE-I	10	-	40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN06XX	PE	Professional Elective-II	3	-	-	3	ISE-I	10	-	40
							MSE	30		
							ISE – II	10		
							ESE	50	20	
UELN0661	Audit-IV	Aptitude Enhancement with Vedic Maths	2	-	-	-	ESE	100	40	40
UELN0641	PRJ	Mini Project	-	-	2	1	ISE	25	10	
							ESE(OE)	50	20	
UELN0631	PC	Computer Architecture and Operating System LAB	-	-	2	1	ISE	50	20	
UELN0632	PC	Model Based Design LAB	-	-	4	2	ISE	25	10	
							ESE (OE)	50	20	
UELN0633	PC	Data Structures and Algorithms LAB	-	-	2	1	ISE	50	20	
							ESE (POE)	50	20	
UELN0634	PC	Digital Signal Processing LAB	-	-	2	1	ISE	50	20	
							ESE (POE)	50	20	
Total			16+2	-	12	22	-	900 (+100 Audit)	360 (+40 Audit)	

Total Credits: 22
Total Contact Hours/Week: 29 Hrs

Note:

- **ESE:** End Semester Examination, **MSE:** Mid Semester Examination, **ISE:** In Semester Evaluation.
- **HS:** Humanities, Social science and Management, **BS: Basic sciences including mathematics**
- **ES:** Engineering Science,**PC:** Professional Core,**PE:** Professional Elective
- **OEL:** Open elective, **PRJ**: Project work, Seminar, Internship in industry etc.
- ** :Course code for Open Elective
- XX : Course code for Professional Elective
- $$: Course code for Audit Course

List of Professional Electives

Year	Professional Elective	Course Code	Communication Stream	Course Code	Embedded VLSI Stream	Course Code	Systems and Technologies Stream
Third Year B.Tech-I	Professional Elective-I	UELN0521	Wireless Communication Networks	UELN0522	CMOS VLSI Design	UELN0523	Automotive Electronics
Third Year B.Tech-II	Professional Elective-II	UELN0621	Digital Image Processing	UELN0622	Embedded System Programming	UELN0623	Bio-Medical Electronics

List of Professional Electives LAB

Year	Professional Elective	Course Code	Communication Stream	Course Code	Embedded VLSI Stream	Course Code	Systems and Technologies Stream
Third Year B.Tech-I	Professional Elective-I	UELN0534	Wireless Communication Networks LAB	UELN0535	CMOS VLSI Design LAB	UELN0536	Automotive Electronics LAB

List of Audit Courses

Year	Course Code	Audit Course	Audit Course
Third Year B.Tech-I	UELN0561	Audit Course-III	Industry 4.0
Third Year B.Tech-II	UELN0661	Audit Course-IV	Aptitude Enhancement with Vedic Maths

List of Open Electives

Year	Course Code	Open Elective-I
Third Year B.Tech-II	UOEL0625	Microcontroller Architectures and Programming
	UOEL0626	Industrial Automation

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for
Final Year B.Tech. Program in Electronics Engineering Semester-VII
(Final Year B.Tech-I)

Course Code	Curriculum component	Course	L	T	P	Credits	Scheme	Max	Weightage Min	
UELN0701	PC	Embedded System Design	4	-	-	4	ISE-I	10		40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0702	PC	Computer Networks	4	-	-	4	ISE-I	10		40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UOEL07**	OE	Open Elective-II	3	-	-	3	ISE-I	10		40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN07XX	PE	Professional Elective-III	3	-	-	3	ISE-I	10		40
							MSE	30		
							ISE-II	10		
							ESE	50	20	
UELN0703	ES	Scripting Languages	1	-	-	1	ISE	50	20	20
UELN0761	Audit-V	Smart Manufacturing	2	-	-	-	ESE	100	40	40
UELN0731	PC	Embedded System Design LAB	-	-	2	1	ISE	50	20	
							ESE(POE)	50	20	
UELN0732	ES	Scripting Languages LAB	-	-	2	1	ISE	50	20	
UELN0733	PC	Computer Networks LAB	-	-	2	1	ISE	50	20	
							ESE(POE)	50	20	
UELN0751	PRJ	Project-I	-	-	4	2	ISE	50	20	
							ESE(OE)	50	20	
Total			15+2	0	10	20	-	800 (+100 Audit)	320(+40 Audit)	

Total Credits: 20
Total Contact Hours/Week: 27 Hrs

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for
Final Year B.Tech. Program in Electronics Engineering Semester-VIII
(Final Year B.Tech-II)

Course Code	Curriculum component	Course	Teaching scheme					Evaluation Scheme			
			L	T	P	Credits		Scheme	Weightage		Min
UELN08XX	PE	Professional Elective-IV	3	-	-	3		ISE-I	10	20	40
								MSE	30		
								ISE-II	10		
								ESE	50	20	
UELN08XX	PE	Professional Elective -V	3	-	-	3		ISE-I	10	20	40
								MSE	30		
								ISE-II	10		
								ESE	50	20	
UELN0851	PRJ/WI	Project-II and Winter Internship (WI)	-	-	12	6		ISE-I	75	30	120
								ISE-II	75	30	
								ESE (OE)	150	60	
Total			6	-	12	12		100 + 100 + 300 = 500			

Total Credits: 12
Total Contact Hours/Week: 18 Hrs

Note:
- **ESE:** End Semester Examination, **MSE:** Mid Semester Examination, **ISE:** In Semester Evaluation.
- **HS:** Humanities, Social science and Management, **BS: Basic sciences including mathematics**
- **ES:** Engineering Science,**PC:** Professional Core,**PE:** Professional Elective
- **OEL:** Open elective, **PRJ**: Project work, Seminar, Internship in industry etc.
- ** : Course code for Open Elective
- XX : Course code for Professional Elective
- $$: Course code for Audit Course

List of Professional Electives

Year	Professional Elective	Course Code	Communication Stream	Course Code	Embedded VLSI Stream	Course Code	Systems and Technologies Stream
Final Year B.Tech-I	Professional Elective-III	UELN0721	Antennas and Wave Propagation	UELN0722	SOC Design and Testing	UELN0723	Soft Computing
Final Year B.Tech-II	Professional Elective-IV	UELN0821	Microwave Theory and Techniques	UELN0822	Mixed Signal Design	UELN0823	Modern Power Electronics
Final Year B.Tech-II	Professional Elective-V	UELN0824	Digital TV	UELN0825	IOT and Cloud Computing	UELN0826	PLC and SCADA

List of Open Electives

Year	Course Code	Open Elective-II
Final Year B.Tech-I	UOEL0725	Artificial Intelligence
Final Year B.Tech-I	UOEL0726	Introduction to Control systems

List of Professional Electives

Year	Professional Elective	Course Code	Communication Stream	Course Code	Embedded VLSI Stream	Course Code	Systems and Technologies Stream
Final Year B.Tech-I	Professional Elective-III	UELN0721	Antennas and Wave Propagation	UELN0722	SOC Design and Testing	UELN0723	Soft Computing
Final Year B.Tech-II	Professional Elective-IV	UELN0821	Microwave Theory and Techniques	UELN0822	Mixed Signal Design	UELN0823	Modern Power Electronics
Final Year B.Tech-II	Professional Elective-V	UELN0824	Digital TV	UELN0825	IOT and Cloud Computing	UELN0826	PLC and SCADA

List of Open Electives

Year	Course Code	Open Elective-II
Final Year B.Tech-I	UOEL0725	Artificial Intelligence
	UOEL0726	Introduction to Control systems