

## 7.253 INTRODUCTORY SEDIMENTARY PETROLOGY & STRATIGRAPHY

**INSTRUCTOR:** William M. Last (office: 228 Wallace Bldg.; office hours: 8:30-9:30 M, W, F or by appointment; telephone: 474-8361; Email: WM\_Last@Umanitoba.ca)

**LABORATORY INSTRUCTOR:** Jason Mann

**LECTURES:** Monday, Wednesday, Friday: 10:30 in Room 217 Wallace Bldg.

**LABORATORY:** 2:30 Wednesday; location of laboratory to be announced

### **Course Content:**

Sedimentary petrology in the widest sense is the study of the composition, texture, and origin of sediments and sedimentary rocks. A major goal of this course is to provide you with a working knowledge of the processes responsible for the production, transportation, and deposition of terrigenous and chemically-precipitated sediment, and the principles and concepts involved in the interpretation and classification of sedimentary rocks. In part, this involves consideration of small-scale features of the sedimentary particles themselves, such as bedding characteristics, texture, fabric, mineralogy, and structures, and, in part, examination of much larger-scale features such as vertical and lateral relationships between major sedimentary units, facies relationships, basin-wide depositional framework, and basin system architecture.

During this course, four major themes of sedimentary petrology and stratigraphy will be developed in lectures, labs, and readings: (i) origin, description, and properties of sedimentary particles; (ii) physical, chemical, and biological processes and resulting bedform characteristics; (iii) 'classical' and modern stratigraphic analysis and concepts; and (iv) process-controlled genetic units and modern facies analysis.

The *required* textbook for this course (available in the University of Manitoba Bookstore for \$112) is "Principles of Sedimentology and Stratigraphy" (second edition) by S. Boggs Jr. In addition, several other texts and reference books are on reserve in the Science Library.

### **Grading:**

The grading scheme for this course is:

Term tests (3): 70%

Laboratory assignments/reports/tests: 30% (The specific breakdown of this 30% will be discussed in your first laboratory period.)

Tests will cover material from lectures, laboratory assignments and exercises, and assigned readings. The last date for voluntary withdrawal from the course without academic penalty is *March 18*. You are advised to read the academic regulations and policies on page 30-34 of the University General Calendar. In particular, be aware of the policies regarding academic dishonesty, including

plagiarism and cheating.

**Policy for Late Assignments:**

Some laboratory assignments will be due at the end of the lab period. Other lab assignments can be handed in later in the week (due dates will be announced at the beginning of each lab period). Late lab assignments will be penalized 10% per day.