

CURRRICULUM at KLU

1. Bio Technology
2. Civil Engineering
3. Computer Science Engineering
4. Electronics & Communications Engineering
5. Electrical Engineering & Electronics
6. Electronics & Computer Science Engineering
7. Mechanical Engineering

BIOTECHNOLOGY

THIRD SEMESTER

S.No	Course Title	Periods			Contact hours	Credits
		L	T	P		
1	Biochemistry	3	0	3	6	5
2	Microbiology	3	0	3	6	5
3	Cell biology	3	0	0	3	3
4	Fluid mechanics and Heat transfer	3	0	3	6	5
5	Bioprocess Engineering	3	1	0	4	4
6	Biostatistics	3	0	0	3	3
Total		18	1	9	28	25

FOURTH SEMESTER

S.No	Course Title	Periods			Contact hours	Credits
		L	T	P		
1	Bio-analytical Techniques	3	0	3	6	5
2	Genetics and Molecular biology	3	0	0	3	3
3	Enzyme science & Technology	3	0	0	3	3
4	Immunology	3	0	3	6	5
5	Bioinformatics	3	0	3	6	5
6	Biochemical Thermodynamics	3	1	0	4	4
Total		18	1	9	28	25

FIFTH SEMESTER

S.No	Course Title	Periods			Contact hours	Credits
		L	T	P		
1	Genetic Engineering	3	1	3	7	6
2	Plant Biotechnology	3	1	3	7	6
3	Fermentation Technology	3	1	3	7	6
4	ELECTIVE	3	1	0	4	4
5	ELECTIVE	3	0	0	3	3
6	CSS I	2	0	0		4
7	Mini Project	3	0	3		2
Total		18	0	8	28	31

SIXTH SEMESTER

S.No	Course Title	Periods			Contact hours	Credits
		L	T	P		
1	Biochemical Reaction Engineering	3	1	3	7	6
2	Mass transfer Operations	3	1	3	7	6
3	ELECTIVE	3	0	0	3	3
4	ELECTIVE	3	0	0	3	3
5	ELECTIVE	3	0	0	3	3
6	CSS II	3	0	2	5	4
7	Mini Project					2
	Total	18	0	8	28	27

SEVENTH SEMESTER

S.No	Course code	Course Title	Periods			Contact hours	Credits
			L	T	P		
1		Bioprocess Dynamics and Control	3	1	3	7	5
2		Downstream Processing	3	1	3	7	5
3		Management Elective	3	0	0	3	3
4		Elective	3	0	0	3	3
5		Elective	3	0	0	3	3
6		Elective	3	0	0	3	3
		Total	18	2	6	26	22
		Student opting for Thesis work					
		1. University Elective	4	0	0	4	4
		2. University Elective	4	0	0	4	4
		3. Project report			12	12	12
		Total	8	0	12	20	20
		Student opting for practice school	0	0	20	20	20

EIGHTH SEMESTER

Code	Theory Subject	Hours			Contacts	Credits
		L	T	P		
	University Elective – 1	4	0	0	4	4
	University Elective – 2	4	0	0	4	4
	Project/Thesis/Practice School	0	10	10	20	15
	Total Contact hours	10	10	10	28	23

COMPUTER SCIENCE AND ENGINEERING

THIRD SEMESTER

Code	Theory Subject	Hours			contact Hours	Credits
		L	T	P		
	Computational Mathematics for CS	3	1	0	4	4
	Discrete Structures and Graph Theory	3	1	0	4	4
	Digital Logic and Computer Organization	5	0	0	5	5
	Data Structures	3	0	2	5	4
	OOPs through Java	3	0	2	5	4
	Computer Graphics through C++	3	0	2	5	4
	Total Contact Hours	20	2	6	28	25

FOURTH SEMESTER

Code	Theory Subject	Hours			contact	Credits
		L	T	P		
	Probability & Statistics	3	1	0	4	4
	WEB technologies	3	0	2	5	4
	Database Management System	3	0	2	5	4
	Operating Systems	4	0	0	4	4
	Computer Networks	3	0	2	5	4
	Micro Processors and Interfacing	3	0	2	5	4
	Total Contact Hours	19	1	8	28	24

FIFTH SEMESTER

Code	Theory Subject	Hours			Contact	Credits
		L	T	P		
	Software Engineering	4	0	0	4	4
	Design and Analysis of algorithms	4	1	0	5	5
	Formal Language and Automata Theory	4	0	0	4	4
	ELECTIVE I	3	0	2	5	4
	ELECTIVE II	3	0	2	5	4
	Unix Programming LAB	0	0	2	2	1
	CSS I	2	0	1	3	3
	Mini Project	0	0	0	0	2
	Total Contact Hours	20	1	7	28	27

SIXTH SEMESTER

Code	Theory Subject	Hours			Contact	Credits
		L	T	P		
	Compiler Design	4	0	0	4	4
	OOAD	3	0	2	5	4
	ELECTIVE III	3	0	2	5	4
	ELECTIVE IV	3	1	0	4	4
	ELECTIVE V	3	1	0	4	4
	Software Testing	0	0	2	2	1
	CSS II	2	0	1	3	3
	Term Papers	0	0	0	0	3
	Total Contact Hours	18	2	7	27	27

SEVENTH SEMESTER

Code	Theory Subject	Hours			Contact	Credits
		L	T	P		
	Distributed Systems	4	0	2	6	5
	Entrepreneurial Management	4	0	0	4	4
	Network Security	4	0	2	6	5
	Elective VI	4	0	0	4	4
	Elective VII	4	0	0	4	4
	Elective VIII	4	0	0	4	4
	Total Contact Hours	24	0	4	28	26

EIGHTH SEMESTER

Code	Theory Subject	Hours			Contacts	Credits
		L	T	P		
	University Elective – 1	4	0	0	4	4
	University Elective – 2	4	0	0	4	4
	Project/Thesis/Practice School	0	10	10	20	15
	Total Contact hours	10	10	10	28	23

CIVIL ENGINEERING**THIRD SEMESTER**

S.NO.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1	Environmental Engineering	3	1	2	6	5
2	Fluid Mechanics	3	0	2	5	4
3	Concrete Technology	3	0	2	5	4
4	Strength of Materials	3	1	0	4	4
5	Soil Mechanics	3	1	0	4	4
6	Mathematics – III	3	1	0	4	4
	Total	18	4	6	28	25

FOURTH SEMESTER

S.NO.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1	Transportation Engineering	3	1	2	6	5
2	Hydraulics & Hydraulic Machines	3	0	2	5	4
3	Foundation Engineering	3	0	2	5	4
4	Structural Analysis	3	1	0	4	4
5	Design of Concrete Structures	3	1	0	4	4
6	Design of Steel Structures	3	1	0	4	4
	Total	18	4	6	28	25

FIFTH SEMESTER

S.NO.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1	Surveying – 1	3	1	2	6	5
2	Matrix methods of Structural Analysis	3	1	0	4	4
3	Building Materials & Construction	3	0	0	3	3
4	Building Planning & Drawing	1	0	4	5	3
5	Elective	3	1	0	4	4
6	Elective	3	1	0	4	4
7	Soft Skills – 1	2	0	0	2	2
8	Mini Project – 1	3	0	3	0	2
	Total	18	4	6	28	27

SIXTH SEMESTER

S.NO.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1	Surveying – II	3	1	2	6	5
2	Engineering Geology	3	0	2	5	4
3	CAD lab	1	0	2	3	2
4	Elective	3	1	0	4	4
5	Elective	3	1	0	4	4
6	Elective	3	1	0	4	4
7	Soft Skills – II	2	0	0	2	2
8	Mini Project – 2	3	0	3	0	2
	Total	18	4	6	28	27

SEVENTH SEMESTER

S.NO.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1	Project Estimation and Contracts	3	1	0	4	4
2	Irrigation & Hydraulic Structures	3	1	0	4	4
3	Computer Applications in Civil Engineering	1	0	4	5	3
4	Elective	3	1	0	4	4
5	Elective	3	1	0	4	4
6	Elective	3	1	0	4	4
7	Management Course	2	1	0	3	3
	Total	18	6	4	28	26

EIGHTH SEMESTER

S.NO.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1	University Elective	3	1	0	4	4
2	University Elective	3	1	0	4	4
3	Major Project				0	12
	Total	6	2	0	9	20
Or						
	Practice School					20

MECHANICAL ENGINEERING

THIRD SEMESTER

S.NO.	COURSE No.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
			L	T	P		
1.		Engineering Mathematics-III	3	0	0	3	3
2.		Applied Mechanics	3	1	0	4	4
3.		Manufacturing Processes-I	3	0	2	5	5
4.		Fluid Mechanics	3	1	2	6	5
5.		Engineering Thermodynamics	3	0	0	3	3
6.		Material Science & Metallurgy	3	0	2	5	4
7.		Machine Drawing	0	0	2	2	1
Total			18	2	8	28	25

FOURTH SEMESTER

S.NO.	COURSE No.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
			L	T	P		
1.		Strength of Materials	3	0	2	5	4
2.		Mechanisms and Machines Theory	3	1	0	4	4
3.		Applied Thermodynamics	3	1	2	6	5
4.		Operations Research	3	0	0	3	3
5.		Numerical Methods for Engineers	3	0	0	3	3
6.		Manufacturing Processes-II	3	0	2	5	4
7.		Machine Drawing	0	0	2	2	1
		Total	18	2	8	28	24

FIFTH SEMESTER

S.NO.	COURSE No.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
			L	T	P		
1.		Design Of Machine Elements	3	1	2	6	5
2.		Industrial Engineering Techniques	3	1	2	6	5
3.		Finite Element Methods	3	1	2	6	5
4.		Elective – 1	3	1	0	4	4
5.		Elective – 2	3	1	0	4	4
6.		CS – 1	2	0	0	2	2
7.		Mini-Project	1	0	2	3	2
Total			18	5	8	31	27

SIXTH SEMESTER

S.NO.	COURSE No.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
			L	T	P		
1.		Instrumentation and Control	3	1	2	6	5
2.		IC Engines and Gas Turbines	3	1	2	6	5
3.		Elective – 3	3	1	0	4	4
4.		Elective – 4	3	1	0	4	4
5.		Elective – 5	3	1	0	4	4
6.		CS – 2	2	0	0	2	2
7.		Mini-Project	1	0	2	3	2
Total			18	5	6	29	26

SEVENTH SEMESTER

S.NO.	COURSE No.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
			L	T	P		
1.		Heat Transfer	3	1	2	6	5
2.		Design Of Transmission Elements	3	1	0	4	4
3.		Elective – 6	3	1	0	4	4
4.		Elective – 7	3	1	0	4	4
5.		Elective – 8	3	1	0	4	4
6.		Management Elective	3	1	0	4	4
7.		CAM lab	0	0	2	2	1
Total			18	6	4	28	26

EIGHTH SEMESTER

S.NO.	COURSE No.	COURSE TITLE	PERIODS			Contact Hours	CREDITS
			L	T	P		
1.		Nano Technology	3	1	0	4	4
2.		Management Information Systems	3	1	0	4	4
3.		Project	0	0	20	20	12
Total			6	2	20	28	20
OR							
1.		Practice School	0	0	0	0	20
Total			0	0	0	0	20

ELECTRONICS AND COMPUTER SCIENCE ENGG

THIRD SEMESTER

Code	Theory Subject	PERIODS			contact Hours	Credits
		L	T	P		
	Engineering Mathematics-III	4	0	0	4	4
	Switching Theory and Logic Design	3	0	2	5	4
	Electronic Devices & Circuits	3	1	2	6	5
	Signals and Systems	3	1	0	4	4
	Data Structures	3	1	2	6	5
	Computer Organization	3	0	0	3	3
Total Contact Hours		19	3	6	28	25

FOURTH SEMESTER

Code	Theory Subject	PERIODS			contact Hours	Credits
		L	T	P		
	Object Oriented Programming through JAVA	3	0	2	5	4
	Microprocessors & Interfacing	3	1	2	6	5
	Operating Systems	4	0	0	4	4
	Analog Circuits	4	0	2	6	5
	Discrete Mathematics & Automata Theory	3	1	0	4	4
	Software Engineering	3	0	0	3	3
Total Contact Hours		20	2	6	28	25

FIFTH SEMESTER

Code	Theory Subject	PERIODS			contact Hours	Credits
		L	T	P		
	Object Oriented Analysis & Design	3	1	2	6	5
	Pulse, Digital & Integrated Circuits	4	0	2	4	5
	Analog & Digital Communications	4	0	0	4	4
	Elective	3	0	0	3	3
	Elective	3	1	0	4	4
	Communication & Soft Skills-I	2	0	0	2	2
	Mini Project	1	0	2	3	2
Total Contact Hours		20	2	6	28	25

SIXTH SEMESTER

Code	Theory Subject	PERIODS			contact Hours	Credits
		L	T	P		
	Computer Networks	3	1	2	6	5
	Database Management Systems	3	0	2	5	4
	Elective	3	1	0	4	4
	Elective	3	1	0	4	4
	Elective	3	1	0	4	4
	Communication & Soft Skills-II	2	0	0	2	2
	Mini Project	1	0	2	3	2
Total Contact Hours		18	4	6	28	25

SEVENTH SEMESTER

Code	Theory Subject	PERIODS			contact Hours	Credits
		L	T	P		
	Embedded Systems	3	1	2	6	5
	VLSI Design	3	1	2	6	5
	Elective	3	1	0	4	4
	Elective	3	1	0	4	4
	Elective	3	1	0	4	4
	Humanity Services Course	3	0	0	3	3
Total Contact Hours		18	5	4	27	25

EIGHTH SEMESTER

Code	Theory Subject	PERIODS			contact Hours	Credits
		L	T	P		
	*Practice School	0	0	40	40	20
	University Elective	3	1	0	4	4
	University Elective	3	1	0	4	4
	Project	0	0	32	32	12
Total Contact hours		6	2	72	40	20

ELECTRONICS & COMMUNICATIONS ENGG

THIRD SEMESTER

S.NO	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1.	Engineering Mathematics-III	3	1	-	4	4
2.	Digital Logic Design	3	-	2	5	4
3.	Electronic Devices & Circuits	3	1	2	6	4
4.	Electromagnetic field Theory	3	1	-	4	4
5.	Signals & Systems	3	-	2	5	4
6.	Networks and Transmission Lines	3	1	-	4	4
	Total	18	4	6	28	24

FOURTH SEMESTER

S.NO	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1.	Analog Electronic Circuits	3	-	2	5	4
2.	Probability Theory & Random Processes	3	1	-	4	4
3.	Linear Control Systems	3	-	-	3	4
4.	Pulse Circuits	3	-	2	5	4
5.	Microprocessors and Interfacing	3	1	2	6	4
6.	Electronic Measurements and Instrumentation	3	-	2	5	3
	Total	18	2	8	28	23

FIFTH SEMESTER

S.NO	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1.	Antenna and Wave Propagation	3	1	-	4	4
2.	Linear IC's and Applications	3	1	2	6	5
3.	Analog Communications	3	1	2	6	5
4.	Elective-I	3	1	-	4	3
5.	Elective-II (University Elective)	3	1	-	4	4
6.	Communication and Soft Skills -1	2	-	2	4	2
	Total	17	5	6	28	23

SIXTH SEMESTER

S.NO	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1.	Microwave Engineering	3	1	2	6	5
2.	Digital Communication	3	1	2	6	5
3.	Elective – III	3	1	-	4	3
4.	Elective – IV	3	1	-	4	3
5.	Elective –V (Inter - Discipline)	3	1	-	4	4
6.	Communication & Soft Skills-II	2	-	2	4	2
7.	Mini Project	-	-	-	-	2
	Total	17	5	6	28	24

SEVENTH SEMESTER

S.NO	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1.	Practice School	-	-	-		20
	Total	-	-	-		20

(OR)**SEVENTH SEMESTER**

S.NO	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1.	EMI/EMC	4	1	-	5	4
2.	Real Time Embedded Systems	4	1	-	5	4
3.	Thesis	-	--	3	18	12
	Total	8	2	3	28	20

EIGHTH SEMESTER

S.NO	COURSE TITLE	PERIODS			Contact Hours	CREDITS
		L	T	P		
1.	Radar and Navigational Aids	3	1	-	4	4
2.	Optical Communication	3	1	2	6	4
3.	Elective – VI	3	1	-	4	3
4.	Elective – VII	3	1	-	4	3
5.	Elective –VIII (Inter - Discipline)	3	1	-	4	4
6.	Project Work	-	-	2	2	3
7.	Entrepreneurship Development Course	-	-	-	2	2
	Total	15	5	2	28	23

ELECTRICAL & ELECTRONICS ENGG

THIRD SEMESTER

S. No.	Course Title	Periods			Contact Hours	Credits
		L	T	P		
1	Mathematics –III	3	1	0	4	4
2	Electronic Devices and Circuits	3	1	2	6	5
3	Power System –I	3	1	0	4	4
4	Network Analysis	3	0	0	3	3
5	Electrical Machines–I	3	1	2	6	5
6	Electrical Measurements	3	0	2	5	4
Total		18	4	6	28	25

FOURTH SEMESTER

S. No.	Course Title	Periods			Contact Hours	Credits
		L	T	P		
1	Mathematics -IV	3	0	0	3	3
2	Digital Logic Design	3	0	2	5	4
3	Power System-II	3	0	2	5	4
4	Electrical Machines –II	3	1	2	6	5
5	Electromagnetic Field Theory	3	0	0	3	3
6	control Systems	3	1	2	6	5
Total		18	2	8	28	24

FIFTH SEMESTER

S. No.	Course Title	Periods			Contact Hours	Credits
		L	T	P		
1	Analog Electronics Circuits	3	0	2	5	4
2	Power Systems -III	3	1	2	6	5
3	Power Electronics	3	1	2	6	5
4	Elective–I	3	1	0	4	4
5	Elective–II	3	1	0	4	4
Total		15	4	6	25	22
6	CSS –I	2	0	0	2	2
7	Mini Project-I	1	0	2	3	2
Total						26

SIXTH SEMESTER

S. No.	Course Title	Periods			Contact Hours	Credits
		L	T	P		
1	Micro Processor and Interfacing	3	1	2	6	5
2	Linear Integrated Circuits & Applications	3	1	2	6	5
3	Elective – III	3	1	0	4	4
4	Elective – IV	3	1	0	4	4
5	Elective – V	3	1	0	4	4
Total		15	5	4	24	22
6	CSS – II	2	0	0	2	2
7	Mini Project-II	1	0	2	3	2
Total						26

SEVENTH SEMESTER

S. No.	Course Title	Periods			Contact Hours	Credits
		L	T	P		
1	Humanities and Sciences	3	0	0	3	3
2	Digital Signal Processing	3	1	2	6	5
3	Electrical Drives	3	1	2	6	5
4	Elective VI	3	1	0	4	4
5	Elective VII	3	1	0	4	4
6	Elective VIII	3	1	0	4	4
Total		18	5	4	27	25

EIGHTH SEMESTER

S. No.	Course Title	Periods			Contact Hours	Credits
		L	T	P		
1	University Elective-I	3	1	0	4	4
2	University Elective-II	3	1	0	4	4
3	PROJECT WORK	0	0	20	20	12
Total		6	2	20	28	20
OR						
1	Practice School	0	0	28	28	20