

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAVI
CREDIT BASED CREDIT SYSTEM (CBCS)
SCHEME OF TEACHING AND EXAMINATION
B. E. MINING ENGINEERING

III Semester

Sl. No.	Sub Code	Subject Title	Teaching Dept.	Hrs/week		Examination				Credits
				Theory	Pract.	Duration (Hrs)	IA Max. Marks	Theory/Pract.	Total Marks	
1	15MAT31	Engg. Mathematics-III	Mathematics	04		03	20	80	100	4
2	15MN32	Mining Electrical Engg.	EEE	04		03	20	80	100	4
3	15MN33	Mining Geology-I	Geology	04		03	20	80	100	4
4	15MN34	Mechanics of Materials	ME/MN	04		03	20	80	100	4
5	15MN35	Elements of Mining Engg.	MN	04		03	20	80	100	4
6	15MN36	Computer Aided Machine Drawing	MN/IP/AU/ ME/MA	02	4	03	20	80	100	4
7	15MNL37	Mining Geology Laboratory-I	Geology		2P + 1I	03	20	80	100	2
8	15MNL38	Mine Electrical Engg. Lab	EEE		2P + 1I	03	20	80	100	2
		Total		22	10	24	160	640	800	28

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IV SEMESTER

Sl. No.	Sub Code	Subject Title	Teaching Hours/week			Examination				Credits
			Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15MAT41	Engg. Mathematics-IV	04			03	80	20	100	4
2	15MN42	Thermodynamics & Fluid Mechanics	03	02		03	80	20	100	4
3	15MN43	Mining Geology –II	04			03	80	20	100	4
4	15MN44	Mine Mechanization-I	03	02		03	80	20	100	4
5	15MN45	Mine Surveying-I	03	02		03	80	20	100	4
6	15MN46	Drilling & Blasting Engg.	04			03	80	20	100	4
7	15MNL47	Mining Geology Laboratory-II	01		02	03	80	20	100	2
8	15MNL48	Mine Surveying Laboratory-I	01		02	03	80	20	100	2
Total			23	06	04	24	640	160	800	28

Internship/ Professional Practice: Students should undergo the following during the vacation (4th to 7th Semester) and detailed REPORT should be submitted in 8th Semester for Internal Assessment).

1. One Week Geology (after 4th sem) and Survey (after 5th sem) Camps.
2. Industrial Visits (Two Underground & Two Opencast Mines) or 15 Days Underground and 15 days Opencast Mines training or 15 Days in-Campus Technical Skill Development Certified Course.

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V Semester

Sl. No.	Sub Code	Subject Title	Hrs/week		Examination				Credits
			Theory	Pract.	Duration(Hrs)	Theory/Practical Marks	I.A. Marks	Total Marks	
1	15MN51	Mine Environment and Ventilation Engineering	04	-	03	80	20	100	4
2	15MN52	Mine Mechanization-II	04	-	03	80	20	100	4
3	15MN53	Mine Surveying-II	04	-	03	80	20	100	4
4	15MN54	Underground Coal Mining	04	-	03	80	20	100	4
5	15MN55X	Professional Elective-I	03	-	03	80	20	100	3
6	15MN56X	Open Elective-I	03	-	03	80	20	100	3
7	15MNL57	Mine Mechanization Lab	-	1L+2P	03	80	20	100	2
8	15MNL58	Mine Surveying Lab-II	-	1L+2P	03	80	20	100	2
Total			20	06	24	640	160	800	26

Professional Elective-I		Open Elective-I	
15MN551	Mineral Economics	15MN561	Industrial Safety Engineering
15MN552	Maintenance Management in Mines	15MN562	Industrial Management & Entrepreneurship

1. **Professional Elective:** Elective relevant to chosen specialization/branch
2. **Open Elective:** Electives from other technical and/or emerging subject areas

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VI Semester

Sl. No.	Sub Code	Subject Title	Teaching Dept.	Hrs/week		Examination				Credits
				Theory	Pract.	Duration (Hrs)	IA Max. Marks	Theory/Pract.	Total Marks	
1	15MN61	Surface Mining	MN	04	-	03	20	80	100	4
2	15MN62	Mineral Processing & Fuel Technology	MN	04	-	03	20	80	100	4
3	15MN63	Underground Metal Mining	MN	04	-	03	20	80	100	4
4	15MN64	Rock Mechanics	MN	04	-	03	20	80	100	4
5	15MN65X	Professional Elective -II	MN	03	-	03	20	80	100	3
6	15MN66X	Open Elective – II	MN	03	-	03	20	80	100	3
7	15MNL67	Rock Mechanics Lab	MN	-	1I+2P	03	20	80	100	2
8	15MNL68	Mine Environment and Ventilation Lab	MN	-	1I+2P	03	20	80	100	2
Total				22	06	24	160	640	800	26

Professional Elective –II		Open Elective - II	
15MN651	Mine Disasters and Rescue	15MN661	Tunneling Engineering
15MN652	Mine Safety Engineering	15MN662	Underground Space Technology

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VII SEMESTER

Sl. No.	Sub Code	Subject Title	Teaching Dept.	Hrs/week		Examination				Credits
				Theory	Pract.	Duration (Hrs)	IA Max. Marks	Theory/Pract.	Total Marks	
1	15MN71	Underground Mine Planning & Design	MN	04	-	03	20	80	100	4
2	15MN72	Ground Control	MN	04	-	03	20	80	100	4
3	15MN73	Computer Application in Mining	MN	04	-	03	20	80	100	4
4	15MN74X	Professional Elective -III	MN	03	-	03	20	80	100	3
5	15MN75X	Professional Elective -IV	MN/ME	03	-	03	20	80	100	3
6	15MNL76	Mineral Processing Lab	MN	-	1I+2P	03	20	80	100	2
7	15MNL77	Computer Application in Mining Lab	MN	-	1I+2P	03	20	80	100	2
8	15MNP78	Project Phase-I + Project Seminar	MN	-	3		100		100	2
		Total		18	09	21	240	560	800	24

Professional Elective –III			Professional Elective -IV		
Sl. No.	Subject Code	Subject Title	Sl. No.	Subject Code	Subject Title
1	15MN741	Open Pit Slope Analysis and Design	1	15MN751	Mine System Engineering
2	15MN742	Occupational Health & General Safety	2	15MN752	Numerical Modeling and Instrumentation in Rock Mechanics
3	15MN743	Surface Mine Planning and Design			

1. Project Phase-I + Seminar: Literature Survey, Problem Identification, Objectives and Methodology, Submission of Synopsis and Seminar.

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VIII SEMESTER

Sl. No.	Sub Code	Subject Title	Hrs/week		Examination				Credits
			Theory	Pract.	Duration (Hrs)	IA Max. Marks	Theory/ Pract.	Total Marks	
1	15MN81	Mine Legislation	04	-	03	20	80	100	4
2	15MN82	Mine Management	04	-	03	20	80	100	4
3	15MN83X	Professional Elective-V	03	-	03	20	80	100	3
4	15MN84	Internship/Professional Practice	Industry Oriented		03	50	50	100	2
5	15MNP85	Project Work	-	06	03	100	100	200	6
6	15MNS86	Seminar on current trends in Engineering and Technology	-	04	-	100	-	100	1
		TOTAL	11	10	15	310	390	700	20

Professional Elective-V		
Sl. No.	Subject Code	Subject Title
1	15MN831	Environmental Impacts of Mining
2	15MN832	Dimensional Stone Mining
3	15MN833	Coal Bed Methane
4	15MN834	Mining Geo-statistics

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Internship/ Professional Practice

Course	Code	Credits	L-T-P	Assessment		Exam Duration
				SEE	CIA	
Internship/ Professional Practice	15MN84	2	Industry Oriented	50	50	3 Hrs

Project Work, Phase-II

Course	Code	Credits	L-T-P	Assessment		Exam Duration
				SEE	CIA	
Project Work, Phase-II	15MNP85	6	0-6-0	100	100	3 Hrs

Seminar

Course	Code	Credits	L-T-P	Assessment		Exam Duration
				SEE	CIA	
Seminar on current trends in Engineering and Technology	15MNS86	1	0-4-0	-	100	-