Aquaculture

Module name		*Aquaculture*				
Module level		4th year of Bachelor program				
Abbreviation, if applicable		-				
Sub-heading, if applicable		-				
Courses included in the module, if applicable		BI4101 Aquaculture				
Semester/term		7th Semester				
Module coordinator(s)		Dr. Gede Suantika				
Lecturer(s)		Dr. Gede Suantika				
Language		Indonesian				
Classification within the Curriculum		Elective courses for Bachelor Program in Biology				
Teaching format/ class hours per week during the semester		Lecture (face to face teaching): 2 hours x 14 weeks Practical class: 5 hours x 14 weeks				
Workload	Total Workload	176 hours; 3(1) CU				
		Face to face teaching	Structured Activities	Independent study	Exam	Total
	Lecture	28	32	32	4	96
	Practical class	42		4	2	48
	Total					**144**
Credit points		*Aquaculture (3(1) CU)*				
Requirements		-				
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Requirements		-				
Content		This course covers general aspects related with the consecutive stages in aquaculture industry: - Live feed production techniques - Optimization - Uses of microalgae, rotifers, artemia, and copepods - Site selection-preparation- operation of fish, shrimp, and molluscs larviculture - Site selection-preparation-operation of fish, shrimp, and molluscs culture - Selection-preparation-operation of seaweed culture - Overview regarding the aquaculture products - Development and related issues - Economic considerations on preparing and running aquaculture bussiness in tropical area particularlly in Indonesia (case : shrimp and fish either on earthen pond or floating net cage)				
Learning goals/competencies		Students are able • to understand the potency of fisheries industry, • understand culture technology • understand aquaculture issues and • able to plan aquaculture activities by taking economy and culture as a consideration				
Study/exam achievements		Midterm exam	Final exam	Presentation	Attendance and Participation	Total
		30%	30%	30%	10%	100%
Forms of media		Classical teaching tools:	White board, power point presentation			
		Digital teaching tools:	Video/CD, Website			
Literature		1. Boyd. C.E., 1991. *Water Quality Management and Aeration Shrimp Farming***.** Pusat Penelitian dan Pengembangan Perikanan. Jakarta 2. Fast A.W., Lester, L.J., 1992. *Marine Shrimp Culture : Principles and Practices***.** Elsevier. Amsterdam. 3. Food and Agriculture Organization Of The United Nations., 2003. *Health Management*				

	*and Biosecurity Maintenance In White Shrimp (Penaeus vannamei) Hatchery In Latin America***.** FAO Fisheries Departement. Roma. 4. Haylor, G., Muir, J.F., 1998. *A Fish Hatchery Manual For Africa*. Pisces Press Ltd., Striling, Scotland. 5. Huguenin, J.E., Colt, J., 1989. *Design and Operating Guide For Aquaculture Seawater Systems***.** Elsevier, Amsterdam. 6. Jolly, C.M., Clonts., H.A., 1993. *Economics of Aquaculture***.** Food Products Press, Inc., New York. 7. Kungvankij, P . *et all*., 1986. *Shrimp Culture : Pond Design, Operation and Management*. Network of Aquaculture Centres In Asia. Bangkok, Thailand. 8. NRC., 1992. *Marine Aquaculture : Opportunities for Growth***.** National Academy Press., Washington D.C. 9. Stickney, R. R., 1994. *Principles of Aquaculture***.** John Wiley& Sons, Inc., New York. 10. Zonneveld, N.,1991. *Prinsip-prinsip Budidaya Ikan*. PT. Gramedia Pustaka Utama, Jakarta. 11. Townsend, A., 1993. *Seaweed Culture and Uses***.** National Agricultural Library.