



Course Syllabus (Academic Year 2019)

School of Interdisciplinary Studies, Kanchanaburi Campus, Mahidol University

- 1. **Course No. and Title** : KAGS 321 Quaternary Geology
- 2. **Credit (study hours)** :3 (3-0-4).....
- 3. **Program Name** : Bachelor of Science in Geoscience
- 4. **Course Module** : Elective course (term2/year3)
- Pre/co-requisite** : KAGS 221 Sedimentology and Laboratory
KAGS 222 Stratigraphy
- 5. **Class Semester** : 1st Semester 2nd Semester Academic Year 2019
- 6. **Class Schedule & Venue** : Monday (9:00 – 12:00, Room XXX)
- 7. **Class Coordinator** : Dr. Parisa Nimnate
Contact No. : 0879924245..... Email :...parisa.nim@mahidol.edu

8. Course Description

Background, Signification and Basic principle of Quaternary Geology including research method and field survey in Quaternary geology and their application in economic and environment

Course Objectives / Course Learning Outcomes (CLOs)

No.	Objectives / CLOs	Expected Skills / Knowledge			PLOs
		Specific	Generic	Knowledge	
8.1	Can explain Background and Signification of Quaternary Geology	✓		✓	
8.2	Can explain Basic principle and factors that related to Quaternary Period	✓		✓	
8.3	Can explain the principle of Quaternary field survey	✓		✓	
8.4	Can explain the deposition of Quaternary sediment and rock in Quaternary period from geological evidences	✓		✓	

9. Class Instructor List

10. Course Outline

Week	Date	Contents	Instructor's Names
1	Jan 18, 2021	Background of Quaternary Geology	Parisa Nimnate
2	Jan 25, 2021	Environmental change during Ice Age	Parisa Nimnate
3	Feb 1, 2021	Sea-level change during Quaternary period (worldwide)	Parisa Nimnate
4	Feb 8, 2021	Group discussion and presentation: review of Quaternary Environment (fluvial, coastal, Glacial, aeolian)	Parisa Nimnate
5	Feb 15, 2021	Evidence and Age determination by Radioactive Isotope dating	Parisa Nimnate
6	Feb 22, 2021	Evidence and Age determination by TL and fission tracking	Parisa Nimnate
7	Mid-term Examination (1-5 Mar,2019)		
8	Mar 8, 2021	Evidence and Age determination by tree ring dating and varve dating	Parisa Nimnate
9	Mar 15, 2021	Paleoenvironment from paleomagnetism and stable isotope	Parisa Nimnate
10	Mar 22, 2021	Paleoenvironment from Palynology	Parisa Nimnate
11	Mar 29, 2021	Quaternary Geology in Thailand	Parisa Nimnate
12	April 5, 2021	Quaternary Geology in Thailand (Cont.)	Parisa Nimnate
13	April 12, 2021	Method of Quaternary survey	Parisa Nimnate
14	April 19, 2021	Apply Quaternary Geology : Shoreline management	Parisa Nimnate
15	April 26, 2021	Group discussion about Quaternary research	Parisa Nimnate
16	May 3, 2021	Student's Presentation	Parisa Nimnate
17		Field trip 8-10 May, 2021	Parisa Nimnate /Pramote

			Nontarak
19	Final Examination 17-28 May, 2021		

11. Course Assessment

No.	Methods / Activities	Regulations	CLOs	Week	Weight Distribution (%)
11.1	Mid-term exam				35
11.2	Final exam				35
11.3	Quiz				10
11.4	Reports / Assignments				20
				Total	100

12. Grading System

Criterion-referenced evaluation

Grade	Score	Grade	Score	Grade	Score	Grade	Score
A	≥ 80 %	B	70 – 74.99%	C	60 – 64.99%	D	50 – 54.99%
B+	75 – 79.99%	C+	65 – 69.99%	D+	55 – 59.99%	F	< 50 %

Norm-referenced evaluation

*If use both criterion and norm-referenced evaluation, please tick two boxes.

13. References

- 1) 1. www.sciencedirect.com
- 2) 2. Faegri, Knut & Iversen, Johs, 1989, 4th ed., Textbook of pollen analysis, John Wiley & Sons, Chichester, 328p.
- 3) 3. Nesje, Atle & Dahl, Svein Olaf, 2000, Glaciers and environmental change, Arnold, London, 203p.
- 4) 4. Proceeding of the First Symposium on Geomorphology and Quaternary Geology of Thailand, 1983, Department of Mineral Resources.
- 5) 5. Williams, M. ed., 1984, Quaternary dating methods, Elsevier, Amsterdam, 431p.
- 6) 6. Williams, M. et al., 1998, Quaternary environments, 2nd ed., Arnold, London, 325p.
- 7) 7. เอกสารการสอน สไลด์ และบทความวิจัย/วิชาการของ อาจารย์พิเศษ สิ้น สิ้นสกุล