

MIT ACADEMY OF ENGINEERING, ALANDI

**Curriculum for
First Year
Bachelor of Technology**

**(Civil/Chem/Comp/Soft/Electronics/ENTC/Mech/DS/IT
/AI-ML Engineering)**

NEP REVISION 2023 (2.0)

**(With Effect from Academic Year: 2023-24 and
2024-2025(DS, IT, AI-ML))**

MIT Academy of Engineering (An Autonomous Institute Affiliated to Savitribai Phule Pune University)	COURSE STRUCTURE (NEP REVISION 2023)			
	SCHOOL OF CHEMICAL, CIVIL, COMPUTER, MECHANICAL, DATA SCIENCE ENGINEERING	W. E. F.	:	2025-2026
	FIRST YEAR BACHELOR OF TECHNOLOGY (CHEMICAL, CIVIL, COMPUTER, MECHANICAL, DATA SCIENCE ENGINEERING)	RELEASE DATE	:	01/08/2025
REVISION NO.		:	2.0 (NEP)	

SEMESTER: I (CIVIL, CHEMICAL, COMPUTER, MECH, DATA SCIENCE Engineering)												
2301119 - Universal Human Values (Induction Program) (Audit Course)												
COURSE			TEACHING SCHEME			EXAMINATION SCHEME AND MARKS						C R E D I T
TYPE	CODE	NAME	Hour/Week			THEORY			PRACT/ TU		T O T A L	
			TH	P	TU	IA	MSE	ESE	CA	D/ P		
BSC	2301101T	Calculus and Differential Equations	3	-	-	30	20	50	-	-	100	3
	2301101U	Calculus and Differential Equations Tutorial	-	-	1	-	-	-	20	30	50	1
BSC	2301102T	Engineering Physics	2	-	-	15	20	40	-	-	75	2
	2301102L	Engineering Physics Lab	-	2	-	-	-	-	20	30	50	1
ESC	2307104T	Electrical Science and Electronics Systems (Civil)	2	-	-	15	20	40	-	-	75	2
	2307102T	Introduction to Electrical & Electronics Engineering (Chemical)	2	-	-	15	20	40	-	-	75	2
	2307103T	Digital Electronics Engineering (Computer)	2	-	-	15	20	40	-	-	75	2
	2307102T	Introduction to Electrical & Electronics Engineering (Mechanical)	2	-	-	15	20	40	-	-	75	2
	2307103T	Digital Electronics Engineering (Data Science)	2	-	-	15	20	40	-	-	75	2
	2307104L	Electrical Science and Electronics Systems Lab (Civil)	-	2	-	-	-	-	20	30	50	1
	2307102L	Introduction to Electrical & Electronics Engineering Lab (Chemical)	-	2	-	-	-	-	20	30	50	1
	2307103L	Digital Electronics Engineering Lab (Computer)	-	2	-	-	-	-	20	30	50	1
	2307102L	Introduction to Electrical & Electronics Engineering Lab (Mechanical)	-	2	-	-	-	-	20	30	50	1
	2307103L	Digital Electronics Engineering Lab (Data Science)	-	2	-	-	-	-	20	30	50	1
ESC	2304101T	Foundations of Computing	2	-	-	15	20	40	-	-	75	2
	2304101L	Foundations of Computing Lab	-	2	-	-	-	-	20	30	50	1
VSEC	2303161L	Computer-Aided Engineering Drawing	-	4	-	-	-	-	35	40	75	2
	2305161L	Computer-Aided Engineering Drawing	-	4	-	-	-	-	35	40		
	2304161T	Linux Fundamentals and Programming	1	-	-	15	-	20	-	-	35	1
	2304161L	Linux Fundamentals and Programming Lab	-	2	-	-	-	-	20	20	40	1
	2309161L	Computer Aided Engineering Drawing	-	4	-	-	-	-	35	40	75	2
	2312161T	Data Driven Modelling	1	-	-	15	-	20	-	-	35	1

	2312161L	Data Driven Modelling Lab	-	2	-	-	-	-	20	20	40	1
HSSM AEC	2301111L	Communication Skills (English)	-	4	-	-	-	-	35	40	75	2
	2301112/3/ 4T	Communication Skills (German/Japanese/ French)	2	-	-	35	-	40	-	-	75	2
CC	2301182L	Liberal Learning	-	2	-	-	-	-	-	50	50	1
HSSM IKS	2303181T	Indian Knowledge System (Ancient Indian Architecture and Town Planning)	2	-	-	25	-	50	-	-	75	2
	2305181T	Indian Knowledge System (Indian Heritage Textiles)										
	2304181T	Indian Knowledge System (Vedic Mathematics)										
	2309181T	Indian Knowledge System (Indian Metallurgy)										
	2312181T	Indian Knowledge System (Vedic Mathematics)										
TOTAL			13 (14)	16 (14)	1						800	20

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	SCHOOL OF CHEMICAL, CIVIL, COMPUTER, MECHANICAL, DATA SCIENCE ENGINEERING	W. E. F.	:	2025-2026
	FIRST YEAR BACHELOR OF TECHNOLOGY (CHEMICAL, CIVIL, COMPUTER, MECHANICAL, DATA SCIENCE ENGINEERING)	RELEASE DATE	:	01/08/2025
		REVISION NO.	:	2.0 (NEP)

SEMESTER: II (CIVIL, CHEMICAL, COMPUTER, MECH, DATA SCIENCE Engineering)													
COURSE			TEACHING SCHEME			EXAMINATION SCHEME AND MARKS						C R E D I T	
TYPE	CODE	NAME	Hour/Week			THEORY			PRACT		T O T A L		
			TH	P	TU	IA	MSE	ESE	CA	D/P			
BSC	2301103T	Statistics and Integral Calculus	3	-	-	30	20	50	-	-	100	3	
	2301103U	Statistics and Integral Calculus Tutorial	-	-	1	-	-	-	20	30	50	1	
BSC	2301104T	Science of Nature	3	-	-	30	20	50	-	-	100	3	
	2301104L	Science of Nature Lab	-	2	-	-	-	-	20	30	50	1	
ESC	2304102T	Essentials of Data Science	2	-	-	15	20	40	-	-	75	2	
	2304102L	Essentials of Data Science Lab	-	2	-	-	-	-	20	30	50	1	
ESC	2303101T	Applied Mechanics	2	-	-	15	20	40	-	-	75	2	
	2303101L	Applied Mechanics Lab	-	2	-	-	-	-	20	30	50	1	
ESC	2309101T	Design Thinking	1	-	-	15	-	20	-	-	35	1	
	2309101L	Design Thinking Lab	-	2	-	-	-	-	20	20	40	1	
VSEC	2303162T	Surveying and Geomatics	1	-	-	15	-	20	-	-	35	1	
	2303162L	Surveying and Geomatics Lab	-	2	-	-	-	-	20	20	40	1	
	2305162T	Computer Aided Chemical Engineering	1	-	-	15	-	20	-	-	35	1	
	2305162L	Computer Aided Chemical Engineering Lab	-	2	-	-	-	-	20	20	40	1	
	2304162T	Data Visualization	1	-	-	15	-	20	-	-	35	1	
	2304162L	Data Visualization Lab	-	2	-	-	-	-	20	20	40	1	
	2309162L	Fab Lab	-	4	-	-	-	-	35	40	75	2	
	2312162T	Data Visualization	1	-	-	15	-	20	-	-	35	1	
	2312162L	Data Visualization Lab	-	2	-	-	-	-	20	20	40	1	
PCC	2303111T	Basics of Civil Engineering	2	-	-	15	20	40	-	-	75	2	
	2305111T	Chemical Process Calculations	2	-	-	15	20	40	-	-			
	2304111T	Discrete Structure	2	-	-	15	20	40	-	-			
	2309111T	Manufacturing Processes	2	-	-	15	20	40	-	-			
		2312111T	Discrete Structure	2	-	-	15	20	40	-	-		
CC	2307183L	Creative Technologies	-	4	-	-	-	-	35	40	75	2	
TOTAL			13 (14)	14 (16)	1							850	22

*Two Credit Internship need to accomplish after Completion of First Year

 Academy of Engineering (An Autonomous Institute Affiliated to Savitribai Phule Pune University)				COURSE STRUCTURE (NEP REVISION 2023)		
SCHOOL OF ENTC, SOFTWARE,IT,AI-ML ENGINEERING		W.E.F	:	2025-26		
FIRST YEAR BACHELOR OF TECHNOLOGY (ENTC, SOFTWARE,IT,AI-ML ENGINEERING)		RELEASE DATE	:	01/08/2024		
		REVISION NO.	:	2.0 (NEP)		

SEMESTER: I (ENTC, SOFTWARE, IT, AI-ML ENGINEERING)												
2301119-Universal Human Values (Induction Program) (Audit Course)												
COURSE			TEACHING SCHEME			EXAMINATION SCHEME AND MARKS						C R E D I T
TYPE	CODE	NAME	Hour/Week			THEORY			PRACT/TUT		T O T A L	
			TH	P	TU	IA	MSE	ESE	CA	D/P		
BSC	2301101T	Calculus and Differential Equations	3	-	-	30	20	50	-	-	100	3
	2301101U	Calculus and Differential Equations Tutorial	-	-	1	-	-	-	20	30	50	1
BSC	2301104T	Science of Nature	3	-	-	30	20	50	-	-	100	3
	2301104L	Science of Nature Lab	-	2	-	-	-	-	20	30	50	1
ESC	2304101T	Foundations of Computing	2	-	-	15	20	40	-	-	75	2
	2304101L	Foundations of Computing Lab	-	2	-	-	-	-	20	30	50	1
ESC	2303101T	Applied Mechanics	2	-	-	15	20	40	-	-	75	2
	2303101L	Applied Mechanics Lab	-	2	-	-	-	-	20	30	50	1
ESC	2309101T	Design Thinking	1	-	-	15	-	20	-	-	35	1
	2309101L	Design Thinking Lab	-	2	-	-	-	-	20	20	40	1
VSEC	2307161T	Electronics Workshop	1	-	-	15	-	20	-	-	35	1
	2307161L	Electronics Workshop Lab	-	2	-	-	-	-	20	20	40	1
	2310161T	Linux Fundamentals and Programming	1	-	-	15	-	20	-	-	35	1
	2310161L	Linux Fundamentals and Programming Lab	-	2	-	-	-	-	20	20	40	1
	2308161T	Data Driven Modelling	1	-	-	15	-	20	-	-	35	1
	2308161L	Data Driven Modelling Lab	-	2	-	-	-	-	20	20	40	1
	2311161T	Data Driven Modelling	1	-	-	15	-	20	-	-	35	1
	2311161L	Data Driven Modelling Lab	-	2	-	-	-	-	20	20	40	1
CC	2301182L	Liberal Learning	-	2	-	-	-	-	-	50	50	1
HSSM IKS	2307181T	Indian Knowledge System (Vedic Mathematics)	2	-	-	25	-	50	-	-	75	2
	2310181T	Indian Knowledge System (Vedic Mathematics)			-	25	-	50	-	-		

	2308181T	Indian Knowledge System (Vedic Mathematics)			-	25	-	50	-	-		
	2311181T	Indian Knowledge System (Vedic Mathematics)			-	25	-	50	-	-		
TOTAL			14	12	1						825	21

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FIRST YEAR BACHELOR OF TECHNOLOGY (ENTC, SOFTWARE, IT, AI-ML ENGINEERING)		RELEASE DATE	:	01/08/2025
		REVISION NO.	:	2.0 (NEP)

SEMESTER II (ENTC, SOFTWARE, IT, AI-ML ENGINEERING)													
COURSE			TEACHING SCHEME			EXAMINATION SCHEME AND MARKS						C R E D I T	
TYPE	CODE	NAME	Hour/Week			THEORY			PRACT		T O T A L		
			TH	P	TU	IA	MSE	ESE	CA	D/P			
BSC	2301103T	Statistics and Integral Calculus	3	-	-	30	20	50	-	-	100	3	
	2301103U	Statistics and Integral Calculus Tutorial	-	-	1	-	-	-	20	30	50	1	
BSC	2301102T	Engineering Physics	2	-	-	15	20	40	-	-	75	2	
	2301102L	Engineering Physics Lab	-	2	-	-	-	-	20	30	50	1	
ESC	2307102T	Introduction to Electrical & Electronics Engineering (E&TC)	2	-	-	15	20	40	-	-	75	2	
	2307103T	Digital Electronics Engineering (Software)	2	-	-	15	20	40	-	-	75	2	
	2307103T	Digital Electronics Engineering (IT)	2	-	-	15	20	40	-	-	75	2	
	2307103T	Digital Electronics Engineering (AI-ML)	2	-	-	15	20	40	-	-	75	2	
	2307102L	Introduction to Electrical & Electronics Engineering Lab (E&TC)	-	2	-	-	-	-	20	30	50	1	
	2307103L	Digital Electronics Engineering Lab (Software)	-	2	-	-	-	-	20	30	50	1	
	2307103L	Digital Electronics Engineering Lab (IT)	-	2	-	-	-	-	20	30	50	1	
	2307103L	Digital Electronics Engineering Lab (AI-ML)	-	2	-	-	-	-	20	30	50	1	
ESC	2304102T	Essentials of Data Science	2	-	-	15	20	40	-	-	75	2	
	2304102L	Essentials of Data Science Lab	-	2	-	-	-	-	20	30	50	1	
VSEC	2307162T	Integrating Sensors and Actuators	1	-	-	15	-	20	-	-	35	1	
	2307162L	Integrating Sensors and Actuators Lab	-	2	-	-	-	-	20	20	40	1	
	2310162T	Data Visualization	1	-	-	15	-	20	-	-	35	1	
	2310162L	Data Visualization Lab	-	2	-	-	-	-	20	20	40	1	
	2308162T	Data Visualization	1	-	-	15	-	20	-	-	35	1	
	2308162L	Data Visualization Lab	-	2	-	-	-	-	20	20	40	1	
	2311162T	Data Visualization	1	-	-	15	-	20	-	-	35	1	

	2311162L	Data Visualization Lab	-	2	-	-	-	-	20	20	40	1
PCC	2307111T	Logic Sensing and Actuation	2	-	-	15	20	40	-	-	75	2
	2310111T	Discrete Structure		-	-				-	-		
	2308111T	Discrete Structure		-	-				-	-		
	2311111T	Discrete Structure	2	-	-	15	20	40	-	-		
HMMS AEC	2301111L	Communication Skills (English)	-	4	-	-	-	-	35	40	75	2
	2301112/3/ 4T	Communication Skills (German/Japanese/ French)	2	-	-	35	-	40	-	-	75	2
CC	2307183L	Creative Technologies	-	4	-	-	-	-	35	40	75	2
TOTAL			14	16	1						825	21

*Two Credit Internship need to accomplish after Completion of First Year