



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

Colombo 1 Street Yogyakarta 55281

Phone: (0274)565411 Ext. 217, (0274)565411(Administration Office), fax
 (0274)548203

Website:fmipa.uny.ac.id, E-mail :humas_fmipa@uny.ac.id

Bachelor of Science in Biology

MODULE HANDBOOK

Module name:	Limnology
Module level,if applicable:	Undergraduate
Code:	BIO 6235
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	Even
Module coordinator:	Triatmanto, M.Si
Lecturer(s):	
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 studyper week
Workload:	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.
Creditpoints:	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. Identify the themes and objetsin Limnology</p> <p>CO2. Understand and appllied of BSCS scheme for Limnology</p> <p>CO3. Describe and explain the Aquatic ecosystem</p> <p>CO4. Explain the Lake and Reservoar (Lentic Ecosystem)</p>

	<p>CO5. Explain the Stream (Lotic Ecosystem)</p> <p>CO6. Elaborate the Physical factor in Aquatic Ecosystem</p> <p>CO7. Elaborate the Chemical and growth factors in aquatic ecosystem</p> <p>CO8. Elaborate the oxygen and Carbon dioxide factors in aquatic ecosystem</p> <p>CO9. Analyze and communicate Nutrient cycle in aquatic ecosystem</p> <p>CO10. Explain the characteristics of Organism at aquatic ecosystems</p> <p>CO11. Elaborate the food-chain dynamics of aquatic ecosystem</p> <p>CO12. Communicate the individual or group project in aquatic ecosystem</p> <p>CO 13. Elaborate problems and challenges in aquatic ecosystem for Sustainable Development</p>																				
Content:	This course develops scientific and analytical skills in the aquatic ecosystems through discussion, observation, and presentation																				
Study/exam achievements:	<p>The final mark will be weight as follow:</p> <table border="1"> <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>1 to 11</td> <td>Attitudes, knowledge, and skills</td> <td>Survey, test, rubrics and manuals</td> <td>80%</td> </tr> <tr> <td>2</td> <td>12;13</td> <td>Scientific skills</td> <td>Observe rubrics and manuals, portfolio</td> <td>20%</td> </tr> <tr> <td colspan="4">Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assessment Object	Assessment Technique	Weight	1	1 to 11	Attitudes, knowledge, and skills	Survey, test, rubrics and manuals	80%	2	12;13	Scientific skills	Observe rubrics and manuals, portfolio	20%	Total				100%
No	CO	Assessment Object	Assessment Technique	Weight																	
1	1 to 11	Attitudes, knowledge, and skills	Survey, test, rubrics and manuals	80%																	
2	12;13	Scientific skills	Observe rubrics and manuals, portfolio	20%																	
Total				100%																	
Forms of media:	Real objects, model, multimedia																				
Reference:	<p>A. Barus, T.A. 2002. Pengantar Limnologi. Jurusan Biologi FMIPA Universitas Sumatera Utara, Medan</p> <p>B. Goldman, C.R. and Alexander, J.H. 1983. Limnology. McGraw-Hill Book Company, Japan</p> <p>C. Krebs, J.C., 1978. Ecology. The Experimental Analysis of Distribution and Abundance. Harper and Row Publisher, London.</p> <p>D. Sachlan, M., 1982. Planktonologi. Fakultas Peternakan dan Perikanan UNDIP, Semarang: pp. 1 -101</p> <p>E. URL: http://www.epa.gov/owow/watershed/wacademy/acad2000/ecology/r13.html</p>																				

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11
CO1				✓							

