

COURSE STRUCTURE

For

MINING ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

I Year - I Semester

S.No.	Subjects	L	T	P	Credits
1-HS	English – I	4	--	--	3
2-BS	Mathematics – I	4	--	--	3
3-ES	Engineering Chemistry	4	--	--	3
4-BS	Engineering Mechanics	4	--	--	3
5-BS	Computer Programming	4	--	--	3
6-ES	Environmental Studies	4	--	--	3
7-HS	Engineering/Applied Chemistry Laboratory	--	--	3	2
8-BS	English Communication Skills Lab – I	--	--	3	2
9-ES	C Programming Lab	--	--	3	2
Total Credits					24

I Year - II SEMESTER

S.No.	Subjects	L	T	P	Credits
1-HS	English – II	4	--	--	3
2-BS	Mathematics – II (Mathematical Methods)	4	--	--	3
3-BS	Mathematics – III	4	--	--	3
4-ES	Engineering Physics	4	--	--	3
5-HS	Basic Electrical and Electronics Engineering	4	--	--	3
6-ES	Engineering Drawing	4	--	--	3
7-BS	English - Communication Skills Lab – II	--	--	3	2
8-HS	Engineering /Applied Physics Lab	--	--	3	2
9-ES	Engineering /Applied Physics – Virtual Labs – Assignments	--	--	2	--
10	Engg.Workshop & IT Workshop	--	--	3	2
Total Credits					24

II Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Development of Mineral Deposits	4	--	--	3
2	Thermal Engineering for Mining	4	--	--	3
3	Fluid Mechanics & Hydraulic Machinery	4	--	--	3
4	Computer Aided Engineering Drawing practice	4	--	--	3
5	Mining Geology – I	4	--	--	3
6	Managerial Economics & Financial Analysis	4	--	--	3
7	Electrical and Electronics Engineering Lab	--	--	3	2
8	Fluid Mechanics and Hydraulic Machinery Lab	--	--	3	2
Total Credits					22

II Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Kinematics of Machinery	4	--	--	3
2	Materials Engineering	4	--	--	3
3	Mining Geology – II	4	--	--	3
4	Mine Surveying – I	4	--	--	3
5	Surface Mining	4	--	--	3
6	Industrial Engineering and Management	4	--	--	3
7	Geology Lab	--	--	3	2
8	Materials Lab	--	--	3	2
MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					22

III Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Underground Coal Mining Technology	4	--	--	3
2	Mine Environment Engineering – I	4	--	--	3
3	Electrical Equipment in Mines	4	--	--	3
4	Mine Surveying– II	4	--	--	3
5	Mining Machinery & Mechanization – I	4	--	--	3
6	Advanced English Communication Skills Lab	--	--	3	2
7	Mine Surveying Lab	--	--	3	2
8	Mechanical Engineering Lab	--	--	3	2
9	Mine Field visit(Mandatory)	--	--	--	0
Total Credits					21

III Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Mine Systems Engineering	4	--	--	3
2	Mineral Engineering and fuel Technology	4	--	--	3
3	Mine Environmental Engineering – II	4	--	--	3
4	Mining Machinery & Mechanization – I	4	--	--	3
5	OPEN ELECTIVE 1. Industrial Robotics 2. Entrepreneurship 3. Quality and Reliability Engineering 4. Waste Water Management 5. Rock Excavation Engineering 6. Mine Safety Engineering	4	--	--	3
6	Mineral Engineering Lab	--	--	3	2
7	Environmental Engineering Lab	--	--	3	2
8	Mine Planning & Design Lab	--	--	3	2
9	Industrial Training (3-4weeks)	--	--	--	0
Total Credits					21

IV Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Computer Applications in Mining	4	--	--	3
2	Underground Metal Mining Technology	4	--	--	3
3	Rock Mechanics & Ground Control	4	--	--	3
4	Mine Legislation & General Safety	4	--	--	3
5	Elective I 1.Rock Slope Engineering	4	--	--	3
	2. Mine Subsidence Engineering				
	3.Rock Fragmentation Engineering				
6	Elective II 1.Deep Sea Mining	4	--	--	3
	2. Mine Construction Engineering				
	3.Tunneling Engineering				
7	IPR & Patents	--	2	--	--
8	Computer Applications in Mining Lab	--	--	2	2
9	Rock Mechanics & Ground Control Lab	--	--	2	2
10	Short Survey Camp (One Week)	--	--	--	0
Total Credits					22

IV Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Production Planning and Control	4	--	--	3
2	Mine Economics & Investment	4	--	--	3
3	Mine Health and Safety Engineering	4	--	--	3
4	Elective III 1.Planning of Underground Metal Mining Projects	4	--	--	3
	2. Planning of Underground Coal Mining Projects				
	3.Planning of Surface Mining Projects				
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

Total Course Credits = 48+44 + 42 + 46 = 180