

University of Alberta

EAS 100 – PLANET EARTH Section A3, 2011

LECTURES: EAS 100 Section A3 (MWF 1300–1350, ESB 3-27)
INSTRUCTOR: Dr. Solweig Balzer (ESB 1-16C, 492-0355, sbalzer@ualberta.ca)
Office Hours: Tuesdays 1100-1230 or email to book an appointment. Emailed questions are welcome.

LABS: Check your courses timetable for date, time and lab location
CO-ORDINATOR: David Chesterman (CCIS Level 1-272, 492-8494
david.chesterman@ualberta.ca)

REQUIRED:
Textbook: Skinner and Murck, *The Blue Planet, 3rd Edition, binder ready or e-text (E-text available at Special orders desk in University Bookstore)*
Lab Kit: University Bookstore, upper floor ~\$25
Lab Manual: University Bookstore (\$16.15)
Extra materials: Notepaper, pens, pencils, eraser, a metric ruler and a protractor are required for the labs.

WEBSITE: <http://courses.eas.ualberta.ca/eas100/>
Posted info: representative material, notes and exam examples.

COURSE DESCRIPTION: Introduction to the origin and evolution of the Earth and the solar system; plate tectonics and the rock cycle; simple energy balances and interactions between radiation and the atmosphere, oceans, ice masses and the global hydrological cycle; evolution of life, biogeography and global climate in the context of geologic time; carbon cycle; human interaction with the Earth; mineral and energy resources.

LECTURE SCHEDULE (tentative with dates subject to change)

Week of	LECTURE TOPICS	Chapters
Sept. 7	Foundation of the Earth: Components of the integrated earth system; Earth in space; Geological time	1, 2, 4
Sept. 19	Geosphere: Minerals and rocks; Rock cycle; Plate tectonics	3, 5 to 7
Oct. 10	Hydrosphere: The water planet (surface water, groundwater, snow, ice, glaciers and oceans)	8 to 10
Oct. 10	NO class → Thanksgiving Monday (Labs, except those on Monday, are still running as usual)	
Oct. 19	Midterm	
Oct. 31	Atmosphere: Composition; Dynamics and circulation; Weather systems; Climate changes	11 to 13
Nov. 11	NO class → Remembrance Day (No Tuesday to Friday labs this week, Monday lab is STILL running)	
Nov. 21	Biosphere: Biology and geology; Elemental cycles; Organization of life in space and time; Biodiversity; Anthropogenic influences and resources	14 to 16, 19

LABORATORY TOPICS AND SCHEDULE (dates are approximate; see lab TAs for exact dates for missed labs due to holidays)

Note: please dress appropriately for the weather on the field trip! Proper footwear is important. If the weather does not co-operate, the first lab will be maps and topographic profiles. Lab **dates** will not change. **Attendance at labs is mandatory and all lab assignments must be completed and handed in. Lab material WILL be tested on the final exam.**

Week of	LAB TOPIC – TAs will inform their labs if the lab topics change order
Sep 7	NO LABS
Sep 12	NO LABS
Sep 19	Field trip: Geology of the N. Saskatchewan River Valley
Sep 26	Maps and topographic profiles
Oct 3	Earth materials: minerals and rocks
Oct 10	Mapping geologic history (No Monday lab this week)
Oct 17	The tectonic system (Monday labs complete geological history lab)
Oct 24	Water at and beneath the Earth's surface (Monday labs complete tectonics lab)
Oct 31	Glaciers and glaciations (Monday labs complete water lab)
Nov 7	NO LABS this week for Tuesday to Friday labs – Monday labs are running as usual! (Monday labs complete glaciers lab)
Nov 14	Solar radiation, atmosphere and oceans
Nov 21	The life and times of planet Earth
Nov 28	Mineral resources and the human footprint

COURSE MARK-WEIGHT DISTRIBUTION:

Mid-term exam	20%	(October 19, 2011)
Labs	30%	
Final exam	50%	(December 14, 2011 from 1400–1700, Room TBA) (Cumulative, 25-30% of final will focus on lab material)

Representative material regarding evaluation will be posted on the website. Individual components of the course will be given a numerical mark. The grading system will be applied using a combination of absolute achievement and relative standing in the class. **Be aware, that a total score of 50% or more in the course as a whole will not ensure a passing grade.** If said score exceeds 50% only by virtue of the lab component, whereas lecture exam results indicate inability to master the course content to any significant degree, the student be assigned a failing grade. This will occur for anyone whose final exam score is less than 50%, or such other circumstances as may suggest that a passing grade is inappropriate.

MISSED TERM EXAM OR LABS:

A student who cannot write a term examination or complete a lab assignment due to incapacitating illness, severe domestic affliction or other compelling reasons can apply to write a deferred midterm term. Documentation will be required. **You must notify the lecture instructor of a missed midterm within 48 hours.** Students who are granted permission to sit a *deferred midterm exam* must make suitable arrangements with the instructor.

You must notify the lecture instructor, the lab TA and the lab coordinator of a missed lab within 48 hours to allow the lab absence to be excused. All reasonable attempts must be made to make up missed labs. All lab assignments not completed and submitted will be assigned a 0. **Missing even one lab WILL affect your final grade.**

Deferral of term work is a privilege and not a right; there is no guarantee that a deferral will be granted. Misrepresentation of Facts to gain a deferral is a serious breach of the *Code of Student*

DEFERRED FINAL EXAM: A student who cannot write the final examination due to incapacitating illness, severe domestic affliction or other compelling reasons can apply for a deferred final examination. Such an application must be made to the student's Faculty office within 48 hours of the missed examination and must be supported by a Statutory Declaration (*in lieu* of a medical statement form) or other appropriate documentation (Calendar section 23.5.6). Deferred examinations are a privilege and not a right; there is no guarantee that a deferred examination will be granted. Misrepresentation of Facts to gain a deferred examination is a serious breach of the *Code of Student Behaviour*.

Students who are granted permission to sit a *deferred final exam* must do that on:
Saturday, January 14, 2012, from 1000–1300 hours, room TBA

REEXAMINATION: A student who writes the final examination and fails the course may apply for a reexamination. Reexaminations are rarely granted in the Faculty of Science. These exams are governed by University (Calendar section 23.5.5) and Faculty of Science Regulations (Calendar section 182.5.9). Misrepresentation of Facts to gain a reexamination is a serious breach of the *Code of Student Behaviour*.

Student Responsibilities:

ACADEMIC INTEGRITY: '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.ualberta.ca/secretariat/appeals.htm) 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.'

All forms of dishonesty are unacceptable at the University. Any offense will be reported to the Senior Associate Dean of Science who will determine the disciplinary action to be taken. Cheating, plagiarism and misrepresentation of facts are serious offenses. Anyone who engages in these practices will receive at minimum a grade of zero for the exam or paper in question and no opportunity will be given to replace the grade or redistribute the weights. As well, in the Faculty of Science the sanction for **cheating** on any examination will include **a disciplinary failing grade** (no exceptions) and senior students should expect a period of suspension or expulsion from the University of Alberta.

EXAMS: Your student photo I.D. is required at exams to verify your identity. Students will not be allowed to begin an examination after it has been in progress for 30 minutes. Students must remain in the exam room until at least 30 minutes has elapsed. Electronic equipment cannot be brought into examination rooms – this INCLUDES calculators, cell phones, mp3 players, etc. If you must wear a pager, please notify the instructor. Note: headphones are NOT permitted during exams.

CELL PHONES: Cell phones are to be turned off during lectures, labs, exams and seminars. You cannot use it as a "clock" during exams.

STUDENTS WITH DISABILITIES: Students who require accommodation in this course due to a disability are advised to discuss their needs with Specialized Support & Disability Services (2-800 Students' Union Building). Please ensure that the required forms for exams are submitted to the instructor **one week** before the date of the midterms or **by the last lecture class** for the final exam.

ACADEMIC SUPPORT CENTRE: Students who require additional help in developing strategies for better time management, study skills or examination skills should contact the Academic Support Centre (2-703 Students' Union Building).

Policy about course outlines can be found in section 23.4(2) of the University Calendar.

Disclaimer: Any typographical errors in this Course Outline are subject to change and will be announced in class. The date of the final examination is set by the Registrar and takes precedence over the final examination date reported in this syllabus.

Note: Recording is permitted only with the prior written consent of the professor or if recording is part of an approved accommodation plan.