

Course Syllabus

1. **Program of Study**
 Bachelor of Science Program
 Bachelor of Arts Program
 Bachelor of Business Administration Program
 Bachelor of Nursing Science Program
Faculty/Institute/College Mahidol University International College
2. **Course Code** ICNS 153 **Course Title** Ecosystems and Natural Resources
3. **Number of Credits** 4 (Lecture/Lab) (3-2)
4. **Prerequisite (s)** None
5. **Type of Course** Natural Sciences (General Education)
6. **Trimester/Academic Year** 3rd trimester/2004
7. **Course Description**
 Human impact on ecosystems and natural resources, global climate change, air quality, management of tropical forests including wildlife, and threats to biological diversity and effects on ecosystems; scientific approaches to investigating the causes and potential solutions. Field and laboratory exercises are included.
8. **Course Objective (s)**
 Same as course description
9. **Course Outline**

Week	Topic	Hour	Instructor
1	Introduction, Populations, Communities, Ecosystems	4	Laird Allan
2	Biomass, Energy Flow, Nutrient (Water and Carbon) Cycles	4	Laird Allan
3	Nutrient Cycles (Nitrogen and Phosphorus)	4	Laird Allan
4	Local Climate Factors, Biodiversity (Video activity)	4	Laird Allan
5	Field Activity and Follow-up	4	Laird Allan
6	Review, <i>Midterm Exam</i>	4	Laird Allan
7	Terrestrial Biomes, Field Trip	4 (+ 8)	Laird Allan
8	Field Trip follow-up, Global Climate Factors, Global Warming	4	Laird Allan
9	ENSO, Aquatic and Marine Biomes	4	Laird Allan
10	Water Resources	4	Laird Allan
11	Mineral Resources, Energy Resources, Review	4	Laird Allan
	<i>Final Exam</i>		Laird Allan
	<i>Total</i>	44	

10. **Teaching Method (s)**
 - Lectures
 - Video
 - Field studies
 - Self-study (reading texts and websites)
11. **Teaching Media**
 - Texts and teaching materials
 - Video
 - Field equipment

12. Measurement and evaluation of student achievement

Assessment by standard criteria:

Letter Grade	Percent
A	90 or greater
B+	85 to 89
B	80 to 84
C+	75 to 79
C	70 to 74
D+	65 to 69
D	60 to 64
F	0 to 59

13. Course evaluation

- Midterm examination 35 %
- Final examination 35 %
- Active Class Participation 10 %
- Activities 10 %
- Quizzes 5 %

14. Reference (s)

Environment, Peter Raven, Linda Berg, George Johnson, Saunders College Publishing

15. Instructor (s)

Laird Allan
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16. Course Coordinator

Laird Allan