Discipline: **Mining Engineering**	Semester: **3rd semester**	Name of the Teaching Faculty: **1) MRS.SAMAPIKA DASH (Regular)** **2) Ms. Saziya Khurshid (PTGF)**	
Subject: **Mine GEOLOGY - I** Sub code: **Th.3**	No of days /week class allotted: **04**	Semester from Date: **01/10/2021 to 18/01/2022** No of weeks: **15**	
week	**Class Day**	**Theory topics**	**Practical topics**
1st	1st	Introduction about Geology and different branches of geology and scope of Geology for Mining Engineering	Megascopic Identification of rock forming Minerals
	2nd	**Physical Geology** Weathering and different types of weathering. 1. Physical weathering.	
	3rd	Weathering and different types of weathering. 2. Chemical Weathering. 3. Biological Weathering.	Megascopic Identification of rock forming Minerals
	4th	Erosion and its types	
2nd	1st	Erosional land forms produced by wind.	Megascopic Identification of rock forming Minerals
	2nd	Erosional land forms produced by wind.	
	3rd	Depositional land forms produced by wind	Megascopic Identification of rock forming Minerals
	4th	Depositional land forms produced by wind	
3rd	1st	Dune and its types.	Megascopic Identification of rock forming Minerals
	2nd	Erosional land forms produced by river.	
	3rd	Depositional land forms produced by river	Megascopic Identification of rock forming Minerals
	4th	Depositional land forms produced by river	
4th	1st	Erosional features produced by glacier.	Megascopic Identification of ore forming Minerals
	2nd	Depositional features produced by glacier.	
	3rd	What is iceberg .Difference between glacier and iceberg	Megascopic Identification of ore forming Minerals
	4th	Moraine and the different type of moraine with sketches.	
5th	1st	**Petrology** Rocks and minerals with example.	Megascopic Identification of ore forming Minerals
	2nd	Igneous rocks and its types	
	3rd	Sedimentary rocks and its types	Megascopic Identification of ore forming Minerals
	4th	Metamorphic rocks and its types	
6th	1st	Texture and Various textures found in Igneous rocks	Megascopic Identification of ore forming Minerals
	2nd	Porphyritic and poikilitic texture with diagram.	
	3rd	Surprise Test	Megascopic Identification of ore forming Minerals
	4th	Description of Various structures found in Igneous rocks.	
7th	1st	Description of Various structures found in sedimentary rocks.	Megascopic Identification of industrial Minerals
	2nd	Description of Various structures found in metamorphic rocks.	
	3rd	**Structural Geology** Introduction to structural Geology and Description	Megascopic Identification of industrial Minerals

		ofOutcrop ,bed , Dip, Strike ,True dip and apparent dip with diagram	
	4th	Fold and different parts of fold with diagram.	
8th	1st	Description of different types of fold	Megascopic Identification of industrial Minerals
	2nd	Description of different types of fold	
	3rd	Faults and terminology of fault.	Megascopic Identification of industrial Minerals
	4th	Description of different types of Fault with diagram.	
9th	1st	Description of different types of Fault with diagram.	Study of microscope and its parts.
	2nd	Recognization of faults in the field	
	3rd	Joints and its types	Study of microscope and its parts.
	4th	Unconformity and how the unconformities have been formed in nature	
10th	1st	Study of different types of unconformities	Analysis of thin section of minerals (optical properties of minerals)
	2nd	**Element of Crystallography** Crystals and its types	
	3rd	Explain Miller's indices.	Analysis of thin section of minerals (optical properties of minerals)
	4th	Describe the symmetry elements present in normal class of isometric system.	
11th	1st	Forms present in the normal class of isometric system.	Analysis of thin section of minerals (optical properties of minerals)
	2nd	**Elements of Mineralogy** Minerals and rock forming and ore forming minerals with examples	
	3rd	Physical properties of minerals.	Analysis of thin section of minerals (optical properties of minerals)
	4th	Physical properties of minerals.	
12th	1st	Physical properties of minerals.	Analysis of thin section of minerals (optical properties of minerals)
	2nd	Silicate structures along with diagrams. 1.Nesosilicates,2.soro silicates,3.cyclo silicates	
	3rd	Silicate structures along with diagrams. 4.Chain silicates5.sheet silicates 6.tecto silicates	Analysis of thin section of minerals (optical properties of minerals)
	4th	Various optical properties of minerals.	
13th	1st	Various optical properties of minerals.	Analysis of thin section of Rocks
	2nd	Physical properties of Quartz group of minerals.	
	3rd	Physical properties of Feldspar group of minerals.	Analysis of thin section of Rocks
	4th	Physical properties of Olivine group of minerals.	
14th	1st	Physical properties of Pyroxene group of minerals.	Analysis of thin section of Rocks
	2nd	DOUBT CLEARING CLASS	
	3rd	DOUBT CLEARING CLASS	Analysis of thin section of Rocks
	4th	DOUBT CLEARING CLASS	
15th	1st	MOCK TEST	Specific Gravity by Steel yard Balance
	2nd	MOCK TEST	
	3rd	MOCK TEST	Specific Gravity by Steel yard Balance
	4th	MOCK TEST	

Dash
1/10/2021