

Course Specifications

Programme(s) on which the course is given: M.Sc. Stratigraphy and Sedimentation

Major or Minor element of programmes: Major

Department offering the programme: Geology

Department offering the course: Geology

Academic year / Level: 00/ Post Graduated

Date of specification approval:

a- Basic Information

Title: Sequence Stratigraphy

Code: G621

Credit Hours: 2 Credits
Hours

Lecture: 2 Credit

Tutorial:

Practical: None

Total: 2 Credit Hours

b- Professional Information

1 – Overall Aims of Course

- a. Introducing sequence stratigraphy principles, methods, and applications.

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 sequence stratigraphy.
- a2- Recognize and identify the international stratigraphic code.
- a3- Types of sequence stratigraphic surfaces

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

- b1- Differentiate between transgressions and regressions.
- b2- Specify sequence stratigraphy problems and finding solutions.

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- Solve problems using logical reasons

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

- d1- Use internet critically for communication and searching course topics.
- d2- Organize and work effectively within a team.
- d3- Give effective presentations using appropriate methods.

3. Contents

Topic	Credit hours	Lecture
Historical development of sequence stratigraphy	2	2
Definitions of sequence stratigraphic concepts	2	2
Base- and sea-level changes	2	2
Transgressions and regressions	2	2
Types of sequence stratigraphic surfaces	4	4
Parasequences and parasequence sets	2	2
Types of systems tracts	4	4
Hierarchy of sequences and sequence boundaries	2	2
Applications of sequence stratigraphy in clastic and carbonate deposits	4	4
Sequence stratigraphy of economic deposits	4	4

Total	28	28
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4 – Teaching and Learning Methods

4.1-Professional lectures

4.2- discussion sessions

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)

week 7

Assessment 3: final-term (written)

week 14- 15

Weighting of Assessments

Semester Work and discussions:

20 %

Mid-Term Exam :

20%

Final-term Exam :

60%

Total:

100%

6- List of References

6.1- : Octavian Catuneanu (2006). Principles of Sequence Stratigraphy, 1st edition. Elsevier Science, 386p.

6.2- Periodicals, Web Sites, ... etc

Journal of African Earth Sciences (Elsevier), Journal of Sedimentary Research (Elsevier),

7- Facilities Required for Teaching and Learning

Laptop, data show.

Course Coordinator: Prof. Hamdalla Wanas

Head of Department: Prof. Ahmed Al-Boghdady

Date: / / 2012