

COURSE STRUCTURE

B.Tech. and B.Tech.-M.Tech. Dual Degree (Category-A & B) and Double Major (Mining Machinery 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	MMC201 (DC1)	3-0-0-9	MME 201 (E/SO3)	3-0-0-9	MMC301 (DC8)	3-0-0-9	MMC305 (DC10)	3-0-0-9	DE1	3-0-0-9	DE3	3-0-0-9	DUAL DEGREE	DUAL DEGREE
		CYI101	3-0-0-9	PHI101	3-0-0-9	MMC202 (DC2)	3-1-0-11	MMC206 (DC4)	3-1-0-11	MMC302 (DC9)	3-0-0-9	MMC306 DC11	3-0-0-9	DE2	3-0-0-9	DE4	3-0-0-9		
		CYI102	0-0-2-2	PHI102	0-0-2-2	MMC203 (DC3)	3-1-0-11	MMC207 (DC5)	3-0-0-9	OE1	3-0-0-9	HSS	3-0-0-9	OE4	3-0-0-9	OE7	3-0-0-9		
		E EI101 Modular	3-0-0-9 (9/2)	MCI103 Modular	2-2-0-5	MME202 E/SO1	3-0-0-9	MMC208 (DC6)	3-1-0-11	MS	3-0-0-9	OE2	3-0-0-9	OE5	3-0-0-9	MMC202 (UGP2)	0-0-0-6		
		E EI102 Modular	0-0-3-3 (3/2)	CSI101 Modular	2-1-0-4	E/SO2 Optional	3-0-0-9	MMC209 (DC7)	3-0-0-9	E/SO4 Optional	3-0-0-9	OE3	3-0-0-9	OE6	3-0-0-9	OE8/HSS	3-0-0-9		
		E CI101 Modular	3-0-0-9 (9/2)	CSI102 Modular	0-0-2-2	MMC204 (DP1)	0-0-2-2	MMC210 (DP3)	0-0-2-2	MMC303 (DP5)	0-0-2-2	MMC307 (DP7)	0-0-2-2	MMC401 (UGP1)	0-0-0-6	--	--		
		E CI102 Modular	0-0-3-3 (3/2)	CEI101	1-0-3-6	MMC205 (DP2)	0-0-2-2	MMC211 (DP4)	0-0-2-2	MMC304 (DP6)	0-0-2-2	MMC308 (DP8)	0-0-2-2	MMS203 (DC12*) S/X	0-0-0-0	--	--		
		E SI101	1-0-0-3	MEI101	3-1-0-11	--	--	--	--	--	--	--	--	--	--	--	--		
		E LI101	1-0-0-3	MSI101	2-0-0-2	--	--	--	--	--	--	--	--	--	--	--	--		
		E EI102	2-0-3-9	CCS102	S/X	--	--	--	--	--	--	--	--	--	--	--	--		
		E SI101	1-0-2-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		E CI101	S/X	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		54		55		49		53		52		49		51		42			

DUAL DEGREE (CATEGORY-A)										DUAL DEGREE (CATEGORY-B)																						
FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH		FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH										
MMC503 DCPG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MMC504 DCPG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MMC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9	MMC203 DCUG	3-0-0-9	MMC306 DCUG	3-0-0-9	MMC301 DCUG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MMC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9	MMC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9								
		Any one from the basket given in the next page				Any one from the basket given in the next page			One course from each basket								One course from each basket			One course from each basket			One course from each basket									
									MMC598 18 Credits Thesis								All four DCUG courses are prescribed from the Course Structure of the Undergraduate Program where the student will do the M.Tech. Program under Dual Degree (Category-B)			MMC502 DCPG			One course from each basket		MMC598 18 Credits Thesis							

DOUBLE MAJOR (SECOND MAJOR IN OTHER DEPARTMENT)															Department Practical, if any				
MONSOON SEMESTER		ESO *	3-0-0-9	MMC202 DC	3-0-0-9	MMC203 DC	3-0-0-9	MMC301 DC	3-0-0-9	MMC302 DC	3-0-0-9	DE1	3-0-0-9	DE2	3-0-0-9	MMC205	MMC304		
WINTER SEMESTER		ESO *	3-0-0-9	MMC207 DC	3-1-0-11	MMC209 DC	3-0-0-9	MMC305 DC	3-0-0-9	MMC306 DC	3-0-0-9	DE3	3-0-0-9	DE4	3-0-0-9	MMC210			

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.

LIST OF COURSES FOR COMPLETION OF MINOR

MONSOON SEMESTER		WINTER SEMESTER	
MME301	Mineral Beneficiation Equipment	MMC207	Bulk Material Handling Equipment
MMC302	Automation and Control in Mining Machines		

TITLE OF THE MINOR: **Minor in Material Handling Engineering**

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 : 107
- Department Elective : 36
- Department Practical : 16
- Engineering/Science Option : 36
- Open Elective : 72
- HSS+MS ; 18 (9+9)
- UGP-1 & UGP-2 12 (6+6)

Total : **406**

LIST OF E/SO	
Guided	Offered
CHE201	MME201
MME201	MME202

LIST OF OPEN ELECTIVES (UE)	
MMO301	MMO301
MMO302	MMO302

LIST OF DEPARTMENTAL ELECTIVES (UG)	
MMD401	MMD408
MMD403	MMD 502
MMD405	MMD 506
MMD407	MMD 509
MMD402	MMD 504
MMD404	MMD 507
MMD406	--

LIST OF DEPARTMENTAL ELECTIVES (PG)	
MMD501	MMD506
MMD502	MMD 507
MMD503	MMD 508
MMD504	MMD 509
MMD505	--

LIST OF OPEN ELECTIVES (PE)	
MMO501	MMO503
MMO502	--

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