COEP Technological University Pune

(A Unitary Public University of Govt. of Maharashtra)

Mechanical Engineering Department
Curriculum Structure

B. Tech
Mechanical Engineering

(Effective from: A.Y. 2023-24)

List of Abbreviations

Abbreviation	Title
PCC	Programme Core Course (PCC)
BSC	Basic Science Course
ESC	Engineering Science Course
PEC	Programme Elective Course (PEC)
VSEC	Vocational and Skill Enhancement Course (VSEC)
HSMC	Humanities Social Science and Management
IKS	Indian Knowledge System (IKS)
VEC	Value Education Course (VEC)
RM	Research Methodology (RM)
--	Internship
--	Project
CEA	Community Engagement Activity (CEA)/Field Project
CCA	Co-curricular & Extracurricular Activities (CCA)
OE/SE	Open/School Elective (OE/SE) other than program
MD M	Multidisciplinary Minor (MD M)
AEC	Ability Enhancement course

Vision of the Department:

To be a leader amongst engineering institutions in India, offering value-based world class education and constantly pursuing excellence

Mission of the Department:

M1: To offer state-of-the-art undergraduate, postgraduate, and doctoral programs.

M2: To develop employable and skilled undergraduates to accept the global and societal challenges, while imparting quality education at postgraduate and research level.

M3: To Foster the passion of life-long learning in all facets of employability.

Program Educational Objectives (PEOs)

Cater to the needs of Indian as well as multinational industries. Be competent with a strong technological background to analyze data, formulate and undertake industrial problems and obtain viable solutions. Make successful career in industry / research / higher Studies. Be life-long learning and should be able to work on multi-disciplinary projects. Be Competent for effective communication, in management and in professional skills and ethics.

Program Outcomes

Program Outcomes of Engineering program as per norms (common to all UG/ PG Programme)

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization for the solution of complex engineering problems.

PO2. Problem analysis: Identify, formulate, research literature, and analyses complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems:
The problems:
• that cannot be solved by straightforward application of knowledge, theories and techniques applicable to the engineering discipline.
• that may not have a unique solution. For example, a design problem can be solved in many ways and lead to multiple possible solutions.

• that require consideration of appropriate constraints/requirements not explicitly given in the problem statement. (like cost, power requirement, durability, product life, etc.).
• which needs to be defined (modeled) within appropriate mathematical framework.
• that often require use of modern computational concepts and tools.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities, with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to professional engineering practice.

PO7. Environment and sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

PO9. Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Objectives (PSOs)

PSO1. Design and Development: The ability to design and develop the products as per the need of the customers in the field of Mechanical and Allied Engineering Industries.

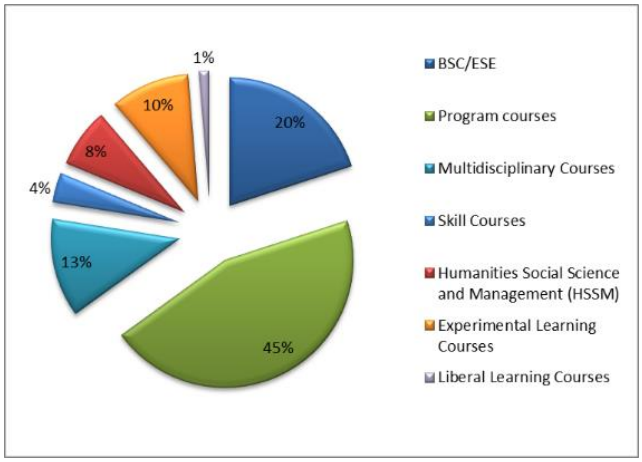
PSO2. Engineering Analysis and optimization: The ability to analyze and optimize the Mechanical systems/processes using various computational tools.

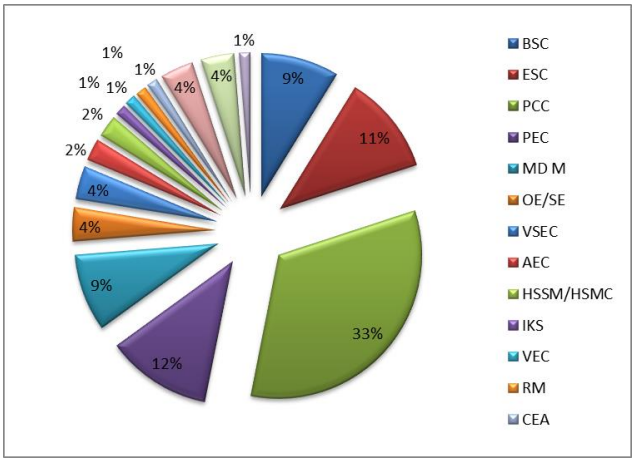
PSO3. Society: To strengthen Mechanical Engineering graduates who would value professional and ethical responsibilities while solving societal problems.

Course Group-wise Credit Distribution

Course Group	Credits	%	Course type		Sem1	Sem2	Sem3	Sem4	Sem5	Sem6	Sem7	Sem8	Total	% Credits
BSC/ESE	32	20	Basic Science Course	BSC	6	8							14	8.75
			Engineering Science Course	ESC	10	8							18	11.25
Program courses	72	45	Programme Core Course	PCC			11	11	11	12	8		53	33.13
			Programme Elective Course	PEC					3	4	3	9	19	11.88
Multidisciplinary Courses	22	13.75	Multidisciplinary Minor	MD M				3	4	4	3		14	8.75
			Open Elective Other than a particular Program	OE/SE			2	2	2				6	3.75
Skill Courses	6	3.75	Vocational and Skill Courses	VSEC	1	1		2		2			6	3.75
Humanities Social Science and Management (HSSM)	12	7.5	Ability Enhancement Course	AEC	2		2						4	2.5
			Entrepreneurship / Economics /Management Courses	HSSM			2	2					4	2.5
			Indian Knowledge System	IKS		2							2	1.25
			Value Education Course	VEC			1	1					2	1.25

Course Group	Credits	%	Course type		Sem1	Sem2	Sem3	Sem4	Sem5	Sem6	Sem7	Sem8	Total	% Credits
Experimental Learning Courses	18	11.25	Research Methodology	RM							2		2	1.25
			Comm. Eng. Project/ Field Project	CEA			2						2	1.25
			Internship / OJT	INTERNSHIP					1		1	3	5	3.13
			Project	PROJECT					2	2	5		9	5.6
Liberal Learning Courses	2	1.25	Co-curricular Course	CCA	1	1							2	1.25
	160	100			20	20	20	21	23	22	22	12	160	100





F. Y. B. Tech: Mechanical Engineering
[Level 4.5, UG Certificate] Semester -I

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	BSC	MA-23004	Matrix Algebra, Univariate Calculus and Probability	2	1	0	1	3	30	20	50	—---	—----
02	BSC	PH-23001	Engineering Physics	2	0	2	1	3	30	20	50	CIE 100	
03	ESC	EE-23001	Basics of Electrical and Electronics Engineering	2	0	2	1	3	30	20	50	CIE 100	
04	ESC	ME-23001	Engineering Drawing and Graphics	1	0	4	1	3	30	20	50	CIE 100	
05	ESC	ME-23002	Systems in Mechanical Engineering	2	0	2	1	3	30	20	50	CIE 100	
06	ESC	AS-23003	Design Thinking and Idea Lab	0	0	2	1	1	--	--	--	CIE 100	
07	AEC-I	HS-23001	Communication Skills	1	0	2	0	2	30	20	50	CIE 100	
08	CCA	LL-	Liberal Learning Course I	0	0	2	2	1	--	--	--	CIE 100	
09	VSEC-I	MFG-23010	Manufacturing Practices and Fab. Lab - I	0	0	2	1	1	--	--	--	CIE 100	
Total Credit								**20**					

F. Y. B. Tech: Mechanical Engineering
[Level 4.5, UG Certificate] Semester -II

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	BSC	AS-23002	Engineering Chemistry	2	0	2#	1	3	30	20	50	CIE 100	
02	BSC	MA-23007	Ordinary Differential Equations and Multivariate Calculus	2	1	0	1	3	30	20	50	--	--
03	BSC	AS-23001	Biology for Engineers	2	0	0	1	2	30	20	50	--	--
04	ESC	CE-23004	Engineering Mechanics	3	0	2	1	4	30	20	50	CIE 100	
05	ESC	CT-23008	Programming for Problem Solving	1	0	2	2	2	30	20	50	CIE 100	
06	ESC	MM-23001	Materials Science	2	0	0	1	2	30	20	50	--	--
07	VSEC-II	MFG-23011	Manufacturing Practices & Fab. Lab - II	0	0	2	0	1	--	--	--	CIE 100	
08	IKS	HS-23002	Indian Knowledge System	2	0	0	1	2	30	20	50	--	--
09	CCA	LL-	Liberal Learning Course-II	0	0	2	0	1	--	--	--	CIE 100	
Total Credit								**20**					

combined lab for Applied Chemistry and Material science

Legends: **L**-Lecture, **T**-Tutorial, **P**-Practical, **S**-Self Study, **Cr**-Credits
ISE-In-Semester-Evaluation, ESE-End-Semester-Evaluation, MSE-Mid-Semester-Evaluation,
TA-Teachers' Assessment, CIE-Continuous-Internal-Evaluation

Exit option to qualify for Diploma: Any two skill-based Courses:

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	VSEC	*<tbd>*	Computer Aided Geometric Modeling	0	0	8	0	4	---			CIE 100	
02	VSEC	*<tbd>*	Basics of CNC Programming	0	0	8	0	4	---			CIE 100	
03	VSEC	*<tbd>*	Additive Manufacturing	0	0	8	0	4	---			CIE 100	

S. Y. B. Tech: Mechanical Engineering
[Level 5, UG Regular] Semester -III

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	PCC	ME-24001	Engineering Thermodynamics	3	1	0	0	4	30	20	50	--	--
02	PCC	ME-24002	Solid Mechanics	2	0	0	1	2	30	20	50	--	–
03	PCC	ME-24003	Machine Drawing & Geometric Modeling	1	0	2	1	2	30	20	50	50	50
04	PCC	ME-24004	Manufacturing Technology	2	0	2	1	3	30	20	50	50	50
05	OE		Open Elective – I	2	0	0	0	2	30	20	50	—	—
06	AEC-II	HS-24003	Indian Language: Sanskrit/Pali	2	0	0	0	2	30	20	50	--	–
07	VEC-I	AS-24003	Constitution of India and Universal Human Values	1	0	0	0	1	—	—	—	--	–
08	HSSM	HS-24004	Principles of Economics	2	0	0	2	2	30	20	50	--	–
09	CEA	AS-24004	Community Engagement Activity/ Field Project *	0	0	0	0	2	-	-	-	CIE 100	
			Total	**15**	**1**	**08**	**5**	**20**					

***After SEM II during summer vacation and evaluation will be done in the start of SEM III with a duration minimumm One and a maximum Two months.**

S. Y. B. Tech: Mechanical Engineering
[Level 5, UG Regular] Semester -IV

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	PCC		Fluid Mechanics	3	0	2	1	4	30	20	50	50	50
02	PCC		Design of Machine Elements	2	1	0	1	3	30	20	50	--	--
03	PCC		Kinematics of Machines	3	0	2	1	4	30	20	50	50	50
04	OE		Open Elective - II	2	0	0	0	2	30	20	50	--	
05	MDM-I		Multidisciplinary Minor I	3	0	0	1	3	30	20	50	--	
06	VSEC		Numerical Methods and Programming Language	1	0	2	1	2	30	20	50	50	50
07	HSMC		Entrepreneurship	2	0	0	1	2	30	20	50	--	--
08	VEC-II		Environmental Studies	1	0	0	1	1	30	20	50	--	--
Total				**17**	**1**	**6**	**7**	**21**					

S. Y. B. Tech : Mechanical Engineering
[Level 5, UG Diploma] Semester -III

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	PCC	ME-24001	Engineering Thermodynamics	3	1	0	0	4	30	20	50	-	-
02	PCC	ME-24002	Solid Mechanics	2	0	0	1	2	30	20	50	-	-
03	PCC	ME-24003	Machine Drawing & Geometric Modeling	1	0	2	1	2	30	20	50	50	50
04	PCC	ME-24004	Manufacturing Technology	2	0	2	1	3	30	20	50	50	50
05	OE		Open Elective – I	2	0	0	0	2	30	20	50	—--	—---
06	AEC-II	HS-24003	Indian language Sanskrit\Pali	2	0	0	0	2	30	20	50	-	-
07	VEC-I	AS-24003	Constitution of India and Universal Human Value	1	0	0	0	1	-	-	-	-	-
08	BSC		Mathematics	3	0	0	1	3	30	20	50	-	-
09	HSMC	*HS-24001*	Principles of Entrepreneurship	2	0	0	1	2	30	20	50	-	-
Total Credit								**21**					

S. Y. B. Tech : Mechanical Engineering
[Level 5, UG Diploma] Semester –IV

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	PCC	ME-24006	Fluid Mechanics	3	0	2	1	4	30	20	50	50	50
02	PCC	ME-24007	Design of Machine Elements	2	1	0	1	3	30	20	50	--	--
03	PCC	ME-24008	Kinematics of Machines	3	0	2	1	4	30	20	50	50	50
04	OE		Open Elective - II	2	0	0	1	2	30	20	50	--	--
05	MDM-I		Multidisciplinary Minor-I	3	0	0	1	3	30	20	50	--	--
06	VSEC	ME-24009	Numerical Methods and Programming Language	1	0	2	1	2	30	20	50	50	50
07	HSMC	HS-24004	Principles of Economics	2	0	0	1	2	30	20	50	--	--
08	VEC-II	AS-24001	Environmental Studies	1	0	0	1	1	30	20	50	--	--
09	HSMC	HS-24007	Communication Skills	1	0	2	0	2	30	20	50	CIE 100	
Total Credit								**23**					

Legends: **L**-Lecture, **T**-Tutorial, **P**-Practical, **S**-Self Study, **Cr**-Credits
ISE-In-Semester-Evaluation, **ESE**-End-Semester-Evaluation, **MSE**-Mid-Semester-Evaluation, **TA**-Teachers' Assessment, **CIE**-Continuous-Internal-Evaluation

Exit option to qualify for UG Diploma:

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	PCC		Computer Aided Manufacturing (CAM)	0	0	8	0	4	------			CIE 100	
02	PCC		Mini Project	0	0	8	0	4	------			CIE 100	

T. Y. B. Tech : Mechanical Engineering
[Level 5.5, UG] Semester -V

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	PCC		Heat Transfer	3	0	2	1	4	30	20	50	50	50
02	PCC		Dynamics of Machine	3	0	2	0	4	30	20	50	50	50
03	PCC		Metrology & Measurement	2	0	2	1	3	30	20	50	50	50
04	PEC		Program Elective Course - I (Specify List) *	3	0	0	1	3	30	20	50	-	-
05	MDM		Multidisciplinary Minor II	3	1	0	0	4	30	20	50	-	-
06	RM		Open Elective Course III	2	0	0	2	2	30	20	50	-	-
07	ELC		Internship 1#	0	0	0	0	1	-	-	-	CIE-100	
08	ELC		Project-I	0	0	4	0	2	-	-	-	CIE-100	
Total Credit								**23**					

Summer Internship (Industry /R&D / Academic Institute) after IV semester during summer vacation and evaluation will be done at the start of V semester. Duration minimum One and a maximum Two months.

***Program Elective Course I – Discipline-wise List**			
Design Engineering	**Thermal Engineering/Fluid Science**	**Manufacturing Science and Engineering**	**Interdisciplinary**
Finite Element Methods (FEM)	Fluid Dynamics	Advanced Manufacturing Technology	Fundamentals of Green Hydrogen Technology
Experimental Stress Analysis	Modern IC Engines	Operations Research	Machine Learning
	Steam and Gas Turbine		Renewable Energy Resources

T. Y. B. Tech : Mechanical Engineering
[Level 5.5, UG] Semester -VI

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	PCC		Mechanical System Design	3	0	2	1	4	30	20	50	50	50
02	PCC		Computer Aided Design and Manufacturing	3	0	2	1	4	30	20	50	50	50
03	PCC		Fluid Machinery	3	0	2	0	4	30	20	50	50	50
04	PEC		Program Elective Course -II (Specify List) *	3	1	0	0	4	30	20	50	--	--
05	MDM		Multidisciplinary Minor III	3	1	0	1	4	30	20	50	--	--
06	ELC		Project-II	0	0	4	2	2				CIE-100	
Total Credit								**22**					

Exit Option to B VOC:

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	PCC		Finite Element Analysis	3	1	0	1	4	30	20	50		
02	PCC		Generative design	3	1	0	1	4	30	20	50		

*Program Elective Course II – Discipline-wise List			
Design Engineering	**Thermal Engineering/Fluid Science**	**Manufacturing Science and Engineering**	**Other Disciplines**
Advanced Finite Element Method (FEM)	Industrial Hydraulics and Pneumatics	Micro & Nano Machining	Biomass Energy Conversion
Design for Fatigue and Fracture	Computational Fluid Dynamics	Digital Manufacturing	Automotive Energy Conversion
Piping Design	Heat Exchangers: Fundamentals and Design Analysis	Micro Fluidics	Deep Learning

B. Tech : Mechanical Engineering
[Level 6, UG] Semester -VII

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	PCC		Energy Conversion	2	0	0	1	2	30	10	60		
02	PCC		Refrigeration and Air Conditioning	2	0	2*	1	3	30	20	50	50	50
03	PCC		Vibration and Acoustics	2	0	2	1	3	30	20	50	50	50
04	PEC		Program Elective Course -III (Specify List) *	3	0	0	0	3	30	20	50	--	--
06	ELC		Internship 2 #	0	0	0	0	1	30	20	50	50	50
07	OE		Research Methodology and IPR	2	0	0	1	2	30	20	50	--	–
08	MDM		Multidisciplinary Minor IV	3	0	0	1	3	30	20	50	--	--
	ELC		Project-III	0	0	10	2	5				50	50
							Total Credits	**22**					

Summer Internship (Industry /R&D / Academic Institute) after VI semester during summer vacation and evaluation will be done at the start of VII semester. Duration minimum One and a maximum Two months.

*Program Elective Course III – Discipline-wise List			
Design Engineering	**Thermal Engineering/Fluid Science**	**Manufacturing Science and Engineering**	**Other Disciplines**
Advanced CAD/CAM	Advanced Computational Fluid Dynamics	Industrial Engineering	Hybrid and Electric Vehicles
Mechanics of Composite Materials	Design of Thermal Systems	Reverse Engineering	Aerospace Engineering
Condition Monitoring	Mathematical Modelling & Analysis Thermal System	Production and Operations Management	Design of Defense Equipment

B. Tech : Mechanical Engineering
[Level 6, UG] Semester -VIII

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	PEC		Program Elective Course -IV (Specify List) **	3	0	0	0	3	30	20	50		
02	PEC		Program Specific Elective- V (Specify List) **	3	0	0	3	3	30	20	50		
03	PEC		Program Specific Elective- VI (Specify List) **	3	0	0	3	3	30	20	50	--	--
04	ELC		Internship #3	0	0	0	0	3				50	50
Total Credits								**12**					

*** MOOCS / Online Courses*

Open Electives- Mechanical Engineering

Sr. No.	Semester	Course Code	Course Name	L	T	P	Hrs	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
1	III		Computer Aided 3D Geometric Modelling	1	-	2	3	2	30	20	50		
2	IV		Engineering Thermodynamics and heat Transfer	2	-	-	2	2	30	20	50		
3	V		Introduction to aircraft system	2	-	-	2	2	30	20	50		
4	V		Automotive Technology	2	-	-	2	2	30	20	50		
Total Credits								**8**					

MDM Courses: Agricultural Science and Smart Farming

Sr. No.	Sem.	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
01	IV	MDM I	Agriculture Fundamentals	3	0	0	1	3	30	20	50	–	
02	V	MDM II	Biomass Processing Technologies	3	1	0	1	4	30	20	50	–	
03	VI	MDM III	Farm machinery and Food processing	3	1	0	0	4	30	20	50	–	
04	VII	MDM IV	Advances in agriculture and smart farming	3	0	0	1	3	30	20	50	--	
Total				**12**	**2**	**0**	**3**	**14**					

Double Minors and Honors (Additional 18 Credits)

Double minors – Mechanical Engineering for other Branches

Sem.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
V			Energy Storage System for EV	3	-	-	-	3	30	20	50	-	-
VI			IOT for Electric Vehicle	3	-	-	-	3	30	20	50	-	-
VII				4	-	-	-	4	30	20	50	-	-
VIII				4	-	-	-	4	30	20	50	-	-
				4	-	-	-	4	30	20	50	-	-
Total				**18**	**-**	**-**	**-**	**18**	**-**				

Honors- Mechanical Engineering - Design Engineering

Sem.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
III			Hydraulic And Pneumatic System	3	-	-	3	3	30	20	50	-	-
IV			Fracture Mechanics	3	-	-	3	3	30	20	50	-	-
V			Advanced Vibration and Acoustics	3	1	-	3	4	30	20	50	-	-
VI			Optimization Techniques in Design	2	1	-	3	4	30	20	50	-	-
VII			Mathematical Methods in Engineering	2	1	-	3	4	30	20	50	-	-
Total				**13**	**3**	**-**	**15**	**18**					

Honors- Mechanical Engineering - Thermal Engineering

Sem.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
III			Fluid Dynamics	3	-	-	3	3	30	20	50		
IV			Computational Fluid Dynamics	3	-	-	3	3	30	20	50	-	
V			Advanced Heat Transfer	3	1	-	3	4	30	20	50	-	
VI			Design of Thermal Systems	3	1	-	3	4	30	20	50	-	
VII			Mathematical Methods in Engineering	3	1	-	3	4	30	20	50	-	
Total				**15**	**5**	**-**	**15**	**18**	**-**				

Note: The Courses selected for Honors degree from the pool of electives by a particular student should not be part of Mandatory 160 regular credits.

Honors- Mechanical Engineering - Research

Sem.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightage in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
III		<*tbd*>	Problem Identification and Definition	3	1	-	3	4	30	20	50	-	-
IV		<*tbd*>	Literature Review	3	1	-	3	4	30	20	50	-	-
V		<*tbd*>	Experimental Work/Analytical Tools and Prototype Development	3	1	-	3	4	30	20	50	-	-
VI		<*tbd*>	Data Analysis	3	1	-	3	4	30	20	50	-	-
VII		<*tbd*>	Publication	3	1	-	3	4	30	20	50	-	-
Total				**15**	**5**	**-**	**15**	**20**	**-**				