

## **Sedimentary Petrology**

Earth Sciences 302

Section: D100

Term: 2014 Spring

Instructor: Dr. Shahin Dashtgard

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Discussion Topics: General:

EASC 302 is a course that concentrates on the composition, texture, diagenesis and depositional origin (petrology) of sedimentary rocks. It has as prerequisites: Sedimentation and Stratigraphy (EASC 201), Introduction to Petrology (EASC 205) and Statistics (STAT 101). The course outlines the various classification schemes for siliciclastic and carbonate rocks, microscopic/optical techniques for their study, and develops theories of sedimentary rock formation and diagenetic modification.

Course Topics:

Quick, general review of the depositional environments of siliciclastic, chemical and organic rocks.

The study of siliciclastic rocks, including compositional and textural classification systems, diagenesis, optical analysis of common clastic rock suites in thin section, and field identification.

The study of chemically precipitated (limestone, dolostone and evaporite) rocks, including compositional and textural classification systems, diagenesis, optical analysis of carbonate rock suites in thin section, and field identification.

The study of organic rocks (coal) (time permitting).

Course Organization:

Two 1-hour lecture classes and One 3-hour laboratory class per week.

Grading: Written Laboratory Assignments: 15%

Mid-Term Theory Exam: 15%

Mid-Term Laboratory Exam: 15%

Final Laboratory Exam: 15%

Final Theory Exam: 40%

Required Texts: Tucker, M.E., 2001. Sedimentary Petrology (Third Edition). Blackwell Science Ltd., UK. ISBN 978-0-632-05735-1

Recommended Texts: None.

Materials/Supplies: None.

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Prerequisite/Corequisite: Prerequisite: STAT 201 or 270, EASC 201 and 205.

### Notes:

This outline is derived from a course outline repository database that was maintained by SFU Student Services and the University's IT Services Department. The database was retired in 2014 and the data migrated to SFU Archives in 2015.