

## Course Syllabus

1. **Program of Study** Bachelor of Science Program in Environment  
**Faculty/Institute/College** Mahidol University International College, Faculty of Science, Faculty of Environment and Resource Studies, Mahidol University
2. **Course Code** ICEN 411 **Course Title** Climate Change and Its Impact
3. **Number of Credits** 4 (**Lecture/Lab**) (4-0)
4. **Prerequisite** None
5. **Type of Course** Elective
6. **Trimester / Academic Year**  
First / 2005
7. **Course Description**  
Climate and weather pattern, greenhouse gases, causes and effect of greenhouse gases on climate, natural catastrophe. That is related to human behavior and vice versus human activity is a main course to change natural ecosystem.
8. **Course Objectives**
  1. To understand climate and weather pattern
  2. Type and source of greenhouse gases
  3. Greenhouse gases effect on climate pattern, and socio-economic
  4. Measurement of climate change
  5. Convention on global climate change
9. **Course Outline**

Week	Topic		Instructor
	Lecture	Hour	
1	Introductory in Course	4	Assoc.Prof.Dr.Nathsuda
2	Introduction to Climate and Weather Pattern Source and Anthropogenic Greenhouse gas - Energy	4	Assoc.Prof.Dr.Nathsuda
3	Source and Anthropogenic Greenhouse gas (cont.) – Forest	4	Assoc.Prof.Dr.Nathsuda
4	Source and Anthropogenic Greenhouse gas (cont.) – Agriculture	4	Assoc.Prof.Dr.Nathsuda
5	Source and Anthropogenic Greenhouse gas (cont.) – Other Sources	4	Assoc.Prof.Dr.Nathsuda
6	The Impacts of Climate Change	4	Assoc.Prof.Dr.Nathsuda
7	The Impacts of Climate Change (cont.)	4	Assoc.Prof.Dr.Nathsuda
8	Measures for Adapting to Global climate Change	4	Assoc.Prof.Dr.Nathsuda
9	Measures for Adapting to Global climate Change (cont.)	4	Assoc.Prof.Dr.Nathsuda
10	Mechanisms for Implementing Response Strategies	4	Assoc.Prof.Dr.Nathsuda
11	Thailand and Convention Related to Global Climate Change	4	Assoc.Prof.Dr.Nathsuda
	<b>Total</b>	<b>44</b>	

**10. Teaching Method**

1. Lecture
2. Discussion
3. Self-Study

**11. Teaching Media**

1. Texts and Teaching Materials
2. Transparencies
3. Power Point Presentation

**12. Course Achievement**

Assessment made from the set-forward criteria. Student who gets 80% up, will have Grade A.

**13. Course Evaluation**

1. Report 20%
2. midterm Examination 40%
3. Final Examination 40%

**14. References**

1. Parry M and Carter T. 1998. Climate Impacts and Adaptation Assessment. Earthscan Publication Ltd, London.
2. Houghton J. 1997. Global Warming. Cambridge University. Press.
3. Kemp D. D. 1994. Global Environmental Issues. Routledge. London and New York.
4. WMO/UNEP. 1990. Climate Change, The IPCC Response Strategies, International Panel on Climate Change.

**15. Instructor**

Assoc.Prof. Dr. Nathsuda Pumijumnong

**16. Course Coordinator**

Assoc.Prof. Dr. Nathsuda Pumijumnong