

8. Module VIII: Environmental Science

8.1. Module Objectives

On completion of this module, the students will be able to:

- Explain the ecosystem concept and its relevance to environmental issues.
- Describe the importance of ecosystems as natural capital and provider of ecosystem services for human welfare.
- Express the concept of sustainability and recognize examples of sustainable solutions to environmental problems.
- Relate human population growth to resource sustainability and environmental quality.
- Identify and interpret general environmental problems, at the local, regional and global levels.
- Collect and present relevant information dealing with environmental issues

8.2. Module Data

Person in charge	Dr. Devi N. Choesin
Total Credits	2
Course	BI-2001 Environmental Science
Modul Examination	Written Test

8.2.1. Sub-module I: Environmental Science

Module Name:	Environmental Science
Module Level:	Undergraduate
Abbreviation, if applicable:	BI-2001
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	Second year
Module coordinator(s):	Dr. Devi N. Choesin
Lecturer(s):	Dr. Ayda T. Yusuf Dr. Trimurti H. Wardini
Language:	Bahasa Indonesia
Classification within the curriculum:	General Studies / Compulsory Courses/ Elective Courses
Teaching format / class hours per week during the semester:	2 hours lectures
Workload:	2 hours lectures, 2 hours structured activities, 2 hours individual study, 16 weeks per semester, and total 96 hours a semester
Credit Points:	2

Requirements:	-
Learning goals/competencies:	<p>Knowledge : <i>After completion of this course students are expected to be able to:</i></p> <ul style="list-style-type: none"> • explain the ecosystem concept and its relevance to environmental issues. • describe the importance of ecosystems as natural capital and provider of ecosystem services for human welfare. • express the concept of sustainability and recognize examples of sustainable solutions to environmental problems. • relate human population growth to resource sustainability and environmental quality. <p>Skill: <i>After completion of this course students are expected to be able to:</i></p> <ul style="list-style-type: none"> • identify and interpret general environmental problems, at the local, regional and global levels. • collect and present relevant information dealing with environmental issues. <p>Competences : <i>After completion of this course students are expected to be able to:</i></p> <ul style="list-style-type: none"> • point out the complexity of environmental issues as related to economic and sociocultural aspects. • apply critical thinking in discussing environmental issues.
Content:	<ol style="list-style-type: none"> 1. The ecosystem concept, ecological principles, and sustainability. 2. Ecosystems (terrestrial and aquatic) as natural capital and source of ecosystem services. 3. Human population and its impact on the environment. 4. Sustainability of biodiversity; natural resources (land, soil, water, air, minerals, energy); and environmental quality (issues related to environmental hazards and human health, pollution, climate disruption, waste, cities). 5. Sustainability of human societies (economics, politics, environmental worldviews). 6. Global and local (Indonesia) environmental issues and case studies.
Study/exam achievements:	Students are considered to be competent and pass if at least get 50% of maximum mark of the written exam,

	practical exam, and other assignments.
Forms of Media:	In class and outdoor-gymnasium class
Literature:	<ol style="list-style-type: none"> 1. Bompa, T.O., 1994, Theory and Methodology of Training, Iowa: Kendal/Hunt Publishing Company 2. Daniel Goleman, 1977, Emotional Intellegence, Jakarta: PT. Gramedia.Pustaka (Bahasa Indonesia version) 3. Giriwijoyo, S., Y.S. dkk., 2005, Manusia dan Olahraga, ITB - FPOK UPI Bandung, Penerbit ITB. 4. Harsono, 1988, Coaching dan Aspek-asapek Psikologis dalam Coaching, CV. Tambak Kusuma.Pustaka 5. Snow Harrison, 1992, The Power of Team Building, San Diego, California: Pfeiffer & Company 6. Willmore, H., Jack & Costill, L., David., 1999, Physiology of Sport and Health Exercise