



DEPARTMENT OF SCIENCE
COURSE OUTLINE – WINTER 2015
ES1000 – PLANET EARTH – 3(3-0-3)UT

INSTRUCTOR: Dr. Tanvir Sadiq

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OFFICE: J 209

E-MAIL: tsadiq@gprc.ab.ca

OFFICE HOURS: TBA or By Appointment

PREREQUISITE(S)/COREQUISITE: High School

NOTE: This course is not available to students with credit in ES1010 or ES1020

REQUIRED TEXT: *The Blue Planet, 3rd Edition* by Skinner and Murck. Available at Bookstore.

(Second Edition is NOT acceptable.)

Contact your instructor for information on lab manual.

CALENDAR DESCRIPTION: Introduction to the origin and evolution of the Earth and the solar system, and 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 geological time. The carbon cycle. Human interaction with the Earth. Mineral and energy resources.

CREDIT/CONTACT HOURS: 3(3-0-3) UT

DELIVERY MODE(S): Lectures, Labs

EVALUATIONS:	Participation	4%
	End of Chapter Quizzes	10%
	Major Quizzes	36% (Quizzes at the end of major topics)
	Labs	15%
	Final Exam (TBA)	35% (Cumulative, lab material also included)

NOTE: There will be no makeup or deferral available for any missed quizzes.

TRANSFERABILITY: University of Alberta, University of Calgary*, Athabasca University, Augustana Faculty-University of Alberta ,University of Lethbridge (* An asterisk (*) beside any transfer institution indicates important transfer information. Consult the Alberta Transfer Guide.)

STUDENT RESPONSIBILITIES: Students are expected to attend all classes and labs. If you miss a class, make arrangements to copy the notes from your class fellows. **Attendance at labs is mandatory and all lab assignments must be completed and handed in. Lab material is testable on the final exam.**

LECTURE SCHEDULE: (Tentative, subject to change)

Weeks	LECTURE TOPICS	Chapters
1, 2	Foundation of the Earth: Scientific method, Components of the integrated earth system; Earth in space; Geological time.	1, 2, 4
3, 4, 5	Geosphere: Minerals and rocks; Rock cycle; Plate tectonics.	3, 5, 6, 7
6, 7, 8	Hydrosphere: The water planet (surface water, groundwater, snow, ice, glaciers and oceans)	8, 9, 10
9, 10, 11	Atmosphere: Composition; Dynamics and circulation; Weather systems; Climate changes.	11, 12, 13
12, 13, 14	Biosphere: Biology and geology; Elemental cycles; Organization of life in space and time; Biodiversity; Anthropogenic influences and resources.	14, 15, 16, 19

Lab Schedule will be available in the Lab. Each Lab must be completed within scheduled time. There will be no extra time provided to complete the Lab work and report.

STUDENTS WITH DISABILITIES: Students who require accommodation in this course due to a disability are advised to discuss their needs with student services. Please ensure that the required forms for exams are submitted to the instructor one week before the date of the midterm or by the last lecture class for the final exam.

STATEMENT ON PLAGIARISM AND CHEATING:

Refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at www.gprc.ab.ca/about/administration/policies/**

**Note: all Academic and Administrative policies are available on the same page.

GRADING CRITERIA:

GRADING CONVERSION CHART – This is a general guideline only.			
Alpha Grade	4-point Equivalent	Percentage Guidelines (General)	Designation
A+	4.0	90 – 100	EXCELLENT
A	4.0	85 – 89	
A–	3.7	80 – 84	FIRST CLASS STANDING
B+	3.3	77 – 79	
B	3.0	73 – 76	GOOD
B–	2.7	70 – 72	
C+	2.3	67 – 69	SATISFACTORY
C	2.0	63 – 66	
C–	1.7	60 – 62	
D+	1.3	55 – 59	MINIMAL PASS
D	1.0	50 – 54	
F	0.0	0 – 49	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability

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