



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 14:30 – 16:30, (Webex meeting online)
Meeting link : <https://mahidol.webex.com/meet/parisa.nim>
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	Aug 9, 2021	Background of stratigraphy	Parisa Nimnate Pramote Nontarak
2	Aug 16, 2021	Fundamental of stratigraphy	Parisa Nimnate Pramote Nontarak
3	Aug 23, 2021	Definition and process of establishing the rock unit	Parisa Nimnate Pramote Nontarak
4	Aug 30, 2021	Type section and type locality	Parisa Nimnate Pramote Nontarak
5	Sep 6, 2021	Lithostratigraphy	Parisa Nimnate Pramote Nontarak
6	Sep 13, 2021	Lithostratigraphy correlation practice	Parisa Nimnate Pramote Nontarak
7	Sep 20, 2021	Unconformity-bounded stratigraphy	Parisa Nimnate Pramote Nontarak
8	Sep 27, 2021	Unconformity-bounded stratigraphy cont.	Parisa Nimnate Pramote Nontarak
9	Mid-term Examination (4-8 Oct 2021)		
10	Oct 11, 2021	Biostratigraphy	Parisa Nimnate
11	Oct 18, 2021	Biostratigraphy /Magnetostratigraphy	Parisa Nimnate
12	Oct 25, 2021	Holiday (no class)	
13	Nov 1, 2021	Magnetostratigraphy/ Chronostratigraphy	Parisa Nimnate
14	Nov 8, 2021	The relationship between rock unit and stratigraphic correlation lab practice	Parisa Nimnate
15	Nov 15, 2021	Summary of stratigraphy	Parisa Nimnate

16	Nov 22, 2021	Presentation /report	Parisa Nimnate
17	Final Examination 29 Nov-10 Dec 2021		

11. Course Assessment

No.	Methods / Activities	Regulations	Week	Weight Distribution (%)
11.1	Mid-term exam	Paper test	9	35
11.2	Final exam	Paper test	17	40
11.3	Quiz/ Reports / Assignments	Google classroom / Webex meeting presentation		15
11.4	Class participated	Webex meeting		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.