



Program: Doctor of Veterinary Medicine
Wildlife Ecology and Conservation
VSPA 302

Academic degree level ☒ Bachelor ☐ Graduate Diploma ☐ Master

☐ Higher Graduate Diploma ☐ Doctor

Faculty / College / Institute: Faculty of Veterinary Science

Department of Pre-Clinic and Applied Animal Science

TQF 3 Course Specification

Section 1 General Information

1. Course Code and Title

In Thai	สพปส ๓๐๒	นิเวศวิทยาสัตว์ป่าและการอนุรักษ์
In English	VSPA 302	Wildlife Ecology and Conservation

2. Number of Credits

2 (2-0-4)
(Theory 2 hrs. Practice 0 hrs. Self-Study 4 hrs./week)

3. Curriculum and Course Type

3.1 Curriculum	Bachelor Degree Program (Thai)
3.2 Course Type	Specific Course ☒ Compulsory Course

4. Course Coordinator and Lecturer

4.1 Course Responsible Lecturers

4.1.1 Assistant Prof. Dr. Nlin Arya	Department of Pre-Clinic and Applied Animal Science
Telephone: 1538	email: nlin.ary@mahidol.edu
4.1.2 Dr. Nae Tanpradit	Department of Clinical Science and Public Health
Telephone: 2232	email: nae.tan@mahidol.edu

4.2 Lecturers

4.2.1 Assistant Prof. Dr. Nlin Arya	Department of Pre-Clinic and Applied Animal Science
Telephone: 1538	email: nlin.ary@mahidol.edu
4.2.2 Dr. Nae Tanpradit	Department of Clinical Science and Public Health
Telephone: 2232	email: nae.tan@mahidol.edu
4.2.3 Dr. Roschong Boonyarittichaikij	Department of Clinical Science and Public Health
Telephone: 2210	email: roschong.boon@mahidol.edu
4.2.4 Dr. Podjana Wattananit	Department of Clinical Science and Public Health
Telephone: 2210	email: Podjana.wat@mahidol.edu

5. Semester/Class Level

5.1 Semester	2 / Class Level 3
5.2 Number of Students Allowed	Approximately 80 Students

6. Pre-requisite

None

7. Co-requisites

None

8. Study Site Location Faculty of Veterinary Science, Mahidol University

9. Date of Preparation/Latest Revision of the Course Specifications

Day 23 Month June Year 2022

Section 2 Aims and Objectives

1. Course Goals

Students comprehensively understand the principles of ecology and conservation including species of Thai wildlife and endangered animals. They also learn the veterinary roles involved in wildlife conservation.

2. Objectives of Course Development/Revision

2.1 Course Objectives

This course aims to provide knowledge and abilities as follows:

2.1.1 Understand basic wildlife ecology and conservation and veterinary involvement

2.1.2 application of the knowledge learned for the benefit of environmental conservation

2.2 Course-level Learning Outcomes: CLOs

On completion of the course, the students will be able to

1. CLO1 describe the basic ecology, wildlife ecology, conservation, and veterinary involvement
2. CLO2 apply the knowledge learned for the benefit of environmental conservation

Section 3 Course Description and Implementation

1. Course Description

องค์ประกอบ การเปลี่ยนแปลงของระบบนิเวศน์ สัตว์ป่าในประเทศไทย หลักการศึกษาประชากรสัตว์ป่า การประเมินผลความเสี่ยงของสถานภาพสัตว์ป่า โรคสัตว์ติดคน การอนุรักษ์สัตว์ป่าในถิ่นอาศัย และนอกถิ่นอาศัย การใช้เทคโนโลยีชีวภาพและบทบาทของสัตวแพทย์ในการอนุรักษ์สัตว์ป่า

Composition and exchange of ecosystem cycle, wild animals in Thailand, principles of wildlife population study, risk estimation of species survival, zoonoses, *in situ* and *ex situ* wildlife conservation, biotechnology, and veterinary roles in wildlife conservation

2. Number of hours per semester

Theory (hours)	Practice (hours)	Self-study (hours)
30		60

3. Number of Hours per Week for Individual Advice

Two to three hours per week, students can also contact the lecturers via online (email, Google classroom, etc.)

Section 4: Development of the expected learning outcomes

1. A brief summary of the knowledge or skills expected to develop in students; the course-level expected learning outcomes (CLOs)

On completion of the course, students will be able to:

1. CLO1 describe the basic ecology, wildlife ecology, conservation, and veterinary involvement
2. CLO2 apply the knowledge learned for the benefit of environmental conservation

2. How to organize learning experiences to develop the knowledge or skills stated in number 1 and how to measure the learning outcomes

CLOs	Teaching and learning experience management		Learning outcomes measurements		
	Lec- ture	Group assignment	MCQ	Assay	Group presentation
CLO1	/		/	/	
CLO2	/	/	/	/	/

SECTION 5 LESSON PLAN AND EVALUATION

1. Lesson Plan

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
1	Introduction to ecology and population study	2	-	Lecture: mixed media	Nae
2	Ecosystem recovery	2	-	Lecture: mixed media	Nae
3	Environmental health in One health	2	-	Lecture: mixed media	Invited speaker
4	Climate change	2	-	Lecture: mixed media	Podjana
5	Biodiversity service on Health	2	-	Lecture: mixed media	Roschong
6	Wildlife conservation cases	2	-	Lecture: mixed media	Invited speaker
7	Thai Wildlife species	2	-	Lecture: mixed media	Roschong
8	Alien species	2	-	Lecture: mixed media	Roschong
9	Wildlife Rescue Rehabilitation Reintroduction	2	-	Lecture: mixed media	Podjana
10	Wildlife farming and use	2	-	Lecture: mixed media	Nae
11	Wildlife crime and forensic	2	-	Lecture: mixed media	Nlin
12	Disaster management	2	-	Lecture: mixed media	Podjana
13	Human-wildlife conflict	2	-	Lecture: mixed media	Podjana
14	UN Sustainable development goals	2	-	Lecture: mixed media	Nae
15	Mini project or selected topic presentation	2	-	Group assignment and presentation	All
	Total hours of the entire semester	30	0		

2. Plan for Assessment of Expected Course-Level Learning Outcomes (CLOs)

2.1 Measurement and Evaluation of learning achievement

A. Formative Assessment

The assessment is performed during the course to measure the progress and development of students' learning by observing the behavior change and improvement of students' behavior and performance. The assessment results will be notified to the students (feedback) so that the students are constantly able to improve themselves. The assessment results are not included with the test scores at the end of the course.

B. Summative Assessment

(1) Tool and weight for measurement and evaluation

Learning Outcomes	Evaluation Method*			Weight (Percentage)
	MCQ and short essay	Group assignment	Group presenta- tion	
CLO1 describe the basic ecology, wildlife ecology, conservation, and veterinary involvement	30	10	10	50
CLO2 apply the knowledge learned for the benefit of environmental conservation	30	10	10	50
รวม	60	20	20	100

(2) Measurement and evaluation

The measurement and evaluation use either the criteria-based or group-based system, according to the conditions and methods for academic results evaluation of the Faculty of Veterinary Science, Mahidol University. The grading symbols are: A, B+, B, C+, C, D+, D, and F. Students must receive a 'D' grade or above to pass the criteria.

(3) Re-examination (if the course allows any.)

In case that students received an 'F' grade, the course coordinator and the program's Teaching and Learning Development Committee should, altogether, agreed to allow the students to take the re-examination or extra-course work to pass the course with the following conditions.

For the course with the mean score is higher than 75.00 and the minimum score is not less than 45.00. Students must receive the score higher than 47.50 to take to re-examination or extra-course work.

For the course with the mean score between 60.00 – 74.99, students must receive the score higher than 40.00. However, when the mean score is less than 60.00, students, then, should receive the score higher than 40.00 in order to take the re-examination or extra-course work.

Once students took the re-examination (extra-course work) and the course coordinator had considered the students' re-examination/course work to pass the criteria, then the students will receive the 'D' grade. While waiting for the re-examination or extra-course work result, the students' score should be indicated as 'I' grade.

3. Students' Appeal

Should the students have any suspicion or appeals to the teaching and learning activities and the grade assessment, students could make the appeal by filling in the form at MUVS' Academic Affairs. The appeal will be proposed to the course coordinator to consider the request. If the appeal could not be addressed at this point, it will be further processed by the program's Teaching and Learning Development Committee. In case that the committee suggested further investigation should be done, the appeal will be purposed to the faculty's appealing committee to address the issue.

Section 6 Teaching Resources

1. Required Texts

Hand-outs of lecturers

2. Suggested Materials

- 1) Odum, E.P. and Barrett, G.W., 2004. Fundamentals of Ecology. Pacific Grove, California: Brooks.

3. Other Resources (if any)

Ecology: Ecosystem Dynamics and Conservation in Coursera.com by American Museum of Natural History and Howard Hughes Medical Institute

Section 7 Evaluation and Improvement of Course Implementation

1. Strategy for Course Effectiveness Evaluation by Students

At the end of each course, it is required for the students to assess the teaching of each instructor based on the following criteria: punctuality, good role model, application of morals and ethics for the instruction, ability to convey knowledge and encourage students to learn, giving opportunities for students to ask questions and to comment during the study.

The overall outcomes of each course will also be assessed by the students for the following issues: the instructor's knowledge and competency, the course's effectiveness, student's satisfaction with the study, and other comments from students. The evaluation is conducted through online platform.

2. Strategy for Teaching Evaluation

The instructors or the course coordinators are assigned to conduct the evaluation as follows.

2.1 the students' evaluation for the instruction and overall outcomes of the course in accordance to criteria mentioned in No. 1 – Strategy for Course Effectiveness by Students.

2.2 The instructors must perform self-assessment for the following criteria.

- (1) Appropriate time spent to prepare for the teaching.
- (2) The instructor's satisfaction with the teaching results.
- (3) Solutions or recommendations for the program's teaching improvement or self-improvement for the next class/academic year.

3. Teaching Improvement

Prior to each academic year, there are meetings/seminars for the instructors of each course to plan to improve the course's teaching and learning management based on the following information.

- (1) the students' academic performance
- (2) the students' evaluation results
- (3) the instructors' assessment results

4. Verification of Standard of Learning Outcome for the Course

The verification of the standard of the Learning Outcome for the Course is conducted by the course coordinators based on the following aspects.

1. The goals of the learning outcomes are clear and feasible.
2. The learning experience is aligned with the expected goals.
3. The learning experience encourages the students to research and practice self-learning skills.
4. The evaluation methods are appropriate to assess the expected goals and learning experience.
5. The program applied the educational theory and the results from the previous evaluation to plan for improvement.

At the end of each academic year, the course coordinators, instructors, the Program Committee, and the Teaching and Learning Development Committee will consider the assessment results and the Learning Outcome for the Course to plan for the improvement of the next academic year.

Appendix

Relations between the course and the program

Table 1 Relations between the course and the PLOs

Wildlife Ecology and Conserva- tion	PLOs							
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
VSPA 302	R					R		

Table 2 Relations between CLOs and PLOs (ไม่ต้องระบุ subLos)

VSPA 302	PLOs							
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1 describe the basic ecology, wildlife ecology, conservation, and veterinary involve- ment	x					x		
CLO2 apply the knowledge learned for the benefit of environ- mental conservation	x					x		