Course Syllabus

1. Program of Study Bachelor of Science (Biological Science)
Bachelor of Science (Environment)

Faculty/Institute/College Mahidol University International College
Faculty of Science,
Faculty of Environment and Resource Studies,
Mahidol University

2. Course Code ICBI 319

Course Title Conservation Biology

3. Number of Credits 4 (4-0-8) (Lecture/lab/Self-study)

4.Prerequisite *(s)* none

5.Type of Course Elective

6. Trimester / Academic Year

Trimester 2/every academic year

7. Course Condition

Number of students is 20-30.

8.Course Description

The aims and origins of conservation biology, conservation problems and issues, causes of habitat degradation and extinction, conservation genetics, small population biology, the values of communities and ecosystems, reducing and management of endangered species, social and ethical issues in conservation

9.Course Objective *(s)*

By the end of the course students should be able to describe and explain:

1. The definition of conservation, biodiversity and sustainable use of natural resources
2. The need for conservation and the threats faced by some populations
3. The IUCN Red List of Threatened Species
4. The tragedy of the commons and resource over-exploitation
5. The importance of genetic variation
6. The selection, design and management of protected areas
7. Sociopolitical and economic issues of conservation

10.Course Outline

week	Topics/Seminar	Hours			Instructor
		Lecture	Lab	Self-study	
1	Introductory concepts - What is conservation biology? Values and ethics of conservation	4	0	8	Dr Wayne Phillips
2	The concept of species and biodiversity	4	0	8	

3	Habitat destruction and fragmentation and the loss of biodiversity	4	0	8	
4	Genetic diversity - The importance of variation	4	0	8	
5	Midterm Examination	4	0	8	
6	Community and ecosystem conservation	4	0	8	
7	Protected areas – Selection, design and management	4	0	8	
8	Ecological restoration	4	0	8	
9	Sociopolitical issues of conservation	4	0	8	
10	The economics of conservation	4	0	8	
11	The future of conservation	4	0	8	
Finance Examination					
	Total	44	0	88	

11. Teaching Method *(s)*

1. Lecture
2. Suggested readings
3. Discussion in class

12. Teaching Media

1. Powerpoint Presentations
2. Texts and teaching materials

13. Measurement and Evaluation of Student Achievement

Student achievement is measured and evaluated by

13.1 The ability to describe and explain the definition of conservation, biodiversity and sustainable use of natural resources.

13.2 The ability to describe and explain the need for conservation and the threats faced by some populations.

13.3 The ability to describe and explain the IUCN Red List of Threatened Species

13.4 The ability to describe and explain The tragedy of the commons and resource over- exploitation.

13.5 The ability to describe and explain the importance of genetic variation.

13.6 The ability to describe and explain the selection, design and management of protected are as Sociopolitical and economic issues of conservation.

Student's achievement will be graded according to the college and university standard using the symbols: A, B+, B, C+, C, D+, D and F. Minimal passing level is 60%. Student who earns 85% up will have Grade A, 80-84% Grade B+ , 75-79% Grade B, 70-74% Grade C+, 65-69% Grade C, 60-64% Grade D+, 55-59% D, less than 55 Grade F. Students must attend at least 80% of the total class hours of this course.

Ratio of mark

Assignments (x3) 30%

Mid-term exam 35%

Final exam 35%

14. Course evaluation

14.1 Students' achievement as indicated in number 13 above.

14.2 Students' satisfaction towards teaching and learning of the course using questionnaires.

15. Reference *(s)*

Pullin, A.S. Conservation biology. USA. Cambridge Universitiy Press. 2002.

Meffe,G. and Caroll, C.R. Principles of conservation biology. 2nd Edition. USA. Sinauer Associate. 1997.

Fiedler, P.L. and Kareiva, P.M. (eds) Conservation biology: for the coming decade. 2nd Edition. USA. Springer. 1997.

Additional readings set by instructor

16. Instructor *(s)*

Dr Wayne Phillips

17. Course Coordinator

Dr Wayne Phillips