



UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND SCIENCE
DEPARTMENT OF BIOLOGY EDUCATION

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Bachelor of Science in Biology

MODULE HANDBOOK

Module name:	PLANT ECOLOGY
Module level, if applicable:	Undergraduate
Code:	BIM6280
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	Odd
Module coordinator:	Dr. Ir. Suhartini, MS
Lecturer(s):	Dr. Ir. Suhartini, MS.
Language:	Bahasa Indonesia
Classification within the curriculum:	Elective Course
Teaching format / class hours per week during the semester:	100 minutes lectures, 120 minutes structured activities, and 120 minutes individual study per week
Work load:	Total workload is 91 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points:	2 SKS (3 ECTS)
Prerequisites course(s):	Ecology
Perogram Learning Outcomes:	<p>4. Comprehensively mastering Biology (core biology) to solve problems in the field of Biology (problem-solving) and to underlie the concepts of related sciences</p> <p>6. Being adaptive, creative, innovative in applying the concepts of Biology and other related fields</p> <p>9. Being able to work and create jobs/being an entrepreneur in the field of Biology</p> <p>11. Possessing scientific skills to support the ability to speak in local, national, and international forums</p>
Course Outcomes	<p>After taking this course, the students have ability to:</p> <p>CO1. Explain the Division of Ecology, Limits and Working Areas of Ecological Sciences, Development of Plant Ecology and the Integration Level and Approach of Plant Ecology.</p> <p>CO2. Explain about organisms (living things) with their interactions, response strategies, talent responses and natural selection</p> <p>CO3. Mastering Population (distribution patterns, growth and density)</p> <p>CO4. Mastering plant communities (basic principles, community patterns, community climax</p>

	<p>CO5. Mastering about Vegetation and do vegetation analysis</p> <p>CO6. Mastering interaction of community plants with biotic environment (Competition, Stratification, Dependency Relations or Partnership)</p> <p>CO7 Mastering the interaction of plant communities with the biotic environment (concept of limiting factors, minimum law, tolerance law)</p> <p>CO8. mastering and conduct ecosystem analysis (Ecosystem components, energy flow, material cycle, food chain, pyramid, thermodynamic law)</p> <p>CO9.Mastering terrestrial biomes</p> <p>C10 Mastering the principle of productivity in plants</p> <p>C11. Mastering the principle of succession</p> <p>C12. Communicating the results of individual and group assignments</p>															
Content:	<p>Plant ecology includes the development of plant ecology, the degree of integration and approach to plant ecology, organisms (living things) with their interactions, response strategies, response talents and natural selection, populations (patterns of distribution, growth and density), plant communities (basic principles, community patterns, climax community), Vegetation (Vegetation Structure, Vegetation Zone, Dynamic Relationships between Vegetation, Soil and Climate and vegetation type) and vegetation analysis, interaction of plant communities with biotic environments (Competition, Stratification, Dependency or Alliance Relations); the interaction of plant communities with the biotic environment (concept of limiting factors, minimum laws, tolerance laws) ecosystems (Ecosystem components, energy flow, material cycles, food chains, pyramids, thermodynamic laws), terrestrial biomes, productivity and succession</p>															
Study/examachievements:	<p>The final mark will be weight as follow:</p> <table border="1" data-bbox="630 1332 1444 1556"> <thead> <tr> <th>No</th> <th>CO</th> <th>Assessment Object</th> <th>Assessment Technique</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CO1 to CO11</td> <td>Observed attitudes , knowledge, and skills</td> <td>Survey, test, rubrics and manuals</td> <td>100%</td> </tr> <tr> <td colspan="4" style="text-align: right;">Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO1 to CO11	Observed attitudes , knowledge, and skills	Survey, test, rubrics and manuals	100%	Total				100%
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1	CO1 to CO11	Observed attitudes , knowledge, and skills	Survey, test, rubrics and manuals	100%												
Total				100%												
Forms of media:	Real objects, model, multimedia															
Reference:	<p>A. Cox, G.W., 1972. <i>Laboratory Manual of General Ecology</i>. WM.C Brown Company Publisher, Iowa.</p> <p>B. Curtis, J.T and Cottam, G., 1962. <i>Plant Ecology Workbook</i>. Burgess Publishing Company, Minnesota.</p> <p>C.Odum, E.P., 1983. <i>Basic Ecology</i>. Saunders College Publishing, New York.</p> <p>D. Mueller, D-Dombois & Ellenberg, H., 1974. <i>Aim and Methods of vegetation Ecology</i>. John Wiley & Sons, New York.</p> <p>E. Stephen R. Gliessman. 2006. <i>Agroecology: The Ecology of Sustainable Food Systems</i>, Second Edition.</p>															

