



Faculty of Earth Sciences



Department of Mineral Resources & Rocks 3rd & 4th Years Program



The Geological Society
Accredited degree courses

GEOCHEMICAL TECHNIQUES

Course Name	Course ID	Prerequisite
<i>GEOCHEMICAL TECHNIQUES</i>	<i>EMR 341</i>	<i>EMR 241</i>

Time Table for Course Lectures

GEOCHEMICAL TECHNIQUES (EMR 341)

Week	Topic
1	Introduction and Course Schedule Most Important Chemical Analyses in Geology
2	Types of Geologic Samples Methods of Collecting Different Samples
3	Physical Methods for Water Sample Preparations Physical Methods for Solid Sample Preparations
4	Saving of Geologic Samples and Their Pollution Chemical Methods of Sample Preparations
5	Distilled Water Preparation Methods Quality of Chemical Compounds
6	Periodical Test-1 Methods of Digestions of Solid Samples
7	Mineral Acids Advantage and Disadvantage of Using Mineral Acids in Digestion
8	Fusion Materials Advantage and Disadvantage of Fusion Materials In Digestion
9	Tabulating and Reporting of the Results of Chemical Analyses Standard Curve and Standard Cumulative Curve

10	Regular and Random Mistakes Problems on Regular and Random Mistakes
11	Periodical Test-2 X-Ray Fluorescence Instruments
12	Atomic Absorption Spectrometry (AAS) Colorimetric Instruments
13	Inductively Coupled Plasma Instruments (ICP) Methods of Mineral Separation
14	X-Ray Diffraction Technique Straining
15	Thermal Analysis Revision
16	Final Exam

References:

A Handbook of Silicate Rock Analysis, by Potts, P.J., 1987. Blackie, Glasgow, [1]
U.K.

Laboratory Handbook of Petrographic Techniques, by Hutchinson, C.S., 1974. [2]
New York, John Wiley and Sons.