

COURSE STRUCTURE

B.Tech. and B.Tech.-M.Tech. Dual Degree (Category-A & B) and Double Major (Mining 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	MNC200 (DC1)	3-0-0-9	E/SO3 Optional	3-0-0-9	MNC300 (DC8)	3-1-0-11	MNC304 (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	MNC201 (DC2)	3-0-0-9	MNC205 (DC4)	3-1-0-11	MNC301 (DC9)	3-0-0-9	MNC305 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	MNC202 (DC3)	3-0-0-9	MNC206 (DC5)	3-1-0-11	OE1	3-0-0-9	HSS	3-0-0-9	OE4	3-0-0-9	OE7	3-0-0-9		
		EEI101 Modular	3-0-0-9 (9/2)	MCI103 Modular	2-2-0-5	GLE201 E/SO1	3-0-0-9	MNC207 (DC6)	3-0-0-9	MS	3-0-0-9	OE2	3-0-0-9	OE5	3-0-0-9	OE8/HS S	3-0-0-9		
		EEI102 Modular	0-0-3-3 (3/2)	CSI101 Modular	2-1-0-4	MME202 E/SO2	3-0-0-9	MNC208 (DC7)	3-0-0-9	E/SO4 Optional	3-0-0-9	OE3	3-0-0-9	OE6	3-0-0-9	MEC403 (UGP2).	0-0-0-6		
		ECI101 Modular	3-0-0-9 (9/2)	CSI102 Modular	0-0-2-2	MNC203 (DP1)	0-0-2-2	MNC209 (DP3)	0-0-2-2	MNC302 (DP5)	0-0-3-3	MNC306 (DP7)	0-0-2-2	MEC401 UGP 1	0-0-0-6	--	--		
		ECI102 Modular	0-0-3-3 (3/2)	CEI101	1-0-3-6	MNC204 (DP2)	0-0-2-2	MNC210 (DP3)	0-0-2-2	MNC303 (DP6)	0-0-2-2	MNC307 (DP8)	0-0-2-2	MES402	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		53		52		49		51		42			

DUAL DEGREE (CATEGORY-A)										DUAL DEGREE (CATEGORY-B)															
Tunnelling and Underground Space Technology										Tunnelling and Underground Space Technology															
FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH		FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH			
MNC521 DCPG	3-0-0-9	DEPG/ OEPG	3-0-0-9	CEC511 OEPG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MNC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9	MNC201 DCUG	3-0-0-9	MNC205 DCUG	3-0-0-9	MNC202 DCUG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MNC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9	MNC597 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		<ul style="list-style-type: none"> • In place of OE-1 will take (MNC201), • In place of OE-2 will take (MNC205), • In place of OE-3 will take (MNC202), • In place of OE-4 will take (MNC301), 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)										One course from each basket		MNC598 18 Credits Thesis	

DUAL DEGREE (CATEGORY-A) Geomatics										DUAL DEGREE (CATEGORY-B) Geomatics														
FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH		FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH		
MNC541 DCPG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MNC542 DCPG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MNC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9	MNC200 DCUG	3-0-0-9	MNC305 DCUG	3-0-0-9	MNC202 DCUG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MNC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9	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				DEPG/ OEPG	3-0-0-9	MNC203 DPUG	0-0-2-2	MNC306 DPUG	0-0-2-2	MNC300 DCUG	3-0-0-9	DEPG/ OEPG	3-0-0-9		DEPG/ OEPG	3-0-0-9		
										One course from each basket		<ul style="list-style-type: none"> In place of OE-1 will take (MNC200), In place of OE-2 will take (MNC305), In place of OE-3 will take (MNC202), In place of OE-4 will take (MNC300), 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)				MNC542 DCPG	3-0-0-9	DEPG/ OEPG	3-0-0-9				One course from each basket	
										MNC598 18 Credits Thesis													MNC598 18 Credits Thesis	

DUAL DEGREE (CATEGORY-A) Mining Engineering										DUAL DEGREE (CATEGORY-B) Mining Engineering														
FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH		FIFTH		SIXTH		SEVENTH		EIGHTH		NINTH		TENTH		
MNC500 DCPG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MNC504 OEPG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MNC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9	MNC200 DCUG	3-0-0-9	MNC205 DCUG	3-0-0-9	MNC300 DCUG	3-0-0-9	DEPG/ OEPG	3-0-0-9	MNC597 36 Credits Thesis	DEPG/ OEPG	3-0-0-9	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				DEPG/ OEPG	3-0-0-9	MNC203 DPUG	0-0-2-2	MNC209 DPUG	0-0-2-2	MNC301 DCUG	3-0-0-9	DEPG/ OEPG	3-0-0-9		DEPG/ OEPG	3-0-0-9		
										One course from each basket		<ul style="list-style-type: none"> In place of OE-1 will take (MNC200), In place of OE-2 will take (MNC205), In place of OE-3 will take (MNC300), In place of OE-4 will take (MNC301), 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)				MNC204 DPUG	0-0-2-2	DEPG/ OEPG	3-0-0-9				One course from each basket	
										MNC598 18 Credits Thesis													MNC598 18 Credits Thesis	

DOUBLE MAJOR (SECOND MAJOR IN OTHER DEPARTMENT) Mining Engineering																	Department Practical, if any		
MONSOON SEMESTER		MNE201* ESO	3-0-0-9	MNC200 DC	3-0-0-9	MNC201 DC	3-0-0-9	MNC202 DC	3-0-0-9	MNC300 DC	3-0-0-9	DE1	3-0-0-9	D2E	3-0-0-9	MNC203	MNC204	MNC302	
WINTER SEMESTER		mne202* ESO	3-0-0-9	MNC206 DC	3-0-0-9	MNC207 DC	3-0-0-9	MNC208 DC	3-0-0-9	MNC304 DC	3-0-0-9	DE3	3-0-0-9	DE4	3-0-0-9	MNC209	MNC209	MNC307	

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	
MNC300	Surface Mining	MNC211	Mine Safety Environment
		MNC212	Underground Methods

TITLE OF THE MINOR: **Mining Methods and Safety**

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 : 105
- Department Elective : 36
- Department Practical : 17
- Engineering/Science Option : 36
- Open Elective : 72
- HSS+MS : 18 (9+9)
- UGP-1 & UGP-2 : 12 (6+6)

LIST OF E/SO	
Guided	Offered
GLE201	MNE200
MME 202	MNE201

LIST OF DEPARTMENTAL ELECTIVES (DE)	
MND400	MND406
MND401	MND407
MND402	MND408
MND403	MND409
MND404	MND410
MND405	MND556

LIST OF OPEN ELECTIVES (OE)	
Monsoon	Winter
MNC202	MNC205

405

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

LIST OF COURSES FOR DUAL DEGREE (CATEGORY-A AND B)

TUST	Geomatics	Mining engineering	TUST	Geomatics	Mining engineering
Category-A	Category-A	Category-A	Category-B	Category-B	Category-B
MNC521	MNC541		MNC201	MNC200	MNC200
--	MNC542		MNC205	MNC305	MNC205
			MNC202	MNC300	MNC300
			MNC301	MNC202	MNC301
			MNC521	MNC542	MNC500