

Department of Mining Engineering
Curriculum of B. Tech (Mining Engineering)

FIRST SEMESTER
(COMMON TO ALL BRANCHES)

First Semester Group A:

Sr.No.	Sub. Code	Subjects	L-T-P	Credit
1	PHX 101	Physics	3-1-0	4
2	ICX 101	Electrical Sciences	2-0-0	2
3	CSX 101	Computer Programming	2-0-0	2
4	BTX 101	Introduction to Bio Science	3-0-0	3
5	HMX 101	Introduction to Management, Human Values & Behavior	3-0-0	3
6	PHX 102	Physics Laboratory	0-0-2	1
7	MEX 101	Engineering Graphics	1-0-4	3
8	ICX 102	Electrical Science Laboratory	0-0-2	1
9	CSX 102	Computer Programming Laboratory	0-0-2	1
TOTAL				20

First Semester Group B:

Sr.No.	Sub. Code	Subjects	L-T-P	Credit
1	CYX 101	Chemistry	3-1-0	4
2	IDX/CEX/ MEX 102	Elements of Mechanical Engineering	3-1-0	4
3	HMX 102	English Communication	3-0-0	3
4	TTX 101	Environmental Science and Technology	2-0-0	2
5	INX 101	Manufacturing Process	1-0-4	3
6	ECX 101	Basic Electronics	2-0-0	2
7	HMX 104	English Communication Laboratory	0-0-3	2
8	CYX 102	Chemistry Laboratory	0-0-2	1
9	ECX 102	Basic Electronics Laboratory	0-0-2	1
TOTAL				22

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SECOND SEMESTER
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Second Semester Group - A

Sr. No.	Sub. Code	Subjects	L-T-P	Credit
1	MAX 101	Mathematics - I	3-1-0	4
2	CYX 101	Chemistry	3-1-0	4
3	IDX/CEX/ MEX 102	Elements of Mechanical Engineering	3-1-0	4
4	HMX 102	English Communication	3-0-0	3
5	IDX 101	Environmental Science and Technology	2-0-0	2
6	INX 101	Manufacturing Process	1-0-4	3
7	ECX 101	Basic Electronics	2-0-0	2
8	HMX 104	English Communication Laboratory	0-0-3	2
9	CYX 102	Chemistry Laboratory	0-0-2	1
10	ECX 102	Basic Electronics Laboratory	0-0-2	1
TOTAL				26

Second Semester Group - B

Sr. No	Sub. Code	Subjects	L-T-P	Credit
1	MAX 101	Mathematics-I	3-1-0	4
2	PHX 101	Physics	3-1-0	4
3	ICX 101	Electrical Sciences	2-0-0	2
4	CSX 101	Computer Programming	2-0-0	2
5	BTX 101	Introduction to Bio Science	3-0-0	3
6	HMX 101	Introduction to Management, Human Values & Behavior	3-0-0	3
7	PHX 102	Physics Laboratory	0-0-2	1
8	MEX 101	Engineering Graphics	1-0-4	3
9	ICX 102	Electrical Science Laboratory	0-0-2	1
10	CSX 102	Computer Programming Laboratory	0-0-2	1
TOTAL				24

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THIRD SEMESTER

Sr. No	Sub. Code	Subjects	L-T- P	Credits
1	MAX 201	Mathematics - II	3-1-0	4
2	MEX 205	Machine Drawing	3-1-0	4
3	CEX 207	Strength of Materials	3-0-0	3
4	MNX 201	Mine Development	3-1-0	4
5	MNX202	Introduction to Geology	3-0-0	3
6	MNX 211	Mineral Exploration	3-0-0	3
7	MEX 205	Material Characterization Lab	0-0-3	2
8	MNX270	Geology Laboratory	0-0-3	2
TOTAL				25

FOURTH SEMESTER

Sr. No	Sub. Code	Subjects	L-T- P	Credits
1	MEX 207	Applied Thermodynamics	3-1-0	4
2	CHX 201	Fluid Mechanics	3-1-0	4
3	MNX 208	Mine Surveying	3-1-0	4
4	MNX209	Introduction to Mining Technology	3-1-0	4
5	MNX 210	System Engineering	3-0-0	3
7	MNX 280	Mine Surveying Laboratory	0-0-3	2
8	CHX 221	Fluid Mechanics Laboratory	0-0-3	2
TOTAL				23

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FIFTH SEMESTER

Sr. No	Sub. Code	Subjects	L-T- P	Credits
1	MNX 301	Surface Mining Technology	3-1-0	4
2	MNX 302	Rock Mechanics & Ground Control	3-1-0	4
3	MNX 303	Material Handling Systems	3-1-0	4
4	MNX 304	Mineral Processing Technology	3-1-0	4
5	HM 201	Engineering Economics and Industrial Management	3-0-0	3
6	MNX 370	Rock Mechanics Laboratory	0-0-3	2
7	MNX 371	Mineral Processing Technology Laboratory	0-0-3	2
8	MNX 372	Material Handling Systems Laboratory	0-0-3	2
TOTAL				25

SIXTH SEMESTER

Sr. No	Sub. Code	Subjects	L-T- P	Credits
1	MNX 311	Mine Ventilation	3-1-0	4
2	MNX 312	Underground Coal & Metal Mining Technology	3-1-0	4
3	MNX 313	Surface Mining Technology	3-1-0	4
4	HM	Operations Research	3-1-0	4
5	HM 304	Human Resource Management and Industrial Relation	3-0-0	3
6	MNX 380	Mine Ventilation Laboratory	0-0-3	2
7	MNX 381	Geo Mechanics Laboratory	0-0-3	2
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SEVENTH SEMESTER

Sr. No	Sub. Code	Subjects	L-T- P	Credits
1	MNX 401	Mine Environmental Engineering	3-1-0	4
2	MNX 402	Mine Legislation and Safety Engineering	3-1-0	4
3	MNX 403 MNX 404 MNX 405	Elective - I Advanced Coal Mining Technology OR Advanced Surface Mining Technology OR Tunneling	3-0-0	3
4	HM	Open Elective-I	3-0-0	3
5	MNX 470	Mine Environmental Engineering Laboratory	0-0-3	2
6	MNX 471	Simulation and Modeling of Mining systems Laboratory	0-0-3	2
7	MNX 472	Research Project – I	0-0-6	3
9	MNX 473	Short Term Industrial / Research Reports	0-0-3	2
TOTAL				23

EIGHTH SEMESTER

Sr. No	Sub. Code	Subjects	L-T- P	Credits
1	MNX 411	Mine Planning	3-1-0	4
2	MNX 412 MNX 413 MNX 414	Elective - II Ecology and Environmental Management OR Remote Sensing and Its Application OR Mining of Deep Seated Deposits	3-0-0	3
3	MNX 415 MNX 416 MNX 417	Elective - III Mine Economics and Mine ManagementOR Small Scale MiningOR Geo Mechanics	3-0-0	3
4	HM	Open Elective-II	3-0-0	3
5	MNX 480	Mine Planning and Design Laboratory	0-0-3	2
6	MNX 481	Research Project – II	0-0-9	6
7	MNX 482	Seminar and Technical Writing	0-0-3	2
TOTAL				23

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OPEN ELECTIVE

Sr.No	Sub. Code	Subjects	L-T-P	Credit
1	HMX-201	Engineering Economics and Industrial Management	3-0-0	3
2	HMX-202	Entrepreneurial Development & Management	3-0-0	3
3	HMX-301	Business Environment	3-0-0	3
4	HMX-302	Organizational Behaviour	3-0-0	3
5	HMX-303	Logistics and Distribution	3-0-0	3
6	HMX-304	Human Resource Management	3-0-0	3
7	HMX-305	Industrial Psychology	3-0-0	3
8	HMX-306	Marketing Management	3-0-0	3
9	HMX-307	Reading in Literature &Linguistics	3-0-0	3
10	HMX-308	Business Ethics	3-0-0	3
11	HMX-309	Knowledge Management	3-0-0	3
12	HMX-310	Managerial Economics	3-0-0	3
13	HMX-311	Financial and Cost Accounting	3-0-0	3
TOTAL				39