



D Y PATIL
UNIVERSITY
PUNE, AMBI

School of
Engineering &
Technology

D Y PATIL UNIVERSITY
D Y PATIL SCHOOL OF ENGINEERING TECHNOLOGY, AMBI

M. TECH- MECHANICAL (HEAT POWER)

Programme Structure and Course code
(For Batch 2021-2022)

**D Y PATIL SCHOOL OF ENGINEERING TECHNOLOGY,
AMBI**

**M.Tech. (Heat Power Engineering)
Programme Structure and Course code**

(For Batch 2021-2022)

Note : The Subject code defines as follows :

Course code is **UBSCAE201**, Where its divided in 5 parts as U-BSC-AE-1-01,

where U = Undergraduate Course , P = Postgraduate Course

BSC = Course category as specifies by All India Council of Technical Education

AE = Branch

1 = semester count,

01= course count.

Course category and Abbreviations used:

DEFINITION	COURSE CODE
Basic Science Course	BSC
Engineering Science Course	ESC
Lab Course	LC
Humanities, Social Sciences including Management Course	HSMC
Professional Core Courses	PCC
Summer Internship	SI
Mandatory Course	MC
Open Elective course	OEC
Project	PROJ

The credits distribution per semester as per above categories is as follows:

Course Category	SEMSTER								Total	
	I	II	III	IV	V	VI	VII	VIII	Credits	%
BSC										
ESC										
LC	02	02	-	-					04	04.44
HSMC										
PCC	16	12	04	-					32	35.55
SI										
MC										
OEC	-	-	04	-					04	04.44
PROJ	-	-	10	20					30	33.33
PPEC	04	04	04	-					12	13.33
PSEM	-	04	04	-					08	08.88
TOTAL	22	22	26	20					90	100

FIRST YEAR M.TECH (HEAT POWER) SEMESTER - I															
Course Code	Course Name	HRS			CREDITS			Total Cr	Assessment Methods						
		L (hr)	P (hr)	T (hr)	L(Cr)	P(Cr)	T(Cr)		UT	MSE	ESE	ESE Hrs.	TW	Oral/PR	Total
									(AI)						
PPCCME HP101	Advanced Thermal Engineering	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PPCCME HP102	Advanced Fluid Mechanics	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PPCCME HP103	Research Methodology	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PPCCME HP104	Applied Mathematics and Computational Techniques	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PPECME HP105X	Program Elective-I	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PLCMEH P106	Lab Practice-I	0	4	0	0	2	0	2	00	00	00	-	50	50	100
PHSMC1 07X	Audit Course-I	0	0	0	0	0	0	0	00	00	00	-	0	0	0
Total		20	04	0	20	2	0	22	100	100	300	-	50	50	600

UT :- Unit Test

MSE :-Mid Semester Examination

ESE-End Semester Examination

CIE :-Continuous Internal Evaluation

TW :- Term Work

PR :- Practical

OR :- Oral

FIRST YEAR M.TECH (HEAT POWER) SEMESTER - II															
Course Code	Course Name	HRS			CREDITS			Total Cr	Assessment Methods						
		L (hr)	P (hr)	T (hr)	L(Cr)	P(Cr)	T(Cr)		UT	MSE	ESE	ESE Hrs.	TW	Oral/PR	Total
									(AI)						
PPCCME HP201	Experimental Methods in Thermal Engineering	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PPCCME HP202	Advanced Heat Transfer	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PPCCME HP203	Advanced Finite Element Analysis	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PPECME HP204X	Program Elective-II	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PLCMEH P205	Lab Practice-II	0	4	0	0	2	0	2	0	0	0	2	50	50	100
PSEMME HP206	Seminar-I	4	0	0	4	0	0	4	0	0	00	-	50	50	100
PHSMC2 07X	Audit Course-II	0	0	0	0	0	0	0	0	0	00	-	0	0	0
Total		20	04	0	20	02	0	22	80	80	240	-	100	100	600

UT :- Unit Test

MSE :-Mid Semester Examination

ESE-End Semester Examination

CIE :-Continuous Internal Evaluation

TW :- Term Work

PR :- Practical

OR :- Oral

SECOND YEAR M.TECH (HEAT POWER) SEMESTER – I															
Course Code	Course Name	HRS			CREDITS			Total Cr	Assessment Methods						
		L (hr)	P (hr)	T (hr)	L(Cr)	P(Cr)	T(Cr)		UT	MSE	ESE	ESE Hrs.	TW	Oral/PR	Total
									(AI)						
PPCCM EHP301	Computational Fluid Dynamics	4	0	0	4	0	0	4	20	20	60	2	0	0	100
POECM EHP302 X	Open Elective	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PPECM EHP303 X	Program Elective-III	4	0	0	4	0	0	4	20	20	60	2	0	0	100
PSEMM EHP304	Seminar-II	4	0	0	4	0	0	4	00	00	00	-	50	50	100
PPROJM EHP305	Project Stage-I	10	0	0	10	0	0	10	00	00	00	-	50	50	100
Total		26	0	0	26	0	0	26	60	60	180	-	100	100	500

SECOND YEAR M.TECH (HEAT POWER) SEMESTER – II																	
Course Code	Course Name	HRS			CREDITS			Total Cr	Assessment Methods								
		L (hr)	P (hr)	T (hr)	L(Cr)	P(Cr)	T(Cr)		Progress Seminar I			Progress Seminar I			Viva		Total
									TW	OR	Total	TW	OR	Total	TW	OR	
PPROJM EDE401	Project stage-II	20	0	0	20	0	0	20	25	25	50	25	25	50	100	100	
Total								20	25	25	50	25	25	50	100	100	300

UT :- Unit Test

MSE :-Mid Semester Examination

ESE-End Semester Examination

CIE :-Continuous Internal Evaluation

TW :- Term Work

PR :- Practical

OR :- Oral

List of Elective / Audit Courses:

Elective Title	Elective Name	Elective Course Code
Program Elective I	Advanced refrigeration and air-conditioning	PPECMEHP105A
	Advanced Power Generation Systems	PPECMEHP105B
	Gas Dynamics	PPECMEHP105C
	Project Management & Operations Research	PPECMEHP105D
Program Elective II	Cryogenics	PPECMEHP204A
	Solar Energy Technology	PPECMEHP204B
	Steam and Gas Turbines	PPECMEHP204C
	Mechatronics	PPECMEHP204D
Program Elective III	Fuels and Combustion	PPECMEHP303A
	Vacuum Technology	PPECMEHP303B
	Energy Conservation and Waste Heat Recovery	PPECMEHP303C
Open Elective	Business Analytics	POECMEHP302A
	Industrial Safety	POECMEHP302B
	Cost Management of Engineering Project	POECMEHP302C
	Composite Material	POECMEHP302D
Audit Course I	English for Research Paper Writing (PMH107A)	PHSMC107A
	Disaster Management (PMH107B)	PHSMC107B
	Internet of Things & Smart Manufacturing (PMH107 C)	PHSMC107C
Audit Course II	Pedagogy Studies	PHSMC207A
	Industrial Stress Management by Yoga	PHSMC207B

BoS Chairman**HOI SOET Pune, Ambi**