



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:	Laboratory Work in Marine Biology*)
Module level,if applicable:	Undergraduate
Code:	BIO 6119
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:	1 SKS (1 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 object Lab work in Marine Biology</p> <p>CO2. Understand and appllied of BSCS scheme for lab work Marine Biology</p> <p>CO3. Develop a field study design in a coastal ecosystem</p>

	<p>CO4. Organizes field activities on the sand beach, identifies and reports the results of its activities in the form of academic reports</p> <p>CO5. Organizes field activities on the mud beach and mangroves ecosystem, identifies and reports the results of its activities in the form of academic reports</p> <p>CO6. Organizes field activities on the estuarine ecosystem, identifies and reports the results of its activities in the form of academic reports</p> <p>CO7. Organizes field activities on the sea grass ecosystem, identifies and reports the results of its activities in the form of academic reports</p> <p>CO8. Organizes field activities on the coral reef ecosystem, identifies and reports the results of its activities in the form of academic reports</p> <p>CO9. Compiling book and video field study reports</p> <p>CO10. Communicate the result of field study reports</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>1-8</td> <td>Attitudes , knolwedge</td> <td>Survey, test,</td> <td>15%</td> </tr> <tr> <td>2</td> <td>3 to 8</td> <td>Attitudes , knolwedge, and skills</td> <td>Survey, test, portofolio</td> <td>70%</td> </tr> <tr> <td>3</td> <td>3 to 9</td> <td>Scientific and communicating skills</td> <td>Observe rubrics and manuals, portofolio</td> <td>15%</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	1-8	Attitudes , knolwedge	Survey, test,	15%	2	3 to 8	Attitudes , knolwedge, and skills	Survey, test, portofolio	70%	3	3 to 9	Scientific and communicating skills	Observe rubrics and manuals, portofolio	15%	Total				100%
No	CO	Assessment Object	Assessment Technique	Weight																						
1	1-8	Attitudes , knolwedge	Survey, test,	15%																						
2	3 to 8	Attitudes , knolwedge, and skills	Survey, test, portofolio	70%																						
3	3 to 9	Scientific and communicating skills	Observe rubrics and manuals, portofolio	15%																						
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 Barranglompo, <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</p>																									

Publishing Company, INC., New York

- E. Brouns, J.J.W.M. dan F.M.L. Heijs 1991. *Seagrass ecosystem in the Tropical West Pacific*. p. 371-387. Dalam: Mathieson, A.C. dan P.H. Nienhuis(Eds.) *Ecosystem of the world 24: Intertidal and littoral ecosystem*. Elsevier. Amsterdam. xiii + 564 pp.
- F. Brower *et al*, 1990 Brower, J., J. Zar, C.V. Ende, K. Kane, 1990. *Field and laboratory methods for general ecology*. Edisi ke-3. America: Wm. C. Brown Publisher
- G. Edmonsons, W.T., 1966. *Fresh Water Biology*. 2nd ed. John Wiley & Sons Inc, New York
- H. English, et. al,. 1994. *Survey Manual for Tropical Marine Resources*. Australian Institute of Marine Science. Townsville. Australia
- I. Hutabarat, Sahala dan Stewart M. Evans. 1986. *Pengantar Oseanografi*. Jakarta: Universitas Indonesia Press), cet III.
- J. Jomas, C.R., 1997. *Identifying Phytoplankton*. Academic Press. Harcourt Brace & Company. London
- K. Knox, G.A., 1986. *Estuarine Ecosystem: A System Approach*. CRC Press, Inc. Boca Raton, Florida
- L. Krebs, J.C., 1978. *Ecology. The Experimental Analysis of Distribution and Abundance*. Harper and Row Publisher, London
- M. Melati, Ferianita. 2007. *Metode Sampling Bioekologi*. Jakarta: Bumi Aksara
- N. Mladenov [Philip V.](#) 1991. *Marine Biology. A. Very short Introduction*. Oxford University Press.
- O. Nontji, A. 2002. *Laut Nusantara*. Jakarta: Djambatan
- P. Nybakken, J.W. 1998. *Biologi Laut : Suatu Pendekatan Ekologis*. Jakarta: Gramedia
- Q. Romimohtarto, K. dan Juwana S. 1999. *Biologi Laut : Ilmu Pengetahuan tentang Biota Laut*. Pusat Penelitian dan Pengembangan Oseanologi-LIPI. Jakarta: 115-128.
- R. Sachlan, M., 1982. *Planktonologi*. Fakultas Peternakan

	<p>dan Perikanan UNDIP, Semarang: pp. 1 -101</p> <p>S. Tomascik et al., 1997. <i>The Ecology of Indonesian Seas. Vol. VIII Part Two. Periplus Eddition (HK) Ltd</i>, Singapore, 643-1388</p> <p>T. Tuwo, Ambo. 2011. <i>Pengelolaan Ekowisata Pesisir dan Laut</i>. Surabaya: Brilian Internasional</p> <p>U. WilkinsonCR. 1992. <i>Coral Reefs of The World are Facing Widespread Devastation: Can We Prevent This Through Sustainable Management</i></p>
--	--

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11
CO1				✓							
CO2				✓							
CO3				✓		✓					
CO4				✓		✓			✓		✓
CO5				✓		✓			✓		✓
CO6				✓		✓			✓		✓
CO7				✓		✓			✓		✓
CO8				✓		✓			✓		✓
CO9				✓		✓					✓
CO10				✓		✓					✓