

# 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
<b>Total</b>	<b>28</b>	<b>28</b>

#### 4 – Teaching and Learning Methods

4.1-Professional lectures

4.2- discussion sessions

#### 5- Student Assessment Methods

##### 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, d1-d2

5.4- Reports and discussions

to assess d2-d3

##### 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 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, 1<sup>st</sup> 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