Sample Course Information Available for Students in CUSIS

Data Language: English

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Course Detail

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GRMD 2209 - Physical Geology

Course Detail

view class sections

view course outcome

Career	Undergraduate	
Units	3.00	
Grading Basis	Graded	
Course Components	Field Studies/Field-trip	Optional
	Lecture	Required

Description

This course provides an introduction to the physical domain of the planet Earth. Topics include the materials (i.e., minerals and rocks) of which the earth is made, the geological processes that act on these materials, the structures (e.g., faults, folds) and products (e.g., landforms and natural hazards) created, the geological time and natural history, and the environmental change and evolution of the planet. Along with the course lectures which introduce students to key information and concepts of the discipline, field trips and exercise stressing the application of geological techniques are held periodically to reinforce specific theories and concepts.

Course Schedule

Terms Offered 2014-15 Term 2 show sections

Open Closed Wait List

GRMD 2209 sections for 2014-15 Term 2

Section	Session	Status
--LEC (5283)	1	

Days	Start	End	Room	Instructor	Dates
Tu	8:30AM	10:15AM	Yasumoto Int'l Acad Park 405	Professor NG Sai Leung	06/01/2015 - 14/04/2015

Section	Session	Status
-F01-FLD (5626)	1	

Days	Start	End	Room	Instructor	Dates
TBA	TBA		TBA	Professor NG Sai Leung	06/01/2015 - 15/04/2015

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GRMD 2209 - Physical Geology

Learning Outcome

After completion of this course, students should: • understand the geological processes controlling the evolution of the Earth; • know the structures and formations of various landforms over the world; and • develop field skills for geological survey

Course Syllabus

Syllabus

Week	Lecture
1	Introduction: what is geology?
2	Earth inferior
3	Mineral and mineralogy
4	Mineral resources and gems
5	Petrology of igneous rock
6	Igneous landforms
7	Petrology of sedimentary rock
8	Conference leave
9	Sedimentary landforms
10	Metamorphic rock and associated landforms
11	Geological hazard I: earthquake
12	Geological hazard II: volcanic eruption
13	Geological time and environmental change
14	Geoconservation and geopark

Assessment Type

	Assessment Type	Current Percent
1	Essay test or exam	50
2	Other	40
3	Short answer test or exam	10

Feedback for Evaluation

• An early course evaluation survey will be conducted in the 3rd week and a final one will be considered in the last lecture respectively • A WebCT will be set up for this course. Not only it will include all important information related to the course, but it will have a discussion group that serves as a platform for communication.

Required Readings

Required Readings

A set of required readings will be reserved in the Reference Room (Rm 220, WFY Bldg.) of the Department of Geography and Resource Management.

L1. Introduction: what is geology?

- **Marshak, S. (2001) Prelude: and just what is geology? Earth, portrait of a planet. New York: W.W. Norton.**

L2. Earth inferior

- **Marshak, S. (2001) Ch.2. Journey to the center of the Earth Earth, portrait of a planet. New York: W.W. Norton.**

L3-4. Mineral and mineralogy / Mineral resources and gems

- **Marshak, S. (2001) Chapter 5 Patterns in nature: minerals. Earth, portrait of a planet. New York: W.W. Norton.**

L5-6. Petrology of igneous rock / Igneous landforms

- **Marshak, S. (2001) Chapter 6. Up from the inferno: magma and igneous rocks. Earth, portrait of a planet. New York: W.W. Norton.**

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L7-8. Petrology of sedimentary rock / Sedimentary landforms

- **Marshak, S. (2001) Chapter 7. A surface veneer: sediments and sedimentary rocks. Earth, portrait of a planet. New York: W.W. Norton**

L9. Metamorphic rock and associated landforms

- **Marshak, S. (2001) Chapter 8. Change in the solid state: metamorphic rocks. Earth, portrait of a planet. New York: W.W. Norton.**

L10. Geological hazard I: earthquake

- **Keller, E.A. & Blodgett, R.H. (2006) Chapter 2 Earthquakes. Natural hazards. New Jersey: Pearson.**

L11. Geological hazard I: volcanic eruption

- **Keller, E.A. & Blodgett, R.H. (2006) Chapter 3 Volcanoes. Natural hazards. New Jersey: Pearson.**

L12. Geological time and environmental change

- **Allegre, C.J. & S.H. Schneider (1994) The evolution of the Earth. Scientific American, October 1994:44-51.**

L13. Geoconservation and geopark

- **Ng, S.L., Li J.F., Fang S.M. & Ng, Y.C.Y. (2010) Geodiversity and geoconservation in Hong Kong. Asian Geographer, forthcoming.**

Recommended Readings

Recommended Readings For further references, students are encouraged to read the correspondent chapters of the following references: • Davidson JP, WE Reed & PM Davis (2002) Exploring earth: an introduction to physical geology. Upper Saddle River, NJ : Prentice Hall.. • Plummer CC, D McGeary & DH Carlson (2001) Physical geology. Boston: McGraw-Hill. • Skinner BJ, SC Porter & J Park (2004) Dynamic earth: an introduction to physical geology. Hoboken, N.J., Wiley.