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: Gravity Methods **Code:** G661

Credit Hours: 2 Credit Hour **Lecture:** 2 Credit

Tutorial: **Practical:** --------- **Total:** 3 Credit Hour

b- Professional Information

1 – Overall Aims of Course:

- To introduce the basic principles and methodology of gravity methods
- To give initial training in the operation of basic gravity instruments and data interpretation

2 – Intended Learning Outcomes of Course (ILOs)

c- **Knowledge and Understanding:** By the end of this course, the student should be able to:
a1- Understand the basic and principles of geophysical gravity methods.
a2- Familiarize with the geological applications of gravity methods.

d- **Intellectual Skills:** By the end of this course, the student should be able to:
b1- Planning and carrying out a simple geophysical survey using gravity methods.
b2- Compare between different gravity methods of exploration.

e- **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 gravity measurements.
c2- Perform the field gravity measurements.

f- **General and Transferable Skills:** By the end of this course, the student should be able to:
d1- Work as a part of team.
d2- Solve gravity exploration problems.

3. Contents

Topic	Credit hours	Lecture
Fundamental relationships	3	2
Measuring gravity	6	4
Adjusting observed gravity	6	4
Basic field procedures	3	2
Gravity effects of simple geometric shape	3	2
Analyzing Anamolies	3	2
Gravity interpretations	6	4
Applications of the gravity method	6	4

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

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