THE MODULE HANDBOOK
FACULTY OF BIOLOGY

Animal Physiology

Module code	BIB 20801IUP
Module level	3rd year of Undergraduate Program in Biology
Abbreviation, if applicable	-
Sub-heading, if applicable	-
Courses included in the module, if applicable	-
Semester/term	even
Module coordinator(s)	Dr.bio.hom. Nastiti Wijayanti, M.Si.
Lecture(s)	1. Dr.bio.hom. Nastiti Wijayanti, M.Si. 2. Dr. Slamet Widiyanto, S.Si., M.Sc.
Language	English
Classification within the Curriculum	Elective course
Teaching format/class hours per week during the semester	This course is organized into one class and planned to have 14 teaching weeks and2 weeks of examination.
Workload	Estimated working hour: 7hours/week.
Credit points	3-1credits
Requirements	Biochemistry (BIB 10101IUP), Animal Structure and Development(BIB 10701IUP)
Learning goals/ competencies	**1. Attitude and value** a. Devoted to God Almighty b. Appreciating to previous contributors (researchers) in Animal Physiology. c. Appreciating the role of experimental animals as model in Animal Physiology. d. Recognizing the importance of Animal Physiology as the basic science to apply in human body system and clinical diagnostics. **2. Capacity of Work** a. Capable to access information and communication technologies to find solutions in the scientific understanding of Animal Physiology. b. Able to plan, conduct, analyze and prepare report on Animal Physiology research. c. Able to work independently and in groups. d. Face a new environment with passion and able to adapt in it.

	3. Competency a. Able to apply the principles of physics, chemistry, biochemistry, cell biology, and animal structures to solve problems in Animal Physiology. b. Have a basic theory and instrumentation capabilities, furthermore apply the scientific method to conduct research in Animal Physiology. c. Conduct a holistic approach to solve problems and make plans, benefits, risks, safety, trust and environmental impact. d. Able to discuss actively and effectively. **4. Authority and Responsibility** a. Capable to communicate and implement researches in Animal Physiology for animal and human welfare. b. Able to anticipate and solve problems in Animal Physiology field. c. Professionally responsible to scientific ethics and the impact of scientific advances in the society.
Content	Animal Physiology is a subject with central position in Biology. The study is focused on the function of organs in a system organ and its interaction with other system organs within the body, including coordination systems (nervous and hormonal), connecting systems (digestive, respiratory, and excretion), and complementary systems (muscle and glands). It is emphasizes on understanding the basic concepts of physiology (homeostasis) and principles of action mechanism to regulate the body system in normal condition. This course also study the comparison on various groups of animals ranging from invertebrates, vertebrates, and humans.
Study/exam achievements	1. Theory: 75% a. Midterm: 35% b. Final examination: 40% c. Quiz: 10% d. Assignment: 15% 2. Laboratory work: 25%
Forms of media	White board, computer, LCD
Literature	1. Kay, I. 1998. *Introduction to Animal Physiology*. Bios Scientific Publisher. Guilford. 2. Marshall, P.T. and G.M. Hughes. 1980. *Physiology of Mammal and Other Vertebrates*. Cambridge University Press. Cambridge. 3. Moyes, C.D. and P.M. Schulte. 2008. *Principles of Animal Physiology*. Pearson/Benjamin Cummings. San Francisco. California. 4. Withers, P.C. 1992. *Comparative Animal Physiology*.

saunders College Publishing. Harcourt Brace Javanovich. College Publishers. Orlando. Florida.
5. Previte, J.J. 1983. *Human Physiology*. McGraw-Hill Book Company. New York.
6. Prosser, C.L. 1991. *Comparative Animal Physiology*. John Wiley and Sons. New York.
7. Seeley, R.R., T.D. Stephens, and P. Tate. 2000. *Anatomy and Physiology*. McGraw-Hill Company. New York.