GEOLOGY 105
PHYSICAL GEOLOGY
Fall 2006
(NDSU Class #2234)

DEPARTMENT OF GEOSCIENCES, NORTH DAKOTA STATE UNIVERSITY

COURSE INFORMATION AND TENTATIVE SCHEDULE (UPDATED SEPT. 1, 2006)

Time and Place:	MWF, 1:00-1:50 p.m., Stevens Auditorium.
Professor:	B. Saini-Eidukat, office 129 Stevens Hall tel. 231-8785; email: bse@geosci.ndsu.edu
Office hours:	Tuesdays, 11:00 am – 12:30 pm, or by appointment
Text:	"Earth" by Tarbuck & Lutgens, 8th edition
Instructional Web Site:	*www.ndsu.edu/instruct/sainieid/physical/*

Course E-News: All students are expected to have an e-mail account and to subscribe to the Geology 105 e-mail list. This is an automated subscription service, requiring you to follow these *exact* instructions:

1. Send an e-mail from your own account and addressed to:
   LISTSERV@LISTSERV.NODAK.EDU

2. In the message area, include just one line:
   subscribe pgeo *yourfirstname yourlastname*
   (For example, *subscribe pgeo Jane Smith*). (*"pgeo"* is for "physical geology").
   Be sure to remove signature lines and any other text.

You will receive news on class cancellations, study sessions, exam content, and course information. You will be automatically unsubscribed from this list at the end of the semester.

Lecture and Exam Schedule – Subject to Change			**Assignments:**
W	Aug. 23	Introduction	Ch. 1; Ch. 22, Subscribe to E-News
F	25	Matter, minerals	Ch. 3
M	28	Minerals and their properties	
W	30	Igneous rocks - introduction	Ch. 4
F	Sep. 1	Extrusive igneous rocks	Ch. 5
M.	4	NO CLASS: Labor Day	
W	6	Extrusive / Intrusive igneous rocks	
F	8	Intrusive ign. Rocks / Bowen's Series	
M	11	Mechanical and chemical weathering	Ch. 6
T	12	*(Optional Geol. 105 Review Session, 7:00 - 8:00 p.m.)*	
W	13	**HOUR EXAM #1**	
F	15	Chemical weathering; Soils	Ch. 6
M	18	Soils	
W	20	Sedimentary rocks	Ch. 7
F	22	Sedimentary / Metamorphic rocks	Ch. 8
M	25	Metamorphic rocks / Stress and strain	Ch. 10
W	27	Stress and strain / Folds	
F	29	Folds	
M	Oct. 2	Faults	
T	3	*(Optional Geol. 105 Review Session, 7:00 - 8:00 p.m.)*	
W	4	**HOUR EXAM #2**	
F	6	Earthquakes	Ch. 11

M	Oct. 9	Earthquakes	
W	11	Interior of the Earth	Ch. 12
F	13	Isostasy	Ch. 14, pp. pp. 437-439
M	16	Earth's magnetic field	Ch. 12, p. 371-374
W	18	Wegener and continental drift	Ch. 2
F	20	Paleomagnetism	Ch. 2, pp. 45-53
M	23	Geologic Time	Ch. 9
T	24	*(Optional Geol. 105 Review Session, 7:00 - 8:00 p.m.)*	
W	25	**HOUR EXAM #3**	
F	27	Plate tectonics: an overview of the theory	Ch. 2
M	30	Plate boundaries	Ch. 13, pp. 391-396
W	Nov. 1	Volcanism and orogenesis	Ch. 14
F	3	West Coast tectonics	Ch. 14; Fig. 2.23 (p. 65)
M	6	Mantle Convection / Precambrian Tectonics	pp. 69-72
W	8	Web Project Introduction	Web Project
F	10	NO CLASS: Veterans Day Holiday	Web Project
M	13	Web Project Help Session	Web Project
W	15	Running Water	Ch. 16
F	17	Running Water	
M	20	**HOUR EXAM #4**	
W	22	Glaciers and glaciation	Ch. 18
F	24	NO CLASS: Thanksgiving Recess	
M	27	Glaciers and glaciation	
W	29	Glaciers / Groundwater	Ch. 17
F	Dec. 1	Groundwater	
M	4	Mass wasting	Ch. 15
W	6	Mass wasting	
F	8	Energy and Mineral Resources	Ch. 21
M	11	***FINAL EXAM (1:00 - 3:00 p.m.)***	

Examinations:
Four, 40-question, computer-graded hour exams will be given on the dates indicated above. These exams will include questions derived from both lecture material and assigned reading. *YOU WILL NEED A #2 LEAD* PENCIL *FOR MARKING THE ANSWER SHEET*. One hour exam may be missed without penalty, but if all four are taken, the lowest grade will be dropped before calculating the average.

The hour exams must be taken at the scheduled time, except in cases of serious emergency or pre-excused absence necessitated by official university activities. Regardless, a pre-exam notification of the absence must be given in direct discussion with the instructor (i.e. an e-mail, voice-mail, or other message does not constitute adequate notification). Make-up exams for excused absences are of a (often-rigorous) short essay format. No make-ups will be allowed after one week past the scheduled exam time. It is to your advantage to take the exam as scheduled.

A comprehensive final exam will be given from 1:00 - 3:00 p.m. on **Monday, December 11**. NDSU policy prohibits final examinations outside of this schedule. ALL STUDENTS WILL TAKE THIS EXAM AT THIS TIME.

Web Project:
Part of your grade will be based on a project that will be on the Web, to be completed as assigned during the semester. Instructions for the project will be given in class and by course E-News.

Evaluation Procedures and Criteria:

Hour exams (average of best 3 out of 4)	60%
Final exam	30%
Web Project	10%

The final letter grade will be assigned based on the following table (no curve is applied):

A = 90 - 100; B = 80 - 89; C = 70 - 79; D = 60 - 69; F = < 60

"Borderline" cases will be individually judged, based on grade improvement through demonstrated effort, etc.

Study Aids:
Copies of course exams from previous years will be provided as a handout packet. The instructional web site includes course news, self-tests, a Blackboard site with course content, the textbook website with additional self-tests, and links to NDSU Geosciences' "Geology in North Dakota" and "Fargo Geology" resource sites.

Most importantly: if you need extra help, please see me.

Course Attendance:
Regular attendance in lecture is an expectation. A significant percentage of the course content and associated exam questions is made available only during lecture.

Special Needs:
Any students who require special accommodations for learning or who have special needs should share those concerns or requests with the instructor as soon as possible.

Academic Responsibility:
All work in this course must be completed in a manner consistent with NDSU University Senate Policy, Section 335: Code of Academic Responsibility and Conduct (http://www.ndsu.nodak.edu/policy/335.htm).

Catalog Description:
Lecture course. Study of the Earth as a physical body; its structure, composition, and the geologic processes acting on and within the Earth.

General Education Categories:
Geology 105 has been approved as a "Science & Technology," a "Physical Sciences" and a "Global Perspectives," course.

Course Objectives:
- To understand the position and relationships of geology to the physical sciences.
- To demonstrate the application of the scientific method through examples in geology.
- To understand the physical nature of Earth.
- To learn the basic concepts and terminology of physical geology.
- To appreciate the physical settings of human populations: origins, processes, resources, and hazards.
- To understand the dynamic nature of geologic processes.
- To interpret landscapes.

Are You Considering Becoming a Geologist or an Earth Science Educator?:
Students talented in the sciences are encouraged to visit any geology faculty member to review the various options in our program. Employment opportunities in the geosciences are abundant!