



Faculty of Earth Sciences



Geophysics Department



The Geological Society
Accredited degree courses

RADIOMETRY AND GEOTHERMOMETRY

Course Name	Course ID	Prerequisites
<i>RADIOMETRY AND GEOTHERMOMETRY</i>	<i>EGP 342</i>	<i>EGP 211</i>

Time Table for Course Lectures

RADIOACTIVE & GEOTHERMAL EXPLORATION (EGP 342)

Week	Topic
1	Introduction Includes Definition of the Course, Reference and the Methods of Evaluation. ^[1]
2	Radioactivity Methods ^[1] Theoretical Background Types of Radiation, Law of Radioactivity.
3	Radioactive Series ^[1] Radioactivity Equilibrium and Spectrum of Radiation
4	The 1st Periodical Exam
5	Absorption of α , β and γ Radiations ^[1] Radioactivity of Rocks and Minerals
6	Radiation Detectors, Measurements Units and Field Procedures. ^[1] Induction Measurements Description, Application, Interpretation
7	Interpretation of Radiometric Data Radon Measurements. ^[1]
8	Radiometric Applications in Density Determination. ^[1] Airborne Radiometry
9	The 2nd Periodical Exam
10	Geothermometric Method ^[2] Background and Thermometric Properties
11	Thermal Models and Hydrothermal Circulation Marine Heat Flow ^[2]
12	Hot-Spots and Continental Heat Flow ^[2]

13	Geothermometric Measurements and correction and Interpretation ^[2]
14	The 3rd Periodical Exam
15	Final Exam

References:

[1] *Principles of Applied Geophysics (5th ed.)*, by Parasnis, D.S., 1997. Chapman & Hall, London.

[2] *Thermal Geophysics*, by Jessop, A.M., 1990. Elsevier Scientific Publishing Company. Amstrdam, Oxford, New York-Tokyo.