



Course Syllabus (Academic Year 2020)

School of Interdisciplinary Studies, Kanchanaburi Campus, Mahidol University

- Course No. and Title:** KACB 101 Introduction to Conservation Biology
Credit (study hours): 2 (2-0-4)
- Program Name:** Bachelor of Science in Conservation Biology
- Course Module:** Gen.Ed. course B.Sc. core course CB core course Elective course
Pre/co-requisite: None
- Semester:** 1st semester 2nd semester 3rd semester Academic Year 2020
- Class Schedule & Venue:** Onsite class Friday 1-3pm Room MLC 323 (if possible)
Online class Friday 1-3pm Google classroom code: 32boo2i
Google MEET: <https://meet.google.com/lookup/hdahudyinu>
Course line group: KACB101 (2/2563)
- Course Coordinator:** Lect. Piyathip Piyapan / ปิยทิพย์ ปิยพันธุ์
Tel. 089-7809410, E-mail: piyathip.piy@mahidol.edu

7. Course Description:

ชีววิทยาเชิงอนุรักษ์ วิทยาศาสตร์ประยุกต์ ชีววิทยา ความหลากหลายทางชีวภาพ การอนุรักษ์ การปกป้อง การฟื้นฟู พหุวิทยาการ สหวิทยาการ การเชื่อมโยงกับสังคมศาสตร์และเศรษฐศาสตร์ การพัฒนาอย่างยั่งยืน ภัยคุกคามต่อความหลากหลายทางชีวภาพ การอนุรักษ์ในถิ่นอาศัย การอนุรักษ์นอกถิ่นอาศัย การมีส่วนร่วม ความร่วมมือ ผู้มีส่วนเกี่ยวข้อง
Conservation biology, applied science, biology, biological diversity, conservation, protection, restoration, multidisciplinary, interdisciplinary, interrelated to social science and economics, sustainable development; threats to biodiversity, in-situ conservation, ex-situ conservation, participation, collaboration, stakeholders

8. Course Objectives / Course Learning Outcomes (CLOs)

No.	Objectives/CLOs	POs*
8.1	Describe the significances, characteristics, and goals of conservation biology	1
8.2	Describe the values and levels of biodiversity	1
8.3	Describe each threats to biodiversity, main types of biodiversity conservation, conservation tools	1,3
8.4	Describe the necessity of the success of biodiversity conservation relating to working with various stakeholders and sustainable development	1,2

*POs = Program Learning Outcomes

- PO 1: Analyze biodiversity functions, value, status, trend, and their threats for monitoring and solving biodiversity problems.
PO 2: Interrelate biological sciences, relevant social sciences and economics to conserve biodiversity and sustainable development.
PO 3: Construct the conservation management plan with appropriate methods for solving the biodiversity problems with the given conditions.
PO 4: Conduct the scientific research to solve the particular problem related to biodiversity conservation.
PO 5: Apply the information technology for supporting biodiversity conservation management effectively, morally, and ethically.
PO 6: Apply the appropriate communication to support biodiversity conservation management
PO 7: Collaborate with teammates and stakeholders in biodiversity conservation with responsibility, integrity, and respect the rights of them.
PO 8: Show concern about the ideas of caring both local and global biodiversity.

Note: PO5, PO6, PO7, PO8 are POs which related directly to required generic skills (soft skills) of the program will be improved through the activities in class and trips, especially the conducting of term report and any assignments.

9. Class Instructor List

Lect. Piyathip Piyapan - PPI (course coordinator)

อ.ปิยทิพย์ ปิยพันธุ์

piyathip.piy@mahidol.edu

Lect. Chutamas Sukhontapatipak - CSu

อ.จุฑามาศ สุขคนธปฎิภาค

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10. Course Outline

Week	Date	Contents	CLOs	Teaching & Learning	Instructors
1	22 Jan 2021	Course orientation Define Conservation Biology (synthesis, characteristics, goals) Works related to conservation biology (profession, ethics)	1,2,3,4	<ul style="list-style-type: none"> Video clip (lecture/flip classroom) MEET live to summarize, Q-A, and discussion Assignments 	PPI
2	29 Jan 2021	What is biological diversity? (definition, levels of biodiversity: species-, genetic-, and ecosystem diversity) Biodiversity worldwide (how many species exist? where is biodiversity found?)	1,2		
3	5 Feb 2021	The value of biodiversity (ecological and environmental economics, types of biodiversity value, ethical value of biodiversity)	2		
4	12 Feb 2021	Extinction and vulnerability (endemism, rarity, extinction, vulnerability, endangered species-IUCN Red List) Official Holiday: Chinese Lunar New Year Day – We'll find the appropriate make-up class together	2,3		
5	19 Feb 2021	Threats to biodiversity I (human population growth, main threats, local threats)	1,2		
6	26 Feb 2021	Threats to biodiversity II (global threats, synergistic, updated threats to biodiversity) Official Holiday: Makha Bucha Day – We'll find the appropriate make-up class together	1,2		
7	5 Mar 2021	History of conservation biology in Thailand and International	1,2,3,4		
8	12 Mar 2021	Self-study and prepare for midterm exam			
9	15-21 Mar 2021	Midterm Exam – topics of week1-7 (announce exact date and time later, after class discussion)			
10	26 Mar 2021	Conservation strategies (in-situ and ex-situ conservation)	3,4	<ul style="list-style-type: none"> Video clip (lecture/flip classroom) MEET live to summarize, Q-A, and discussion Assignments 	PPI
11	2 Apr 2021	Protected species - legislation	3,4		
12	9 Apr 2021	Protected areas - legislation	3,4		
13	16 Apr 2021	Restore the species and population (ex-situ conservation, zoos, aquarium, botanical gardens, seed banks, introducing/reintroducing) Restore the areas, habitats, ecosystems (restoration ecology, reforestation)	3,4		
14	23 Apr 2021	Education and communication in conservation (raising awareness, increasing participation, changing your attitude and behavior) Conservation in everyday (environmental-friendly and ecological-friendly products)	3,4		
15	30 Apr 2021	Sustainable development and conservation (sustainable development, sufficiency economy, UN-SDGs) Sustainability of conservation project (participation, collaboration, ownership)	3,4		CSu
16	7 May 2021	Wrap up class Meet the professional works activities	1,2,3,4	<ul style="list-style-type: none"> MEET Live conferences Class reflex 	PPI, CSu CB Staff Alumni Guests
17	13-25 May 2021	Final Exam – topics of week 10-15 (announce exact date and time later, after class discussion)			
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10. Course Assessment

No.	Methods / Activities	Regulations	CLOs	Week	Weight Distribution (%)
11.1	Midterm exam	2 hours exam (other regulations and details will be announced later)	3,4	9	35
11.2	Final exam	2 hours exam (other regulations and details will be announced later)	3,4	17-18	30
11.3	Assignments/quiz	The details of assign./ quiz will be announced by the instructors in the class	1,2,3,4	1-14	20
11.4	Individual report on an updated and interesting biodiversity conservation in Thailand/ international/ worldwide	<ul style="list-style-type: none"> Consult course coordinator for the topic, and submit the topic in google classroom before 30 April 2021. The deadline to submit report is on 26 May 2021. 	1,2,3,4	17	15
TOTAL					100

11. 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.

9. References

- Primack RB (2014) Essentials of Conservation Biology (6th ed.). Sinauer Associates, Sunderland, Massachusetts, USA. 603 pp.
- Primack RB, Sher AA (2018) An Introduction to Conservation Biology. Sinauer Associates, Sunderland, Massachusetts, USA. 476 pp.