

Dynamic Earth

Earth Sciences 101

Section: D100

Term: 2006 Summer

Instructor: K.J. Cameron

Discussion Topics: General

Geology is the science that studies Earth - how it was formed, how it evolved, how it works, and how we can help to preserve it. EASC 101 is an introductory course to the Earth Sciences that has been designed both as a foundation course for Earth Science majors and as a terminal course for those in other disciplines. Lectures investigate geologic theory, while laboratory sessions focus on "hands on" exercises emphasizing rock and mineral identification, Earth structure and processes. A one-day field trip late in the semester maybe scheduled if there is interest.

PLEASE NOTE Students with credit for GEOG 112 cannot take this course for further credit.

Course Topics

1. Understanding Earth as a System

Minerals: Crystal structure, common rock-forming minerals

Igneous rocks: Magmas and volcanism

Sedimentary rocks: Weathering and erosion, sedimentary environments

Metamorphic rocks: Metamorphic environments

2. Surface Processes

Rivers, Oceans, Glaciers, Winds and Deserts

Mass Wasting

3. Structure of the Earth

Geologic Time and Rock Deformation

Earthquakes and plate tectonics

4. Earth Resources

Groundwater, energy and minerals

Course Organization

Dynamic Earth

Two 1-hour lectures and one 3-hour laboratory per week.

Grading:

Required Texts: Course Text:

Tarbuck, E.J, Lutgens F.K. and Tsujita, C.J. 2005. Earth: An Introduction to Physical Geology, Canadian Edition, Prentice-Hall. ISBN 0-13-121724-9

OR

Tarbuck, E.J and Lutgens,F.K. 2002. Earth: An Introduction to

Recommended Texts: None.

Materials/Supplies: None.

Prerequisite/Corequisite: None.

Notes: Inquiries:

Further information about this course can be obtained from the instructor, Kevin Cameron, in TASC 7223 (Phone 291-4703 or e-mail kjc@sfu.ca)

Be aware that during the fieldtrip, there will be periods of hiking where appropriate clothing and footwear should be worn. Further details regarding the fieldtrip will be discussed prior to the fieldtrip.

This outline is derived from a course outline repository database that was maintained by SFU Student Services and the University's IT Services Department. The database was retired in 2014 and the data migrated to SFU Archives in 2015.