



AUTONOMOUS SCHEME (Tentative) - UG - BE 2nd Year Mechanical Engineering

SCHEME: 2023

Aca. Year.: 2024-25

Date: 15-11-2023

SEM: III

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/others.		Dur.	Th. Mrks	Lab. Mrks.	
1	IBSC	3	23MAI301	Mathematics-III	Maths	Maths	4	2	2	2		50	03	50	-	100
2	PCC	1	23MET302	Thermodynamics	ME	ME	3	2	2	0		50	03	50	-	100
3	IPCC	1	23MEI303	Manufacturing Technology	ME	ME	4	3	0	2		50	03	50	-	100
4	IPCC	2	23MEI304	Material Science and Engineering	ME	ME	4	2	2	2		50	03	50	-	100
5	PCCL	1	23MEL305	Mechanical Measurements and Metrology	ME	ME	1	0	0	2		50	03	-	50	100
6	ETC	1	23MEE31y	Emerging Technology Course - 1	ME	ME	3	3	0	0		50	03	50	-	100
7	AEC	3	23MEAE31	Skill development Course - 1 (EWDP)	I.E.	I.E.	1	1	0	0	3	50	2	50	-	100
8	NMC	3	23PDSN03	Personality Development-3 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
Total							20	13	6	8	5	400	0	300	50	750

BSC: Basic Science Course; PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; ETC: Emerging Technology Course; AEC: Ability Enhancement Course; NMC: Non Credit Mandatory Course {I.E.-Industry Experts}

Note: For the fulfillment of successful completion of degree, lateral entry students, shall study & complete additional courses of Additional mathematics, Language Courses, Environmental studies, Constitution of India & professional Ethics as per the guidelines released time to time.

Emerging Technology Course - 1	
Course Code	Course Title
23MEE311	Introduction to Python Programming
23MEE312	Micro and Smart System Technology
23MEE313	Non Destructive Testing
23MEE314	Smart waste Management

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Head of the Department

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Principal
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AUTONOMOUS SCHEME (Tentative) - UG - BE 2nd Year Mechanical Engineering

SCHEME: 2023
SEM: IV

Aca. Year.: 2024-25

Date: 15-11-2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE		Tot. Marks	
								Lecture	Tutorial	Practical	PBL/ABL/SL/othrs.		Dur.	Th. Mrks		Lab. Mrks.
1	IBSC	4	23MAI401	Mathematicss-IV	Maths	Maths	3	2	0	2		50	03	50	-	100
2	PCC	2	23MET402	Mechanics of Materials	ME	ME	3	3	0	0		50	03	50	-	100
3	IPCC	3	23MEI403	Advanced Machining Science	ME	ME	4	3	0	2		50	03	50	-	100
4	IPCC	4	23MEI404	Fluid Mechanics	ME	ME	4	3	0	2		50	03	50	-	100
5	PCCL	2	23MEL405	Computer Aided Machine Drawing	ME	ME	1	0	0	2		50	03	-	50	100
6	ETC	2	23MEE42y	Emerging Technology Course - 2	ME	ME	3	3	0	0		50	03	50	-	100
7	HSMC	5	23SFHH06/ 23UHVH07	SFH or UHV	Any Dept	Any Dept	1	0	2	0	@	50	02	50	-	100
8	AEC	4	23MEAE41	Skill Development Course - 2 (EWDP)	I.E.	I.E.	1	1	0	0	3	50	2	50	-	100
9	NCMC	4	23PASN01	Phy. Education (Phy. Activities & Sports)	PED	PED	PP/NP	-	-	-	2	50	-	-	-	50
			23YOGN02	Yoga	PED	PED										
			23NSSN03	NSS	NSS	NSS										
			23NCCN04	NCC	NCC	NCC										
			23IKSN05	Indian Knowledge System	HSS	HSS										
10	NCMC	5	23PDSN04	Personality Development-4 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
Total							20	15	2	8	7	500	0	350	50	900

BSC: Basic Science Course; PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; ETC: Engineering Technology Course; AEC: Ability Enhancement Course; HSMC: Humanities, Social Sciences & Management Course; NCMC: Non Credit Mandatory Course; {@ - Compulsory one activity during the semester} {\$ - Activity based (2 Hrs/week)} {I.E.-Industry Experts}

Emerging Technology Course - 2	
Course Code	Course Title
23MEE421	Internet of Things (IoT)
23MEE422	Mechatronics
23MEE423	Cloud Manufacturing
23MEE424	Alternative Fules and Energy Technologies

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25-11-2023
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#67, BGS Health & Education City



SCHEME: 2023
SEM: V

Aca. Year.: 2025-26

Date: 15-11-2023

AUTONOMOUS SCHEME (Tentative) - UG - BE 3rd Year Mechanical Engineering

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/othrs.		Dur.	Th. Mrks	Lab. Mrks.	
1	PCC	3	23MET501	Turbo Machines	ME	ME	3	3	0	0		50	03	50	-	100
2	IPCC	5	23MEI502	Desing of Machine Elements	ME	ME	4	3	0	2		50	03	50	-	100
3	IPCC	6	23MEI503	Computer Intergrated Aided Manufacturing	ME	ME	4	3	0	2		50	03	50	-	100
4	PCCL	3	23MEL504	Energy Conversion Laboratory	ME	ME	1	0	0	2		50	03	-	50	100
5	PEC	1	23MEP51y	Professional Elective Course - 1	ME	ME	3	3	0	0		50	03	50	-	100
6	ETC	3	23MEE53y	Emerging Technology Course - 3	ME	ME	3	3	0	0		50	03	50	-	100
7	HSMC	6	23SFHH06/ 23UHVH07	SFH or UHV	Any Dept	Any Dept	1	0	2	0	@	50	02	50	-	100
8	AEC	5	23MEAE51	Skill Development Course - 3 (EWDP)	I.E.	I.E.	1	1	0	0	3	50	2	50	-	100
9	NCMC	4	23PASN01	Phy. Education (Phy. Activities & Sports)	PED	PED	NP/PP	-	-	-	2	50	-	-	-	50
			23YOGN02	Yoga	PED	PED										
			23NSSN03	NSS	NSS	NSS										
			23NCCN04	NCC	NCC	NCC										
			23IKSN05	Inidan Knowledge System	HSS	HSS										
10	NCMC	6	23PDSN04	Personality Development-5 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
Total							20	16	2	6	7	500	0	350	50	900

PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; ETC: Engineering Technology Course; AEC: Ability Enhancement Course; HSMC: Humanities, Social Sciences & Management Course; NCMC: Non Credit Mandatory Course; {@ - Compulsory one activity during the semester} {\$ - Activity based (2 Hrs/week)} {I.E.- Industry Experts}

Professional Elective Course - 1		Emerging Technology Course - 3	
Course Code	Course Title	Course Code	Course Title
23MEP511	Non Traditional Machining	23MEE531	Introduction to AI and ML
23MEP512	Digital Manufacturing	23MEE532	Robotics and Automation
23MEP513	Supply Chain Management and Introdution to S	23MEE533	Digital Marketing
23ME P514	Energy Engineering	23MEE534	Intrumentation and Expterimental Stress Analysis

Head of the Department
15/11/23

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15/11/23

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Principal
15/11/23



AUTONOMOUS SCHEME (Tentative) - UG - BE 3rd Year Mechanical Engineering

SCHEME: 2023
SEM: VI

Aca. Year.: 2025-26

Date: 15-11-2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/others.		Dur.	Th. Mrks	Lab. Mrks.	
1	PCC	4	23MET601	Theory of Machines	ME	ME	3	3	0	0		50	03	50	-	100
2	IPCC	7	23MEI602	Heat Tranfer	ME	ME	4	3	0	2		50	03	50	-	100
3	PCCL	4	23MEL603	Advanced Desing Laboratory	ME	ME	1	0	0	2		50	03	-	50	100
4	PEC	2	23MEP62y	Professional Elective Course - 2	ME	ME	3	3	0	0		50	03	50	-	100
5	OEC	1	23MEO61y	Open Elective Course - 1	ME	ME	3	3	0	0		50	03	50	-	100
6	ETC	4	23MEE64y	Emerging Technology Course - 4	ME	ME	3	2	0	2		50	03	50	-	100
7	AEC	6	23MEAE61	Innovation & Design Thinking	ME	ME	1	0	2	0	@	50	03	50	-	100
8	PRJ	1	23MEPRJ1	Mini Project	ME	ME	2	0	0	4	@	50	03	-	50	100
9	AEC	7	23MEAE62	Skill Development Course - 4 (EWDP)	I.E.	I.E.	1	1	0	0	3	50	2	50	-	100
10	NCMC	7	23PDSN04	Personality Development-5 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
Total							21	15	2	10	5	500	0	350	100	950

PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; PEC: Professional Elective Course; OEC: Open Elective Course; ETC: Engineering Technology Course; HSMC: Humanities, Social Sciences & Management Course; AEC: Ability Enhancement Course; {@ - Compulsory one activity during the semester}{I.E.- Industry Experts}{Open Electives listed here are for other department students, stdnts shall select from separate list published}

Professional Elective Course - 2		Open Elective Course - 1		Emerging Technology Course - 4	
Course Code	Course Title	Course Code	Course Title	Course Code	Course Title
23MEP621	Total Qulaity Management	23MEO611	Project Management	23MEE641	Introduction to Data Science and Analytics
23MEP622	Refrigerationand Air Conditioning	23MEO612	Product Design and Development	23MEE642	Toyota Advanced Production Systems
23MEP623	Product Design and Development	23MEO613	Energy Engineering	23MEE643	Industrial Design and Ergonomics
23MEP624	Desing for Manufacuring and Assembly	23MEO614	Electric and Hybrid Vehicle Techology	23MEE644	Piping Design and Analysis

Head of the Department 15/11/23

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Principal 20/11/2023

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SCHEME: 2023
SEM: VII

AUTONOMOUS SCHEME (Tentative) - UG - BE 4th Year Mechanical Engineering
Aca. Year.: 2026-27

Date: 15-11-2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/othrs.		Dur.	Th. Mrks	Lab. Mrks.	
1	PCC	5	23MET701	Electric and Hybrid Vehicle Technology	ME	ME	3	3	0	0		50	03	50	-	100
2	IPCC	8	23MEI702	Finite Element Methods	ME	ME	4	3	0	2		50	03	50	-	100
3	IPCC	9	23MEI703	Hydraulics and Pnuematics	ME	ME	4	3	0	2		50	03	50	-	100
4	PEC	3	23MEP73y	Professional Elective Course - 3	ME	ME	3	3	0	0		50	03	50	-	100
5	OEC	2	23MEO72y	Open Elective Course - 2	Any Dept.	Any Dept.	3	3	0	0		50	03	50	-	100
6	HSMC	7	23MET704	Industrial Management	ME	ME	2	2	0	0		50	03	50	-	100
7	PRJ	2	23MEPRJ2	Major Project - Phase I	ME	ME	2	0	0	0	@	50	03	-	50	100
Total							21	17	0	6		350		300	50	700

PCC: Professional Core Course; IPCC: Integrated Professional Core Course; PEC: Professional Elective Course; OEC: Open Elective Course; PRJ-P1W: Major Project Phase Wise. {Open Electives listed here are for other department students, stdnts shall select from separate list published}

Professional Elective Course - 3		Open Elective Course - 2	
Course Code	Course Title	Course Code	Course Title
23MEP731	Additive Manufacturing	23MEO721	Supply Chain Management and
23MEP732	Computational Fluid Dynamics	23MEO722	Fluid Power Automation
23MEP733	Design of Heat Exchangers	23MEO723	Operation Research
23MEP734	Cryogenics	23MEO724	Industrial Safety

Head of the Department 15/11/23

Academic Dean 15/11/23

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AUTONOMOUS SCHEME (Tentative) - UG - BE 4th Year Mechanical Engineering

SCHEME: 2023
SEM: VIII

Aca. Year.: 2026-27

Date: 15-11-2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/others.		Dur.	Th. Mrks	Lab. Mrks.	
1	SLC	1	23MESL1y	Self-Learning Course - 1 (NPTEL)	ME	ME	3	0	0	0	@	50	-	50	-	100
2	SLC	2	23MESL2y	Self-Learning Course - 2 (NPTEL)	ME	ME	3	0	0	0	@	50	-	50	-	100
3	Prj	3	23MEPRJ3	Major Project - Phase II	ME	ME	8	0	0	0	@	100	-	-	100	200
4	INT	1	23MEINT1	Industrial Internship	ME	ME	4	0	0	0	@	50	-	-	50	100
Total							18	0	0	0	0	250	100	150	500	

SLC: Self Learning Course; Prj-PW: Project Phase Wise; INT: Internship; After 7th SEM exams, full time for Internship & Project equally divided; SLC courses to be started from 3rd SEM and to be completed by 7th SEM and evaluated and credited in 8th SEM.

Self-Learning course - 1 (NPTEL)		Self-Learning course - 2 (NPTEL)	
Course Code	Course Title	Course Code	Course Title
23MESL11	Solid Mechanics	23MESL21	Biomechanics of Joints and Orthopaedic implants
23MESL12	Joining Technologies for Metals	23MESL22	Design of Mechatronics systems
23MESL13	Biomems and Micro Fluidcis	23MESL23	Body language: Key to Professional Success
23MESL14	Thermal Processing of Foods	23MESL24	Form Machinerics
23MESL15	Stress Management	23MESL25	Selection of Nano Materials for energy Harvesting ar
23MESL16	Dynamics and Control of Mechanical Systems	23MESL26	Project Planning and Control
23MESL17	Mechanisms and Robot Kinematics	23MESL27	Innovation, Business Models and Enrepreneurship
23MESL18	Aircraft Propulsion	23MESL28	Python for Data science
23MESL19	Fundamentals of Micro and Nano Fabrication	23MESL29	Innovation by Design

Head of the Department

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