



# THE MODULE HANDBOOK

## FACULTY OF BIOLOGY

### Conservation Ecology

<b>Module code</b>	BIO 40307
<b>Module level</b>	Undergraduate
<b>Abbreviation, if applicable</b>	-
<b>Sub-heading, if applicable</b>	-
<b>Courses included in the module, if applicable</b>	-
<b>Semester/term</b>	Even
<b>Module coordinator(s)</b>	Prof. Dr. Tjut Sugandawaty Djohan, M.Sc.
<b>Lecture(s)</b>	Prof. Dr. Tjut Sugandawaty Djohan, M.Sc.
<b>Language</b>	Indonesia
<b>Classification within the Curriculum</b>	<ol style="list-style-type: none"><li>1. Elective course</li><li>2. The students will able to explain the concept of conservation biology, habitat degradation, and threat to the biodiversity in relation to ecosystem and sustainable development. From this course, students are expected to have ability in explaining the issues on tropical ecosystem degradations in landscape ecology, the threats to biodiversity, and global ecology, and the rule of conservation biology in achieving sustainable ecosystem in landscape ecology. They will able to give the simple alternative solutions facing the environmental problems.</li></ol>
<b>Teaching format/ class hours per week during the semester</b>	This course is organicide into one class and planned to have 14 learning weeks excluded midterm and final examination.
<b>Workload</b>	Estimated working hour: 2 credits of theory and 1 credit of laboratory work.
<b>Credit points</b>	2-1 credits
<b>Requirements</b>	Ecology (BIO 40302)
<b>Learning goals/ competencies</b>	<ol style="list-style-type: none"><li>1. <b>Knowledge and understanding</b><ol style="list-style-type: none"><li>a. Conservation biology and biodiversity.</li><li>b. Threats to biodiversity.</li><li>c. Conservation at individual, population, and community levels in ecosystem.</li><li>d. Biodiversity conservation and sustainable ecosystem.</li></ol></li></ol>



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e. Ecosystem management and landscape ecology.

### 2. Ability/intellectual skill

- a. Analyze the conservation problems.
- b. Analyze the threats to the biodiversity.
- c. Analyze the problems of ecosystem degradations and conservation biology.
- d. Acknowledge the designs of reserved and protected areas.

### 3. Practical skill

- a. View the biodiversity threats.
- b. View the habitat destruction.
- c. Explain the case studies.
- d. Write the report on conservation study.
- e. Acknowledge the designs of protected area.

### 4. Managerial and transferable skill

- a. Organize and carry the field study.
- b. Manage the resource and time efficiently.
- c. Manage the data.
- d. Work together in team conservation biology.

### 5. Attitude

- a. Have the curiosity and sensitivity to the environmental problems.
- b. Appreciate and responsible to his and her tusks in the team and individually.
- c. Appreciate to ideas, concepts of inventions other expertise.
- d. Sensitive to environmental issues relating to conservation biology and anthropogenic activities.
- e. Have Moral conscience.

### Content

The course will discuss response of conservation biology to the biodiversity crisis and the impact human activities on population, community, ecosystem, and landscape ecology. Analysis of problems based on practical approach such as to avoid the extinction of species, and to rehabilitate the degradation of tropical land, forest, swamp, and coastal ecosystems, and also umbrella species in ecosystem. The possibility to return the threatened species to their functional ecosystem. The discussion include conservation biology, and biodiversity, resources belong together, and tragedy of the common. The biodiversity threats. The change on conceptual approach to the conservation biology issues after the 1992 Earth Summit meeting at Rio Dejanero, Brazil. The discussions include concept on conservation at population and community levels, planning on protected areas, ecological restoration, ecosystem management,



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	conservation and sustainable development and rule of practical ecologist.
<b>Study/exam achievements</b>	<b>1. Theory</b> a. Midterm: 25% b. Final examination: 50% c. Home works: 25% <b>2. Laboratory Work</b>
<b>Forms of media</b>	White board, LCD
<b>Literature</b>	<ol style="list-style-type: none"><li>1. Indrawan , M. R. B. Primack, and J. Supriatna. 2007. <i>Biologi Konservasi</i>. Edisi Revisi. Yayasan Obor. Indonesia.</li><li>2. Krebs, C. J. 2009. <i>Ecology; The Experimental analysis of distribution and abundance</i>. Sixth edit. Benjamin Cummings-Person International Edit. New York.</li><li>3. Articles from International journal circulation on Conservation Biology and ecological applications.</li></ol>