# **ACADEMIC CURRICULA**

# UNDERGRADUATE INTEGRATED POST GRADUATE DEGREE PROGRAMMES

(With exit option of Diploma)

(Choice Based Flexible Credit System)

Regulations 2021

Volume - 1

(Revised on July 2024)



# SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)
Kattankulathur, Chengalpattu District 603203,
Tamil Nadu, India



# SRM INSTITUTE OF SCIENCE AND TECHNOLOGY Kattankulathur, Chengalpattu District 603203, Tamil Nadu, India

#### 7. B.Tech. in Automobile Engineering with Specialization in Vehicle Testing

#### 7. (a) Mission of the Department

Mission Stmt – 1	To impart students with quality education centered on altering global requirements and add values to their career desires
Mission Stmt – 2	To enhance the knowledge and skill of students in collaboration with public and private sectors
	To identify and acknowledge economic, social and environmental issues that influences the quality of life in the vicinity and the globe
Mission Stmt – 4	To inculcate leadership qualities needed for automotive industries through robust curriculum with international outlook for sustainable future
	To build trust and co-operation at the workplace through effective inter-personal and communication skills

#### 7. (b) Program Educational Objectives (PEO)

PEO – 1	To provide an overall knowledge about the application of electrical and electronics in automotive systems
PEO – 2	To make the students understand the use of sensors, actuators, signal conditioners, controls and software for automotive applications
PEO - 3	To understand the importance and procedure of fault diagnostics and data logging for automotive field.
PEO – 4	To expose the students to advanced requirements in industry like autonomous, inter and intra-vehicular communications protocols, hybrid vehicles technologies, model based system design and associated technologies
PEO – 5	To get exposure to the modern automobiles and contributing to the challenges of the society in terms of research and entrepreneurship.

7. (c) Mission of the Department to Program Educational Objectives (PEO) Mapping

2	Mission Stmt 1	Mission Stmt 2	Mission Stmt 3	Mission Stmt 4	Mission Stmt 5
PEO - 1	3	3	2	2	3
PEO - 2	3	2	2 5 5	- 2	2
PEO - 3	3	3	and the state of	2	1
PEO - 4	2	2	3	3	2
PEO - 5	3	2	3	3	2

<sup>3 –</sup> High Correlation, 2 – Medium Correlation, 1 – Low Correlation

7. (d) Mapping Program Educational Objectives (PEO) to Program Outcomes (PO)

	r 8			-	Pro	gram Ou	tcomes (	PO)	- 8 -		/		Prog	gram <mark>Spe</mark>	ecific
	1	2	- 3	4	5	6	7	- 8	9	10	_11	12	Outo	co <mark>mes (</mark> F	SO)
	Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	PSO-1	PS0-2	PSO-3
PEO - 1	3	1	2	2	3	1	1	2	2	3	_ 1	3	3	2	3
PEO - 2	3	3	2	3	2	1	1	1	3	2	2	3	2	2	3
PEO - 3	3	3	3	3	3	3	3	3	3	2	2	3	3	3	3
PEO - 4	3	2	1	3	2	1	2	3	3	3	2	2	2	2	3
PEO - 5	3	2	2	2	2	3	3	3	3	2	2	2	2	2	2

<sup>3 –</sup> High Correlation, 2 – Medium Correlation, 1 – Low Correlation

#### PSO - Program Specific Outcomes (PSO)

	1 /
PSO - 1	Students gain knowledge and expertise in the field of electrical and electronics related to automotive systems
PS() - 7	Ability to understand recent technological developments in Automotive electronics and develop products to cater the societal and industrial needs
PSO - 3	Assess society needs and develop constructive and creative solutions for problems related to Vehicle Testing.

# 7.(e) Program Structure: B.Tech. in Automobile Engineering with Specialization in Vehicle Testing

					=	l-	D 1 0 1 0 (F)				
	Humanities & Social Sciences						Basic Science Courses (B)	LI	loure	1	
	including Management Courses (H)		lours	: /		Course	Course		lours Neel		
Course	Course		Weel			Code	Title	1	T	Р	С
Code	Title	Т	T	Р	С		Physics: Electromagnetic Theory,	_			
21LEH101T	Communicative English	2	1	0	3		Quantum Mechanics, Waves and Optics	3	1	2	5
21LEH102T				_	-	-	Chemistry	3	1	2	5
21LEH103T							Calculus and Linear Algebra	3	1	0	4
21LEH104T							Advanced Calculus and Complex				
21LEH105T		2	1	0	3		Analysis	3	1	0	4
21LEH106T	,						Transforms and Boundary Value	_	_	•	,
21LEH107T							Problems	3	1	0	4
21LEH108T						21MAB202T	Numerical Methods	3	1	0	4
	Philosophy of Engineering	1	0	2	2	21BTB103T	Biology	2	0	0	2
	Social Engineering	2	0	0	2	21MAB301T	Probability and Statistics	3	1	0	4
	Behavioral Psychology	2	1	0	3		Т	otal	Cre	dits	32
		otal	Cre	dits	13						
		- 1	_				Desferational Comp (2000)				
	Engineering Science Courses (S)		1	- 1			Professional Core Courses (C)		1	,	
Course	Course		Hours			Course	Course		lours		
Code	Title		Wee		_	Code	Title	١ ١	Weel		_
0414504041.1	Desir side and Markenia d Wedneka	L	1	Р	С	04411000473	A li - d Th l F	L	T	P	C
21MES101L 1	Basic civil and Mechanical Workshop	0	0	4	2		Applied Thermal Engineering	3	0	0	3
21MES102L 1		0	0	4	2	21CSC206T		2	1	0	3
21EES101T	Electrical and Electronics Engineering	3	0	0	4	21AUC202J		2	0	2	3
21CSS101J	Programming for Problem Solving	3	-	2	4	21AUC203J	Manufacturing Technology for	2	0	2	3
21AUS101L <sup>1</sup> 21DCS201P <sup>1</sup>			2	_	3	24MEC202T2	Automotive Engineers  Mechanics of Solids	3	1	0	4
		3	1	0	4	21MEC2021		3	0	0	3
21MES101T 21CSS303T	Engineering Mechanics Data Science	2	0	0	2		Material testing Laboratory	0	0	2	1
210333031		_∠ Tota	l Cro				Fluid Dynamics Laboratory	0	0	2	1
	Carrier Contract Contract	TOLA	i Cre	เนเธ	22		Fluid Mechanics and Machinery	3	0	0	3
Project Wor	rk, Seminar, Internship in Industry / Hig	her	Tecl	hnic	al	21MEC2051		3	0	0	3
	Institutions (P)	,					0404 1 1 6 4 1 11		U	U	J
	, ,	Н	ours	/		21AUC301T <sup>2</sup>	Engineers	3	0	0	3
Course	Course		/eek				Vehicular Structures and Driveline				
Code	Title	L	Т	Р	С	21AUC302J	Systems Structures and Drivenne	2	0	2	3
21GNP301L	Community Connect	0	0	2	1		Decien of Automotive Customs				
21AUP302L		0	0	6	2	21AUC301L 1	Laboratory	0	0	2	1
21AUP303T	1 MOOC	3		0	3	0.4.4.4.0000.4	Automotive Electrical and Electronic		_	_	_
21AUP401L		0	0	30	15	21AUC303J	Systems	2	0	2	3
21AUP402L	Major Project	0	0	20	10	21AUC304J	Finite Element Analysis	3	0	2	4
21AUP403L	Internship#	0	0	10	5			otal	Cre	dits	41
	Т	otal	Crec	lits	19						
							Non Credit Courses (M)				
	71-61	Þ	Ν			Course			Hour		
	7/15/	R	Ŋ		_	Course Code	Course		Wee	k	
	Open Elective Courses (O)	R	Ŋ			Code	Course Title	L	Wee T	k P	С
	Open Elective Courses (O) (Any 3 Courses)	R	N			Code 21PDM101L <sup>1</sup>	Course Title Professional Skills and Practices	L 0	Wee	k P 2	С
Course	(Any 3 Courses)  Course		Hours			Code 21PDM101L <sup>1</sup> 21PDM102L <sup>1</sup>	Course Title Professional Skills and Practices General Aptitude	L 0	T 0	k P 2	С
Course Code	(Any 3 Courses)		Wee	k		Code 21PDM101L <sup>1</sup> 21PDM102L <sup>1</sup> 21PDM201L <sup>1</sup>	Course Title Professional Skills and Practices General Aptitude Verbal Reasoning	D 0 0	T   0   0   0	P 2 2 2 2	C
Code	(Any 3 Courses)  Course Title	L	Wee T	k P	C	Code 21PDM101L <sup>1</sup> 21PDM102L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM202L <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills	L 0 0 0	Wee 0 0 0 0	P 2 2 2 2 2	
Code 21AUO101T	(Any 3 Courses)  Course Title  Hybrid and Electric Vehicles	L 3	Wee T	P 0	3	Code  21PDM101L <sup>1</sup> 21PDM102L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills	L 0 0 0	Wee 0 0 0 0 0	P 2 2 2 2 2 2 2	
Code 21AUO101T 21AUO102T	(Any 3 Courses)  Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy	L 3	Wee T 0	P 0 0	3	Code  21PDM101L <sup>1</sup> 21PDM102L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices	L 0 0 0	Wee T 0 0 0 0 0 0 0 0 0	P 2 2 2 2 2 2 2 2	0
21AUO101T 21AUO102T 21AUO103T	(Any 3 Courses)  Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles	L 3 3	T	P 0 0 0	3 3	Code  21PDM101L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science	L 0 0 0	T	P 2 2 2 2 2 2 2 0	0
Code  21AUO101T  21AUO102T  21AUO103T  21AUO104T	(Any 3 Courses)  Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications	L 3 3 3	Wee   T   0   0   0   0   0	P 0 0 0 0 0	3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM101T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India	L 0 0 0	T	P 2 2 2 2 2 2 0 0 0	0 0 0
Code  21AU0101T  21AU0102T  21AU0103T  21AU0104T  21AU0105T	(Any 3 Courses)  Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management	L 3 3 3 3	Wee T 0 0 0 0 0 0 0 0	P 0 0 0 0 0 0 0	3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM101T <sup>1</sup> 21LEM102T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction	D 0 0 0 0 1 1 1 1	Wee 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 2 2 2 2 2 2 0 0 0 0	0 0 0 0
Code  21AU0101T  21AU0102T  21AU0103T  21AU0104T  21AU0105T	Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management Composite Materials for Automotive	L 3 3 3	Wee T 0 0 0 0 0 0 0 0	P 0 0 0 0 0	3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM101T <sup>1</sup> 21LEM102T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction Professional Ethics	L 0 0 0	T	P 2 2 2 2 2 2 0 0 0	0 0 0
Code  21AUO101T  21AUO102T  21AUO103T  21AUO104T  21AUO105T  21AUO106T	Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management Composite Materials for Automotive Applications	L 3 3 3 3 3	Wee	P 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM102L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM101T <sup>1</sup> 21LEM201T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction Professional Ethics Universal Human Values-II:	L 0 0 0 0 0 0 0 1 1 1 1	Wee	P 2 2 2 2 2 2 0 0 0 0 0	0 0 0 0 0
Code  21AUO101T  21AUO102T  21AUO103T  21AUO105T  21AUO106T  21AUO107T	Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management Composite Materials for Automotive Applications Non-Destructive Testing and Evaluation	L 3 3 3 3 3 3	Wee	P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM101T <sup>1</sup> 21LEM102T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction Professional Ethics Universal Human Values-II: Understanding Harmony and Ethical	D 0 0 0 0 1 1 1 1	Wee	P 2 2 2 2 2 2 0 0 0 0	0 0 0 0
Code  21AUO101T  21AUO102T  21AUO103T  21AUO105T  21AUO106T  21AUO107T  21AUO108T	Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management Composite Materials for Automotive Applications Non-Destructive Testing and Evaluation Advanced Engine Technology	L 3 3 3 3 3 3 3	Wee	P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM20L <sup>1</sup> 21PDM20L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM101T <sup>1</sup> 21LEM201T <sup>1</sup> 21LEM201T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction Professional Ethics Universal Human Values-II: Understanding Harmony and Ethical Human Conduct	L 0 0 0 0 0 0 1 1 1 1 1 2	Wee T 0 0 0 0 0 0 0 0 0 0 0 1 1	P 2 2 2 2 2 2 0 0 0 0 0 0	0 0 0 0 0 3
Code  21AUO101T  21AUO102T  21AUO103T  21AUO105T  21AUO106T  21AUO107T  21AUO108T  21AUO109T	Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management Composite Materials for Automotive Applications Non-Destructive Testing and Evaluation Advanced Engine Technology New Product Development	L 3 3 3 3 3 3 3 3	Wee T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM102L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM101T <sup>1</sup> 21LEM201T <sup>1</sup> 21LEM201T <sup>1</sup> 21LEM201T <sup>1</sup> 21LEM201T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction Professional Ethics Universal Human Values-II: Understanding Harmony and Ethical Human Conduct Indian Art Form	L 0 0 0 0 0 0 0 1 1 1 1 1 2	Wee T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0	0 0 0 0 0 3
Code  21AUO101T  21AUO102T  21AUO103T  21AUO105T  21AUO106T  21AUO107T  21AUO108T  21AUO109T  21AUO110T	Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management Composite Materials for Automotive Applications Non-Destructive Testing and Evaluation Advanced Engine Technology New Product Development Automotive Standards and Regulations	L 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	T	P	3 3 3 3 3 3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM102L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM101T <sup>1</sup> 21LEM201T <sup>1</sup> 21LEM201T <sup>1</sup> 21LEM202T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM302T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction Professional Ethics Universal Human Values-II: Understanding Harmony and Ethical Human Conduct Indian Art Form Indian Traditional Knowledge	L 0 0 0 0 0 0 1 1 1 1 1 2	Wee T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 2 2 2 2 2 2 0 0 0 0 0 0	0 0 0 0 0 3
Code  21AUO101T  21AUO102T  21AUO103T  21AUO105T  21AUO106T  21AUO107T  21AUO108T  21AUO109T  21AUO107T  21AUO107T  21AUO107T  21AUO110T  21AUO110T	Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management Composite Materials for Automotive Applications Non-Destructive Testing and Evaluation Advanced Engine Technology New Product Development Automotive Standards and Regulations Automotive Sciences	L 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	T	P	3 3 3 3 3 3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM102L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM202L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM101T <sup>1</sup> 21LEM201T <sup>1</sup> 21LEM201T <sup>1</sup> 21LEM202T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM301T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction Professional Ethics Universal Human Values-II: Understanding Harmony and Ethical Human Conduct Indian Art Form Indian Traditional Knowledge Physical and Mental Health using Yoga	L 0 0 0 0 0 0 0 1 1 1 1 1 2	Wee T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0	0 0 0 0 3
Code  21AUO101T  21AUO102T  21AUO103T  21AUO105T  21AUO106T  21AUO107T  21AUO108T  21AUO109T  21AUO107T  21AUO107T  21AUO107T  21AUO110T  21AUO110T	Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management Composite Materials for Automotive Applications Non-Destructive Testing and Evaluation Advanced Engine Technology New Product Development Automotive Standards and Regulations Automotive Sciences Intelligent Vehicle Technology	L 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	T	P	3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM302L <sup>1</sup> 21PDM302L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM10TT <sup>1</sup> 21LEM20TT <sup>1</sup> 21LEM20TT <sup>1</sup> 21LEM30TT <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction Professional Ethics Universal Human Values-II: Understanding Harmony and Ethical Human Conduct Indian Art Form Indian Traditional Knowledge Physical and Mental Health using Yoga National Service Scheme	L 0 0 0 0 0 0 0 1 1 1 1 1 2	T	P 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 3
Code  21AUO101T  21AUO102T  21AUO103T  21AUO105T  21AUO106T  21AUO107T  21AUO108T  21AUO109T  21AUO107T  21AUO107T  21AUO107T  21AUO110T  21AUO110T	Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management Composite Materials for Automotive Applications Non-Destructive Testing and Evaluation Advanced Engine Technology New Product Development Automotive Standards and Regulations Automotive Sciences Intelligent Vehicle Technology	L 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	T	P	3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM10T <sup>1</sup> 21LEM201T <sup>1</sup> 21LEM202T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM302T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction Professional Ethics Universal Human Values-II: Understanding Harmony and Ethical Human Conduct Indian Art Form Indian Traditional Knowledge Physical and Mental Health using Yoga National Service Scheme National Cadet Corps	L 0 0 0 0 0 0 1 1 1 1 1 2	T	P 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Code  21AUO101T  21AUO102T  21AUO103T  21AUO105T  21AUO106T  21AUO107T  21AUO108T  21AUO109T  21AUO110T  21AUO111T	Course Title  Hybrid and Electric Vehicles Renewable Sources of Energy Special Type of Vehicles Fuel Cells and Applications Transport Management Composite Materials for Automotive Applications Non-Destructive Testing and Evaluation Advanced Engine Technology New Product Development Automotive Standards and Regulations Automotive Sciences Intelligent Vehicle Technology	L 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	T	P	3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code  21PDM101L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM201L <sup>1</sup> 21PDM301L <sup>1</sup> 21PDM302L <sup>1</sup> 21PDM302L <sup>1</sup> 21CYM101T <sup>1</sup> 21LEM10T <sup>1</sup> 21LEM201T <sup>1</sup> 21LEM202T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM301T <sup>1</sup> 21LEM302T <sup>1</sup>	Course Title  Professional Skills and Practices General Aptitude Verbal Reasoning Critical and Creative Thinking Skills Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science Constitution of India Universal Human Values – Introduction Professional Ethics Universal Human Values-II: Understanding Harmony and Ethical Human Conduct Indian Art Form Indian Traditional Knowledge Physical and Mental Health using Yoga National Service Scheme National Cadet Corps National Sports Organization	L 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1	T	P 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0

	Professional Elective Courses (E) (Any 8 Courses)					Professional Elective Courses (E)
Course Code	Course Title		ours Vee	k	С	Course   Course   Hours / Week   Code   Title   L   T   P
	Sub-stream: Manufacturing	<u> </u>	'	F	U	Sub-stream: Vehicular Technologies
21AUE221T	Automotive Components Manufacturing	3	0	0	3	21AUE251T Auxiliary Vehicle Systems 3 0 0
	Welding and Joining Techniques	3	0	0	3	21AUE252T Two and Three Wheeler Technology 3 0 0
	Automotive Surface Engineering	3	0	0	3	21AUE351T Vehicle Performance and Testing 3 0 0
21AUE322T	Agile Manufacturing	3	0	0	3	21AUE352T Tyre Technology 3 0 0
21AUE323T	Manufacturing Systems and Simulation	3	0	0	3	21AUE353T Motorsport Technology 3 0 0
	Advanced Manufacturing Process	3	0	0	3	21AUE354T Automotive NVH 3 0 0
	Computer Integrated Manufacturing	3	0	0	3	21AUE355T Advanced Vehicle Technology 3 0 0
21AUE326T	Process Planning and Cost Estimation	3	0	0	3	21AUE451T Automotive Safety and Ergonomics 3 0 0 .
21AUE421T	Automotive Quality Systems	3	0	0	3	21AUE452T Vehicle Body Engineering and 3 0 0
21AUE422T	Industrial Engineering and Operational	3	0	0	3	Aerodynamics
ZIAOLTZZI	Research	J	U	U	J	Sub-stream: Vehicle Testing
	Sub-stream: Engine					21AUE361T Electromagnetic Interference and 3 0 0
	Heat Ventilation and Air Conditioning	3	0	0	3	Compatibility
	Engine Testing and Validation	3	0	0	3	21AUE362T Vehicle Crashworthiness and Occupants 3 0 0
	Fuel Testing and Standards	3	0	0	3	
	Automotive Exhaust System Development	3	0	0	3	21AUE461T Automotive Component Testing and 3 0 0
	Engine Auxiliary Systems	3	0	0	3	Certification   Certificatio
	Design of Automotive Thermal System	3	0	0	3	21AUE462T   Vehicular Vibration and Vehicle Dynamics   3   0   0
21AUE3351	Simulation of Internal Combustion Engines	3	0	0	3	
21AUE431T	Controls	3	0	0	3	21AUE464T Electric Vehicle Technology and Testing 3 0 0 Total Credits 2
21AUE432T	Alternative Fuels and Energy Systems	3	0	0	3	
	Sub-stream: Design					
	Automotive Driveline Design	3	0	0	3	
	Automotive Chassis Component Design	3	0	0	3	STORE OF THE BEST OF THE STORE
	Vehicle Design Data Characteristics	3	0	0	3	s a long the fields. The second second
	Concepts of Engineering Design	3	0	0	3	
21AUE343T	Rapid Prototyping and Tooling	3	0	0	3	and the second s
21AUE344T	Modeling and Control of Vibration in Mechanical Systems	3	0	0	3	
	Design for Manufacture	3	0	0	3	
21AUE442T	Geometrical Dimensioning and Tolerance	3	0	0	3	31.5- ( ) ( ) ( ) ( ) ( )
	Z LEAL	2	N	2		LEAP · LEAD

## 7. (e) Programme Articulation: B.Tech. in Automobile Engineering with Specialization in Vehicle Testing

					F	rogra	ım Ou	tcome	s (PC	))					PSO	
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Course Code	Course Name	Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	ndividual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	PSO-1	PSO-2	PSO-3
	Artifact Dissection Lab	3	3		0 0					_		ш.	3	2	1	1
	Applied Thermal Engineering	1.2	1.6	0.6				0.4						1.6	1.2	0.6
ZTAUCZZJ	Manufacturing Technology for Automotive Engineers	3	3					0.8		•				3	3	
	Automotive Engines	1.6	0.6	0.2	0.8	0.6		0.8						1.6	0.6	0.2
	CAD Analysis for Automotive Engineers	3	1	2	1	1.8	1	4			1			3	0.6	0.0
	Design of Automotive Systems laboratory	2.6	1.8	2.6	2.4	1.8	74	0.4	4		1			2.6	1.8	2.6
	Vehicular Structures and Driveline Systems	3	2	0.8	0.6	1.8		0.4	- 14	1	1		1	3	2	1
	Automotive Electrical and Electronics Finite Element Analysis	3	3	0.4	2	1.0				1	1		1	3	3	<u> </u>
	Vehicle Dynamics	3	3	0.4		3					-			3	2	<del>                                     </del>
	Vehicle Maintenance	0.2	3	0.4	1.6	2.4					•			3	2	<del></del>
	Automotive Components Manufacturing	3	2	0.4	1.0	2.7						-		3		
	Welding and Joining Techniques	1.6	0.2	0.4	1.2	0.8					-	0.6	4	3		
	Automotive Surface Engineering	1.6	1.6	1.8	1	0.0	- 7	_				0.0	٠.	3	1.2	
	Agile Manufacturing	3 -	2		2.2		400							2.6		
	Manufacturing Systems and Simulation	2.4	0.4	0.8	1.6	0.8								3		
	Advanced Manufacturing Process	2.4	0.2	1.2	1.2	0.8			П.		7		7	3	0.8	
21AUE325T	Computer Integrated Manufacturing	3	2	170	935	1			9.9	137				3		
	Process Planning and Cost Estimation	1.6	1.8	1.6	1									2.4		
	Automotive Quality Systems	1.6	1.6	1.8	1		7	172	4					2		
21AUE422T	Industrial Engineering and Operational Research	3	2.4	â	2				12	3				1.8	2.2	
	Heat ventilation and air conditioning	2.6	0.4	0.6	I			0.4	127					3	0.8	
	Engine testing and validation	2.6	0.2	1.4	1.2	4	1.80	4		0.2		0.6		3	1.6	
	Fuel testing and standards	3	2	1	3	1		3	3	2				3		
	Automotive exhaust system development	3	2.8	1	2			2.4				- 4		3		
	Engine auxiliary systems	3	0.6	0.6	1.8	2.4						4		3	0.0	
	Design of automotive thermal system	0.4	0	0.6	0.6	0.4		4			7			2.2	0.6	
	Simulation of Internal Combustion Engines	3	2	0.4	2.8	3		1				1		0.6	2.4	
	Automotive emission formation and controls  Alternative fuels and energy systems	1.6	1	0.4	2.2			1.8 3			4			2.6	1.6	<del></del>
	Automotive Driveline Design	1.6		2.6		4		J			-4		-/	3		<del>                                     </del>
	Automotive Chassis Component Design	2.2	1.8								-	-		3		<del></del>
	Vehicle Design Data Characteristics	2.8	3	2.8	- 7	Ð			- 1	TY	+			3		
	Concepts of Engineering Design	2.4	0.4		1	0.4			ďΣ	,		7		3		
	Rap <mark>id prototyping</mark> and tooling	2.6	1	1.8	1.6									2.4	1	0.5
	Modeling and Control of Vibration in		2.4								7		7			
21AUE3441	Mechanical Systems	1.2	2.4	1.2	1.2									3		
21AUE441T	Design for Ma <mark>nufacture</mark>	2.2		2.2	3							-		3		
	Geometrical Dime <mark>nsioning and Tolerance</mark>	2	2.5	1.5							100			1.5	2.25	<u> </u>
	Auxiliary vehicle systems	3	3				3	4 5						3	2	<u> </u>
	Two and three wheeler technology	3	0.6	1.8		0.5		1.2						3		<u> </u>
	Vehicle performance and testing	0.2	4.0	0.4	1	0.6								3		<u> </u>
	Tyre technology	3	1.8	1.2	2.4	0.6								3		-
	Motorsport technology Automotive NVH	3	1.8 2.4	0.6	0.8									3	0.6	1
	Automotive NVH Advanced vehicle technology	3	3	0.6	0.4									3	U.0	'
	Advanced verificie technology  Automotive Safety and Ergonomics	3	J	0.8	0.4			0.4						3		<del></del>
	Vehicle body Engineering and Aerodynamics	3		0.8	0.6			0.4						J		
21AUP303T		3	2	2	0.0			0.7			2		2			
21AUP302L		3	3	3	3	3	2	2	3	3	3	3	3	3	3	3
	Major Project	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Major Project	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
21AUP403L		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	•			•									-	-	-	

					P	rogra	ım Ou	tcome	s (PC	)					PSO	
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Course Code	Course Name	Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	ındividual & Team Work	Sommunication	Project Mgt. & Finance	ife Long Learning	1-08c	2-08c	SO-3
21AUE361T	Electromagnetic Interference and Compatibility	2.4	1.2	3	1.4	0.6								1.8	0.6	0.6
21AUE362T	Vehicle Crashworthiness and Occupants Safety	2.4	1.2	3	**	7 9	١.,	٠.,						2.8	0.6	0.2
21AUE461T	Automotive Component Testing and Certification	2.4	1.8	3	0.8	0.6			•	٠,				2.4	0.4	0.8
21AUE462T	Vehicular Vibration and Vehicle Dynamics	2.4	1.8	3	0.8	0.6	-			M				3	0.4	0.8
21AUE463T	Advanced Power Train Technology	2.4	1.8	_3	0.8	0.6	4	4				٠.		3		
21AUE464T	Electric Vehicle Technology and Testing	2.4	1.8	3	0.8	0.6	u .		4					3	1.4	
	Program Average	2.4	1.6	1.3	1.1	0.6	0.2	0.4	0.2	0.2	0.2	0.2	0.3	2.6	0.8	0.3



### 7. (f) Implementation Plan: B.Tech. in Automobile Engineering with Specialization in Vehicle Testing

	Semester – I						Semester – II				
_		Н	ours	1				H	Hour	1	
Course	Course		/eeł			Course	Course		Weel		
Code	Title	ΤÌ	Т	Р	С	Code	Title	ı		Р	С
21LEH101T	Communicative English	2	1	0	3	21LEH102T	Chinese	_	<u> </u>	Ė	Ť
21MAB101T		3	1	0	4		French				
ZIWADIUII		J	1	U	4						
045)/5404/	Physics: Electromagnetic Theory,	_		0	_	21LEH104T	German	_		_	١,
21PYB101J	Quantum Mechanics, Waves and	3	1	2	5	21LEH105T	Japanese	2	1	0	3
	Optics						Korean				
	Engineering Graphics and Design	0	0	4	2	21LEH107T	Spanish				
21EES101T	Electrical and Electronics Engineering	3	1	0	4	21LEH108T	Russian				
21AUS101L 1	Artifact Dissection Lab	0	0	2	1	21GNH101J	Philosophy of Engineering	1	0	2	2
21CYM101T 1	Environmental Science*	1	0	0	0		Advanced Calculus and Complex	_	١,		
21PDM101L 1	Professional Skills and Practices	0	0	2	0	21MAB102T	Analysis	3	1	0	4
21LEM101T 1	-	1	0	0	0	21CYB101J	Chemistry	3	1	2	
		tal (	Cra	dite	-		Biology	2	0	0	2
		,tui	OIC	uito	10		Programming for Problem Solving	3	0	2	4
	Semester – III								1	0	4
Course	Course	Н	ours	s/			Engineering Mechanics	3		-	_
Code	Course	_ \	Vee				Basic Civil and Mechanical Workshop	0	0	4	2
Code	Title	L	Τ	Р	С		General Aptitude*	0	0	2	C
0414400047	Transforms and Boundary Value	^	,	^	,		Physical and Mental Health using Yoga				
21MAB201T	Problems	3	1	0	4		National Service Scheme	0	0	2	0
21MEC202T 2		3	1	0	4	21GNM103L 1	National Cadet Corps	U	U		0
21MEC203T		3	0	0	3	21GNM104L 1	National Sports Organization				
	Applied Thermal Engineering	3	0	0	3			otal	Cre	dits	2
	Manufacturing Technology for	J	U	U	J	777					
21AUC203J	Automotive Engineers	2	0	2	3		Semester – IV				
04001100071		0	^	^		Course	Course	Н	lours	:/	
21PDH209T 1		2	0	0	2		Course	١	Neel	Κ	
21LEM201T <sup>1</sup>		1	0	0	0	Code	Title	L	Τ	Р	C
21PDM201L 1		0	0	2	0	21MAB202T	Numerical Methods	3	1	0	4
	Universal Human Values-II:					21CSC206T	Artificial Intelligence	2	1	0	3
21LEM202T 1	Understanding Harmony and Ethical	2	1	0	3		Fluid Mechanics and Machinery	3	0	0	3
	Human Conduct							2	0	2	3
21MEC202L 1	Material testing Laboratory	0	0	2	1	21AUC202J E	Automotive Engines Professional Elective – I		U		3
	To	otal	Cre	dits	23	_					
								4	2		
	The second secon						Design Thinking and Methodology	1	2	0	_
	Semester – V					21PDM202L <sup>1</sup>	Critical and Creative Thinking Skills*	0	0	2	0
Course		Н	lour	s/		21PDM202L <sup>1</sup>	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory	0	0	2	0 1
Course	Course		lour: Nee			21PDM202L <sup>1</sup>	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory	0		2	0
Course Code					С	21PDM202L <sup>1</sup>	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T	0	0	2	0
Code	Course Title		Nee	k	С	21PDM202L <sup>1</sup>	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory	0 0 otal	0 0 Cre	2 2 dits	0
Code 21MAB301T	Course Title Probability and Statistics	L 3	Vee T 1	P 0	C 4	21PDM202L <sup>1</sup> 21MEC204L <sup>1</sup>	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI	0 0 otal	0 0 Cre-	2 2 dits	0
Code 21MAB301T 21MEC206T	Course Title Probability and Statistics Kinematics and Dynamics of Machines	L 3 3	Vee T 1	P 0 0	C 4 3	21PDM202L 1 21MEC204L 1 Course	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI  Course	0 0 otal	0 0 Cred	2 dits	0
Code 21MAB301T 21MEC206T 21AUC301T <sup>2</sup>	Course Title Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers	L 3	Vee T 1	P 0	C 4	21PDM202L <sup>1</sup> 21MEC204L <sup>1</sup>	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI	0 0 otal	0 0 Cre-	2 2 dits	0
Code  21MAB301T  21MEC206T  21AUC301T <sup>2</sup>	Course Title Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline	L 3 3	Vee T 1 0 0	P 0 0	C 4 3	21PDM202L 1 21MEC204L 1 Course Code	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI  Course	0 0 otal	0 Creconstant	2 dits	1 20
Code  21MAB301T  21MEC206T  21AUC301T <sup>2</sup> 21AUC302J	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems	3 3 3	Vee T 1 0 0	P 0 0 0	C 4 3 3 3	21PDM202L 1 21MEC204L 1  Course Code 21CSS303T	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI  Course Title	O otal	O O O O O O O O O O O O O O O O O O O	2 2 dits	2
Code  21MAB301T 21MEC206T 21AUC301T 21AUC302J E	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II	3 3 3 2	Vee T 1 0 0	P 0 0 0 0 2	C 4 3 3 3 3 3	21PDM202L 1 21MEC204L 1 Course Code	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI  Course Title  Data Science Automotive Electrical and Electronic	0 0 otal	0 Creconstant	2 2 dits	2
Code  21MAB301T 21MEC206T 21AUC301T 21AUC302J E O	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I	3 3 3 2	Vee T 1 0 0 0 0 0	P 0 0 0 0 2 0 0	C 4 3 3 3 3 3 3	21PDM202L1 21MEC204L1  Course Code 21CSS303T 21AUC303J	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI  Course Title  Data Science Automotive Electrical and Electronic Systems	0 0 0 otal	0 0 Cree Neel T 0	2 2 dits 6/ k P 0	C 22 3
Code  21MAB301T 21MEC206T 21AUC301T 21AUC302J E O 21PDM301L 1	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills*	3 3 3 2 2	Vee T 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 0 0 0 2 2 2	C 4 3 3 3 3 0 0	21PDM202L 1 21MEC204L 1 Course Code 21CSS303T 21AUC303J 21AUC304J	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis	0 0 0 otal	O Cred	2 2 2 dits 8   P 0 2	C 22 33 44
Code  21MAB301T 21MEC206T 21AUC301T 21AUC302J  E O 21PDM301L 1 21LEM301T 1	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form	3 3 3 2 2 0 1	Vee T 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 0 0 0 2 2 0	C 4 3 3 3 3 0 0 0	21PDM202L1 21MEC204L1  Course Code 21CSS303T 21AUC303J E	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective – III	0 0 0 otal	O O O O O O	2 2 2 dits 	C 22 33 44 33
Code  21MAB301T 21MEC206T 21AUC301T 21AUC302J E O 21PDM301L 21LEM301T 21AUC301L 1 21AUC301L 1	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form Design of Automotive Systems Laboratory	3 3 3 2 2 0 1	Vee T 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 0 0 0 2 2 0	C 4 3 3 3 3 0 0	21PDM202L1 21MEC204L1 Course Code 21CSS303T 21AUC303J E E	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective – III Professional Elective – IV	0 0 0 otal L 2 2 2 3 3 3	0 0 Cree Ours Weel T 0 0 0	2 2 2 2 dits P 0 2 2 0 0	C 22 33 44 33
Code  21MAB301T 21MEC206T 21AUC301T 21AUC302J E O 21PDM301L 21LEM301T 21AUC301L 1 21AUC301L 1	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form	3 3 3 2 2 0 1	Vee T 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 0 0 0 2 2 0	C 4 3 3 3 3 0 0 0	21PDM202L1 21MEC204L1  Course Code 21CSS303T 21AUC303J E E 21AUC304J	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester - VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective - III Professional Elective - IV Project	0 0 otal L 2 2 3 3 3 0	0 0 Cree	2 2 dits 6/ k P 0 2 2 0 0 6	C 2 3 3 3 3 3 3 3
Code  21MAB301T 21MEC206T 21AUC301T 21AUC302J E O 21PDM301L 21LEM301T 21AUC301L 1 21AUC301L 1	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form Design of Automotive Systems Laboratory Community Connect	3 3 3 2 2 0 1 0	T	P 0 0 0 2 2 0 2 2 2	C 4 3 3 3 3 0 0 0 1 1	21PDM202L 1 21MEC204L 1 Course Code 21CSS303T 21AUC303J 21AUC304J E E 21AUP302L 1 21AUP303T 1	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester - VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective - III Professional Elective - IV Project MOOC	0 0 otal L 2 2 3 3 0 3	0 0 Cree	2 2 dits 6/ k P 0 2 2 0 0 6	C 22 3 3 4 3 3 3 3 3
Code  21MAB301T 21MEC206T 21AUC301T 21AUC302J E O 21PDM301L 21LEM301T 21AUC301L 1 21AUC301L 1	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form Design of Automotive Systems Laboratory Community Connect	1 3 3 3 2 2 0 1 0	T	P 0 0 0 2 2 0 2 2 2	C 4 3 3 3 3 0 0 0 1 1	21PDM202L1 21MEC204L1  Course Code  21CSS303T  21AUC303J  E E 21AUP302L1 21AUP303T1 0	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester - VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective - III Professional Elective - IV Project MOOC Open Elective - II	0 0 0 otal L 2 2 3 3 0 3 3	0 0 Cree	2 2 dits 8/k P 0 2 2 0 0 6 0	
Code  21MAB301T 21MEC206T 21AUC301T 21AUC302J E O 21PDM301L 21LEM301T 21AUC301L 1 21AUC301L 1	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form Design of Automotive Systems Laboratory Community Connect	1 3 3 3 2 2 3 0 1 0 0 0 0 tal	T	P 0 0 0 2 2 0 2 2 ddits	C 4 3 3 3 3 0 0 0 1 1	21PDM202L 1 21MEC204L 1  Course Code  21CSS303T  21AUC303J  E E 21AUP302L 1 21AUP303T 1  O 21PDM302L 1	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester - VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective - III Professional Elective - IV Project MOOC Open Elective - II Employability Skills and Practices	0 0 otal L 2 2 3 3 0 3	0 0 Cree   O   O   O   O   O   O   O   O   O   O	2 2 2 ddits 8 8 P 0 0 6 0 0 0 2	0 1 2 2 3 4 3 3 6
Code  21MAB301T  21MEC206T  21AUC301T  21AUC302J  E	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form Design of Automotive Systems Laboratory Community Connect  To Semester – VII	3 3 3 2 0 1 0 0 0 0 0 0	T	P 0 0 0 2 2 2 2 ddits	C 4 3 3 3 3 0 0 0 1 1	21PDM202L 1 21MEC204L 1  Course Code  21CSS303T  21AUC303J  E E 21AUC302L 1 21AUP303T 1 O 21PDM302L 1	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester - VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective - III Professional Elective - IV Project MOOC Open Elective - II Employability Skills and Practices Indian Traditional Knowledge	0 0 0 otal L 2 2 3 3 0 3 0 1	0 0 Cree Veel T 0 0 0 0 0 0 0	2 2 ddits 8 8 P 0 0 6 0 0 0 0	3 3 3 3 0 0
Code  21MAB301T  21MEC206T  21AUC301T  21AUC302J  E	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form Design of Automotive Systems Laboratory Community Connect  Semester – VII Course	3 3 3 2 0 1 0 0 0 0 0 0	T	P 0 0 0 2 2 0 2 2 dits	C 4 3 3 3 3 0 0 0 1 1 21	21PDM202L 1 21MEC204L 1  Course Code  21CSS303T  21AUC303J  E E 21AUP302L 1 21AUP303T 1  O 21PDM302L 1	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester - VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective - III Professional Elective - IV Project MOOC Open Elective - II Employability Skills and Practices Indian Traditional Knowledge	0 0 0 otal L 2 2 3 3 0 3 0 1	0 0 Cree   O   O   O   O   O   O   O   O   O   O	2 2 ddits 8 8 P 0 0 6 0 0 0 0	3 3 3 3 0 0
Code  21MAB301T  21MEC206T  21AUC301T  21AUC302J  E	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form Design of Automotive Systems Laboratory Community Connect  To Semester – VII	3 3 3 2 0 1 0 0 0 0 0 0	T	P 0 0 0 2 2 2 2 ddits	C 4 3 3 3 3 0 0 0 1 1	21PDM202L 1 21MEC204L 1  Course Code  21CSS303T  21AUC303J  E E 21AUP302L 1 21AUP303T 1  O 21PDM302L 1	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester – VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective – III Professional Elective – IV Project MOOC Open Elective – II Employability Skills and Practices Indian Traditional Knowledge T	0 0 0 otal L 2 2 3 3 0 3 0 1	0 0 Cree Veel T 0 0 0 0 0 0 0	2 2 ddits 8 8 P 0 0 6 0 0 0 0	3 3 3 3 0 0
Code  21MAB301T 21MEC206T 21AUC301T <sup>2</sup> 21AUC302J  E	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form Design of Automotive Systems Laboratory Community Connect  Semester – VII  Course Title	3 3 3 2 0 1 0 0 0 0 0 0	T	P 0 0 0 2 2 0 2 2 dits	C 4 3 3 3 3 0 0 0 1 1 21	21PDM202L 1 21MEC204L 1  Course Code  21CSS303T  21AUC303J  E E 21AUP302L 1 21AUP303T 1  O 21PDM302L 1	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester - VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective - III Professional Elective - IV Project MOOC Open Elective - II Employability Skills and Practices Indian Traditional Knowledge	0 0 0 otal L 2 2 3 3 3 0 3 0 1 otal	0 0 0 Cree	2 2 dits P 0 0 6 0 0 2 0 0 dits	
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Code  21MAB301T 21MEC206T 21AUC301T <sup>2</sup> 21AUC302J  E O 21PDM301L <sup>1</sup> 21LEM301T <sup>1</sup> 21AUC301L <sup>1</sup> 21GNP301L <sup>1</sup> Course Code  21GNH401T  E E	Course Title  Probability and Statistics Kinematics and Dynamics of Machines CAD Analysis for Automotive Engineers Vehicular Structures and Driveline Systems Professional Elective – II Open Elective – I Analytical and Logical Thinking Skills* Indian Art Form Design of Automotive Systems Laboratory Community Connect  To  Semester – VII  Course Title  Behavioral Psychology Professional Elective – V Professional Elective – VI	3 3 3 2 2 3 0 1 0 0 0 0 0 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	T	P	C 4 3 3 3 0 0 1 1 21 C C 3 3 3 3 3	21PDM202L 1 21MEC204L 1  Course Code  21CSS303T  21AUC303J  E  21AUC304J  E  21AUP302L 1  21AUP303T 1  O  21PDM302L 1  21LEM302T 1  Course Code	Critical and Creative Thinking Skills* Fluid Dynamics Laboratory  T  Semester - VI  Course Title  Data Science Automotive Electrical and Electronic Systems Finite Element Analysis Professional Elective - III Professional Elective - IV Project MOOC Open Elective - II Employability Skills and Practices Indian Traditional Knowledge  T  Semester - VIII  Course Title	0 0 0 otal L 2 2 3 3 0 1 otal	0 0 0 Cree    O	2 2 ddits 6/ k P 0 0 6 0 0 2 0 dits	3 3 3 0 0 0
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# SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)

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