



Universitas Gadjah Mada
 Faculty of Agriculture
 Department of Fisheries

Course Syllabus

Course Code	Course Name	Credits	Semester	Course Status	Requirement
PIA 20192151	Physiology of aquatic animals	3	4 th	Compulsory	-
Learning Outcome	1	Students can understand osmoregulation; the respiratory system; digestion system; bloodstream system; endocrine and reproduction			
	2	Students can understand senses and nerves; bioenergetic; crustacean physiology			
	3	Students can understand fish respiration; bloodstream system; prawn hematology; fish hematology; and digestion			
Course Description	<p>This course studies the physiology of aquatic animals. As for the aquatic animals referred to are finfish and finfish, especially crustaceans and mollusks. In this Aquatic Animal Physiology course, the limits and scope of physiology will be studied; physiological comparisons of terrestrial and aquatic animals; osmoregulation, circulation, respiration, digestion, reproduction, nervous and endocrine mechanisms in fish and shrimp; metabolism and bioenergetics. This course is also equipped with a practicum. This course provides students with an understanding of various basic processes in the life of aquatic animals, so that they have a strong foundation in understanding the behavior of aquatic animals, are able to understand if there are deviations from normal conditions, and have a basis for engineering for specific purposes.</p>				
Course Content	<ol style="list-style-type: none"> 1. Introduction and scope, 1 meeting 2. Respiratory system, 1 meeting 3. Digestive system, 1 meeting 4. Blood circulation 1 (fish), 1 meeting 5. Blood circulation 2 (crustacea), 1 meeting 6. Osmoregulation, 1 meeting 7. Endocrine, 1 meeting 8. Reproduction system, 1 meeting 9. Senses and nerves system, 1 meeting 10. Bioenergetic, 2 meeting 11. Physiology of crustacea, 2 meeting 12. Physiology of Mollusca, 2 meeting 				

Reference	<ol style="list-style-type: none">1. Currie, Suzanne, Claiborne, James B., Evans, David H. 2014. The physiology of fishes. CRC Press.2. Adalberto L. Val, Vera Maria F. De Almeida-Val, and David J. Randall (Eds.). 2005. Academic Press3. Anthony P. Farrell. 2011. Encyclopedia of Fish Physiology: From Genome to Environment. AP press.4. Val, A.L., V.M.F. de Almeida-Val, D.J. Randall (2006) The Physiology of Tropical Fish. Journal of Fish Biology
Lecturer	<ol style="list-style-type: none">1. Dr.Ir. Murwantoko, M.Si.2. Dr.Ir. Triyanto, M.Si3. Laksimindra Fitria, S.Si., M.Si.