

KUMARAGURU COLLEGE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
B.E MECHANICAL – Curriculum (Regulation 2017)

Semester I										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17ENI1201	English for Cognizance	Embedded-Theory & Lab	HS	1	0	2	0	2	Nil
2	U17MAT1101	Linear Algebra and Calculus	Theory	BS	3	1	0	0	4	Nil
3	U17PHT1009	Physics for Mechanical Engineering	Theory	BS	3	0	0	0	3	Nil
4	U17CHT1007	Chemistry for Mechanical Engineering	Theory	BS	3	0	0	0	3	Nil
5	U17MET1101	Engineering Graphics	Theory	ES	2	1	0	0	3	Nil
6	U17CSI1211	Structured Programming using C	Embedded-Theory & Lab	ES	3	0	2	0	4	Nil
7	U17CHP1501	Chemistry Laboratory	Lab	BS	0	0	2	0	1	Nil
8	U17MEP1501	Engineering Practices Laboratory	Lab	ES	0	0	2	0	1	Nil
9	U17VEP1501	Personal values	Lab	HS	0	0	2	0	1	
Total Credits									22	
Total Contact Hours/week									27	

Semester II										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MAT2101	Advanced Calculus and Laplace Transforms	Theory	BS	3	1	0	0	4	Nil
2	U17PHT2007	Material Science for Mechanical Engineering	Theory	BS	3	0	0	0	3	Nil
3	U17MET2001	Manufacturing Technology	Theory	PC	3	0	0	0	3	Nil
4	U17MET2102	Engineering Mechanics	Theory	PC	3	1	0	0	4	Nil
5	U17ENP25--	Language Elective	Lab	HS	0	0	4	0	2	U17ENI1201
6	U17PHP2501	Physics Laboratory	Lab	BS	0	0	2	0	1	Nil
7	U17MEP2501	Manufacturing Technology and Metallurgy laboratory	Lab	PC	0	0	2	0	1	Nil
8	U17MEP2502	Machine drawing laboratory	Lab	ES	0	0	2	0	1	Nil
9	U17ISR2001	Social Immersion Project	Project	e-RIDE	0	0	0	4	2	Nil
10	U17VEP2502	Inter-Personal values	Lab	HS	0	0	2	0	1	Nil
Total Credits									22	
Total Contact Hours/week									30	

Semester III										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MAT3101	Partial differential equations and Transforms	Theory	BS	3	1	0	0	4	U17MAT2101
2	U17MEI3201	Metal Cutting and Computer Aided Manufacturing	Embedded-Theory & Lab	PC	3	0	2	0	4	Nil
3	U17MEI3202	Mechatronics	Embedded - Theory & Lab	ES	2	0	2	0	3	Nil
4	U17MET3003	Product Design and Development	Theory	ES	3	0	0	0	3	Nil
5	U17MET3004	Engineering Thermodynamics	Theory	PC	3	0	0	0	3	Nil
6	U17INI3300	Engineering Clinics I	Project based course	ES	1	0	4	0	3	Nil
Total Credits									20	
Total Contact Hours/week									24	

Semester IV										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MAT4101	Numerical Methods and Probability	Theory	BS	3	1	0	0	4	Nil
2	U17MEI4201	Strength of Materials	Embedded - Theory & Lab	PC	3	0	2	0	4	U17MET2102
3	U17MEI4202	Fluid Mechanics and Machinery	Embedded - Theory & Lab	PC	3	0	2	0	4	Nil
4	U17MEI4203	Geometric Modeling and CAD	Embedded-Theory & Lab	PC	3	0	2	0	4	Nil
5	U17MET4004	Engineering Metallurgy	Theory	PC	3	0	0	0	3	U17PHT2007
6	U17INI4300	Engineering Clinics II	Project based course	ES	1	0	4	0	3	Nil
Total Credits									22	
Total Contact Hours/week									27	

Semester V										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MEI5201	Thermal Engineering	Embedded - Theory & Lab	PC	3	0	2	0	4	U17MET3004
2	U17MEI5203	Metrology and Quality Control	Embedded - Theory & Lab	PC	3	0	2	0	4	Nil
3	U17MET5003	Machine Design with CAD applications	Theory	PC	3	0	0	0	3	U17MEI4203
4	U17MET5004	Kinematics of Machinery	Theory	PC	3	0	0	0	3	U17MET2102
5	U17MET5005	Finite element analysis	Theory	PC	3	0	0	0	3	U17MEI4201
6	U17ISI5300	Engineering Clinics III	Project based course	ES	1	0	4	0	3	Nil
Total Credits									20	
Total Contact Hours/week									24	

Semester VI										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MEI6201	Heat and Mass Transfer	Embedded - Theory & Lab	PC	3	0	2	0	4	Nil

2	U17MEI6202	Dynamics of Machinery	Embedded - Theory & Lab	PC	3	0	2	0	4	U17MET5004
3	U17MET6003	Operations Research	Theory	PC	3	0	0	0	3	Nil
4	U17-----	Open Elective	Theory	OE	3	0	0	0	3	Nil
5	U17MEE----	Programme Elective – 1	Theory	PE	3	0	0	0	3	Nil
6	U17INI6300	Engineering Clinics IV	Project based course	ES	1	0	4	0	3	Nil
Total Credits									20	
Total Contact Hours/week									24	

Semester VII										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MET7001	Engineering Economics and Financial Management	Theory	Mgmt	3	0	0	0	3	Nil
2	U17MET7002	Automobile Engineering	Theory	PC	3	0	0	0	3	U17MEI5201
3	U17INT7001	Professional Communication	Theory	EEC	3	0	0	0	3	Nil
4	U17MEE----	Programme Elective II	Theory	PE	3	0	0	0	3	Nil
5	U17MEE----	Programme Elective III	Theory	PE	3	0	0	0	3	Nil
6	U17MEP7703	Mini Project/ Phase I Project	Project only Course	PW	0	0	0	6	3	Nil
Total Credits									18	
Total Contact Hours/week									21	

Semester VIII									
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C
1	U17MEP8701	Capstone Project/Internship/Phase II project	Project only Course	PW	0	0	0	24	12
Total Credits									12
Total Contact Hours/week									24

Total Credits									156
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List of mandatory courses

S.No	Course Code	Course Title	Course Mode	CT	Sem
1	U17VEP3503	Human Excellence-Family Values	Lab	HS	3
2	U17VEP4504	Human Excellence-Professional Values	Lab	HS	4
3	U17INT4000	Indian Constitution	Theory	MC	4
4	U17CHT4000	Environmental Science and Engineering	Theory	MC	4
5	U17VEP5505	Human Excellence-Social Values	Lab	HS	5
6	U17VEP6506	Human Excellence-National Values	Lab	HS	6
7	U17VEP7507	Human Excellence-Global Values	Lab	HS	7

Programme Electives									
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C
Design Engineering									
1	U17MEE0001	Design of Jigs, Fixtures and Press Tools	Theory	PE	3	0	0	0	3
2	U17MEE0002	Vibration and Noise Control	Theory	PE	3	0	0	0	3
3	U17MEE0003	Composite Materials	Theory	PE	3	0	0	0	3
4	U17MEE0004	Design for Manufacturing and Environment	Theory	PE	3	0	0	0	3
Thermal Engineering									
1	U17MEE0005	Refrigeration and Air Conditioning	Theory	PE	3	0	0	0	3
2	U17MEE0006	Computational Fluid Dynamics	Theory	PE	3	0	0	0	3
3	U17MEE0007	Design of Thermal Systems	Theory	PE	3	0	0	0	3
4	U17MEE0008	Design of Heat Exchangers	Theory	PE	3	0	0	0	3
Manufacturing Engineering									
1	U17MEE0009	Additive Manufacturing	Theory	PE	3	0	0	0	3
2	U17MEE0010	Advanced Machining Processes	Theory	PE	3	0	0	0	3
3	U17MEE0011	Advanced Welding Processes	Theory	PE	3	0	0	0	3
4	U17MEE0012	Lean Manufacturing	Theory	PE	3	0	0	0	3
Industrial Engineering									
1	U17MEE0013	Plant Layout and Process Design	Theory	PE	3	0	0	0	3
2	U17MEE0014	Logistics and Supply Chain Networks	Theory	PE	3	0	0	0	3
3	U17MEE0015	Industrial Safety	Theory	PE	3	0	0	0	3
4	U17MEE0016	Marketing Management	Theory	PE	3	0	0	0	3

