MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE:** **D10D-2004**
Module designation	Animals Structure and Physiology 1	
Semester in which the module is taught	2	
Persons responsible for the module	1. Dr. Yasmi P. Kuntana 2. Dr. Desak Made Malini 3. Dr. Kartiawati Alipin 4. Dra. Nining Ratningsih MIL. 5. Madihah, S.Si., M.Si	
Medium of instruction	Indonesian	
Relation to curriculum	Compulsory course	
Teaching methods	Student-Centered Learning, Project-based Learning, Collaborative Learning	
Workload	Total workload : 5440 minutes = 90.67 hours Lecture and discussion : 2 x 50 minutes x 16 weeks = 1600 minutes = 13.33 hours Exercises : 2 x 60 minutes x 16 weeks = 1920 minutes = 32 hours Self-study : 2 x 60 minutes x 16 weeks = 1920 minutes = 32 hours	
Credit points	2.00 (3.62 ECTS)	
Required and recommended prerequisites for joining the module	Basic biology	
Module objectives/intended learning outcomes	1. Able to explain the organizational levels of animal bodies and the general functions of organ systems in vertebrate animals 2. Describe the structure and function of animal cells and identify the differences in the functions of each cell organelle 3. Able to explain the types of epithelial tissue and connective tissue and describe their functions in various animal organ systems 4. Able to explain the structure and function of the integumentary system and analyze its role in protecting the animal body from the external environment. 5. Able to identify the types of muscles in animals and analyze the mechanism of muscle contraction in various bodily activities 6. Able to classify various types of skeletons in animals and compare their functions in movement and protection of internal organs 7. Able to classify the structure and function of the nervous system and analyze the mechanism of nerve impulse transmission in various environmental conditions 8. Able to identify the structure and function of the sensory system in animals and interpret its role in detecting stimuli and bodily responses.	
Contents	1. Animal body organization and general functions of organ systems 2. Animal cell structure and function 3. Structure, classification, and function of epithelial and connective tissues 4. Structure, classification, and physiology of the muscular system 5. Structure, classification, and physiology of the skeletal system 6. Structure, classification, and physiology of the nervous system 7. Structure, classification, and physiology of the sensory system 8. Structure, classification, and physiology of the integumentary system..	
Examination forms	Quiz, Midterm exam, Assignment, and Final exam	
Study and examination requirements	The minimum attendance in lectures is 80%. Final grades are evaluated based on quiz (10%), midterm exam (15%), assignment (10%), final exam (15%), project and participation (50%)	

Reading lists	1. Gartner L.P. and Hiatt J.L. 2006. *Color Textbook of Histology*, 3rd ed. Saunders Elsevier: Philadelphia. 2. Drake, R.L, Vogl, W and Mitchell, A.W.M. 2007. *Gray's Anatomy for Students.* Saunders Elsevier: Philadelphia. 3. Harver, H.A., V.W. Rodwell & P.A. Mayes. 1997. *Review of Physiology Chemistry*. Lange Medical Publishing. Los Altos California. 4. Vander, A.J., H.S. hourses & D.S. Luciano. 1994. *Human Physiology*. McGraw-Hill Inc. New York. St Louis. San Francisco. 5. Tortora, G.G. & N.P. Anagnostakos. 1984. *Principles of Anatomy and Physiology, 4th ed*. Harper & Row Publishers: New York 6. Tortora, G. J & Derrickson, B. 2017. *Principles of Anatomy and Physiology*, *15th ed.* John, Wiley & Sons, inc: Danvers MA. 7. Hall, J. E & Hall, M. E. (2021). *Guyton and Hall textbook of medical physiology* (15th ed.). Elsevier. Philadelphia.