

COURSE SYLLABUS FORM

American University of Beirut
Faculty of Arts and Sciences
Department of Geology

GEOL 222: Sedimentology

1. Course Learning Outcomes

This course is an examination of the processes involved in the transport and deposition of sediments. Focus will be on fundamental processes and describing the important physical, chemical, and biological properties of sedimentary rocks and the major characteristic features of both clastic and carbonate environments. Via group discussion and individual projects students will gain an understanding of various rock types and their formation processes in two-phase (water/sediment) systems.

2. Resources Available to Students

Textbook: Boggs, S., Jr., 1995, Principles of Sedimentology and Stratigraphy, Second Edition, Prentice Hall, Englewood Cliffs, 774 p.

Other sources: Prothero, D.R., and Schwab, F., 1996, Sedimentary Geology, W.H. Freeman and Company, New York, 575 p. Sedimentology and Sedimentary Basins, Blackwell Science, Oxford, 592 p. Additional research papers from various sources would be provided.

3. Grading Criteria

The course grade will be based upon the performance in the following areas:
The midterm exam and final exam are worth 30% and 40% respectively. The class participation is worth 30% and includes class attendance and behavior, as well as field trip report, and term paper preparation and presentation.

4. Schedule

Week	Topic	Activities	Assignments
1	Introduction	Reading	
2	Weathering	“	
3	Deposition/Transport	“	
4	Sedimentary Textures	“	
5	Sedimentary Structures	“	
6	Siliciclastic Rocks	“	
7	Carbonate Rocks	“	
8	Evaporites and Chemical Rocks	“	
9	Sedimentary Environments	“	
10	Continental Environments	“	
11-12	Marginal Marine	“	
13	Siliciclastic Marine	“	
14-15	Carbonate Environments	“	

5. Course Policy

This course is divided into three portions: lectures, term papers, and field activities.

Term paper: The term paper shall consist of a research paper on a suggested topic of sedimentology. Ten pages maximum of text, 12-point font, single-spaced, with 2.5 cm margins all around. The report should also contain at least two figures and/or tables that are properly referenced and incorporated into the text. A minimum of six references must be cited from valid scientific books and/or journal articles/internet sites. The draft submission deadlines will be announced in due time. **No late submission is accepted.**

Field activities: All field reports will be graded on the basis of grammar, organization, style and readability, as well as content. Field assignments are due one week after the field day unless otherwise indicated. Field reports should include a 1) title page with your name and date, 2) a statement of the main items visited in the field, 3) a description of the physiological properties of the visited outcrop, 4) a presentation of similar phenomena documented in other places based on literature review, 5) an interpretation of the observations, 6) a summary that discusses the significance of your interpretation, and 8) any appropriate references used for the field report.