## **Module VIII: Environmental Science**

## 1.1. 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

## 1.2. Module Data

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

## **1.2.1.** Sub-module I: Environmental Science

Course Name:	Environmental Science
Course Level:	Undergraduate
Abbreviation, if applicable:	BI-2001
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	3
Module coordinator(s):	Dr. Devi N. Choesin
Lecturer(s):	Dr. Ayda T. Yusuf
	Dr. Trimurti H. Wardini
Language:	Bahasa Indonesia
Classification within the	General Studies / Compulsory Courses/ Elective
curriculum:	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:	After completion of this course students are expected to be able to:

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	Knowledge:
	<ul> <li>explain the ecosystem concept and its relevance to environmental issues.</li> </ul>
	<ul> <li>describe the importance of ecosystems as natural</li> </ul>
	capital and provider of ecosystem services for human welfare.
	<ul> <li>express the concept of sustainability and recognize</li> </ul>
	examples of sustainable solutions to environmental problems.
	<ul> <li>relate human population growth to resource sustainability and environmental quality.</li> </ul>
	Skill:
	<ul> <li>identify and interpret general environmental problems, at the local, regional and global levels.</li> <li>collect and present relevant information dealing with environmental issues.</li> </ul>
	Competences:
	<ul> <li>point out the complexity of environmental issues as</li> </ul>
	related to economic and sociocultural aspects.
	<ul> <li>apply critical thinking in discussing environmental issues.</li> </ul>
Content:	The ecosystem concept, ecological principles, and sustainability.
	<ol><li>Ecosystems (terrestrial and aquatic) as natural capital and source of ecosystem services.</li></ol>
	<ol> <li>Human population and its impact on the environment.</li> <li>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).</li> </ol>
	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:	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. 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. 6. Willmore, H., Jack & Costill, L., David., 1999, Physiology of Sport and Health Exercise