Module Handbook of Practices of Aquacultural Engineering

A Module Handbook or collection of module descriptions that are also available for students to consult should contain the following information about the individual modules:

Module designation	Practicing Aquaculture Engineering is a compulsory course for the students of the Aquaculture Study Program. This course is given in the fifth semester fostered by the Teaching Team. After attending this course, students will be able to make plans and design and construct various kinds of fish farming technologies.
Module level, if applicable	Undergraduate
Code, if applicable	PIA 20192262
Subtitle, if applicable	Praktikum Rekayasa Akuakultur
Courses, if applicable	-
Semester(s) in which the module is taught	4th
Person responsible for the module	Dr. Susilo Budi Priyono, S.Pi., M.Si.
Lecturer	Prof. Dr. Ir. Rustadi, M.Sc. Dr. Ir. Bambang Triyatmo, M.P. Dr. Susilo Budi Priyono, S.Pi., M.Si.
Language	Indonesian
Relation to curriculum	Study Program, Compulsory
Type of teaching, contact hours	This practical course is conducted in the laboratory and field (filedwork) with 50-60 students within eight meetings (110 min/meeting). The learning method consists of practice and discussion, case studies, and collaborative learning.

Workload	Practicum 1 SKS x 170 minutes x 16 meetings = 2,720 minutes = 45.30 hours = 45.30 hours /30 hours = 1.51 ECTS
Credit points	1 credit point
Requirements according to the examination regulations	Students must fully attend (100%) all of the laboratory sessions to be eligibile to take the post-test.
Recommended prerequisites	Aquacultural Engineering
Module objectives/intended learning outcomes	Course Learning Outcome: CO-1: Design and operate recirculating aquaculture and Biofloc system, and aquaculture waste management (PLO8-KK3). Program Learning Outcome: PLO8-KK3: To be able to conduct aquaculture activity start from design and construct aquaculture containers and supporting facilities, manage to produce fish-seed, feeds, health, water quality, and harvest of freshwater, brackish water, and marine organisms through good fish hatchery practices and good aquaculture practices in environment, analyze of socio-economic.

Content	Course Learning Outcome CO1 1. Site selection for aquaculture 2. Design and construction of fish seed production 3. Design and construction of freshwater culture ponds 4. Design and construction of flow through fish farming 5. Design and construction of brackishwater culture ponds 6. Design and construction of seawater enclosure fish farming 7. Design and construction of recirculating aquaculture systems (RAS) 8. Design and construction of biofloc technology (BFT)
Study and examination requirements and forms of examination	Lectures Quizzes, assignments Laboratory sessions
Media employed	LCD Zoom Lab Manual
Reading list	Wheaton, F. W. 1977. Aquacultural Engineering. John Wiley and Sons, Inc. New York. 708 p. Timmons, M.B. and Losordo, T. M. (eds.) 1994. Aquaculture Water Reuse Systems: Engineering Design and Management. Elsevier. Amsterdam. 333 p.