



## Course Syllabus (Academic Year 2021)

School of Interdisciplinary Studies, Kanchanaburi Campus, Mahidol University

- Course No. and Title** : KAGS 312 Petrology Laboratory  
**Credit (study hours)** : .....1 (0-3-2).....
- Program Name** : Bachelor of Science in Geoscience program
- Course Module** : Year 3  
**Pre/co-requisite** : KAGS 214 Petrography and Ore Microscopy Laboratory  
KAGS 311 Petrology
- Class Semester** :  1<sup>st</sup> Semester Academic Year 2020
- Class Schedule & Venue**: .....Thursday (13:00 – 16:00, Room L 202).....
- Class Coordinator** : Piyatida Sangtong
- Lecture class** : Online by WebEx, VDO Crip and Laboratory room

<https://mahidol.webex.com/mahidol/j.php?MTID=maf3f6a73464e10713f800eac90cdfcbb>

Meeting number: 158 299 8546  
Password: LabGS312

### 8. Course Description

ปฏิบัติการที่เกี่ยวกับเนื้อหาภาคบรรยายในรายวิชา ภูมิศาสตร์ ๒๑๑ เช่น สัณฐาน โครงสร้างของผลึก ธรรมชาติของผลึก การจำแนกระบบผลึก 6 ระบบ และตรวจสอบแร่สามัญต่าง ๆ

Laboratory related to lecture KAGS 211 i.e. morphology, crystalline structures, classification of the six crystal systems, classification, and identification of common minerals.

### 9. Course Objectives / Course Learning Outcomes (CLOs)

No.	Objectives / CLOs	Expected Skills / Knowledge	
		Specific	Knowledge
๘.๑	Identified texture and structure under microscopy	√	√
๘.๒	Classification Igneous and metamorphic rock under microscopy	√	
๘.๓	Classification sedimentary rock under microscopy	√	

## 10. Course Outline

สัปดาห์ที่	วันที่	หัวข้อเรื่อง/รายละเอียด	วิธีการสอน	ผู้สอน
1	12 Aug 21	Introduction to the petrographic microscope and minerals in the thin-section	VDO Crip upload in google classroom	Piyatida Sangtong
2	19 Aug 21	Common rock forming mineral in thin-section	VDO Crip upload in google classroom & Online by Webex	Piyatida Sangtong Pramote Nontarak
3	26 Aug 21	Igneous rocks texture and classification		Piyatida Sangtong Pramote Nontarak
4	2 Sep 21	Ultramafic and mafic igneous rocks identification		Piyatida Sangtong Pramote Nontarak
5	9 Sep 21	Intermediate and silicic igneous rocks identification		Piyatida Sangtong Pramote Nontarak
6	16 Sep 21	Metamorphic rocks texture and classification I		Piyatida Sangtong Pramote Nontarak
7	23 Sep 21	Metamorphic rocks texture and classification II		Piyatida Sangtong Pramote Nontarak
8	30 Sep 21	Phase diagram for metamorphic rock		Piyatida Sangtong Pramote Nontarak
<b>1 – 13 Oct 21</b>		<b>นศ. เตรียมตัวสอบและเดินทางกลับเข้าวิทยาเขต/กักตัวเพื่อเตรียมเข้าเรียน ณ ห้องปฏิบัติการจริง</b>		
9	<b>14 Oct 21</b>	<b>Exam I; Igneous rocks petrology</b>	<b>Laboratory room</b>	Piyatida Sangtong Pramote Nontarak
10	<b>21 Oct 21</b>	<b>Exam III; Metamorphic rocks petrology</b>		Piyatida Sangtong Pramote Nontarak
11	28 Oct 21	Sedimentary texture and classification	VDO Crip upload in google classroom & Laboratory room	Piyatida Sangtong Pramote Nontarak
12	4 Nov 21	Clastic sedimentary rocks identification		Piyatida Sangtong Pramote Nontarak
13	11 Nov 21	Non-clastic sedimentary rocks identification		Piyatida Sangtong Pramote Nontarak
14	18 Nov 21	Carbonate rocks identification		Piyatida Sangtong Pramote Nontarak
15	<b>25 Nov 21</b>	<b>Exam II; Sedimentary rocks petrology</b>		<b>Laboratory room</b>

2 - 30 Dec 21	Rock description (Homework) Pre-Fieldwork & Field Report	จัดการเรียนแบบ ผสมผสานกับ รายวิชาปฏิบัติการ ภาคสนาม ภาชฐศ ๓๖๐	Piyatida Sangtong
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### 11. Class Instructor List

- Name : Pramote Nontarak Contact No. : ๐๘๘-๔๙๖๙-๓๖๖
- Name : Piyatida Sangtong

### 12. Course Assessment

No.	Methods / Activities	Regulations	Week	Weight Distribution (%)
1	Quiz/ Reports / Assignments	Homework/Writing	1-17	15
2	Exam I	Jingle Test/ Writing and Practice test	7	25
3	Exam II	Jingle Test/ Writing and Practice test	12	25
4	Exam III	Jingle Test/ Writing and Practice test	16	25
5	Class participation	-	1-16	10
			<b>Total</b>	<b>100</b>

### 13. Grading System

Criterion-referenced evaluation

Grade	Score	Grade	Score	Grade	Score	Grade	Score
A	≥ ๘๐ %	B	๗๐ - ๗๔.๙๙%	C	๖๐ - ๖๔.๙๙%	D	๕๐ - ๕๔.๙๙%
B+	๗๕ - ๗๙.๙๙%	C+	๖๕ - ๖๙.๙๙%	D+	๕๕ - ๕๙.๙๙%	F	< ๕๐ %

Norm-referenced evaluation

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

### 14. References

- ยีนยง ปัญจสวัสดิ์วงศ์, ๒๕๓๗. ผลิตศาสตร์ทางแสง, ภาควิชาธรณีวิทยา คณะวิทยาศาสตร์ มหาวิทยาลัยเชียงใหม่, เชียงใหม่, ๙๔ หน้า.
- Deer W.A., Howie R.A. and Zussman J., ๑๙๙๒, An introduction to the rock-

forming minerals, 2<sup>nd</sup> (edition), China, 1985 p.

1. Hurlbut, C.S., 1963. Dana's Minerals and how to study them, 4<sup>th</sup> (edition), John Wiley and Sons Inc., New York, 1963 p.

2. Klein, C. and Hurlbut, C.S., 1963. Manual of Mineralogy (after James D. Dana), 10<sup>th</sup> (revised edition), John Wiley and Sons Inc., New York, 1963 p.

3. Nesse, W.D., 1968. Introduction to optical mineralogy, Oxford University Press, New York, 1968 p.

4. <http://webmineral.com>

5. [http://www.minsocam.org/msa/OpenAccess\\_publications/Craig\\_Vaughan/](http://www.minsocam.org/msa/OpenAccess_publications/Craig_Vaughan/)