



**PUNYASHLOK AHILYADEVII HOLKAR SOLAPUR  
UNIVERSITY, SOLAPUR**

**FACULTY OF SCIENCE & TECHNOLOGY  
NEP 2020**

**Structure of  
Second Year B.Tech Mechanical and Rail Engineering  
w.e.f Academic Year 2026-27**



PUNYASHLOK AHILYADEVI HOLKAR SOLAPUR UNIVERSITY, SOLAPUR

FACULTY OF SCIENCE & TECHNOLOGY

NEP 2020 Compliant Curriculum

With effect from A.Y. 2026-2027

Semester -III

Distribution	Course Code	Name of the Course	Engagement Hours			Credits	FA	SA			Total
			L	T	P		ESE	ISE	ICA	OE/ POE	
PCC	MERLPCC-01	Thermodynamics	2	-	2	03	70	30	25	-	125
PCC	MERLPCC-02	Elements of Railway Engineering Systems	2	-	2	03	70	30	-	25	125
PCC	MERLPCC-03	Strength of Materials	3	1		04	70	30	25		125
CEP/FP	MERLFP-01	Mini-Project on Workshop Practice	-	-	4	02	-	-	50	25	75
Entrepreneurship	EM-01	Product Development and Entrepreneurship	1	1	-	02	-	50	25	-	75
OE	OE-01	Open Elective-01	2	-	2	03	70	30	25	-	125
MDM	MDM-01	Multidisciplinary Minor-I	2	-	2	03	70	30	25	-	125
VEC	VEC-01	Universal Human Values	1	-	2	02	50*		25	-	75
		<b>Total</b>	<b>13</b>	<b>2</b>	<b>14</b>	<b>22</b>	<b>400</b>	<b>200</b>	<b>200</b>	<b>50</b>	<b>850</b>
		<b>Environmental Studies</b>	<b>1</b>								

\*For VEC-01 MCQ-based examination to be conducted.

PCC- Programme Core Course, CEP/FP – Community Engagement Project/Field Project, EM-01: Entrepreneurship/Management, OE- Open Elective, MDM-Multidisciplinary Minor, VEC- Value Education Course, MDM – Multidisciplinary Minor: It should be selected from other UG engineering minor program.



**PUNYASHLOK AHILYADEVI HOLKAR SOLAPUR UNIVERSITY, SOLAPUR**

**FACULTY OF SCIENCE & TECHNOLOGY**

**NEP 2020 Compliant Curriculum**

**With effect from A.Y. 2026-2027**

**Semester -IV**

Distribution	Course Code	Name of the Course	Engagement Hours			Credits	FA	SA			Total
			L	T	P		ESE	ISE	ICA	OE/ POE	
PCC	MERLPCC-04	Theory of Machines	2	-	2	03	70	30	-	25	125
PCC	MERLPCC-05	Rolling Stocks and Operations	2	-	2	03	70	30	25	-	125
PCC	MERLPCC-06	Fluid Mechanics and Hydraulic Machines	3	-	2	04	70	30	25	-	125
VSC	MERLVSC-01	Advanced Lab on CAD	1	-	2	02	-		25	25	50
Economic/ Management	EM-02	Project Management and Economics	2	-	-	02	-	25	25	-	50
OE	OE-02	Open Elective-02	2	-	2	03	70	30	25	-	125
MDM	MDM-02	Multidisciplinary Minor-II	2	-	2	03	70	30	25	-	125
VEC	VEC-02	Professional Ethics	1	-	2	02	50*	-	25	-	75
		<b>Total</b>	<b>15</b>	<b>-</b>	<b>14</b>	<b>22</b>	<b>400</b>	<b>175</b>	<b>175</b>	<b>50</b>	<b>800</b>
		<b>Environmental Studies</b>	<b>1</b>				<b>40</b>	<b>10</b>			<b>50</b>

\*VEC-02 MCQ-based examination to be conducted.

PCC- Programme Core Course, EM-02: Entrepreneurship/Management, OE- Open Elective, MDM-Multidisciplinary Minor,

VSC-Vocational Skill Course, VEC- Value Education Course

MDM – Multidisciplinary Minor: It should be selected from other UG engineering minor program

- Legends Used: L- Lecture, T- Tutorial, P-Lab Session, FA-Formative Assessment, SA-Summative Assessment, ESE- End Semester Examination, ISE- In Semester Evaluation, ICA- Internal Continuous Assessment