

University of Science and Technology of Hanoi Address: Building 2H, 18 Hoang Quoc Viet, Cau Giay, Hanoi Telephone/ Fax: +84-4 37 91 69 60 Email: <u>officeusth@usth.edu.vn</u> Website: http://www.usth.edu.vn

## **COURSE SYLLABUS**

Subject: Earth system

Academic field: Geology, Paleoecology

Lecturer: Nguyen Thuy Duong

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Academic year:

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## **COURSE DESCRIPTION**

Credit points	2						
Level	Undergraduate						
Teaching time Location	University of Science and Technology of Hanoi						
	Lecture	22 hrs					
Time Commitment	Exercises	5 hrs					
Time Commitment	Practicals	3 hrs					
	Total	30 hrs					
Prerequisites	No						
Recommended background knowledge							
Subject description:	This course will investigate the interelatioship among the components of the Earth System, including the atmosphere, oceans, biosphere, solid Earth, and humans. We will examine the fundamental processes that drive these systems such as movement of the earth and its consequences. In this course we also try to understand how life was formed and evolved through geological time, focusing on the human appearance and their impact to the Earth.						
Objectives & Out-come	<ul> <li>Knowledge:</li> <li>Understand the functions of the complex Earth System and the environment it provides for life.</li> <li>Understand the history of life on Earth</li> <li>Skill:</li> <li>Woking in group.</li> <li>Understand the steps of the scientific method.</li> </ul>						
Assessment/ Evaluation	Exercise(s)15 _%Practicals15 _%Mid-term test20_%Final exam50_%						
Prescribed Textbook(s)	[1] Earth science. CK-12 Foundation, 2009 – 1002 p.						



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## **COURSE CONTENTS & SCHEDULE**

×	Contents		Hours	;	Ref./Resources	
Class			Exr.	Prc.		Assignment(s)
1	[1] Topic 1: Earth Science and studying	1			[1]: 1-76	
1	<i>methods</i> [2]: Topic 2: <i>Earth in the Universe</i>	2			[1]: 899 - 1031	
2	[2] Topic 3: Earth's minerals and Rocks	2	1		[1]: 77-150	
3	[3] Topic 4: Endogenous processes and their impact to Earth shape (Plate tectonic).	2	1		[1]: 175-220	
4	[4] Topic 4: Endogenous processes and their impact to Earth shape (Earthquake, Volcano).	2	1		[1]: 221-318	
5	[5] Topic 5: <i>Exogenous processes and their</i> <i>impact to Earth shape (Fresh water &amp;Ocean)</i>	2		1	[1]: 319-402	
6	<ul><li>[6] Midterm Exam</li><li>[7] Exogenous processes and their impact to Earth shape (Atmosphere)</li></ul>	1		1	[1]: 471 - 502	
7	[8] Topic 5: Topic 5: Exogenous processes and their impact to Earth shape (Weathering, erosion and deposition processes).	2		1	[1]: 503-596	
8	[9] Topic 6: Earth's history	2	1		[1]: 403-470	
9	[10] Topic 7: Human and impact to the Earth	2	1		[1]: 705-830	
10	[11] Review	3				
7 8 9	<ul> <li>[7] Exogenous processes and their impact to Earth shape (Atmosphere)</li> <li>[8] Topic 5: Topic 5: Exogenous processes and their impact to Earth shape (Weathering, erosion and deposition processes).</li> <li>[9] Topic 6: Earth's history</li> <li>[10] Topic 7: Human and impact to the Earth</li> <li>[11] Review</li> </ul>	1 2 2 2			[1]: 503-596 [1]: 403-470	

Notes:

- Abbreviation: Lect. (lecture), Exr. (Exercise), Prc. (Practise).

- Exercises may include assignment, reports, student's presentation, homework, class exercises ... for each class sessions
- Practicals mostly refer to Lab- work or outside practice such as field trip.

## **Reference Literature:**

[1]. The Earth system. Lee R. Kump, James F. Kasting, Robert G. Crane. Pearson Prentice Hall, 2011 - 420 p.

[2]. The Earth system (3<sup>rd</sup> Edition). Lee R. Kump, James F. Kasting & Robert G. Crane, 2009.



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