



**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:	Marine Biology
Module level,if applicable:	Undergraduate
Code:	BIO 6218
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	Even
Module coordinator:	Triatmanto, M.Si
Lecturer(s):	
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory 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 Marine Biology</p> <p>CO2. Understand and appllied of BSCS scheme for Marine Biology</p> <p>CO3. Describe and explain the coastal ecosystem</p> <p>CO4. Explain the kinds of intertidal ecosystems and seagrass beds</p>

	<p>CO5. Elaborating the role of the marine ecosystem for sustainable development</p> <p>CO6. Explain the characteristics of the estuarine ecosystem</p> <p>CO7. Explain the characteristics of the Coral Coast ecosystem</p> <p>CO8. Analysis and communicate the characteristics of the Mangroves ecosystem</p> <p>CO9. Analysis and communicate of coral reef ecosystems</p> <p>CO10. Explain the characteristics of deep sea ecosystems</p> <p>CO11. Elaborate marine ecological problems and solutions</p> <p>CO12. Communicate the result of individual or group project</p>																				
Content:	This course develops scientific and analytical skills in the estuarine and marine ecology 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 12</td> <td>Attitudes , knowledge, and skills</td> <td>Survey, test, rubrics and manuals</td> <td>80%</td> </tr> <tr> <td>2</td> <td>8; 9; 12</td> <td>Scientific skills</td> <td>Observe rubrics and manuals, portofolio</td> <td>20%</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	1 to 12	Attitudes , knowledge, and skills	Survey, test, rubrics and manuals	80%	2	8; 9; 12	Scientific skills	Observe rubrics and manuals, portofolio	20%	Total				100%
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Total				100%																	
Forms of media:	Real objects, model, multimedia																				
Reference:	<p>A. Amran, M.A. and R.A. Rappe. 2009. <i>Estimation of Seagrass Coverage by Depth Invariant Indices on Quickbird Imagery</i>. Research Report DIPA Biotrop 2009</p> <p>B. Arifin, dkk, 2004. Studi Kondisi dan Potensi Ekosistem Padang Lamun Sebagai Daerah Asuhan Berbagai Jenis Biota Laut Di Perairan Pulau Barranglombo, <i>Torani</i>, Vol. 14(5) Edisi Khusus SP4, Desember 2004: 241-250 ISSN: 0853-4489.</p> <p>C. Bengen, D.G. 2001. <i>Sinopsis Ekosistem dan Sumber Daya Alam Pesisir</i>. Pusat Kajian Sumberdaya Pesisir dan Lautan, Institut Pertanian Bogor</p> <p>D. Bougis, P. 1976. <i>Plankton Ecology</i>. American Elsevier Publishing Company, INC., New York</p> <p>E. Brouns, J.J.W.M. dan F.M.L. Heijs 1991. <i>Seagrass ecosystem in the Tropical West Pacific</i>. p. 371-387. Dalam: Mathieson, A.C. dan P.H. Nienhuis(Eds.) <i>Ecosystem of the world 24: Intertidal and Littoral Ecosystem</i>. Elsevier.</p>																				

Amsterdam. xiii + 564 pp.

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- T. Tuwo, Ambo. 2011. *Pengelolaan Ekowisata Pesisir*

	<p style="text-align: center;"><i>dan Laut. Surabaya: Brilian Internasional</i></p> <p style="text-align: center;">U. WilkinsonCR. 1992.<i>Coral Reefs of The World are Facing Widespread Devastation: Can We Prevent This Through Sustainable Management</i></p>
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**PLO and CO mapping**

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11
<b>CO1</b>				✓							
<b>CO2</b>				✓							
<b>CO3</b>				✓		✓					
<b>CO4</b>				✓		✓					
<b>CO5</b>				✓		✓			✓		✓
<b>CO6</b>				✓		✓					
<b>CO7</b>				✓		✓					
<b>CO8</b>				✓		✓			✓		✓
<b>CO9</b>				✓		✓					✓
<b>CO10</b>				✓		✓					
<b>CO11</b>				✓		✓					
<b>CO12</b>				✓		✓			✓		✓