### Course Syllabus

1. **Program of Study** Bachelor of Science Program

Bachelor of Arts Program

Bachelor of Business Administration Program

Bachelor of Nursing Science Program

Faculty/Institute/College Mahidol University International College

2. Course Code ICNS 161

Course Title General Geology

3. **Number of Credits** 4(4-0-8) (Lecture/Lab/Self-Study)

**4. Prerequisite** (*s*) None

**5. Type of Course** General Education Course

**6. Session** 1st Trimester

7. Conditions -

## 8. Course Description

Concepts of how continents and land are shaped, rock formations, fossil fuels, underground water, minerals and gems, usage of resources and sustainability.

## 9. Course Objective (s)

After successful completion of this course, students should be able to

- 9.1 introducing basic principles of Geology
- 9.2 familiarize students with local geology and abroad
- 9.3 enable students to pursuit on their advanced courses in geology
- 9.4 enable students to relate geology to be utilized in their field of interest in their major
- 9.5 introducing current geologic events such as earthquake, volcanism, real time at real world.

## 10. Course Outline

	Topic	Hour			Instructor
Week		Lecture	Lab	Self- Study	
1	Definitions, Importance of Geology to Environment, Branches of Geology, Earth Sphere, Lithosphere, Hydrosphere, Atmosphere, Biosphere	4	0	8	Pongpit Piyapongse
2	Earth's size shape and surface features Laws and Theories in Geology Theory of Plates Tectonic	4	0	8	Pongpit Piyapongse
3	Minerals and Rocks Mode and Occurrence of Minerals, and rocks. Rock Types	4	0	8	Pongpit Piyapongse
4	Geologic processes Weathering, Mass Wasting, Erosion, Earthquake, Volcanism, Geothermal, Extraterrestrial process	4	0	8	Pongpit Piyapongse
5	Geologic structures Diastrophic and Non- Diastrophic structures	4	0	8	Pongpit Piyapongse
6	Midterm Examination	4	0	8	Pongpit Piyapongse
7	Historical Geology Fossils, Geologic Time Scale	4	0	8	Pongpit Piyapongse
8	Soil Formation Soil forming factors, Soil forming process. Soil Resources of Thailand.	4	0	8	Pongpit Piyapongse
9	Rivers Hydrologic cycle and work of stream Fluvial Geomorphic cycles, Drainage patterns	4	0	8	Pongpit Piyapongse
10	Ocean Marine Environment, Zone of Depth Wind, Waves and Current, Dynamic of marine forces, Shoreline Classification.	4	0	8	Pongpit Piyapongse
11	Geology of Thailand Geologic resources, Scenic resource, Geomorphology of	4	0	8	Pongpit Piyapongse

	Thailand for Tourism							
	Tota	1 4	0	8	Pongpit Piyapongse			
Final Exanimation								

### 11. Teaching Method (s)

- 11.1 Lecturing.
- 11.2 Student's individual projects.

## 12. Teaching Media

- 12.1 Transparencies.
- 12.2 Handouts.

#### 13. Measurement and evaluation of student achievement

Student achievement is measured and evaluated by

- 13.1 the ability to introducing basic principles of Geology
- 13.2 familiarize students with local geology and abroad
- 13.3 enable students to pursuit on their advanced courses in geology
- 13.4 enable students to relate geology to be utilized in their field of interest in their major
- introducing current geologic events such as earthquake, volcanism, real time at real world.

Student's achievement will be graded according to the faculty and university standard using the symbols: A, B+, B, C+,C,D+, D, and F.

Students must have attended at least 80% of the total class hours of this course.

MUIC standard grading criteria: 90% and above is grade A

Ratio of mark

Midterm Examination
 Student's project display
 Final Examination
 40%
 40%
 40%

Assessment made from student's performance averaging from Midterm examination, Project Display and Final Examination. Student who gets 90% up will have Grade A.

#### 14. Course evaluation

- 14.1 Students' achievement as indicated in number 13 above.
- 14.2 Students' satisfaction toward teaching and learning of the course using questionnaires.

#### 15. Reference (s)

James Gilluly, Aron C. Waters, A.O. Woodford .Principle of Geology . Fourth Edition W.H. Freeeman and Co. San Francisco ;1975

Brian J. Skinner, Stephan C. Proter, Second Edition. The Dynamic Earth. John Wiley and Sons. Inc. New York 1992

Reed Wicander, James S. Monroe, Wadsworth. Essential of Geology . Publishing Company. ITP. 1999

# Current Proceedings and Reports.

## 16. Instructor (s)

- 16.1 Associate Professor Pongpit Piyapongse Two Guest Lecturers Chapter 7, 10
- 16.2 Ian Grange
- 16.3 Dr.Prinya Phuthapiban

## 17. Course Coordinator

Laird Allan