

# ADARSHA COLLEGE OF ENGINEERING, ANGUL

Adarsha Vihar, Near RTO, NH 55, Po – Angul, Dist – Angul – 759122, Odisha, India  
 Website - [www.adarshaengg.com](http://www.adarshaengg.com) Email – [ace.angul@yahoo.com](mailto:ace.angul@yahoo.com) Contact – 9348043390,8895364599

## DEPARTMENT OF MINING ENGINEERING

### LESSON PLAN

<b>Discipline: MINING</b>	<b>Semester:3RD</b>	<b>Name of the Teaching faculty: MALAYA RANJAN JENA</b>	
<b>Subject: MINING GEOLOGY-I</b>	<b>No of Days/Week class allotted: 4</b>	<b>Semester from Date:</b>	<b>To Date: No of weeks: 16</b>
<b>Week</b>	<b>Class Day</b>	<b>Topics</b>	
<b>1<sup>st</sup></b>	<b>1<sup>st</sup></b>	Define weathering and erosion.	
	<b>2<sup>nd</sup></b>	Explain with suitable sketches the erosional and depositional land forms produced by Wind.	
	<b>3<sup>rd</sup></b>	Explain with suitable sketches the erosional and depositional land forms produced by Wind.	
	<b>4<sup>th</sup></b>	Explain with suitable sketches the erosional and depositional land forms produced by Wind.	
<b>2<sup>nd</sup></b>	<b>1<sup>st</sup></b>	Explain with neat sketches the erosional and depositional land forms produced by River.	
	<b>2<sup>nd</sup></b>	Explain with neat sketches the erosional and depositional land forms produced by River.	
	<b>3<sup>rd</sup></b>	Explain with neat sketches the erosional and depositional land forms produced by River.	
	<b>4<sup>th</sup></b>	Differentiate between Glacier and Iceberg.	
<b>3<sup>rd</sup></b>	<b>1<sup>st</sup></b>	Describe the erosional and depositional features produced by glacier.	
	<b>2<sup>nd</sup></b>	Describe the erosional and depositional features produced by glacier.	
	<b>3<sup>rd</sup></b>	Describe the erosional and depositional features produced by glacier.	
	<b>4<sup>th</sup></b>	Define moraine. Describe the different type of moraine with sketches.	
<b>4<sup>th</sup></b>	<b>1<sup>st</sup></b>	Define moraine. Describe the different type of moraine with sketches.	
	<b>2<sup>nd</sup></b>	Define a Rock. Distinguish between a rock and a mineral.	
	<b>3<sup>rd</sup></b>	Define Igneous, Sedimentary, Metamorphic rocks.	
	<b>4<sup>th</sup></b>	Define Igneous, Sedimentary, Metamorphic rocks.	
<b>5<sup>th</sup></b>	<b>1<sup>st</sup></b>	Describe the various textures and structures found in Igneous rocks.	
	<b>2<sup>nd</sup></b>	Describe the various textures and structures found in Igneous rocks.	
	<b>3<sup>rd</sup></b>	Describe the various textures and structures found in Igneous rocks.	
	<b>4<sup>th</sup></b>	Describe some important structures of sedimentary rocks along with neat sketches.	
<b>6<sup>th</sup></b>	<b>1<sup>st</sup></b>	Describe some important structures of sedimentary rocks along with neat sketches.	
	<b>2<sup>nd</sup></b>	<b>CLASS TEST - 1</b> , Previous year questions, quiz test.	
	<b>3<sup>rd</sup></b>	Describe various structure found in metamorphic rocks.	
	<b>4<sup>th</sup></b>	Describe various structure found in metamorphic rocks.	
<b>7<sup>th</sup></b>	<b>1<sup>st</sup></b>	Define Dip. Distinguish between true dip and apparent dip.	
	<b>2<sup>nd</sup></b>	Define strike.	
	<b>3<sup>rd</sup></b>	Define folds. Classify folds and describe them.	
	<b>4<sup>th</sup></b>	<b>INTERNAL -1</b>	
<b>8<sup>th</sup></b>	<b>1<sup>st</sup></b>	Define faults. Describe the various types of faults.	
	<b>2<sup>nd</sup></b>	Define unconformity. Describe the various type of unconformity with neat sketches.	

	3 <sup>rd</sup>	Define joints. Define a crystal.
	4 <sup>th</sup>	Describe various joints.
9 <sup>th</sup>	1 <sup>st</sup>	Explain Miller's indices.
	2 <sup>nd</sup>	Explain Miller's indices.
	3 <sup>rd</sup>	Explain Miller's indices.
	4 <sup>th</sup>	Describe the symmetry elements and forms present in the normal class of Isometric system.
10 <sup>th</sup>	1 <sup>st</sup>	Describe the symmetry elements and forms present in the normal class of Isometric system.
	2 <sup>nd</sup>	Describe the symmetry elements and forms present in the normal class of Isometric system.
	3 <sup>rd</sup>	Describe the symmetry elements and forms present in the normal class of Isometric system.
	4 <sup>th</sup>	Define a mineral.
11 <sup>th</sup>	1 <sup>st</sup>	Enumerate and describe the physical properties of minerals.
	2 <sup>nd</sup>	Enumerate and describe the physical properties of minerals.
	3 <sup>rd</sup>	Describe various optical properties of minerals.
	4 <sup>th</sup>	Describe various optical properties of minerals.
12 <sup>th</sup>	1 <sup>st</sup>	Explain briefly the silicate structures along with diagrams.
	2 <sup>nd</sup>	Explain briefly the silicate structures along with diagrams.
	3 <sup>rd</sup>	Explain briefly the silicate structures along with diagrams.
	4 <sup>th</sup>	Explain briefly the silicate structures along with diagrams.
13 <sup>th</sup>	1 <sup>st</sup>	<b>CLASS TEST- 2</b> , Previous year questions, quiz test.
	2 <sup>nd</sup>	Classify minerals.
	3 <sup>rd</sup>	Describe mineralogy and physical properties of Olivine group of minerals.
	4 <sup>th</sup>	Describe mineralogy and physical properties of Olivine group of minerals.
14 <sup>th</sup>	1 <sup>st</sup>	Describe mineralogy and physical properties of Olivine group of minerals.
	2 <sup>nd</sup>	Describe mineralogy and physical properties of Olivine group of minerals.
	3 <sup>rd</sup>	Previous year questions, quiz.
	4 <sup>th</sup>	Previous year questions, quiz.
15 <sup>th</sup>	1 <sup>st</sup>	<b>REVISION</b> , Doubt clearing class (DC).
	2 <sup>nd</sup>	<b>REVISION</b> , Doubt clearing class (DC).
	3 <sup>rd</sup>	<b>INTERNAL - II</b>
	4 <sup>th</sup>	<b>REVISION</b>

**Signature Of Faculty**