

Course Specifications

Programme(s) on which the course is given: Post-Graduate (Geophysics)

Major or Minor element of programmes: Major.

Department offering the programme: Geology

Department offering the course: Geology

Academic year / Level: 00/Post Graduate

Date of specification approval:

a- Basic Information

Title: Magnetic Methods

Code: G662

Credit Hours: 2 Credit
Hour

Lecture: 2 Credit

Tutorial:

Practical: -----

Total: 2 Credit Hour

b- Professional Information

1 – Overall Aims of Course:

- Introducing the basic principles and methodology of magnetic methods.
- give initial training in the operation of magnetic instruments and data interpretation

2 – Intended Learning Outcomes of Course (ILOs)

- a- Knowledge and Understanding:** By the end of this course, the student should be able to:
 - a1-** Understand the basic principles of magnetic methods.
 - a2-** Familiarize with the geological applications of magnetic methods.
- b- Intellectual Skills:** By the end of this course, the student should be able to:
 - b1-** Planning and carrying out a simple magnetic survey
 - b2-** Compare between different magnetic methods.
- c- Professional and Practical Skills:** By the end of this course, the student should be able to:
 - c1-** Draw and plot the raw data from the magnetic measurements.
 - c2-** Perform the field measurements.
- d- General and Transferable Skills:** By the end of this course, the student should be able to:
 - d1-** Use internet for communication and information retrieval.
 - d2-** analyze, synthesize and summarize data.

3. Contents

Topic	Credit hours	Lecture
Fundamental relationships	2	2
Earth magnetic field	4	4
Measuring the magnetic field	2	2
Basic field procedures	4	4
Mid Term Exam.		
Magnetic effects of simple geometric shape	2	2
Interpretation of magnetic data	6	6
Applications of the magnetic method	6	6

4 – Teaching and Learning Methods

4.1- lectures.

5- Student Assessment Methods

5.1- Regular written exam.

to assess a1, a2

5.2- Mid-term exam.

to assess a2, c1

5.3- At the end of term exam.

to assess a1-a2, b1-b2, c1-c2

5.4- Reports and discussions

to assess d1-d2

Assessment Schedule

Assessment 1: short exam (class activities)

every two weeks

Assessment 2: mid-term (written and practical)

week 7

Assessment 3: final-term (written and practical)

week 15-16

Assessment 4..... Week

Weighting of Assessments

Written

Mid-Term Exam.:

20%

Final-term Examination:

60%

Semester Work (including reports, oral and discussion): 20%

Total:

100%

6- List of References

6.1- Course Notes:

6.2- Essential Books (Text Books):

6.3- Recommended Books:

6.4- Periodicals, Web Sites, ... etc

7- Facilities Required for Teaching and Learning

Data show

Course Coordinator: Prof. Hassan El Shayeb

Head of Department: Prof. Ahmed Al-Boghdady

Date: / /2012