

With effect from academic year 2015-2016

SCHEME OF INSTRUCTION & EXAMINATION

B.E I Semester (Mechanical Engineering)

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P/Dg.		CIE	SEE	
1.	BS101MT	Mathematics-I	3	1	-	4	30	70	3
2.	BS102PH	Engineering Physics-I	3	-	-	3	30	70	3
3.	BS103CH	Engineering Chemistry-I	3	-	-	3	30	70	3
4.	ES101CE	Engineering Mechanics-I	3	-	-	3	30	70	3
5.	ES 102CS	Computer Programming & Problem Solving	3	-	-	3	30	70	3
6.	MC101EG	Engineering English	3	-	-	3	30	70	1
Practicals									
7.	ES 154 ME	Engineering Drawing –I	-	-	2x2	4	50	50	2
8.	BS151PH	Engineering Physics Lab-I	-	-	2	2	25	50	1
9.	BS152CH	Engineering Chemistry Lab-I	-	-	2	2	25	50	1
10.	ES 151CS	Computer Programming Lab	-	-	2	2	25	50	1
11.	ES152ME	Workshop Practice -I	-	-	2	2	25	50	1
12.	MC151EG	Engineering English Lab	-	-	2	2	25	50	1
			18	01	14	33	355	720	23

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SCHEME OF INSTRUCTION & EXAMINATION
B.E II Semester (Mechanical Engineering)

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P/Dg		CIE	SEE	
1.	BS201MT	Mathematics-II	3	1	-	4	30	70	3
2.	BS202PH	Engineering Physics-II	3	-	-	3	30	70	3
3.	BS203CH	Engineering Chemistry-II	3	-	-	3	30	70	3
4.	HS201EG	Business Communication and Presentation Skills	3	-	-	3	30	70	3
5.	ES201CE	Engineering Mechanics-II	3	-	-	3	30	70	3
Practicals									
6.	ES252ME	Engineering Drawing-II	2	-	2	4	50	50	3
7.	ES253ME	Workshop Practice – II	-	-	2	2	25	50	1
8.	BS251PH	Engineering Physics Lab-II	-	-	2	2	25	50	1
9.	BS252CH	Engineering Chemistry Lab-II	-	-	2	2	25	50	1
10.	HS251EG	Communication Skills Lab	-	-	2	2	25	50	1
11.	ES251CS	Computer Skills Lab.	-	-	2	2	25	50	1
			17	01	12	30	325	650	23

Service Courses Offered to Other Departments
(Common to ECE & EEE)

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
Theory									
1.	ES221 ME	Elements of Mechanical Engineering (For ECE & EEE)	3	-	-	3	30	70	3

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SCHEME OF INSTRUCTION & EXAMINATION**B.E III Semester**

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P/Dg		CIE	SEE	
1.	ES301ME	Thermodynamics	3	-	-	3	30	70	3
2.	ES302ME	Machine Drawing	2	-	2	4	30	70	3
3.	ES303ME	Metallurgy and Material Science	3	-	-	3	30	70	3
4.	ES321CE	Mechanics of Materials	3	1	-	4	30	70	3
5.	ES322EE	Electrical Circuits and Machines	3	-	-	3	30	70	3
6.	BS901MT	Mathematics – III	3	1	-	4	30	70	3
7.	ES322EC	Applied Electronics	3	-	-	3	30	70	3
Practicals									
8.	ES351ME	Metallurgy Lab.	-	-	2	2	25	50	1
9.	ES 341CE	Mechanics of Materials Lab.	-	-	2	2	25	50	1
10.	ES 341EC	Applied Electronics Lab	-	-	2	2	25	50	1
			20	2	8	30	285	640	24

B.E III Semester**Service Courses Offered to other Departments**

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1.	ES321ME	Section – B Mechanical Technology (For CE)	2	-	-	2	15	35	2
2.	ES322ME	Prime Movers and Pumps (For EE)	3	-	-	3	30	70	3

With effect from academic year 2016-2017

SCHEME OF INSTRUCTION & EXAMINATION
B.E IV Semester

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P/Dg		CIE	SEE	
1.	PC401ME	Applied Thermodynamics	3	-	-	3	30	70	3
2.	PC402ME	Kinematics of Machines	3	1	-	4	30	70	3
3.	PC403ME	Manufacturing Processes	3	-	-	3	30	70	3
4.	BS401MT	Mathematics-IV	3	1	-	4	30	70	3
5.	PC404ME	Fluid Mechanics	3	-	-	3	30	70	3
6.	HS 901BT	Environmental Science	3	-	-	3	30	70	3
7.	PC405ME	Automobile Engineering	3	-	-	3	30	70	3
Practicals									
8.	ES441EE	Electrical circuits and Machines Lab	-	-	2	2	25	50	1
9.	PC451ME	Thermodynamics Lab	-	-	2	2	25	50	1
10.	PW961ME*	Engineering Applications with Social Perspective*	-	-	-	-	-	-	-
11.	MC**	Mandatory Course	-	-	3	3	50	-	3 Units
			20	02	09	31	310	590	23

Note: *Engineering Applications with Social Perspective along with credits will be reflected in V semester memorandum of marks

B.E. IV Semester
Service Courses Offered to other Departments

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1.	ES441ME	Prime Movers and Pumps Lab (For EE)	-	-	2	2	25	50	1

Mandatory Course**	
MC951SP	Yoga Practice
MC952SP	NSS
MC953SP	Sports

**Students can opt for any one of the mandatory courses.

With effect from academic year 2017-2018

SCHEME OF INSTRUCTION & EXAMINATION

B.E V Semester

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1.	PC501ME	Dynamics of Machines	3	1	-	4	30	70	3
2.	PC502ME	Design of Machine Elements	3	1	-	4	30	70	3
3.	PC503ME	Metal Cutting & Machine Tools	3	-	-	3	30	70	3
4.	PC504ME	Refrigeration and Air Conditioning	3	-	-	3	30	70	3
5.	PC505ME	Metrology & Instrumentation	3	-	-	3	30	70	3
6.	PC506ME	Heat Transfer	3	-	-	3	30	70	3
7	MC901EG	Gender Sensitization	3	-	-	3	30	70	3 Units
8	PE	Professional Elective -I	3	-	-	3	30	70	3
Practicals									
9.	PW961ME	Engineering Applications with Social Perspective*	-	-	-	-	50	-	1
10.	PC551ME	Manufacturing Processes Lab	-	-	2	2	25	50	1
11.	PC552ME	Dynamics Lab	-	-	2	2	25	50	1
			24	2	4	30	290	710	24

PROFESSIONAL ELECTIVE-I	
PE501ME	Mechanical Vibrations & Industrial Noise Control
PE502ME	Powder Metallurgy
PE504ME	Robotic Engineering

With effect from academic year 2017-2018

SCHEME OF INSTRUCTION & EXAMINATION
B.E VI Semester

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1.	PC601ME	Machine Design	3	1		4	30	70	3
2.	PC602ME	Production Drawing	2	-	2	4	30	70	3
3.	PC603ME	Hydraulic Machinery and Systems	3	-	-	3	30	70	3
4.	PC604ME	Production and Operations Management	3	-	-	3	30	70	3
5.	PC605ME	Control Systems Theory	3	-	-	3	30	70	3
6.	PE *	Professional Elective-II	3	-	-	3	30	70	3
7.	OE **	OPEN ELECTIVE-I	3	-	-	3	30	70	3
8.	MC***	Mandatory Course	3	-	-	3	30	70	3 Units
Practicals									
9	PW962ME	Summer Internship	-	-	-	-	-	-	-
10.	PC651ME	Metrology & Machine Tools Lab	-	-	2	2	25	50	1
11.	PC652ME	Hydraulic Machinery Lab	-	-	2	2	25	50	1
			24	01	04	29	290	660	23

Note: **Summer Internship along with credits will be reflected in VII semester memorandum of marks

*PROFESSIONAL ELECTIVE-II	
PE601ME	Energy Systems
PE602ME	Theory of Elasticity
PE603ME	Computational Fluids Flows
PE604ME	Nano materials and Technology
PE605ME	Non Conventional Energy Sources
PE606ME	Operations Research
Mandatory Course***	
MCSS	Science ,Technology, Innovation and Society
MCPA	Indian Polity and Administration
MCBM	Business Ethics and Corporate Governance

**OPEN ELECTIVE-I	
OE601BM	MEMS
OE601CE	Disaster Management
OE602CE	Geospatial Techniques
OE601CS	Operating Systems
OE602CS	OOPS using JAVA
OE601EC	Embedded Systems
OE602EC	Signal analysis and transform techniques
OE601EE	Reliability Engineering
OE601ME	Robotics
OE602ME	Material Handling
OE601LA	Intellectual Property Rights

With effect from academic year 2018-2019

SCHEME OF INSTRUCTION & EXAMINATION

B.E VII Semester

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	PC701ME	Thermal Turbo Machines	3	-	-	3	30	70	3
2	PC702ME	CAD/CAM	3	-	-	3	30	70	3
3	PC703ME	Management and Information system	3	-	-	3	30	70	3
4	HS901MB	Managerial Economics & Accountancy	3	-	-	3	30	70	3
5	PC704ME	Finite Element Analysis	3	-	-	3	30	70	3
6	PE *	PROFESSIONAL ELECTIVE -III	3			3	30	70	3
7	OE **	OPEN ELECTIVE-II	3	-	-	3	30	70	3
Practicals									
8.	PC751ME	Thermal Engineering Lab	-	-	2	2	25	50	1
9.	PC752ME	CAD/CAM Lab	-	-	2	2	25	50	1
10.	PW761ME	Summer Internship	-	-	-	-	50	-	2
11.	PW762ME	Project Work-I	-	-	2	2	50	-	4
		Total	21	00	06	27	360	590	29

*PROFESSIONAL ELECTIVE-III	
PE701ME	Design of Solar Energy Systems
PE702ME	Non-conventional Methods of Machining & Forming
PE703ME	Additive Manufacturing Technologies
PE704ME	Aerodynamics Design of Thermal Turbines

**OPEN ELECTIVE-II	
OE701BM	Image Processing
OE701CE	Optimization Techniques
OE701CS	Data Base Systems
OE702CS	Information Security
OE701EC	Neural Networks
OE701EE	Renewable Energy Sources
OE701ME	Entrepreneurship
OE702ME	#Finite Element Methods

OE702ME not applicable for Mechanical Engineering students.

With effect from academic year 2018-2019

SCHEME OF INSTRUCTION & EXAMINATION**B.E VIII Semester**

S. No.	Course Code	Course Title	Scheme of Instruction			Contact Hrs/wk	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
THEORY									
1.	PE *	PROFESSIONAL ELECTIVE-IV	3	-	-	3	30	70	3
2.	PE **	PROFESSIONAL ELECTIVE-V	3	-	-	3	30	70	3
3.	OE ***	OPEN ELECTIVE-III	3	-	-	3	30	70	3
Practicals									
3.	PW861ME	PROJECT WORK-II			4	4	50	100	8
		Total	9		4	13	140	310	17

*PROFESSIONAL ELECTIVE-IV	
PE801ME	Waste Heat Recovery & Co-Generation
PE802ME	Composite Materials
PE803ME	Machine Tool Engineering & Design
PE804ME	Advanced Propulsion & Space Science

**PROFESSIONAL ELECTIVE-V	
PE805ME	Energy Conservation & Management
PE806ME	Tool Design
PE807ME	Non-Destructive Testing

***OPEN ELECTIVE-III	
OE801MT	Statistical Applications in Engineering
OE801BM	Human Factor Engineering
OE801CE	Road safety Engineering
OE802CE	Green building Technology
OE801CS	Software Engineering
OE801EC	Pattern Recognition
OE801EE	Utilization of Electrical Energy
OE801ME	Mechanics of Composite materials

S.No.	Course Work-Subject Area	Credits/Semester								Total Credits	Range of Total Credits (%)	
		I	II	III	IV	V	VI	VII	VIII		Min.	Max.
1.	Humanities and Social Sciences (HS)		4		3			3		10 (5.37%)	5	10
2.	Basic Sciences (BS)	11	11	3	3					28 (15.05%)	15	20
3.	Engineering Sciences (ES)	10	8	21	1					40 (21.50%)	15	20
4.	Professional Subjects-Core (PC)				16	20	17	14		67 (36.02%)	30	40
5.	Professional Subject-Electives (PE)					3	3	3	6	15 (8.06%)	10	15
6.	Open Subjects-Electives (OE)						3	3	3	9 (4.83%)	5	10
7.	Project Work, Seminar and / Or Internships (MEP)					1		6	8	15 (8.06%)	10	15
	TOTAL	23	23	24	23	24	23	29	17	186		
8.	Mandatory Courses (MC) (Non-Credit)	2			3 Units	3 Units	3 Units				9 Units	