

COURSE STRUCTURE

B.Tech. and B.Tech.-M.Tech. Dual Degree (Category-A & B) and Double Major (Mechanical Engineering)

		GROUP-II				SEMESTER											NINTH	TENTH	
		FIRST (IC)		SECOND (IC)		THIRD		FOURTH		FIFTH	SIXTH		SEVENTH		EIGHTH				
C O U R S E		MCI101	3-1-0-11	MCI102	3-1-0-11	MEC201 (DC1)	3-0-0-9	E/SO3 Optional	3-0-0-9	MEC301 (DC8)	3-0-0-9	MEC306 (DC11)	3-0-0-9	DE1	3-0-0-9	DE4	3-0-0-9	DUAL DEGREE	DUAL DEGREE
		CYI101	3-0-0-9	PHI101	3-0-0-9	MEC202 (DC2)	3-0-0-9	MEC206 (DC4)	3-0-0-9	MEC302 (DC9)	3-0-0-9	MEC307 (DC12/DE1)	3-0-0-9	DE2	3-0-0-9	DE5	3-0-0-9		
		CYI102	0-0-2-2	PHI102	0-0-2-2	MEC203 (DC3)	3-0-0-9	MEC207 (DC5)	3-0-0-9	MEC303 (DC10)	3-0-0-9	HSS	3-0-0-9	DE3	3-0-0-9	OE5	3-0-0-9		
		EEl101 Modular	3-0-0-9 (9/2)	MCI103 Modular	2-2-0-5	CEE201 E/SO1	3-0-0-9	MEC208 (DC6)	3-0-0-9	MS	3-0-0-9	OE1	3-0-0-9	OE3	3-0-0-9	OE6/HS S	3-0-0-9		
		EEl102 Modular	0-0-3-3 (3/2)	CSI101 Modular	2-1-0-4	MEE 201 (E/SO2)	3-0-0-9	MEC209 (DC7)	3-0-0-9	E/SO4 Optional	3-0-0-9	OE2	3-0-0-9	OE4	3-0-0-9	MEC402 (UGP2)	0-0-0-6		
		ECI101 Modular	3-0-0-9 (9/2)	CSI102 Modular	0-0-2-2	MEC 204 (DP1)	0-0-2-2	MEC210 (DP3)	0-0-2-2	MEC304 (DP5)	0-0-2-2	MEC308 (DP7)	0-0-2-2	MEC401 (UGP1)	0-0-0-6	--	--		
		ECI102 Modular	0-0-3-3 (3/2)	CEI101	1-0-3-6	MEC205 (DP2)	0-0-2-2	MEC211 (DP4)	0-0-2-2	MEC305 (DP6)	0-0-3-3	MEC309 (DP8)	0-0-2-2	MES402 (DC12)	0-0-0-0 S/X	--	--		
		ESI101	1-0-0-3	MEI101	3-1-0-11	--	--	--	--	--	--	--	--	--	--	--	--		
		GLI101	1-0-0-3	MSI101	2-0-0-2	--	--	--	--	--	--	--	--	--	--	--	--		
		MEI102	2-0-3-9	CCS102	S/X	--	--	--	--	--	--	--	--	--	--	--	--		
		HSI101	1-0-2-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		CCS101	S/X	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		54		55		49		49		50		49		51		42			

DUAL DEGREE (CATEGORY-A)						DUAL DEGREE (CATEGORY-B)																													
FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH		FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH													
MEC508 DCPG	3-0-0-9	MED519 DEPG	3-0-0-9	MEC514 DCPG	3-0-0-9	MEO579 OEPG	3-0-0-9	MEC597 36 Credits Thesis	MED510 DEPG	3-0-0-9	MEC202 DCUG	3-0-0-9	MEC307 DCUG	3-0-0-9	MEC301 DCUG	3-1-0-11	MED528 DEPG	3-0-0-9	MEC597 36 Credits Thesis	MED510 DEPG	3-0-0-9	MEC597 36 Credits Thesis	MED510 DEPG	3-0-0-9											
		OR Any one from the basket given in the next page, if suggested by the department				OR Any one from the basket given in the next page, if suggested by the department			MED531 DEPG		3-0-0-9		MEC205 DPUG		0-0-2-2		MEC309 DPUG		0-0-2-2	MEC305 DPUG		0-0-2-2	MED529 DEPG		3-0-0-9	MEC302 DCUG	3-0-0-9	MEO579 OEPG	3-0-0-9	OR any course is suggested by the department	MED531 DEPG	3-0-0-9	OR any course is suggested by the department	MED531 DEPG	3-0-0-9
									MEC598 18 Credits Thesis				MEC598 18 Credits Thesis				MEC598 18 Credits Thesis			MEC598 18 Credits Thesis			MEC304 DPUG			0-0-2-2		MEC594 DCPG			3-0-0-9			MEC598 18 Credits Thesis	
																							MEC598 18 Credits Thesis												

DOUBLE MAJOR (SECOND MAJOR IN OTHER DEPARTMENT)															Department Practical, if any				
MONSOON SEMESTER		MEE201* ESO	3-0-0-9	MEC202 DC	3-0-0-9	MEC301 DC	3-0-0-9	MEC302 DC	3-0-0-9	MEC203 DC	3-0-0-9	MED401 DE1	3-0-0-9	MED402 DE2	3-0-0-9	MEC305	MEC304	MEC205	
WINTER SEMESTER		MEE202* ESO	3-0-0-9	MEC207 DC	3-1-0-11	MEC209 DC	3-0-0-9	MEC307 DC	3-0-0-9	MEC306 DC	3-0-0-9	MED528 DE3	3-0-0-9	MED529 DE4	3-0-0-9	MEC211	MEC309	MEC308	

NOTE: (1) *Two ESOs guided/optional prescribed in the course structure of Double Major program and the same is taken by the students for completion of the course work of the Double Major in the slot of their optional ESO, both the ESOs will fulfil the ESO credit requirement of the Double Major program as well as B.Tech. degree. (2) In lieu of Four DCUG (DCPG if the second department does not have any UG program) courses of the Dual Degree (Category-B & C) and Double Major Program will be considered as OE-1, OE-2, OE-3 & OE-4 of the B.Tech. program of Parent Department and the credits of these courses will be counted for fulfilment of the OE credit requirements.

COURSE STRUCTURE

LIST OF COURSES FOR COMPLETION OF MINOR

TITLE OF THE MINOR: **Minor in Robotics**

TITLE OF THE MINOR: **Minor in Manufacturing**

MONSOON SEMESTER		WINTER SEMESTER		MONSOON SEMESTER		WINTER SEMESTER	
MEC201	Kinematic of Machines	MEC207	Dynamics of Machinery	MEE201	Engineering Materials	MEC209	Production Technology
		MED528	Robotics			MEO586	Additive Manufacturing

TITLE OF THE MINOR: **Minor in Computational Fluid Dynamics**

MONSOON SEMESTER		WINTER SEMESTER	
MEC202	Fluid Mechanics	MEO597	Computational Fluid Dynamics
MEC594	Basics of Scientific Computing		

DETAILS OF THE MINIMUM CREDIT REQUIREMENTS FOR COMPLETION OF B.TECH. PROGRAM AND LIST OF ESO, DE AND OE COURSES

Minimum Credit requirements for Graduation:

- Institute Core (IC) : 109 Credits
- Department Compulsory : 108
- Department Elective : 45
- Department Practical : 17
- Engineering/Science Option : 36
- Open Elective : 54
- HSS+MS : 18 (9+9)
- UGP-1 & UGP-2 : 12 (6+6)

Total : **399**

LIST OF E/SO	
Guided	Offered
CEE201	MEE 201
--	MEE 202

LIST OF DEPARTMENTAL ELECTIVES (DE)		
MED 401	MED 543	MED 533
MEC 500	MED 556	MED 535
MEC 507	MED 558	MED 553
MEC 510	MED 402	MED 557
MED 528	MEC 503	MEO 586
MED 531	MEC 508	
MED 534	MED 530	

LIST OF OPEN ELECTIVES (OE)	
Monsoon	Winter
MEO 306	MED 529
MEO 401	MEO 579
MEC 501	MED 544
MEC 516	

Minimum Credit requirements for completion of Additional Academic Program

Dual Degree (Category-A)		Dual Degree (Category-B)		Double Major	
<ul style="list-style-type: none"> • Departmental Core (DCPG) • DEPG/OEPH • Thesis 	18 Credits 36 Credits 54 Credits Total: 108 Credits	<ul style="list-style-type: none"> • Departmental Core (4 DCUG) of Second Department (Extra credits to be counted in B.Tech part as OE credits) • 2 DCPG & 4 DEPG/OEPG or 1 DCPG & 5 DEPG/OEPG • Thesis 	36 Credits (Not to be counted in M.Tech. Part) 54 Credits 54 Credits Total: 108 Credits	<ul style="list-style-type: none"> • Two ESO courses • Departmental Core (8 DCUG) of Second Major Department • 4 DE of Second Department 	18 Credits (Not to be counted in the Second Major) 72 Credits 54 Credits Total: 108 Credits