



THE MODULE HANDBOOK

FACULTY OF BIOLOGY

Ecology

Module code	BIO 40302
Module level	Undergraduate
Abbreviation, if applicable	-
Sub-heading, if applicable	-
Courses included in the module, if applicable	-
Semester/term	Odd
Module coordinator(s)	Prof. Dr. Tjut Sugandawaty Djohan, M.Sc.
Lecture(s)	Prof. Dr. Tjut Sugandawaty Djohan, M.Sc.
Language	Indonesia
Classification within the Curriculum	<ol style="list-style-type: none">1. Elective course2. The students will able to explain the in-depth of ecological concepts as basic for understanding and analyzing the ecological and environment problems. From this course, the student was expected to explain the ecological concept in relation to the analyzing of environmental and conservation problems. Therefore the student will be able to the alterative solution to solve the simple problems of the environment. The explanation of the ecosystem in the tropical landscape setting as a case study.
Teaching format/ class hours per week during the semester	This course is organiside into one class and planned to have 14 learning weeks excluded midterm and final examination.
Workload	Estimated working hour: 2 credits of theory and 1 credit of laboratory work.
Credit points	2-1 credits
Requirements	Ecology (BIO 30302)
Learning goals/ competencies	<ol style="list-style-type: none">1. Knowledge and understanding<ol style="list-style-type: none">a. Distribution of organisms.b. Relationship between evolution and ecology.c. Concept of community and species diversity.d. Small and big disturbance on ecosystem in landscape.e. Ecology succession.



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	<ul style="list-style-type: none">2. Ability/intellectual skill<ul style="list-style-type: none">a. The present of organism in ecosystem.b. Structure community.c. Succession phenomenon.d. Distribution and abundance of organisms.e. Impact of climate change.3. Practical skill<ul style="list-style-type: none">a. Plan, conduct, report the ecological research.b. Study the distribution and abundance of organisms.c. Identify the problems on distribution and abundance of organisms and their interaction to environmental factors.d. Measurement of the organism abundance.e. Understand the ecosystem degradation and their relation to anthropogenic activities.4. Managerial and transferable skill<ul style="list-style-type: none">a. Organize and to conduct the study on ecology.b. To manage the time efficiently.c. To manage the ecological research-data from the research.d. To write simple ecological report.e. Working together in team to conduct the ecology study.f. Sensitive to environmental issues and its relation to anthropogenic activities.5. Attitude<ul style="list-style-type: none">a. Have the curiosity to the concepts and problems in ecology.b. Appreciate and have the responsibility to his/her duty.c. Appreciate the ideas, concepts, and findings of other scientist.d. Sensitive to the issues of local, regional, and global ecology.e. Have moral conscience.
Content	The course will review of ecological concept, and discuss the ecological method analysis; evolution and ecology, community in the landscape: discrete and continuum; Species diversity, succession, climate change, community organization; community disturbance, fire; island biogeography and conservation biology.
Study/exam achievements	<ul style="list-style-type: none">1. Theory<ul style="list-style-type: none">a. Midterm: 25%b. Final examination: 50%c. Assignment: 25%2. Laboratory Work



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Forms of media	White board and LCD
Literature	<ol style="list-style-type: none">1. Barbour, M.G., J.H. Burk, and W.D. Petts. 1990. <i>Terrestrial plant ecology</i>, 2nd edit. The Benjamin/cumming Publ. Co. Inc. California2. Krebs, C.J. 2009. <i>Ecology: The experimental analysis of distribution and abundance</i>. 6nd. edit. Harper Collins Publ. Inc. New York.3. Begon, M., J.L. Harper, and C.R. Townsend, 1986. <i>Ecology: individual population, and communities</i>. Blackwell Sci. Publ. Boston.4. Selected present articles-articles from the international journals such as: Journal of Ecology, J. of Ecological Letters, BIOTROPICA The Journal of Tropical Biology and Conservation, J. of Applied Ecology