



HINDUSTAN
INSTITUTE OF TECHNOLOGY & SCIENCE
(DEEMED TO BE UNIVERSITY)

Diploma in Mechanical Engineering
(Duration: 3 Years)

REGULATION 2024
(in line with NEP 2020)

CURRICULUM

(Applicable for students admitted from 2024 onwards)

DEPARTMENT OF MECHANICAL ENGINEERING
SCHOOL OF ENGINEERING AND TECHNOLOGY
HINDUSTAN INSTITUTE OF TECHNOLOGY AND SCIENCE

DIPLOMA IN MECHANICAL ENGINEERING

CURRICULUM STRUCTURE

SEMESTER - I									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	I	HS	TH	Tamil Marabu	2	0	0	2	2
2	I	BS	TP	Applied Mathematics	2	1	2	4	5
3	I	BS	TP	Applied Physics	2	0	4	4	6
4	I	BS	TP	Applied Chemistry	2	0	4	4	6
5	I	HS	TP	Communicative English -I	2	0	2	3	4
6	I	ES	TP	Basic Workshop Skills	1	0	4	3	5
				TOTAL	11	1	16	20	28
L – Lecture T – Tutorial P – Practical C – Credit TCH – Total Contact Hours									

SEMESTER - II									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	II	HS	TH	Tamils and Technology	2	0	0	2	2
2	II	HS	TP	Communicative English - II	2	0	2	3	4
3	II	ES	TP	Basic Engineering Practices	1	0	4	3	5
4	II	PC	TP	Basics of Mechanical Engineering	2	0	4	4	6
5	II	ES	TP	Technical Drawing	1	0	4	3	5
6	II	EEC	TP	Digital Workplace Skills	1	0	4	3	5
7	II	HS	TH	Universal Human Values	2	0	0	2	2
				TOTAL	11	0	18	20	29
L – Lecture T – Tutorial P – Practical C – Credit TCH – Total Contact Hours									

SEMESTER - V									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	V	PC	TP	Mechatronics	3	0	2	4	5
2	V	PC	TP	Additive Manufacturing Technology	3	0	2	4	5
3	V	DE	TP	Elective - III	2	0	2	3	4
4	V	DE	TP	Elective - IV	2	0	2	3	4
5	V	DE	TP	Elective - V	2	0	2	3	4
6	V	EEC	PJ	Project Phase I [#]	0	0	4	2	4
7	V	EEC	IN	Internship*	0	0	-	1	NA
				TOTAL	12	0	14	20	29
L – Lecture T – Tutorial P – Practical C – Credit TCH – Total Contact Hours									

* (to be evaluated in 5th semester. To be carried out in summer after 4th semester)

SEMESTER - VI									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	VI	PC	TP	Computer Aided Design and Manufacturing	3	0	2	4	5
2	VI	DE	TP	Elective - VI	2	0	2	3	4
3	VI	DE	TP	Elective - VII	2	0	2	3	4
4	VI	EEC	PJ	Project Phase II [#]	0	0	16	8	16
				TOTAL	7	0	22	18	29
L – Lecture T – Tutorial P – Practical C – Credit TCH – Total Contact Hours									

TOTAL CREDITS: (20+20+22+20+20+18) = 120 CREDITS

LIST OF DEPARTMENT ELECTIVES

DEPARTMENT ELECTIVE - 1									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	IV	DE	TP	Green Energy and Energy conservation	2	0	2	3	4
2	IV	DE	TP	Unconventional Machining Processes	2	0	2	3	4

DEPARTMENT ELECTIVE - 2									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	IV	DE	TP	Refrigeration and Air Conditioning	2	0	2	3	4
2	IV	DE	TP	Hydraulics and Pneumatics	2	0	2	3	4

DEPARTMENT ELECTIVE - 3									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	V	DE	TP	Non-destructive Testing Methods	2	0	2	3	4
2	V	DE	TP	Composite Materials	2	0	2	3	4

DEPARTMENT ELECTIVE - 4									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	V	DE	TP	Industrial Robotics	2	0	2	3	4
2	V	DE	TP	Nano Technology	2	0	2	3	4

DEPARTMENT ELECTIVE - 5									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	V	DE	TP	AI for Mechanical Engineers	2	0	2	3	4
2	V	DE	TP	Production Management	2	0	2	3	4

DEPARTMENT ELECTIVE - 6									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	VI	DE	TP	Industrial IoT	2	0	2	3	4
2	VI	DE	TP	Engineering Economics	2	0	2	3	4

DEPARTMENT ELECTIVE - 7									
SL. NO	SEM	COURSE CATEGORY	COURSE TYPE	NAME OF THE COURSE	L	T	P	C	TCH
1	VI	DE	TP	Industrial Safety	2	0	2	3	4
2	VI	DE	TP	Entrepreneurship	2	0	2	3	4

S. No.	Category Code	Category	Breakup of Credits
1	HS	Humanities & Social Science Courses	12
2	BS	Basic Science Courses	12
3	ES	Engineering Science Courses	15
4	PC	Program Core Courses (Branch specific)	44
5	DE	Professional Elective Courses (Branch specific) – Department	21
6	EEC	Employment Enhancement Courses (Project/ Summer Internship/	16
TOTAL			120

COURSE TYPE	
TP	Theory with Practical Course
TH	Theory Course
PR	Practical Course
DP	Design Project
PJ	Project Phase I & II
IN	Internship

Coordinator
Dr Rajesh M

HOD/Mech
Dr Vijayabalan P

DEAN E&T

Dean Academics

IQAC Coordinator

Vice Chancellor