

EAS 105 – The Dynamic Earth Through Time – Fall 2009

LECTURES: EAS 105 - Section A1, Tuesday + Thursday 11:00–12:20 p.m., ESB 2-36

INSTRUCTOR: Dr. Hans G. Machel (ESB 4-15, 492-5659)
Office hours: Wednesday 08:00-9:30 or “anytime”

LAB COORDINATOR: David Chesterman (T3-34, 492-8494, david.chesterman@ualberta.ca)

REQUIRED: Textbook: Monroe and Wicander, *The Changing Earth* (5th edition)
(\$157.05 new; \$117.80 used – UofA Bookstore)
Lab Kit: (~ 15.00 – UofA Bookstore)

Other useful info: <http://courses.eas.ualberta.ca/eas105/>

COURSE OUTLINE: The plate tectonic framework of a dynamic Earth as it relates to the origin of major groups of minerals and rocks. Earthquakes, structural geology, and the origin of mountain belts. Surface processes and their sedimentary products. History of life and extinctions. Not available to students with credit in EAS 101, 210 or SCI 100. Prerequisite: EAS 100 or 102. [Faculty of Science.]

GFC POLICY ON COURSE OUTLINES

23.4(2)b. “Policy about course outlines can be found in Section 23.4(2) of the University Calendar.”

COURSE MARK-WEIGHT DISTRIBUTION:

Mid-term exam	20%	(Tuesday, October-13-2009)
Labs	40%	
Final exam	40%	(Tuesday, December-15-2009 – check on-line posting)

Individual components of the course will be given a numerical mark. *No marks are given for class participation and other in-class activities. The final mark will be converted into the UofA Letter Grade system. No particular distribution will be used to determine grades, and no absolute measures or marks will determine them. Rather, a combination of the two will be used (see GFC 29 SEP 2003, and Section 23.4(2) of the University Calendar).*

LABORATORY WORK:

Laboratory work is conducted weekly, unless stated otherwise in the schedule below. Lab location and times: HMT 3-70, TR and F.

The labs are **mandatory**.

The labs are graded by the teaching assistants. Each lab is graded equally. There is no lab midterm or final exam, however, lab material may be tested on the lecture midterm and final exams.

EXAMS

The final course exam is cumulative with an emphasis on the material and lab content covered after the midterm. Examples of past exam questions will be made available at the exam registry.

Deferred exam policy: Anyone missing the midterm exam must provide a valid excuse in writing to the instructor. The weight of the midterm will be rolled into the final exam: the final will count for 60% of the total course grade, if a student misses the midterm exam with a valid excuse. If the instructor does not receive a valid excuse in writing, the midterm will be assigned a mark of zero %.

Final exams: only the Faculty Office is allowed to grant deferrals for final exams. Check the University regulations posted on-line and in the University Calendar. Students who are granted permission to sit a deferred final exam must do so on: **Saturday, January-09-2010, 10 a.m.-1 p.m, HMT 3-50.**

LABORATORY TOPICS AND SCHEDULE:

Week of	LAB TOPIC
Aug 31	NO LABS
Sept 07	NO LABS
Sept 14	Lab 1: Minerals and their atomic structure - Mineral identification
Sept 21	Lab 2: Igneous processes and rocks - Geological map and air photo interpretation - Rock identification
Sept 28	Lab 3: Sedimentary rocks - Geological map and air photo interpretation - Rock identification
Oct 05	Lab 4: Metamorphism and metamorphic rocks - Mapping metamorphic zones - Rock identification
Oct 12	No labs – Midterm Exam week
Oct 19	Lab 5: Plate tectonics - Mapping and geomorphic interpretation of tectonic zones - Calculating plate movement rates
Oct 26	Lab 6: Structural geology - Structural block diagrams - Map interpretation
Nov 02	Lab 7: Precambrian Earth and life - Fossils - Craton configurations - Shield rocks
Nov 09	Lab 8: Paleozoic Earth and life - Fossil description and sketching
Nov 16	Lab 9: Mesozoic Earth and life - Fossil description and sketching
Nov 23	Lab 10: Cenozoic Earth and life - Fossil description and sketching
Nov 30	No labs

This lab schedule is tentative and may be changed. Specifically, Labs 2 and 3 may be swapped because of logistic problems (instructor at conference, sub-teacher).

REGISTRATION

Make sure you are properly registered. If your name appears on the official class list, you are properly registered. If not, make sure you correct that before the deadline at the Faculty of Science office (BioSci). You will NOT get credit for the course unless you are properly registered.

The class lists distributed to the instructors contain only your UofA e-mail account. Memos will be sent only to that e-mail address. Make sure to check it, or link your "other" account to the UofA account.

DATES OF IMPORTANCE

September 2	Fall Session classes begin (1st and full term courses)
September 7	Labour Day; University Buildings closed
September 16	Fall Registration Deadline
October 12	Thanksgiving Day; University Buildings closed
November 10	Fall Term Class Break; no classes scheduled
November 11	Remembrance Day Holiday; University Buildings closed
December 3	Last day of classes, 1st term
December 9-16	Final examinations, 1st term
December 25-31	Christmas holiday period; University Buildings closed

SPECIALIZED SUPPORT AND DISABILITY SERVICES

Students who require accommodations in this course due to a disability affecting mobility, vision, hearing, learning, or mental or physical health are advised to discuss their needs with Specialized Support and Disability Services, 2-800 Students' Union Building, 492-3381 (phone) or 492-7269 (TTY). Please ensure that the required forms for exams are submitted to the instructor several days before the date of the midterms or final.

GFC POLICY ON ACADEMIC STANDARDS

23.4(2)c. "The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at www.uofaweb.ualberta.ca/secretariat/studentappeals.cfm) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University."

NO RECORDING

Recording of lectures is not permitted. (Recording of anyone's conversations or lectures without that person's permission is illegal).

CELL PHONES / PAGERS: Please turn them off.

CAREERS IN THE GEOSCIENCES (---> appended info posted on-line)

DEPARTMENT OF EARTH AND ATMOSPHERIC SCIENCES (---> appended info posted on-line)

COLLECTIONS / MUSEUMS (---> appended info posted on-line)

GFC POLICY

23.4(2)d. Nothing in any course outline, syllabus or course web-site may override or contravene any Calendar regulation or GFC policy. In resolving any discrepancy, GFC policy and Calendar regulations will take precedence.