

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	Assignment	TA	Total	ESE		
1	Basic Science Course	8BSC101	Physics I	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
<b>PRACTICAL /SESSIONAL</b>												
1	Basic Science Course	8BSC101P	Physics I 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
										<b>TOTAL</b>	<b>650</b>	<b>19.5</b>

BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER II												
S.No.	CATEGORY	CODE	COURSE TITLE	Periods			Evaluation Scheme				Subject Total	Credit
				L	T	P	Assignment	TA	Total	ESE		
1	Basic Science Course	8BSC103	Chemistry I	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	<b>Mandatory Course</b>	<b>8MC101</b>	<b>**Environmental Science</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>10</b>	<b>30</b>	<b>70</b>	<b>100</b>	<b>0</b>
6	Value Added Course	8VA101	Character Building and Holistic Development of Personality I (Spritual & Mental Health)	2	0	0	20	10	30	70	100	2
<b>PRACTICAL /SESSIONAL</b>												
1	Basic Science Course	8BSC103P	Chemistry I 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
										<b>TOTAL</b>	<b>750</b>	<b>19.5</b>

\*\* 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	TA	Total	ESC		
1	Basic Science Course	8BSC201	Mathematics III	3	1	0	20	10	30	70	100	4
2	Engineering Science Courses	8ESC201	Engineering Mechanics	3	0	0	20	10	30	70	100	3
3	Professional Core Courses	8PCCMiE201	Introduction to Mining	3	0	0	20	10	30	70	100	3
4	Professional Core Courses	8PCCMiE202	Mining Geology	3	0	0	20	10	30	70	100	3
5	Professional Core Courses	8PCCMiE203	Mine Surveying I	3	0	0	20	10	30	70	100	3
6	Humanities and Social Sciences	8HSMC201	Effective Technical Communication	2	0	0	20	10	30	70	100	2
7	<b>University Mandatory Courses</b>	<b>8UMC102</b>	<b>Community Engagement and Social Responsibility</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>40</b>	<b>10</b>	<b>50</b>	<b>50</b>	<b>100</b>	<b>2</b>
<b>PRACTICAL / SESSIONAL</b>												
1	Professional Core Courses	8PCCMiE202P	Mining Geology Lab	0	0	2			30	20	50	1
2	Professional Core Courses	8PCCMiE203P	Mine Surveying I Lab	0	0	2			30	20	50	1
										<b>TOTAL</b>	<b>800</b>	<b>22</b>

BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER IV												
S.No.	CATEGORY	CODE	COURSE TITLE	Period			Evaluation Scheme				Subject Total	Credit
				L	T	P	Assignment	T A	Total	ESC		
1	Engineering Science Courses	8ESC202	Mechanical Engineering	3	0	0	20	10	30	70	100	3
2	Professional Core Courses	8PCCMiE204	Drilling & Blasting	3	0	0	20	10	30	70	100	3
3	Professional Core Courses	8PCCMiE205	Geology for Mining Engineers	3	0	2	20	10	30	70	100	3
4	Professional Core Courses	8PCCMiE206	Mine Development	3	0	0	20	10	30	70	100	3
5	Professional Core Courses	8PCCMiE207	Mine Surveying II	3	0	2	20	10	30	70	100	3
6	Value Added Course	8VA201	Character Building and Holistic Development of Personality 2 (Yoga and Physical Fitness)	2	0	0	20	10	30	70	100	2
7	<b>Mandatory Courses</b>	<b>8MC201</b>	<b>**Disaster Management</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>10</b>	<b>30</b>	<b>70</b>	<b>100</b>	<b>0</b>
<b>PRACTICAL / SESSIONAL</b>												
1	Professional Core Courses	8PCCMiE205P	Geology for Mining Engineers Lab	0	0	2			30	20	50	1
2	Professional Core Courses	8PCCMiE207P	Mine Surveying II Lab	0	0	2			30	20	50	1
										<b>TOTAL</b>	<b>800</b>	<b>19</b>

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.

\*\* NOTE: Qualifying Non Credit Course

BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER V												
S.No.	CATEGORY	CODE	COURSE TITLE	Period			Evaluation Scheme				Subject Total	Credit
				L	T	P	Assignment	T A	Total	ESC		
1	Professional Core Courses	8PCCMiE301	Mining Machinery I	3	0	0	20	10	30	70	100	3
2	Professional Core Courses	8PCCMiE302	Surface Mining	3	0	0	20	10	30	70	100	3
3	Professional Core Courses	8PCCMiE303	Underground Coal Mining	3	0	0	20	10	30	70	100	3
4	Professional Core Courses	8PCCMiE304	Rock Mechanics	3	0	0	20	10	30	70	100	3
5	Professional Core Courses	8PCCMiE305	Numerical & Statistical Methods	3	0	0	20	10	30	70	100	3
6	Professional Core Courses	8PCCMiE306	Remote Sensing & GIS	3	0	0	20	10	30	70	100	3
7	Value Added Course	8VA301	Character Building and Holistic Development of Personality 3 (Universal Human Values and Ethics)	2	0	0	20	10	30	70	100	2
8	<b>OPEN ELECTIVE (Any one of the following subjects)</b>											
	Open Elective Courses	8OEEL301	Constitution of India	2	0	0	20	10	30	70	100	1
	Open Elective Courses	8OEEL302	Indian Knowledge System (IKS)- Concepts and Applications in Engineering									
	Open Elective Courses	8OEEL303	Any other course from MOOCS									
<b>PRACTICAL / SESSIONAL</b>												
1	Professional Core Courses	8PCCMiE304P	Rock Mechanics Lab	0	0	2			30	20	50	1
2	Project	8PROJMiE301	Vocational Training Report I	0	0	0			50	50	100	2
										<b>TOTAL</b>	<b>950</b>	<b>24</b>

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

\*\*NOTE: Qualifying Non Credit Course.

BATCH 2023-2027												
BTECH IN MINING ENGINEERING												
SEMESTER VI												
S.No.	CATEGORY	CODE	COURSE TITLE	Period			Evaluation Scheme				Subject Total	Credit
				L	T	P	Assignment	T A	Total	ESC		

1	Professional Core Courses	8PCCMiE308	Underground Metal Mining	3	0	0	20	10	30	70	100	3
2	Professional Core Courses	8PCCMiE309	Advanced Underground Mining	3	0	0	20	10	30	70	100	3
3	Professional Core Courses	8PCCMiE310	Mine Ventilation	3	0	0	20	10	30	70	100	3
4	Professional Core Courses	8PCCMiE311	Mine Planning	3	0	0	20	10	30	70	100	3
5	Professional Core Courses	8PCCMiE312	Ground Control	3	0	0	20	10	30	70	100	3
<b>PRACTICAL / SESSIONAL</b>												
1	Professional Core Courses	8PCCMiE310P	Mine Ventilation Lab	0	0	2			30	20	50	1
2	Professional Core Courses	8PCCMiE312P	Ground Control Lab	0	0	2			30	20	50	1
3	Professional Core Courses	8PCCMiE313P	Mine Planning & Design Exercise	0	0	2			30	20	50	1
										<b>TOTAL</b>	<b>750</b>	<b>18</b>

**\*\*NOTE: Qualifying Non Credit Course.**

<b>BATCH 2023-2027</b>												
<b>BTECH IN MINING ENGINEERING</b>												
<b>SEMESTER VII</b>												
S.No.	CATEGORY	CODE	COURSE TITLE	Period			Evaluation Scheme				Subject Total	Credit
				L	T	P	Assign ment	T A	Total	ESC		
1	Professional Core Courses	8PCCMiE401	Mine Environmental Engineering	3	0	0	20	10	30	70	100	3
2	Professional Core Courses	8PCCMiE402	Environmental Aspect of Mining	3	0	0	20	10	30	70	100	3
3	Professional Core Courses	8PCCMiE403	Mining Machinery II	3	0	0	20	10	30	70	100	3
4	Professional Core Courses	8PCCMiE404	Mine Legislation & Safety I	3	0	0	20	10	30	70	100	3
5	<b>PROFESSIONAL ELECTIVE (Any one of the following subjects)</b>											
	Professional Elective Courses	8PECMiEEL401	Dimensional Stone Mining	3	0	0	20	10	30	70	100	3
	Professional Elective Courses	8PECMiEEL402	Rock Excavation Engineering									
	Professional Elective Courses	8PECMiEEL403	Design of Open Pit Mines									
	Professional Elective Courses	8PECMiEEL404	Advanced Mine Safety Engineering									
6	<b>Humanities and Social Sciences</b>	<b>8HSMC401</b>	<b>**Seminar in Executive Communication</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>10</b>	<b>30</b>	<b>20</b>	<b>50</b>	<b>0</b>
<b>PRACTICAL / SESSIONAL</b>												
1	Professional Core Courses	8PCCMiE401P	Mine Environmental Engineering Lab	0	0	2			30	20	50	1
2	Project	8PROJMiE401	Vocational Trainee Report II	0	0	0			50	50	100	2
										<b>TOTAL</b>	<b>700</b>	<b>18</b>

**\*\*NOTE: Qualifying Non Credit Course.**

<b>BATCH 2023-2027</b>												
<b>BTECH IN MINING ENGINEERING</b>												
<b>SEMESTER VIII</b>												
S.No.	CATEGORY	CODE	COURSE TITLE	Period			Evaluation Scheme				Subject Total	Credit
				L	T	P	Assign ment	T A	Total	ESC		
1	Professional Core Courses	8PCCMiE405	Operational Research in Mining	3	0	0	20	10	30	70	100	3
2	Professional Core Courses	8PCCMiE406	Mine Legislation & Safety II	3	0	0	20	10	30	70	100	3
3	Professional Core Courses	8PCCMiE407	Mine Management	3	0	0	20	10	30	70	100	3
4	Professional Core Courses	8PCCMiE408	Fuel Technology & Mineral Processing	3	0	0	20	10	30	70	100	3
5	Professional Core Courses	8PCCMiE409	Mine & Mineral Economics	3	0	0	20	10	30	70	100	3
6	<b>OPEN ELECTIVE (Any one of the following subjects)</b>											
	Open Elective Courses	8OEEL401	Engineering Economics	3	0	0	20	10	30	70	100	3
	Open Elective Courses	8OEEL402	Industrial Management									
	Open Elective Courses	8OEEL403	Coal Bed Methane Mining									
7	<b>University Mandatory Course</b>	<b>8UMC101</b>	<b>Managing Personal Finance</b>	<b>1</b>	<b>0</b>	<b>0</b>					<b>100</b>	<b>0</b>
<b>PRACTICAL / SESSIONAL</b>												
1	Professional Core Courses	8PCCMiE408P	Fuel Technology & Mineral Processing Lab	0	0	2			30	20	50	1
2	Project	8PROJMiE402	Mining Project Work	0	0	10			100	100	200	5
										<b>TOTAL</b>	<b>950</b>	<b>24</b>

										<b>Total of All Semester</b>	<b>6350</b>	<b>164</b>
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**\*\*NOTE: Qualifying Non Credit Course.**

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