

Koneru Lakshmaiah Education Foundation

Department of Mechanical Engineering

B.Tech Y18 Batch Course Structure

Humanities & Social Sciences

Sl No	Course Code	Course Title	Type	Uni/Sch/Dept	L	T	P	S	Cr	CH	Pre-Req
1	18UC1101	Basic English	HSS	UNI CORE	0	0	4	0	2	4	Nil
2	18UC1202	English Proficiency	HSS	UNI CORE	0	0	4	0	2	4	Nil
3	18UC2103	Professional Communication Skills	HSS	UNI CORE	0	0	4	0	2	4	Nil
4	18UC2204	Aptitude Builder -1	HSS	UNI CORE	0	0	4	0	2	4	Nil
5	18UC3105	Aptitude Builder -2	HSS	UNI CORE	0	0	4	0	2	4	Nil
6	18UC0007	Indian Heritage and Culture	HSS	UNI CORE	0	0	2	0	0	2	Nil
7	18UC0008	Indian Constitution	HSS	UNI CORE	0	0	2	0	1	2	Nil
8	18UC0009	Ecology & Environment	HSS	UNI CORE	2	0	0	0	0	2	Nil
9	18UC0010	Universal Human Values & Professional Ethics	HSS	UNI CORE	1	0	2	0	2	3	Nil
		Sub-Total			3	0	26	0	13	29	

Basic Sciences

10	18SC1104	Foundations of Computational Mathematics	BS	SCH CORE	0	0	2	0	1	2	Nil
11	18PH1010	Physics Elective (Mechanics)	BS	SCH ELEC	3	0	2	0	4	5	Nil
12	18SC1103	Single Variable Calculus and Matrix Algebra	BS	SCH CORE	3	0	0	0	3	3	Nil
13	18SC1105	Logic and Reasoning	BS	SCH CORE	0	0	2	0	1	2	Nil
14	18MT1201	Multivariate Calculus	BS	SCH ELEC	3	0	0	0	3	3	Nil
15	18CY1002	Solid State Chemistry	BS	SCH ELEC	3	0	2	0	4	5	Nil
16	18MT2102	Theory of Differential Equations in Engineering and Mechanics	BS	SCH ELEC	2	0	2	0	3	4	Nil
17	18BT1001	Biology for Engineers	BS	SCH ELEC	2	0	0	0	2	2	Nil
		Sub-Total			16	0	10	0	21	26	

Engineering Sciences

18	18ME1201	Mechanics and Materials-I	ES	SCH ELEC	3	0	2	0	4	5	18PH1010
19	18ME1002	Engineering Graphics for Mechanical Engineers	ES	SCH ELEC	0	0	4	0	2	4	Nil
20	18ME1003	Workshop Practices for Mechanical Engineers	ES	SCH ELEC	1	0	4	0	3	5	Nil
21	18SC1101	Problem Solving and Computer Programming	ES	SCH CORE	3	0	2	0	4	5	Nil
22	18ME1204	Introduction to Computational Thinking and Data Sciences	ES	SCH ELEC	2	0	2	0	3	4	Nil
23	18ME2205	Numerical Computation for Mechanical Engineers	ES	SCH ELEC	2	0	2	0	3	4	Nil
24	18EE2105	Circuits and Electronics	ES	SCH ELEC	3	0	2	0	4	5	Nil
		Sub-Total			14	0	18	0	23	32	

Professional Core

25	18ME2106	Measurements and Instrumentation	Prof. Core	DEPT CORE	2	0	2	0	3	4	Nil
26	18ME2107	Thermal-Fluids Engineering-I	Prof. Core	DEPT CORE	3	0	2	0	4	5	Nil
27	18ME2108	Mechanics and Materials-II	Prof. Core	DEPT CORE	3	0	2	0	4	5	18ME1201
28	18ME2109	Dynamics and Control-I	Prof. Core	DEPT CORE	3	0	2	0	4	5	18PH1010
29	18ME2110	Machine Drawing	Prof. Core	DEPT CORE	0	0	4	0	2	4	18ME1002
30	18ME2211	Design and Manufacturing-I	Prof. Core	DEPT CORE	3	0	2	0	4	5	18ME1201
31	18ME2212	Thermal-Fluids Engineering-II	Prof. Core	DEPT CORE	3	0	2	0	4	5	18ME2107
32	18ME2213	Dynamics and Control-II	Prof. Core	DEPT CORE	3	0	2	0	4	5	18ME2109
33	18ME3114	Elements of Mechanical Design	Prof. Core	DEPT CORE	2	0	2	0	3	4	18ME2108
34	18ME3115	Design and Manufacturing-II	Prof. Core	DEPT CORE	3	0	2	0	4	5	18ME2211
35	18ME3116	Introduction to Robotics	Prof. Core	DEPT CORE	3	0	2	0	4	5	Nil

36	18ME3117	Finite Element Analysis of Solids and Fluids	Prof. Core	DEPT CORE	3	0	2	0	4	5	18ME2107, 18ME2108
37	18ME3218	Engineering Management	Prof. Core	DEPT CORE	3	0	0	0	3	3	Nil
38	18ME3219	Heat Transfer	Prof. Core	DEPT CORE	3	0	2	0	4	5	18ME2107
		Sub-Total			37	0	28	0	51	65	
Professional Electives											
39	PE	Professional Elective Course - 1	PE	DEPT ELEC	2	0	2	0	3	4	Nil
40	PE	Professional Elective Course - 2	PE	DEPT ELEC	2	0	2	0	3	4	Nil
41	PE	Professional Elective Course - 3	PE	DEPT ELEC	2	0	2	0	3	4	Nil
42	PE	Professional Elective Course - 4	PE	DEPT ELEC	2	0	2	0	3	4	Nil
43	PE	Professional Elective Course - 5	PE	DEPT ELEC	2	0	2	0	3	4	Nil
44	PE	Professional Elective Course - 6	PE	DEPT ELEC	2	0	2	0	3	4	Nil
		Sub-Total			12	0	12	0	18	24	
Open Electives											
45	18PH2007	Restricted Open Elective Course - 1(Materials for Mechanical Engineering Applications)	OE	UNIV ELEC	2	0	2	0	3	4	Nil
46	OE	Open Elective Course - 2(Management Course)	OE	UNIV ELEC	3	0	0	0	3	3	Nil
47	OE	Open Elective Course - 3 (Communication Skills)	OE	UNIV ELEC	0	0	4	0	2	4	Nil
48	OE	Open Elective Course - 4 (Foreign Language)	OE	UNIV ELEC	2	0	0	0	2	2	Nil
49	OE	Open Elective Course - 5	OE	UNIV ELEC	3	0	0	0	3	3	Nil
50	OE	Open Elective Course - 6	OE	UNIV ELEC	3	0	0	0	3	3	Nil
		Sub-Total			13	0	6	0	16	19	
Projects											
51	18IE2246	Industrial Training	Project	SCH CORE	0	0	0	0	2	0	Nil
52	18IE3247	Term Paper	Project	SCH CORE	0	0	4	0	2	4	Nil
53	18IE4048/ 18IE4050	Project (Part I) / Practice School	Project	SCH CORE	0	0	0	24	6	24	Nil
54	18IE4049/ 18IE4050/18 IE4051	Project (Part II) / Practice School/ Internship	Project	SCH CORE	0	0	0	24	6	24	Nil
		Sub-Total			0	0	4	48	16	52	
Technical Skills											
55	18SC1106	Technical Skill - 1 (Coding)	Tech. Skill	SCH CORE	0	0	0	6	1.5	6	Nil
56	18SC1207	Technical Skill - 2 (Coding)	Tech. Skill	SCH CORE	0	0	0	6	1.5	6	Nil
57	18TS701	Skilling for Engineers-1 (Manufacturing Technologies)	Tech.Skill	SCH ELEC	0	0	0	8	2	8	Nil
58	18TS702	Skilling for Engineers-2 (Control Systems for Machines)	Tech. Skill	SCH ELEC	0	0	0	8	2	8	Nil
59	18TS703	Skilling for Engineers-3 (Problem Solving techniques in Thermal)	Tech.Skill	SCH ELEC	0	0	0	8	2	8	18ME2107
60	18TS704	Skilling for Engineers-4 (Problem Solving techniques in Design)	Tech.Skill	SCH ELEC	0	0	0	8	2	8	18ME2108
61	18TS705	Technical Proficiency & Training-1(Automobile Design and Building)	Tech.Skill	SCH ELEC	0	0	0	4	1	4	Nil
62	18TS706	Technical Proficiency & Training -2(Robot Design)	Tech.Skill	SCH ELEC	0	0	0	8	2	8	Nil
		Sub-Total			0	0	0	56	14	56	
Counseling & Cocurricular Activities											
63	18GN1101	Counseling -1	CNS	SCH CORE	0	0	1	0	0	1	Nil
64	18GN1202	Counseling -2	CNS	SCH CORE	0	0	1	0	0	1	Nil
65	18GN2103	Counseling -3	CNS	SCH CORE	0	0	1	0	0	1	Nil
66	18GN2204	Counseling -4	CNS	SCH CORE	0	0	1	0	0	1	Nil
67	18GN3105	Counseling -5	CNS	SCH CORE	0	0	1	0	0	1	Nil
68	18GN3206	Counseling -6	CNS	SCH CORE	0	0	1	0	0	1	Nil
69	18GN1107	Cocurricular Activity -1	CCA	SCH CORE	0	0	0	2	0.5	2	Nil
70	18GN1208	Cocurricular Activity -2	CCA	SCH CORE	0	0	0	2	0.5	2	Nil
71	18GN2109	Cocurricular Activity -3	CCA	SCH CORE	0	0	0	2	0.5	2	Nil
72	18GN2210	Cocurricular Activity -4	CCA	SCH CORE	0	0	0	2	0.5	2	Nil

73	18GN3111	Cocurricular Activity -5	CCA	SCH CORE	0	0	0	2	0	2	Nil
74	18GN3212	Cocurricular Activity -6	CCA	SCH CORE	0	0	0	2	0	2	Nil
		Sub-Total			0	0	6	12	2	18	
Bridge / Refresher Courses											
75	--	Bridge/ Refresher Course in Mathematics	BS	SCH ELEC	0	0	2	0	0	2	Nil
76	--	Bridge/ Refresher Course in Physics	BS	SCH ELEC	0	0	2	0	0	2	Nil
77	--	Bridge/ Refresher Course in Chemistry	BS	SCH ELEC	0	0	2	0	0	2	Nil
78	--	Bridge/ Refresher Course in English	HSS	SCH ELEC	0	0	2	0	0	2	Nil
		Sub-Total			0	0	8	0	0	8	
Induction Courses (Non Credit)											
79	18IN1001	Fundamentals of Mathematics	BS	SCH CORE	5	0	0	0	0	5	Nil
80	18IN1002	Basics of Physics	BS	SCH CORE	5	0	0	0	0	5	Nil
81	18IN1003	Introduction to Engineering	ES	SCH CORE	5	0	0	0	0	5	Nil
82	18IN1004	Human Values	HSS	SCH CORE	5	0	0	0	0	5	Nil
83	18IN1005	SWEAR Analysis	ES	SCH CORE	5	0	0	0	0	5	Nil
84	18IN1006	Cocurricular Activities	GN	SCH CORE	5	0	0	0	0	5	Nil
		Sub-Total			30	0	0	0	0	30	
		Total			125	0	118	116	174	359	