Course Specifications

Programme(s) on which the course is given: Post-Graduate (Mineralogy and Petrology)
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: Geochemical Prospecting **Code:** G636

Credit Hours: 2 Credits **Lecture:** 2 Credits

Tutorial: **Practical:** ------ **Total:** 2 Credit Hours

b- Professional Information

1 – Overall Aims of Course

- Understanding the geochemical behavior of common ore elements.

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 geochemical behavior of common elements.
a2- Understand terminology, nomenclature and classification used in geochemical prospection.

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

b1- Create and apply knowledge within the field of geochemical prospection.
b2- Differentiate between primary and secondary haloes around the ore deposits.

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

c1- Apply and adopt the course topics into professional application.
c2- Explain different methods of geochemical prospection.

d- General and Transferable Skills: By the end of this course, the student should be able to:

d1- Critically use the internet as a mean of communication and as a source of information.
d2- Communicate effectively to a variety of audiences in written, verbal and graphical forms.

3. Contents

Topic	Credit hours	Lecture
Geochemical behavior of common ore elements	4	4
Methods of geochemical prospection	4	4
Sampling types of geochemical prospection	4	4
Primary and secondary holoes around ore deposits	4	4
Geochemical analysis methods for regional and detailed prospection	4	4
Interpretation of geochemical data	8	8

Total	**28**	**28**

4 – Teaching and Learning Methods

4.1- Professorial lectures
4.2- Class discussions
4.3- Preparation of scientific reports during the semester.

5- Student Assessment Methods

5.1- Regular written exam.	to assess a1-a2
5.2- Mid-term exam.	to assess b1-b2
5.3- At the end of term exam.	to assess 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 exam (written)	week 7
Assessment 3: Final-term exam (written and verbal)	week 15-16

Weighting of Assessments

Semester work :	20%
Mid-Term Examination:	20%
Final-term Examination:	60%
Total:	100%

6- List of References

6.1- All course topics will be given from published international journals.
6.2. Text books:
Chand Fateh, 1981. A manual of geochemical exploration methods
Beus, A. A., 1977. Geochemical exploration methods for mineral deposits
6.2- Periodicals, Web Sites, … etc
Journal of Geochemical Exploration (Elsevier)

7- Facilities Required for Teaching and Learning

Laptop, data show, internet, international journals.

Course Coordinator: Prof. Ibrahim khalaf, **Other Staff:** Prof. Ahmed Bishady

Head of Department: Prof. Ahmed Al-Boghdady

Date: / /2012