

COURSE SCHEME												
BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER I												
S. No	CATEGORY	CODE	COURSE TITLE	Periods			Evaluation Scheme				Subject Total	Credit
				L	T	P	Assign ment	TA	Total	ESE		
1	Basic Science Course	8BSC101	Physics	3	1	0	20	10	30	70	100	4
2	Basic Science Course	8BSC102	Mathematics I	3	1	0	20	10	30	70	100	4
3	Engineering Science Course	8ESC101	Basic Electrical Engineering	3	1	0	20	10	30	70	100	4
4	Engineering Science Course	8ESC102	Engineering Graphics & Design	1	0	0	20	10	30	70	100	1
5	Humanities and Social Sciences	8HSMC101	English	2	0	2	20	10	30	70	100	2
PRACTICAL /SESSIONAL												
1	Basic Science Course	8BSC101P	Physics Lab	0	0	3			30	20	50	1.5
2	Engineering Science Course	8ESC101P	Basic Electrical Engineering Lab	0	0	2			30	20	50	1
3	Engineering Science Course	8ESC102P	Engineering Graphics & Design Lab	0	0	4			30	20	50	2
										TOTAL	650	19.5

BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER II												
S.No.	CATEGORY	CODE	COURSE TITLE	Periods			Evaluation Scheme				Subject Total	Credit
				L	T	P	Assign ment	TA	Total	ESE		
1	Basic Science Course	8BSC103	Chemistry	3	1	0	20	10	30	70	100	4
2	Basic Science Course	8BSC104	Mathematics II	3	1	0	20	10	30	70	100	4
3	Engineering Science Course	8ESC103	Programming for Problem Solving	3	0	0	20	10	30	70	100	3
4	Engineering Science Course	8ESC104	Workshop Practice	1	0	0	20	10	30	70	100	1
5	Mandatory Course	8MC101	**Environmental Science	3	0	0	20	10	30	70	100	0
6	Value Added Course	8VAC101	Character Building and Holistic Development of Personality I (Spritual & Mental Health)	2	0	0	20	10	30	70	100	2
PRACTICAL /SESSIONAL												
1	Basic Science Course	8BSC103P	Chemistry Lab	0	0	3			30	20	50	1.5
2	Engineering Science Course	8ESC103P	Programming for Problem Solving Lab	0	0	4			30	20	50	2
3	Engineering Science Course	8ESC104P	Workshop Practice Lab	0	0	4			30	20	50	2
										TOTAL	750	19.5

**** NOTE: Qualifying Non Credit Course**

BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER III												
S.No.	CATEGORY	CODE	COURSE TITLE	Period			Evaluation Scheme			Subject Total	Credit	
				L	T	P	Assignment	T A	Total			ESC
1	Basic Science Course	8BSC201	Mathematics III	20	10	30	70	100	3	0	0	3
2	Engineering Science Courses	8ESC201	Engineering Mechanics	20	10	30	70	100	3	0	0	3
3	Professional Core Courses	8PCCMiE201	Elements of Mining Technology	20	10	30	70	100	3	0	0	3
4	Professional Core Courses	8PCCMiE202	Mining Geology I	20	10	30	70	100	3	0	0	3
5	Professional Core Courses	8PCCMiE203	Basic Mine Surveying	20	10	30	70	100	3	0	0	3
6	Humanities and Social Sciences	8HSMC201	Effective Technical Communication	20	10	30	70	100	3	0	0	3
7	University Mandatory Courses	8UMC102	Community Engagement and Social Responsibility	40	10	50	50	100	1	0	2	2
PRACTICAL/ SESSIONAL												
1	Professional Core Courses	8PCCMiE202P	Mining Geology I Lab			30	20	50	0	0	2	1
2	Professional Core Courses	8PCCMiE203P	Basic Mine Surveying Lab			30	20	50	0	0	2	1
						TOTAL	800				22	

BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER IV												
S.No.	CATEGORY	CODE	COURSE TITLE	Period			Evaluation Scheme				Subject Total	Credit
				L	T	P	Assign ment	T A	Total	ESC		
1	Engineering Science Courses	8ESC202	Thermodynamics & Fluid Mechanics	20	10	30	70	100	3	0	0	3
2	Professional Core Courses	8PCCMiE204	Elements of Rock Mechanics	20	10	30	70	100	3	0	0	3
3	Professional Core Courses	8PCCMiE205	Mining Geology II	20	10	30	70	100	3	0	2	3
4	Professional Core Courses	8PCCMiE206	Surface Mining	20	10	30	70	100	3	0	0	3
5	Professional Core Course	8PCCMiE207	Mine Surveying & Geospatial Technology	20	10	30	70	100	3	0	0	3
6	Professional Core Course	8PCCMiE208	Drilling & Blasting Technology	20	10	30	70	100	3	0	0	3
7	Value Added Course	8VAC201	Character Building and Holistic Development of Personality 2 (Yoga and Physical Fitness)	40	10	50	50	100	2	0	0	2
PRACTICAL/ SESSIONAL												
1	Professional Core Courses	8PCCMiE204P	Elements of Rock Mechanics Lab			30	20	50	0	0	2	1
2	Professional Core Courses	8PCCMiE205P	Mining Geology II Lab			30	20	50	0	0	2	1
3	Professional Core Course	8PCCMiE207P	Mine Surveying & Geospatial Technology Lab			30	20	50	0	0	2	1
						TOTAL	850				23	

Vocational Training in a Surface / Underground Mine of minimum 30 (Thirty) days to be taken at the end of IVth Semester Will be Credited in Vth Semester.

	BATCH 2023-2027
	BTECH IN MINING ENGINEERING
	SEMESTER V

S.No.	CATEGORY	CODE	COURSE TITLE	Evaluation Scheme				Subject Total	Period			Credit
				Assign ment	T A	Total	ESE		L	T	P	
1	Professional Core Course	8PCCMiE301	Mining Machinery I	20	10	30	70	100	3	0	0	3
2	Professional Core Course	8PCCMiE302	Mines & Mineral Economics	20	10	30	70	100	3	0	0	3
3	Professional Core Course	8PCCMiE303	Underground Coal Mining	20	10	30	70	100	3	0	0	3
4	Professional Core Course	8PCCMiE304	Operational Research in Mining	20	10	30	70	100	3	0	0	3
5	Professional Core Course	8PCCMiE305	Ventilation & Climate Control	20	10	30	70	100	3	0	0	3
6	Professional Core Course	8PCCMiE306	Mine Planning	20	10	30	70	100	3	0	0	3
7	OPEN ELECTIVE COURSE I(Any one of the following subjects)			20	10	30	70	100	3	0	0	3
	Open Elective Courses	8OEC301	Constitution of India									
	Open Elective Courses	8OEC302	Indian Knowledge System (IKS)- Concepts and Applications in Engineering									
	Open Elective Courses	8OEC303	Enterprenurship									
PRACTICAL / SESSIONAL												
1	Professional Core Course	8PCCMiE305P	Ventilation & Climate Control Lab			30	20	50	0	0	2	1
2	Project	8PROJMiE301	Vocational Training Report			50	50	100	0	0	0	3
							TOTAL	850				25

BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER VI												
S.No.	CATEGORY	CODE	COURSE TITLE	Evaluation Scheme				Subject Total	Period			Credit
				Assign ment	T A	Total	ESE		L	T	P	
1	Professional Core Course	8PCCMiE306	Mining Machinery II	20	10	30	70	100	3	0	0	3
2	Professional Core Course	8PCCMiE307	Underground Metal Mining	20	10	30	70	100	3	0	0	3
3	Professional Core Course	8PCCMiE308	Advanced Underground Mining	20	10	30	70	100	3	0	0	3
4	Professional Core Course	8PCCMiE309	Applied Rock Mechanics	20	10	30	70	100	3	0	0	3
5	Professional Core Course	8PCCMiE310	Mine Environmental Engineering	20	10	30	70	100	3	0	0	3
6	Value Added Course	8VAC301	Character Building and Holistic Development of Personality 3 (Universal Human Values and Ethics)	40	10	50	50	100	2	0	0	2
7	OPEN ELECTIVE COURSE II (Any one of the following subjects)			20	10	30	70	100	3	0	0	3
	Open Elective Courses	8OEC304	Data Analytics									
	Open Elective Courses	8OEC305	Mine Automation & IOT									
	Open Elective Courses	8OEC306	Mine Electrical Engineering									
PRACTICAL / SESSIONAL												
1	Professional Core Course	8PCCMiE309P	Applied Rock Mechanics Lab			30	20	50	0	0	2	1
2	Professional Core Course	8PCCMiE310P	Mine Environmental Engineering Lab			30	20	50	0	0	2	1
2	Professional Core Course	8PCCMiE311P	Computer Aided Mine Planning Lab			30	20	50	0	0	2	1
							TOTAL	850				23

BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER VII												
S.No.	CATEGORY	CODE	COURSE TITLE	Evaluation Scheme				Subject Total	Period			Credit
				Assign ment	T A	Total	ESE		L	T	P	

1	Professional Core Course	8PCCMiE401	Mine Legislation & Safety I	20	10	30	70	100	3	0	0	3
2	Professional Core Course	8PCCMiE402	Mine Hazards & Risk	20	10	30	70	100	3	0	0	3
3	DEPARTMENTAL ELECTIVE COURSE I (Any one of the following subjects)			20	10	30	70	100	3	0	0	3
	Departmental Elective Course	8DECMiE401	Mine Closure									
	Departmental Elective Course	8DECMiE402	Dimensional Stone Mining									
	Departmental Elective Course	8DECMiE403	Design of Open Pit Mines									
	Departmental Elective Course	8DECMiE404	Mine Management									
	Departmental Elective Course	8DECMiE405	Mine Ventilation Planning									
4	Humanities and Social Sciences	8HSMC401	**Seminar in Executive Communication	20	10	30	20	50	2	0	0	2
PRATICAL / SESSIONAL												
1	Project	8PROJMiE401	Mining Project Work I			100	100	200	0	0	3	6
TOTAL								550				17

** Only Viva Voce will be conducted.

BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER VIII												
S.No.	CATEGORY	CODE	COURSE TITLE	Evaluation Scheme				Subject Total	Period			Credit
				Assign ment	T	A	Total		L	T	P	
1	Professional Core Course	8PCCMiE404	Mine Legislation & Safety II	20	10	30	70	100	3	0	0	3
2	Professional Core Course	8DECMiE405	Mineral Processing Technology	20	10	30	70	100	3	0	0	3
3	DEPARTMENTAL ELECTIVE COURSE II (Any one of the following subjects)			20	10	30	70	100	3	0	0	3
	Departmental Elective Course	8DECMiE407	Geo- Statistics									
	Departmental Elective Course	8DECMiE408	Mine Reclamation & Rehabilitation									
	Departmental Elective Course	8DECMiE409	Clean Coal Technology									
	Departmental Elective Course	8DECMiE410	Coal bed Methane Mining									
	Departmental Elective Course	8DECMiE411	Socio Economic Impacts of Opencast Mines									
	Departmental Elective Course	8DECMiE412	Sustainable Mining Practices									
4	University Mandatory Course	8UMC101	Managing Personal Finance	40	10	50	0	50	1	0	0	0
PRATICAL / SESSIONAL												
1	Professional Core Course	8PCCMiE405P	Mineral Processing Technology Lab			30	20	50	0	0	2	1
2	Project	8PROJMiE402	Mining Project Work II			100	100	200	0	0	6	6
TOTAL								600				16
OVER ALL TOTAL								6000				168

A student will be eligible to get Under Graduate degree with Honours , if he/she acquires an additional 20 credits through MOOCs.