

Module Handbook

Modul Name	Aquatic Ecology
Modul Level	Bachelor
Abbreviation, If applicable:	BIL 340
Sub---heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester	Odd
Module Coordinator	Agoes Soegianto
Lectures	Agoes Soegiato Trisnadi Widya Leksono
Language	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course / Elective Studies
Teaching format/ class hours per week during semester	300 minutes/ week
Workload per semester	100 min lecture + 100 min structural assignment + 100 min self-assignment x 13 weeks; total 3900 min = 65 hours 65/25 = 2.6 ECTS
Credit point	2
Requirements	General Ecology
Learning goals/competencies	General Competence (Knowledge) Students have to be able to describe any kind of fresh water ecosystem and comparing to another aquatic ecosystem. Specific Competence <ol style="list-style-type: none">1. Students are able to explain the scope and target of aquatic ecology study2. Students are able to explain the effect of several limiting factors on the quality of aquatic environment3. Students are able to explain the difference of several environmental condition and its effects on the life in the stagnant and flowing water4. Students are able to explain the connection of environmental condition and community structure in the lentic and lotic water5. Students are able to explain the mechanism that resulted high fertility rates in estuarine habitats.6. Students are able to explain the difference of several pollution material on the activity of biota in several types of water7. Students are able to explain the connection between aquatic habitat modification on larger environmental problems8. Students are able to mention the effect of limiting factors on the activity of sea organism9. Students are able to explain the basic knowledge of organism grouping in sea10. Students are able to explain the connection of planktonic community and productivity level in the water11. Students are able to explain the role of phytobenthic

	<p>community in supporting the productivity in the sea</p> <p>12. Students are able to explain the mechanism that supports the structure and stability of benthic community in the sea</p> <p>13. Students are able to explain several adaptation mechanisms that supports the survival level of nekton community in pelagic zone</p> <p>14. Students are able to show the key factors that guarantee the amount of productivity in coral reefs community</p>
Content	Introduction to aquatic ecology. Physical and chemistry character of water. Lakes and ponds; rivers and other lotic water, estuary, ocean. Environmental factors in natural aquatic ecosystem. Population and community ecology. Moneran, Protista and aquatic plants; aquatic animal; aquatic community.
Soft skill Attribute	discipline and argumentation
Study/ exam achievements	<p>Students are considered to be competent and pass if at least get 40% of maximum. Final score (NA) is calculated as follow: Paper project (20%), mid exam (30%), final exam (40%), Soft skill (10%)</p> <p>Final index is defined as follow:</p> <p>A : 75 - 100</p> <p>AB : 70 - 74.99</p> <p>B : 65 - 69.99</p> <p>BC : 60 - 64.99</p> <p>C : 55 - 59.99</p> <p>D : 40 - 54.99</p> <p>E : 0 - 39.99</p>
Form of media	LCD, computer
Learning Method	Class and discussion
Literature	<p>a. Reid, K. G. & R. D. Wood. 1976. <i>Ecology of Inland Water and Estuaries</i>. 2nd ed. D. Van Nostrand Company. New York.</p> <p>b. Wetzel, Robert G. 1983. <i>Limnology</i>. 2nd ed. Saunders College Publication</p>
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