

Detailed Teaching Plan

Session start date: 20/08/2024

Subject Name- *Advanced Mining Geology [2039571(039)]*

Name of Subject teacher- *Niraj Kumar Kaiwartya*

Lecture plus Tutorial/Week-03Session: Nov-Dec 2024

Lecture No.	No. & Name of chapter	Topic/Subtopics to be covered under this unit	No. of period planned	Actual no. of period covered <i>20/21</i>	Date of class conduction	Remarks	
01-02	Unit 1.0 Indian Stratigraphy	1.1 Principles of stratigraphy, Principle of correlation, Geological units	02	<i>20/21</i> 108/24	27/08/24 28/08/24	RC 28/08/24	
03		1.2 Geological Time scale, 1.3 Physiographic division of India general geological information.	01	27/08/24 28/08/24	29/08/24 02/09/24		
04-06		1.3.1 Peninsular India, 1.3.2 Indo-gangetic plan and 1.3.3 Archaean system 1.3.4 Cuddapah & vindhyan system.	03	29/08/24 02/09/24	04/09/24 05/09/24	2 class. Lab class	
07		1.4 Gondwana system - A brief account of the gondwana rocks.	01	03/09/24	05/09/24	RC 11/09/24	
08		1.5 Fossil contents and economic importance of gondwana rocks. 1.6 Fossils - Definition, 1.6.1 Index fossils, 1.6.2 Mode of occurrence and preservation, 1.6.3 Fossilisation and use of fossils.	01	04/09/24	10/09/24		
09-10				02	05/09/24 09/09/24	11/09/24 12/09/24	RC 19/09/24

Detailed Teaching Plan

11	2.1 Definition of ore, mineral, Gangue and Tenor of ores,	01	26/09/24	15/10/24	
12-13	2.2 Classification of ore deposits- 2.2.1 Magmatic ore deposit 2.2.2 Pegmatic ore deposits,	02	30/10/24 02/10/24	16/10/24	2 class
14-15	2.2.3 Hydrothermal ore deposits classification	02	07/10/24 08/10/24	21/22/10/24	Rc 17/10/24
16	Unit 2.0 Ore Deposit 2.2.4 Mechanical concentration deposits (Placer deposits)	01	09/10/24	23/10/24	
17	2.2.5 Oxidation and supergene sulphide enrichment ore deposits,	01	14/10/24	04/11/24	
18	2.3 Control of ore deposition 2.3.1 Structural controls, 2.3.2 Physical and chemical controls.	01	15/10/24	05, 06/11/24	

Detailed Teaching Plan

19-22	3.2 A brief account of the origin, occurrence and distribution of ores and minerals in India	04	10/09/24 11/09/24 12/09/24 15/09/24	16/7/18, 23/09/24	RC 25/02/24
23-26	Unit 3.0 Ores and Mineral Deposits of India 3.2 Economic use of the following ores and minerals – Iron, Copper, Aluminium	04	17, 18, 19/09/24 23/09/24	24, 25, 30/09/24	
27-28	3.3 Mohr's scale of hardness. Application of different minerals based on hardness.	02	24/09/24 25/09/24	04/10/24 03/10/24	RC
29-31	4.1 Coal- definition, Origin of coal – In situ theory, Drift theory,	03	16/10/24 21/10/24 22/10/24	11/13/11/24	
32-33	Unit 4.0 Coal and Petroleum 4.1.1 Formation of coal 4.1.2 Classification of coal – Peat, Lignite, Bituminous and Anthracite,	02	23/10/24 28/10/24	18, 19/11/24	
34-35	4.1.3 Chemical properties of coal, Occurrence of coal in India with special reference to C.G.	02	09/11/24 05/10/24	20/11/24	
36-38	4.1 Petroleum, 4.1.1 Origin of petroleum, 4.1.2 Oil traps, types of oil, 4.1.3 Petroleum deposits of India.	03	06/11/24 11/12/11/24	21, 25, 26/11/24	

Detailed Teaching Plan

<p>39-44</p> <p>Unit 5.0 Prospecting and Remote Sensing</p>	<p>5.1 Prospecting, Various prospecting methods</p>	<p>06</p>	<p>12/12/24 13/12/24</p>	<p>27/11/24 02/03/24</p>	<p>2 classes 2 classes</p>
<p>45-48</p>	<p>5.2 Application of remotesensing in various fields (GPS, GIS).</p>	<p>04</p>	<p>16/12/24 19/12/24 29/12/24</p>	<p>03/12/24 04/12/24 12/12/24</p>	<p>2class</p>
<p>Total</p>		<p>48</p>	<p>56</p>		


 Teacher's Signature