douglas college **Course Information**

A. Division: Academic

Date: February 12, 1986

B. Department: Sciences and Mathematics

New Course: ☐

Revision of Course Information Form: ☒

Dated: September 11, 1981

C. GEOL 321 (Subject & Course No.)

D. Introduction to Sedimentology (Descriptive Title)

E. 4 (Semester Credits)

F. Calendar Description: This course is a brief study of the various processes involved in the formation of sedimentary rocks, and of the characteristics imparted to formations by different depositional environments.

Summary of Revisions: (Enter date and Section Revised) e.g. 1982-08-25 Section C,E,F, and R.

1981-09-11

Section G, N.

G. Type of Instruction:

	Hours Per Week / ~~Per Semester~~
Lecture	2 Hrs.
Laboratory	4 Hrs.
Seminar	____ Hrs.
Clinical Experience	____ Hrs.
Field Experience	____ Hrs.
Practicum	____ Hrs.
Shop	____ Hrs.
Studio	____ Hrs.
Student Directed Learning	____ Hrs.
Other (Specify)	____ Hrs.
Total	6 Hrs.

H. Course Prerequisites:

GEOL 120

I. Course Corequisites:

-

J. Courses for which this Course is a Pre-requisite:

-

K. Maximum Class Size:

15

L. College Credit Transfer ☒

College Credit Non-Transfer ☐

Non-Credit ☐

M. Transfer Credit: Requested ☐ Granted ☒

(Specify Course Equivalents or Unassigned Credit as Appropriate)

U.B.C. GEOL 226 (1½)

S.F.U. General Elective Geol (4)

U. Vic. GEOL 321 + GEOL 421 = GEOL 201 (3)

Other

Rosamund Wilson
Course Designer(s)

Valentin Schaefer
Director / Chairperson

L. W. Bilyea
Divisional Dean

P. H. Rogers
Registrar

G2516 (Rev. Aug./82)

N. Textbooks and Materials to be Purchased by Students (Use Bibliographic Form):

Text: Blatt, H. (19) Sedimentary Petrology, W.H. Freeman

Lab Manual: Friedman & Johnson (1982) Exercises in Sedimentology, John Wiley

Complete Form with Entries Under the Following Headings: O. Course Objectives; P. Course Content; Q. Method of Instruction; R. Course Evaluation

O. COURSE OBJECTIVES

The student should be able to:

1. **Identify the effects of weathering on rocks in the field.**
2. **Identify sedimentary rocks in hand specimens and in the field.**
3. **Carry out grain size analysis of loose sediments.**
4. **Explain the dynamics of sediment transport and deposition.**
5. **Determine the environment of formation of various sedimentary rocks.**
6. **Differentiate sedimentary environments in the field.**
7. **Work out the geological history of a sedimentary basin from the study of geological maps.**

P. COURSE CONTENT

LECTURE TOPICS:	LABORATORY TOPICS:
1. Introduction - Occurrence of sedimentary rocks	1. Mineral Lab - review
2. Formation of sediment	2. Sedimentary particles
3. Sandstones/Conglomerates/Breccia	3. Textural analysis of sand
4. Mudrocks	4. Particle size analysis
5. Limestones/Dolomites	5. Detrital rocks
6. Evaporites	6. Carbonate staining/peels
7. Iron-rich rocks	7. Carbonate rocks
8. Cherts/Hydrocarbons/Volcanoclastics (one of)	8. Evaporites/cherts/ironstones/ phosphates
	9. Acetolysis

*** Each student will be assigned a field project, generally in the Lower Mainland of British Columbia, and will be expected to provide a comprehensive report on the sedimentology of the area assigned.**

Q. METHOD OF INSTRUCTION

1. The primary modes of instruction shall be lectures, laboratories, and field trips.

2. Readings will be assigned to supplement lectures.

3. Audio-visual aids will be used where appropriate.

R. COURSE EVALUATION

1.	Mid-term test	30%
2.	Field Project	30%
3.	Laboratory exercises	10%
4.	Final examination	30%
		100%