Sri Krishna College of Engineering and Technology

An Autonomous Institution, Affiliated to Anna University

Coimbatore – 641 008

REGULATION 2022

CURRICULUM AND SYLLABI

B.E. MECHANICAL ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY

An Autonomous Institution Affiliated to Anna University
Kuniamuthur,
Coimbatore - 641 008

VISION AND MISSION OF THE DEPARTMENT

Vision

The department aspires to produce experts in Mechanical Engineering with moral values and it envisions to set up centers of excellence in innovative design and testing, composite materials, automation, automotive technology and green fuels.

Mission

To produce world class mechanical engineering graduates by promoting core technical competency blended with advanced computing skills, creative thinking and desire to upgrade continuously, so as to empower them to the expectation of the industries in our country and abroad and also to impart the interpersonal skills and make them realize the values of life.

Programme Outcomes (POs):-

At the time of their graduation students of Mechanical Engineering Programme should be in possession of the following Programme Outcomes

1.	**Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2.	**Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3.	**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 the public health and safety, and the cultural, societal, and environmental considerations.
4.	**Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5.	**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.
6.	**The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7.	**Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8.	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9.	**Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings
10.	**Communication:** Communicate effectively on complex engineering activities with the engineering community and with 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.

11.	**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.
12.	**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.

Programme Specific Outcomes (PSO's):-

At the end of the Programme, Graduate shall have

PSO 1	Design, develop and analyse the engineering components using advanced design softwares.
PSO 2	Ability to fabricate real time mechanical systems and test its worthiness.
PSO 3	Ability to apply the advancements in mechanical engineering to promote automation.

Programme Educational Objectives (PEOs):-

The following Programme Educational Objectives are designed based on the department mission

PEO 1:	Provide strong foundation in the science and engineering fundamentals necessary to formulate, solve and analyze real time mechanical engineering problems.
PEO 2:	Develop the ability to synthesize data and technical concepts for making decisions in an ethical manner considering the socio-economic scenario.
PEO 3:	Enable to work as part of teams on multidisciplinary projects with good communication and interpersonal skills in the emerging areas like automation, composite materials, automotive technology, green fuels etc.,
PEO 4:	Prepare for successful careers in industry that meet the needs of Indian and multinational companies and to inculcate the qualities of continuous learning and entrepreneurial skills.

Mapping of PO's and PSO's to PEO's

Programme Educational Objectives	Programme Outcomes												Programme Specific Outcomes		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
PEO 1	3	3	3	3		1					2		3	3	2
PEO 2	3	3	3	3		3	3	3					3	3	2
PEO 3	2	2	2	1	3	3	3		3	3	3	1	3	3	3
PEO 4	3	3	2	2	2		1	2	1	3	2	3	3	3	3

3	Strongly agreed	**2**	Moderately agreed	**1**	Reasonably agreed

B.E. MECHANICAL ENGINEERING

REGULATION 2022
CHOICE BASED CREDIT SYSTEM
I – VIII SEMESTER CURRICULUM AND SYLLABI

SEMESTER I								
SL. No.	**Course Code**	**Course**	**L/T/P**	**Contact hrs./wk.**	**C**	**O**	**Ext./ Int**	**Cat.**
THEORY								
1.	22ME101	Engineering Mechanics	3/0/0	3	3	-	60/40	PCC
2.	22ME102	Engineering Drawing	2/1/0	3	3	-	60/40	ESC
3.	22MA105	Matrices and Calculus I	3/1/0	4	4	-	60/40	BSC
4.	22EE113	Fundamentals of Electrical and Electronics Engineering	2/1/0	3	3	-	60/40	ESC
THEORY CUM PRACTICAL								
5.	22PH104	Applied Physics	3/0/2	5	4	-	50/50	BSC
6.	22CS101	Problem Solving using C++	3/0/2	5	4	-	50/50	ESC
PRACTICAL								
7.	22EE115	Fundamentals of Electrical and Electronics Engineering Laboratory	0/0/2	2	1	-	40/60	ESC
MANDATORY COURSE								
8.	22MC101	Induction Programme	3 WEEKS		0	-	0/100	MC
9.	22VA130	Effective Communication Skills	2/0/0	2	-	-	-	-
		Total	**18/3/6**	**27**	**22**	**-**	**800**	

SEMESTER II								
SL. No.	**Course Code**	**Course**	**L/T/P**	**Contact hrs./wk.**	**C**	**O**	**Ext./ Int**	**Cat.**
THEORY								
1.	22ME201	Industrial Metallurgy	3/0/0	3	3	-	60/40	PCC
2.	22MA204	Calculus II and Transforms	3/1/0	4	4	-	60/40	BSC
3.	22TA101	Heritage of Tamils	1/0/0	1	1	-	60/40	HSMC
THEORY CUM PRACTICAL								
4.	22ME202	Manufacturing Technology I (with lab)	3/0/2	5	4	-	50/50	PCC
5.	22CH101	Engineering Chemistry	3/0/2	5	4	-	50/50	BSC
6.	22EN101	Technical Communication Skills	2/0/2	4	3	-	50/50	HSMC
7.	22CS201	Data Structures and Algorithms	3/0/2	5	4	-	50/50	ESC
MANDATORY COURSE								
8.	22MC102	Environmental Sciences	2/0/0	2	0	-	0/100	MC
		Total	**20/1/8**	**29**	**23**	**-**	**800**	

SEMESTER III								
SL. No.	**Course Code**	**Course**	**L/T/P**	**Contact hrs./wk.**	**C**	**O**	**Ext./ Int.**	**Cat.**
THEORY								
1.	22ME301	Engineering Thermodynamics	3/0/0	3	3	-	60/40	PCC
2.	22ME302	Solid Mechanics	3/0/0	3	3	-	60/40	PCC
3.	22MA305	Fourier Analysis and Partial Differential equations	3/1/0	4	4	-	60/40	BSC
4.	22GE201	Universal Human Values	3/0/0	3	3	-	60/40	HSMC
5.	22TA201	Tamils and Technology	1/0/0	1	1	-	60/40	HSMC
THEORY CUM PRACTICAL								
6.	22ME303	Manufacturing Technology- II (with Lab)	3/0/2	5	4	-	50/50	PCC
7.	22IT311	Introduction to Python Programming	3/0/2	5	4	-	50/50	ESC
PRACTICAL								
8.	22ME304	Strength of Materials Laboratory	0/0/3	3	1.5	-	40/60	PCC
9.	22ME305	Computer Aided Machine Drawing	0/0/3	3	1.5	-	40/60	PCC
MANDATORY COURSE								
10.	22MCZZZ	Mandatory Course-III	2/0/0	2	0	-	0/100	MC
		Total	**21/1/10**	**32**	**25**	**-**	**1000**	

SEMESTER IV								
SL. No.	**Course Code**	**Course**	**L/T/P**	**Contact hrs./wk.**	**C**	**O**	**Ext./ Int.**	**Cat.**
THEORY								
1.	22ME401	Automobile Engineering	3/0/0	3	3	-	60/40	PCC
2.	22ME402	Mechanics of Machines	3/0/0	3	3	-	60/40	PCC
3.	22ME403	Fluid Mechanics and Machinery	3/0/0	3	3	-	60/40	PCC
4.	22ME404	Thermal Engineering	3/0/0	3	3	-	60/40	PCC
5.	22ME9ZZ	Professional Elective-I	3/0/0	3	3	-	60/40	PEC
6.	22MA404	Probability and Computational Methods	3/1/0	4	4	-	60/40	BSC
PRACTICAL								
7.	22ME405	Thermal and Fluid Mechanics Laboratory	0/0/3	3	1.5	-	40/60	PCC
8.	22ME406	Dynamics Laboratory	0/0/3	3	1.5	-	40/60	PCC
MANDATORY COURSE								
9.	22MCZZZ	Mandatory Course-IV	2/0/0	2	0	-	0/100	MC
		Total	**20/1/6**	**27**	**22**	**-**	**900**	

SEMESTER V								
SL. No.	**Course Code**	**Course**	**L/T/P**	**Contact hrs./wk.**	**C**	**O**	**Ext./ Int.**	**Cat.**
THEORY								
1.	22ME501	Design of Machine Elements	3/0/0	3	3	-	60/40	PCC
2.	22ME502	CAD/CAM	3/0/0	3	3	-	60/40	PCC
3.	22ME503	Smart Factory	3/0/0	3	3	-	60/40	PCC
4.	22ME504	Heat and Mass Transfer	3/0/0	3	3	-	60/40	PCC
5.	22XXZZZ	Open Elective– I	3/0/0	3	3	-	60/40	OEC
THEORY CUM PRACTICAL								
5.	22ME505	Metrology and Instrumentation (with Lab)	3/0/2	5	4	-	50/50	PCC
PRACTICAL								
6.	22ME506	CAD/CAM Laboratory	0/0/3	3	1.5	-	40/60	PCC
7.	22ME507	Heat Transfer Laboratory	0/0/3	3	1.5	-	40/60	PCC
MANDATORY COURSE								
8.	22MCZZZ	Mandatory Course-V	2/0/0	2	0	-	0/100	MC
		Total	**20/0/8**	**28**	**22**	**-**	**800**	

SEMESTER VI								
SL. No.	**Course Code**	**Course**	**L/T/P**	**Contact hrs./wk.**	**C**	**O**	**Ext./ Int.**	**Cat.**
THEORY								
1.	22ME601	Design of Transmission Systems	3/0/0	3	3	-	60/40	PCC
2.	22ME602	Computational Mechanics	3/0/0	3	3	-	60/40	PCC
3.	22ME9ZZ	Professional Elective-II	3/0/0	3	3	-	60/40	PEC
4.	22ME9ZZ	Professional Elective-III	3/0/0	3	3	-	60/40	PEC
5.	22MEZZZ	Emerging Elective– I	3/0/0	3	3	-	60/40	EEC
6.	22MEZZZ	Emerging Elective– II	3/0/0	3	3	-	60/40	EEC
PRACTICAL								
7..	22ME603	Simulation and Analysis Laboratory	0/0/3	3	1.5	-	40/60	PCC
PROJECT WORK								
8.	22ME604	Design Thinking and Mini Project	0/0/2	2	1	-	40/60	PROJ
		Total	**18/0/5**	**23**	**20.5**	**-**	**800**	

SEMESTER VII								
SL. No.	**Course Code**	**Course**	**L/T/P**	**Contact hrs./wk.**	**C**	**O**	**Ext./ Int.**	**Cat.**
THEORY								
1.	22ME701	Industrial Engineering and Operations Management	3/0/0	3	3	-	60/40	HSMC
2.	22ME702	Mechatronics	3/0/0	3	3	-	60/40	ESC
3.	22ME9ZZ	Professional Elective-IV	3/0/0	3	3	-	60/40	PEC
4.	22ME9ZZ	Professional Elective-V	3/0/0	3	3	-	60/40	PEC
5.	22ME9ZZ	Professional Elective-VI	3/0/0	3	3	-	60/40	PEC
6.	22XXZZZ	Open Elective – II	3/0/0	3	3	-	60/40	OEC
PRACTICAL								
7.	22ME703	Mechatronics Laboratory	0/0/3	3	1.5	-	40/60	ESC
PROJECT WORK								
8.	22ME704	Phase I – Project Work	0/0/2	2	-	-	40/60	PROJ
		Total	**18/0/5**	**23**	**19.5**	**-**	**800**	

SEMESTER VIII								
SL. No.	**Course Code**	**Course**	**L/T/P**	**Contact hrs./wk.**	**C**	**O**	**Ext./ Int.**	**Cat.**
PROJECT WORK								
1.	22ME801	Phase II – Project Work	0/0/24	24	12	-	40/60	PROJ
		Total	**0/0/24**	**24**	**12**	**-**	**100**	

EMPLOYABILITY ENHANCEMENT SKILLS								
SL. No.	**Course Code**	**Course**	**L/T/P**	**Contact hrs./wk.**	**C**	**O**	**Ext./ Int.**	**Cat.**
1.	22MEE01	Industrial Practice (14 Days – 1 Credit) / Publication in Journals (National /International – 1 Credit)	-	-	2	-	-	EES
		Total	**-**	**-**	**2**	**-**	**-**	

SCHEME OF CREDIT DISTRIBUTION – SUMMARY

SL. No.	Stream	Credits/Semester									C	%
		I	II	III	IV	V	VI	VII	VIII			
1	Humanities & Social Sciences Including Management (HSMC)	-	4	4	-	-	-	3	-	-	11	6.55
2	Basic Sciences (BSC)	8	8	4	4	-	-	-	-	-	24	14.29
3	Engineering Sciences (ESC)	11	4	4	-	-	-	4.5	-	-	23.5	13.99
4	Professional Core (PCC)	3	7	13	15	19	7.5	-	-	-	64.5	38.39
5	Professional Electives (PEC)	-	-	-	3	-	6	9	-	-	18	10.71
6	Open Electives (OEC) / Emerging Elective Courses (EEC)	-	-	-	-	3	6	3	-	-	12	7.14
7	Project Work (PROJ)	-	-	-	-	-	1		12	-	13	7.74
8.	Employability Enhancement Skills (EES)	-	-	-	-	-	-	-	-	2	2	1.19
9.	Mandatory Course (MC)	-	-	-	-	-	-	-	-	-	-	-
Total		22	23	25	22	22	20.5	19.5	12	2	168	100

STRUCTURE FOR UNDERGRADUATE ENGINEERING PROGRAM

S. No.	Course Work - Subject Area	AICTE Suggested Credits	AICTE model curriculum credits	SKCET Credits (168)
1.	Humanities and Social Sciences (HS), including Management;	12*	6	**11**
2.	Basic Sciences (BS) including Mathematics, Physics, Chemistry, Biology;	25*	30	**24**
3.	Engineering Sciences (ES), including Materials, Workshop, Drawing, Basics of Electrical/Electronics/Mechanical/Computer Engineering, Instrumentation;	24*	27	**23.5**
4.	Professional Subjects-Core (PC), relevant to the chosen specialization/branch; (May be split into Hard (no choice) and Soft (with choice), if required	48*	50.5	**64.5**
5.	Professional Subjects – Electives (PE), relevant to the chosen specialization/ branch;	18*	18	**18**
6.	Open Subjects- Electives (OE), from other technical and/or emerging subject areas;	18*	12	**12**
7.	Project Work, Seminar and/or Internship in Industry or elsewhere.	15*	15	**13**
8.	Employability Enhancement Skills	Non-credit		**2**
9.	Mandatory Courses (MC)	Non-credit		
Total		160*	158.5	**168**
**Minor Variations is allowed as per need of the respective disciplines*				

HUMANITIES & SOCIAL SCIENCES INCLUDING MANAGEMENT (11 Credits)

SL. No.	Course Code	Course Title	L/T/P	Contact hrs./Wk.	C	Cat.
1.	22EN101	Technical Communication Skills	2/0/2	4	3	HSMC
2.	22GE201	Universal Human Values	3/0/0	3	3	HSMC
3.	22ME701	Industrial Engineering and Operations Management	3/0/0	3	3	HSMC
4.	22TA101	Heritage of Tamils	1/0/0	1	1	HSMC
5.	22TA201	Tamils and Technology	1/0/0	1	1	HSMC

BASIC SCIENCE COURSES (24 Credits)

SL. No.	Course Code	Course Title	L/T/P	Contact hrs./Wk.	C	Cat.
1.	22MA105	Matrices and Calculus I	3/1/0	4	4	BSC
2.	22PH104	Applied Physics	3/0/2	5	4	BSC
3.	22MA204	Calculus II and Transforms	3/1/0	4	4	BSC
4.	22CH101	Engineering Chemistry	3/0/2	5	4	BSC
5.	22MA305	Fourier Analysis and Partial Differential equations	3/1/0	4	4	BSC
6.	22MA404	Probability and Computational Methods	3/1/0	4	4	BSC

ENGINEERING SCIENCE COURSES (23.5 Credits)

SL. No.	Course Code	Course Title	L/T/P	Contact hrs./Wk.	C	Cat.
1.	22ME102	Engineering Drawing	2/1/0	3	3	ESC
2.	22CS101	Problem Solving using C++	3/0/2	5	4	ESC
3.	22EE113	Fundamentals of Electrical and Electronics Engineering	2/1/0	3	3	ESC
4.	22EE115	Fundamentals of Electrical and Electronics Engineering Laboratory	0/0/2	2	1	ESC
5.	22CS201	Data Structures and Algorithms	3/0/2	5	4	ESC
6.	22IT311	Introduction to Python Programming	3/0/2	5	4	ESC
7.	22ME702	Mechatronics	3/0/0	3	3	ESC
8.	22ME703	Mechatronics Laboratory	0/0/3	3	1.5	ESC

PROFESSIONAL CORE COURSES (64.5 Credits)

SL. No.	Course Code	Course Title	L/T/P	Contact hrs./Wk.	C	Cat.
1.	22ME101	Engineering Mechanics	3/0/0	3	3	PCC
2.	22ME201	Industrial Metallurgy	3/0/0	3	3	PCC
3.	22ME202	Manufacturing Technology I (with lab)	3/0/2	5	4	PCC
4.	22ME301	Engineering Thermodynamics	3/0/0	3	3	PCC
5.	22ME302	Solid Mechanics	3/0/0	3	3	PCC

6.	22ME303	Manufacturing Technology- II (with Lab)	3/0/2	5	4	PCC
7.	22ME304	Strength of Materials Laboratory	0/0/3	3	1.5	PCC
8.	22ME305	Computer Aided Machine Drawing	0/0/3	3	1.5	PCC
9.	22ME401	Automobile Engineering	3/0/0	3	3	PCC
10.	22ME402	Mechanics of Machines	3/0/0	3	3	PCC
11	22ME403	Fluid Mechanics and Machinery	3/0/0	3	3	PCC
12.	22ME404	Thermal Engineering	3/0/0	3	3	PCC
13.	22ME405	Thermal and Fluid Mechanics Laboratory	0/0/3	3	1.5	PCC
14.	22ME406	Dynamics Laboratory	0/0/3	3	1.5	PCC
15.	22ME501	Design of Machine Elements	3/0/0	3	3	PCC
16.	22ME502	CAD/CAM	3/0/0	3	3	PCC
17.	22ME503	Smart Factory	3/0/0	3	3	PCC
18.	22ME504	Heat and Mass Transfer	3/0/0	3	3	PCC
19.	22ME505	Metrology and Instrumentation (with Lab)	3/0/2	5	4	PCC
20.	22ME506	CAD/CAM Laboratory	0/0/3	3	1.5	PCC
21.	22ME507	Heat Transfer Laboratory	0/0/3	3	1.5	PCC
22.	22ME601	Design of Transmission Systems	3/0/0	3	3	PCC
23.	22ME602	Computational Mechanics	3/0/0	3	3	PCC
24.	22ME603	Simulation and Analysis Laboratory	0/0/3	3	1.5	PCC

PROFESSIONAL ELECTIVE COURSES (18 Credits)

SL. No.	Course Code	Course Title	L/T/P	Contact hrs./Wk.	C	Cat.
ELECTIVE STREAM I – MODERN MOBILITY SYSTEMS						
1.	22ME901	Electric and Hybrid Vehicle Technology	3/0/0	3	3	PEC
2.	22ME902	Autotronics	3/0/0	3	3	PEC
3.	22ME903	Alternate Energy Source for Automobiles	3/0/0	3	3	PEC
4.	22ME904	Automotive Component Manufacturing	3/0/0	3	3	PEC
5.	22ME905	Smart and Intelligent Mobility	3/0/0	3	3	PEC
6.	22ME906	Drone Technologies	3/0/0	3	3	PEC
ELECTIVE STREAM II - DIGITAL AND ROBOTIC SYSTEMS						
1.	22ME907	Digital Manufacturing	3/0/0	3	3	PEC
2.	22ME908	Modern Robotics	3/0/0	3	3	PEC
3.	22ME909	Applied Hydraulics and Pneumatics	3/0/0	3	3	PEC
4.	22ME910	PLC SCADA	3/0/0	3	3	PEC
5.	22ME911	Immersive Technologies	3/0/0	3	3	PEC
6.	22ME912	Computer Integrated Manufacturing	3/0/0	3	3	PEC
ELECTIVE STREAM III - ADVANCED MATERIALS AND MANUFACTURING						
1.	22ME913	Composite and Smart Materials	3/0/0	3	3	PEC
2.	22ME914	Advanced Manufacturing Techniques	3/0/0	3	3	PEC
3.	22ME915	Failure Analysis and NDT Techniques	3/0/0	3	3	PEC
4.	22ME916	Green Sustainable Manufacturing	3/0/0	3	3	PEC
5.	22ME917	Additive Manufacturing	3/0/0	3	3	PEC
6.	22ME918	Design for Manufacturing and Assembly	3/0/0	3	3	PEC

ELECTIVE STREAM IV - INDUSTRIAL ENGINEERING AND INNOVATION MANAGEMENT						
1.	22ME919	Lean Six Sigma	3/0/0	3	3	PEC
2.	22ME920	Industrial Layout, Safety and Production Management	3/0/0	3	3	PEC
3.	22ME921	Product Design and Development	3/0/0	3	3	PEC
4.	22ME922	Entrepreneurship Management	3/0/0	3	3	PEC
5.	22ME923	Supply Chain Management	3/0/0	3	3	PEC
6.	22ME924	Sustainable Manufacturing	3/0/0	3	3	PEC
ELECTIVE STREAM V - THERMAL SYSTEMS						
1.	22ME925	Power Plant Engineering	3/0/0	3	3	PEC
2.	22ME926	Bioenergy Conversion Technologies	3/0/0	3	3	PEC
3.	22ME927	Gas Dynamics and Jet Propulsion	3/0/0	3	3	PEC
4.	22ME928	Heating, Ventilation and Air-Conditioning Systems	3/0/0	3	3	PEC
5.	22ME929	Renewable Energy Technologies	3/0/0	3	3	PEC
6.	22ME930	Thermal Management of Batteries and Fuel Cells	3/0/0	3	3	PEC

OPEN ELECTIVE COURSES
(Offered to Other Branches)

SL. No.	Course Code	Course Title	L/T/P	Contact hrs./Wk.	C	Cat.
1.	22ME001	Industrial Safety	3/0/0	3	3	OEC
2.	22ME002	Fundamentals of MEMS/NEMS	3/0/0	3	3	OEC
3.	22ME003	Total Quality Management	3/0/0	3	3	OEC
4.	22ME004	Product Development	3/0/0	3	3	OEC
5.	22ME005	Fundamentals of Additive Manufacturing	3/0/0	3	3	OEC
6.	22ME006	Technology Management	3/0/0	3	3	OEC

EMERGING ELECTIVE COURSES

SL. No.	Course Code	Course Title	L/T/P	Contact hrs./Wk.	C	Cat.
1.	22ME007	Applied Soft Computing Techniques	3/0/0	3	3	EEC
2.	22ME008	Internet of Things for Mechanical Engineers	3/0/0	3	3	EEC
3.	22ME009	Data Analytics for Mechanical Engineers	3/0/0	3	3	EEC
4.	22ME010	Expert System and Machine Learning	3/0/0	3	3	EEC
5.	22ME011	Product Life Cycle Management	3/0/0	3	3	EEC

PROJECT WORK (13 Credits)

SL. No.	Course Code	Course Title	L/T/P	Contact hrs./Wk.	C	Cat.
1.	22ME603	Design Thinking and Mini Project	0/0/2	2	1	PROJ
2.	22ME703	Phase I – Project Work	0/0/2	2	-	PROJ
3.	22ME801	Phase II – Project Work	0/0/24	24	12	PROJ

EMPLOYABILITY ENHANCEMENT SKILLS (2 Credits)

SL. No.	Course Code	Course Title	L/T/P	Contact hrs./Wk.	C	Cat.
1.	22MEE01	Industrial Practice (14 Days – 1 Credit) / Publication in Journals (National /International – 1 Credit)	-	-	2	EES

MANDATORY COURSES (Non-Credits)

SL. No.	Course Code	Course Title	L/T/P	Contact hrs./Wk.	C	Cat.
1.	22MC101	Induction Program	3 WEEKS		0	MC
2.	22MC102	Environmental Sciences	2/0/0	2	0	MC
3.	22MC103	Soft Skills	2/0/0	2	0	MC
4.	22MC104	Management Organizational Behavior	2/0/0	2	0	MC
5.	22MC105	General Aptitude	2/0/0	2	0	MC
6.	22MC106	Life Skills and Ethics	2/0/0	2	0	MC
7.	22MC107	Stress Management	2/0/0	2	0	MC
8.	22MC108	Constitution of India	2/0/0	2	0	MC
9.	22MC109	Essence of Indian Traditional Knowledge	2/0/0	2	0	MC
10.	22MC110	Biology	2/0/0	2	0	MC

* Courses conducted either by internal faculty or through MOOCs

ONE CREDIT COURSES (Additional Credits)/ VALUE ADDED COURSES

S.No	Course Code	Course Title	Credits
1.	22VA500	Certification in Creo, ANSYS, CFD, LabVIEW, CATIA, NDT etc.,	1
2.	22VA501	Any other certification from MNCs/OEMs, Texas Instruments, Bosch, Rexroth, SAE Skill India etc.,	1
3.	22VA502	NSS	1
4.	22VA503	Spoken Hindi/ Foreign Language	1
5.	22VA504	Massive Open Online Courses (MOOC) / NPTEL	1
6.	22VA505	Geometric Dimensioning and Tolerancing	1
7.	22VA506	Automotive Interior/Exterior Plastic Parts Design	1
8.	22VA507	Project Management Process	1
9.	22VA508	Quality Management	1

SERVICE SUBJECTS

SL. No.	Course Code	Course	L/T/P	Contact hrs/week	Credit	Ext/Int	Category
1	22ME111	Engineering Graphics	1/0/4	5	3	50/50	ES

SEMESTER WISE CREDIT DISTRIBUTION: -

Semester	I	II	III	IV	V	VI	VII	VIII	EES	Total
Credits	22	23	25	22	22	20.5	19.5	12	2	168

Total Credits: 168

L: Lecture **T:** Tutorial **P:** Practical **C:** Credit **O:** Outside Class hours **Cat.:** Category

HSMC : Humanities and Social Sciences including Management
BSC : Basic Science Courses
ESC : Engineering Science Courses
PCC : Professional Core Courses
PEC : Professional Elective Courses
OEC : Open Elective Courses
EEC : Emerging Elective Courses
EC : Emerging Courses
PROJ : Project Work
EES : Employability Enhancement Skills
MC : Mandatory Course

Definition of Credit:

L – Lecture	1 Hr. Lecture (L) per week	1 credit
T – Tutorial	1 Hr. Tutorial (T) per week	1 credit
P - Practical/Practice (Project and Industry based Courses)	1 Hr. Practical (P) per week	0.5 credit