The City College of New York

MARSHAK SCIENCE BUILDING
RM MR 106
160 CONVENT AVENUE
NEW YORK, NY 10031
TEL: (212) 650-6984
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DEPARTMENT OF EARTH AND ATMOSPHERIC SCIENCES

**Syllabus - Spring 2016**
Course Syllabus - Sedimentology
EAS B7500 and EES 74000
T, Th 2:00 – 2:15 pm

Instructor: Prof. Karin Block
Office: MR 717; Hours by appointment
Email: kblock@ccny.cuny.edu
Phone: (212) 650-8543

**Course Description:** The purpose of this course is to provide students with an understanding of the composition, texture, classification, depositional setting, provenance and correlation of sediments and sedimentary rocks. Lectures, homework, discussions will be used to identify common environments of deposition. Examples from global and local formations will be used to explore stratigraphic nomenclature, facies relationships and correlation of sedimentary sequences. Students will participate in a field trip to local outcrops to observe sedimentary rocks and facies and identify depositional paleoenvironments.

**Pre-requisite: Permission of Instructor.** Students must have a basic knowledge of plate tectonics, carbon and silica cycling in the oceans, and atmospheric and oceanic circulation to understand how materials are cycled in the earth system through erosion, weathering and deposition.

**Textbook**
**Required:** Sedimentology and Stratigraphy, 2nd Ed.
Author: Gary Nichols, 432 pp., Publisher: Wiley-Blackwell; ISBN-10: 1405135921, ISBN-13: 978-1405135924
**Recommended but not required:** Dictionary of Geological Terms, 3rd edition; Robert L. Bates, Julia A. Jackson, eds.; 576 pp. ISBN-10: 0385181019 ISBN-13: 978-0385181013

**Class Format**
This is a hybrid class. A portion of the class time is replaced with online activities.
Class time is for:

1. Explaining and practicing difficult concepts
2. Getting an overview of major concepts, minor points, and how they fit together
3. Asking and answering questions
4. Lab activities
5. Oral presentations
6. Taking higher stakes tests

Online activities are for:

1. Self-study lectures and review of earth science topics
2. Pre-lecture quizzes to promote preparation (readings and lectures) ahead of class meetings.
3. Lab/homework activities and submission of assignments when appropriate.

**Grading**
Homework assignments **MUST** be handed in on the stated due date. This semester I will not accept late submissions. The **mandatory** course field trip is scheduled for Saturday 4/16/16. No makeup exams will

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be given unless you provide a note from a qualified medical professional (i.e., a physician, physician's assistant, or nurse practitioner). If an exam is scheduled on a day that conflicts with your religious practice you must let me know **at the beginning of the semester** so the schedule can be modified or accommodations made.

Please note the grade distribution below. It is your responsibility to keep up with the material and earn a grade during the semester. Borderline grades happen and I have to abide by objective cut-offs from one letter grade to another to maintain fairness. Please refrain from grade grubbing and requesting extra credit assignments to lift grades at the end of the semester. Both of these are appeals for special treatment I will not receive favorably.

Lastly, I am a stickler for grammar and presentation. Please use proper grammar, complete sentences and scientific terminology whenever possible for all assignments and exams. Consider every writing assignment a chance at improving your communication skills.

**Distribution:**
Homework Assignments: 20%
Field Report 20%
Term Paper and Oral Presentation: 30%
Short Exams: 20% (lowest grade out of four will be dropped)
Blackboard Quizzes: 10%

The conversion from points to letter grades is done as follows:

| | | | |
|---|---|---|---|
| A+ | 97-100 | C+ | 77-79 |
| A | 94-96 | C | 74-76 |
| A- | 90-93 | C- | 73-70 |
| B+ | 87-90 | D | 60-69 |
| B | 84-86 | F | 0-59 |
| B- | 80-83 | | |

**Academic Integrity**
All students are expected to uphold the ethical standards of CUNY's academic integrity policy. To obtain the details of the academic integrity policy, visit the following URL: http://www1.ccny.cuny.edu/current/integrity.cfm . In addition, the Policy of Academic Integrity can be found in the Undergraduate Bulletin. All students must read policies regarding plagiarism and cheating. Students who are caught plagiarizing or cheating will be reported to the Office of Academic Integrity and will automatically fail the assignment.

**Students with Disabilities**
The City College of New York complies with the Americans with Disabilities Act in making adjustments for qualified students with disabilities. Students who so qualify must identify themselves to their instructors at the beginning of the semester so that that the latter may offer provisional accommodations.

**Course outcomes:**

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By the end of this course students should:

- Understand the composition, classification, and depositional processes that lead to the formation of the various types of sedimentary rocks.
- Understand the relationship between facies and paleogeography.
- Become proficient at description of clastic and carbonate units in outcrop and hand specimen.
- Learn how to create a sedimentary log based on field information such as structures, lithology, and fossils.
- Identify and plot flow direction based on structural indicators such as ripple marks, cross bedding, and fluting.
- Be able to create a field report with sketches, descriptions, and identification of the lake facies observable in the Newark Basin
- Predict types of sedimentary processes, deposits, and basic stratigraphic signature resulting from particular environments.

Please check the course Blackboard page for a detailed schedule.