

Course Specifications

Programme(s) on which the course is given: B.Sc. (Geology, Petroleum Geology)

Major or Minor element of programmes: Major in Geology, and Petroleum Geology

Department offering the programme: Geology

Department offering the course: Geology

Academic year / Level: 00/ 1

Date of specification approval:

a- Basic Information

Title: Historical Geology

Code: G121

Credit Hours: 3 Credit

Lecture: 1½ Credit Hour

Prerequisite:----- Practical: 3 Hours

Total: 3 Credit Hours

b- Professional Information

1 – Overall Aims of Course:

- **Knowing the geologic history and development of life on the earth as recorded by rocks and fossils.**
 - a. Interpreting the geologic history of a rock, an outcrop, an area, and a map and cross section.**
 - b. Describing key events for a portion of the geologic time scale and explain how those interpretations were developed.**

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 various stratigraphic principles.**
 - a2- Illustrate how to prepare topographic maps, geologic maps, and geologic cross sections.**
 - a3- Define the application of historical geology.**
- b- Intellectual Skills:** By the end of this course, the student should be able to:
- b1- Prepare sketch maps and cross sections.**
 - b2- Use logical reasons in problem solving.**
- 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- Recognize and identify rock hand specimens.**
- d- General and Transferable Skills:** By the end of this course, the student should be able to:
- d1- Work independently and as part of a team.**
 - d2- Use internet for searching on the course topics.**
 - d3- Communicate results of work to others**

3. Contents

Topic	Credit Hour	Lecture	Tutorial/Practical
Review of earth materials	6	3	6
Relative and absolute dating	6	3	6
Some stratigraphic principles	3	1½	3
Sedimentary rocks and stratification	3	1½	3
Conformity and	3	1½	3

unconformities			
Conformity and unconformities	3	1½	3
Correlation	3	1½	3
Fossils in sedimentary rocks	3	1½	3
Geologic time scale (Precambrian)	3	1½	3
Geologic time scale (Paleozoic)	3	1½	3
Geologic time scale (Mesozoic)	3	1½	3
Geologic time scale (Cenozoic)	3	1½	3
Total	42	21	42

4 – Teaching and Learning Methods

4.1-lectures

4.2-practical

4.3-discussion sessions

5- Student Assessment Methods

5.1- regular verbal and written exam.

to assess a1-a3

5.2-mid-term exam

to

assess a1-a3, b1-b2

5.3-at the end of term exam

to

assess a1-a3, b1-b2, c1-c2

5.4-reports, discussion and practical

to assess d1-d3

Assessment Schedule

Assessment 1: short exam (class activities)

every two weeks.

Assessment 2: mid-term exam. (written and practical)

week 7.

**Assessment 3: final-term exam (written and practical)
week 15**

Weighting of Assessments

	Written	Practical
Mid-Term Examination:		20%
20%		
Final-term Examination:		60%
60%		
Semester Work (including reports, oral and discussion):		
20%	20%	
Total:	100%	
100%		

6- List of References

6.1- Course Notes: Prepared by staff members in Arabic language.

6.2- Essential Books (Text Books):

**Cooper, J. D.; R. H. Miller and J. Patterson (1990):
Principles of historical geology**

6.3- Recommended Books:

**Wicander, R. and Monroe, J. S. (2000): Historical
Geology – Evolution of Earth and Life through time.**

6.4- Periodicals, Web Sites, ... etc

7- Facilities Required for Teaching and Learning

**Laptop, different rock hand specimens and mega fossils,
geologic maps for different areas.**

Course Coordinator: Prof. Hosny E. Soliman

Head of Department: Prof. Ahmed Al-Boghdady

Date: / /2012