



Course Syllabus (Academic Year 2020)

School of Interdisciplinary Studies, Kanchanaburi Campus, Mahidol University

1. **Course No. and Title** : KAGS 222 Stratigraphy
2. **Credit (study hours)** :1(2-0-2).....
3. **Program Name** : Bachelor of Science in Geoscience
4. **Course Module** : Major course (Term1/year 2)
Pre/co-requisite : KAGS 101 Geology Around Us I
Co-requisite : KAGS 221 Sedimentology and Laboratory
5. **Class Semester** : 1st Semester 2nd Semester Academic Year 2019
6. **Class Schedule & Venue** : Monday 14:00 – 16:00, Room 2216
7. **Class Coordinator** : Dr.Parisa Nimnate
 Email : parisa.nim@mahidol.edu

8. Course Description

Basic principle of stratigraphy and correlation of rock strata, vertical and horizontal relationships of layered earth materials as a key to understanding basin history, past depositional environments and their transformation through time. Laboratory exercises related to lecture, i.e. stratigraphic sequences, stratigraphic orientation

Course Objectives / Course Learning Outcomes (CLOs)

No.	Objectives / CLOs	Expected Skills / Knowledge			PLOs
		Specific	Generic	Knowledge	
8.1	To understand fundamental of stratigraphy	Principle of Stratigraphy		Stratigraphic unit correlation and unconformity	1
8.2	To explain process of establishing rock unit type section and type locality				1,2
8.3	Can be explain the relationship of stratigraphy by using Lithostratigraphy, unconformity-bounded stratigraphy, Biostratigraphy, Magnetostratigraphy and chronostratigraphy.				1

9. Class Instructor List

9.1 Name : Dr. Parisa Nimnate Contact No. : 0-8799-24245

Email : parisa.nim@mahidol.edu

9.2 Name : Mr. Pramote Nontarak Contact No. : 0-8496-9366

Email : pmntr@hotmail.com

10. Course Outline

Week	Date	Contents	Instructor's Names
1	Jul 6, 2020	Holiday (no class)	-
2	Jul 13, 2020	Background of stratigraphy	Parisa Nimnate
3	Jul 20, 2020	Fundamental of stratigraphy	Parisa Nimnate
4	Jul 27, 2020	Definition and process of establishing the rock unit	Parisa Nimnate
5	Aug 3, 2020	Type section and type locality	Parisa Nimnate
6	Aug 10, 2020	Lithostratigraphy	Parisa Nimnate
7	Aug 17, 2020	Lithostratigraphy correlation practice	Parisa Nimnate
8	Aug 24, 2020	Unconformity-bounded stratigraphy	Parisa Nimnate
9	Aug 31, 2020	Unconformity-bounded stratigraphy cont.	Parisa Nimnate
10	Mid-term Examination		
11	Sep 14, 2020	Biostratigraphy	Parisa Nimnate
12	Sep 21, 2020	Biostratigraphy /Magnetostratigraphy	Parisa Nimnate
13	Sep 28, 2020	Magnetostratigraphy/ Chronostratigraphy	Parisa Nimnate
14	Oct 5, 2020	The relationship between rock unit and stratigraphic correlation	Parisa Nimnate Pramote Nontarak
15	Oct 12, 2020	The relationship between rock unit and stratigraphic correlation lab practice	Parisa Nimnate Pramote Nontarak
16	Oct 19, 2020	Summary of stratigraphy	Parisa Nimnate Pramote Nontarak
17	Oct 26, 2020	Presentation /report	Parisa Nimnate Pramote Nontarak
18	Final Examination		

11. Course Assessment

No.	Methods / Activities	Regulations	Week	Weight
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				Distribution (%)
11.1	Mid-term exam	Paper test	10	35
11.2	Final exam	Paper test	18	40
11.3	Quiz/ Reports / Assignments			15
11.4	Class participated			10
			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) Einsele, G., 1992, Sedimentary basins: evolution, facies, and sediment budget, Springer-vevlag Berlin, Heidelberg, 628p.
- 2) Dunbar, C., 1961, Principles of stratigraphy, John Wilson, New York.
- 3) Fritz, W.J. and Moore, J.N., 1988, Basics of physical stratigraphy and sedimentology, John Wiley and Sons Inc., New York, 371p.
- 4) Krumbein, W.& Sloss, L., 1951, Stratigraphy and sedimentation, W. H. Freeman and Company, San Francisco, 637p.
- 5) Weller, J., 1960, Stratigraphic principles and practice, University Book Stall, Delhi, 683p.
- 6) สำนักธรณีวิทยา กรมทรัพยากรธรณี. (2560). คู่มือการลำดับชั้นหินประเทศไทย (Thailand Stratigraphic Guide). รายงานวิชาการมาตรฐานธรณีวิทยา ฉบับที่ สรท 1/2560. 1-56.