

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: Data Evaluating and Processing

Code: G669

Credit Hours: 2 Credit
Hour

Lecture: 2 Credit

Tutorial:

Practical: -----

Total: 2 Credit Hour

b- Professional Information

1 – Overall Aims of Course:

- Providing an introduction to the techniques employed to interpret geophysical data collected for applied purposes.

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 principles of geophysical data collection.

a2- Familiarize with the geological applications of exploration geophysics.

b- Intellectual Skills: By the end of this course, the student should be able to:

b1- Apply knowledge and principles of mathematics to geological and geophysics problems

b2- Create subsurface interpretations consistent with local surface geology, and based on evaluation of geophysical data synthesized with other data.

b3- Analyze and interpret a suite of geophysical data from a particular locale and defend their interpretations

c- Professional and Practical Skills: By the end of this course, the student should be able to:

c1- Explain the quality and precision of a geophysical data set.

c2- Choose suitable filters and apply them to an unfamiliar data set to enhance anomalies of interest.

c3- Ability to select a geophysical technique that could resolve a subsurface structure/feature/anomaly.

d- 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 geophysical data problems.

3. Contents

Topic	Credit hours	Lecture
Geophysical data	2	1
Data acquisition	2	1
Data processing obtained from field	8	4
Data storage in computer and processing	6	3

First model interpretation (underground model based on geophysical results)	4	2
Final interpretation (discussion with geologist, including geophysical data)	6	3
Total	28	14

4 – Teaching and Learning Methods

4.1- lectures.

4.2-

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