The University of Jordan
Faculty of Science
Department of Environment and applied Geology
Course Syllabus of Stratigraphy Course (0305711)

Credit Hours: Three credits, two lectures.
Lectures: **Monday**& **Wednesday** 17:00 - 18:30, room Geo. 108.
Office hours: **M**onday and **W**ednesday **14:30-15:30.**

Dear students welcome in the ***Stratigraphy Course*** at the second semester of the **2018/2019** academic year. In about 28 lectures the light will be shed at the following subjects:

1. Introduction-Historical Perspective **1 lectures**
- What is sequence stratigraphy
- The evolution of sequence stratigraphy

2. Concepts and Principles of sequence stratigraphy **5 lectures**
- Introduction
- Relative Sea-level, tectonics and eustasy
- Sediment supply
- Sequence and systems tracts
- High-resolution sequence stratigraphy and parasequences

3. Seismic Stratigraphy **4 lectures**
- Seismic interpretation
- Seismic reflection termination patterns
- Recognition of systems tracts on seismic data
- Pitfalls in interpretation

4. Outcrop and Well data **4 lectures**
- Introduction-Historical Perspective
- Resolution of well data
- Sequence stratigraphy of outcrop and cores
- Sequence stratigraphy of wireline logs

5. Chronostratigraphic Charts **5 lectures**
- The purpose of chronostratigraphic charts
- Constrections of chronostratigraphic charts from seismic data
- Interpreting a chronostratigraphic charts
- Costal onlap curves and relative sea level curves
- Constructing chronostratigraphic charts from other data

6. Biostratigraphy **5 lectures**
- Introdution
- Fossil groups and zonal schemes
- Palaeoenvironmental analysis
- Biostratigraphy and sequence stratigraphy
- Conclusions

7. Biostratigraphy **4 lectures**
- Introdution
- Controls on carbonate sedimentation
- Carbonate slopes, platform classification and facies belt
- Sequence stratigraphic models for carbonate platforms
- Cyclicity and parasequences on carbonate platforms

Exams:

1st will be arranged with students
2nd will be arranged with students

Course Grade:

First exam: value will be 20% of the course grade. **Second exam: value will be 20% of the course grade** **Student activities: value will be 20 % of the course grade as a project for each student.**

Final exam: value will be 40% of the course grade.

Scale

60-65 C+
66-70 B-
71-75 B
76-80 B+
81-85 A-
86-100 A

References

Sequence Stratigraphy: Dominic Emery and Keith Myers. BP Exploration, 1998, London. 297pp.

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