



MINISTRY OF EDUCATION AND CULTURE
UNIVERSITAS NEGERI SURABAYA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF NATURAL SCIENCES

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Undergraduate Programme in Science Education

Module Handbook

Module Name:	<i>Anatomi dan Fisiologi Hewan</i> (Animal Anatomy and Physiology)					
Module Level:	Bachelor degree/Undergraduate Programme					
Course Code:	8420103167					
Abbreviation, if applicable:	Not applicable					
Courses included in the module, if applicable:	Not applicable					
Semester/term	IV/Second Year (sophomore)					
Module coordinator(s):	Dr. Nur Ducha, M.Si.					
Lecturer(s):	Dr. Nur Ducha, M.Si. Enny Susiyawati, Ph.D. Aris Rudi Purnomo, S.Si., M.Pd., M.Sc. Dhita Ayu Permata Sari, S.Pd., M.Pd.					
Language:	<i>Bahasa Indonesia</i> (Indonesian Language)					
Classification within the curriculum:	Compulsory / Elective					
Teaching format/class hours per week during the semester:	3 contact hours of lectures (Indonesia credit semester or <i>sks</i> *)					
Workload:	3 x 50 minutes lectures, 3 x 60 minutes structured activity, 3 x 60 minutes individual activity, 14 weeks per semester, 119 total hours per semester ~ 4.77 ECTS**					
Credit point:	3 <i>sks</i> (4.77 ECTS)					
Requirements:	General Biology (8420103023) General Chemistry (8420103074) General Physics (8420103045)					
Learning goals/competencies:	Course Learning Outcomes (CLOs): After taking this course, students will be able to: <ol style="list-style-type: none"> 1. Describe anatomical and physiological network among different system in animal and human body 2. Explain the phenomena related to animal anatomy and physiology using ICT 3. Demonstrate decision making skills during laboratory activity 					
Content:	The systems in animal and human body, namely, cardiovascular system, respiratory system, skeletal and muscular system, nervous system, digestive system, osmoregulatory system, endocrine system, reproductive system, and embryology					
Attribute Soft skill:	Discipline, collaboration, responsibility, and argumentation in the natural classroom setting.					
Study/exam achievements:	Students are considered to be competent and pass if at least get 40% of the maximum final grade. The final grade (NA) is calculated based on the following weight: <table border="1" style="width: 100%; margin-top: 5px;"> <thead> <tr> <th style="background-color: yellow;">Assessment Components</th> <th style="background-color: yellow;">Percentage Contribution</th> </tr> </thead> <tbody> <tr> <td>Participation</td> <td style="text-align: center;">20%</td> </tr> </tbody> </table>		Assessment Components	Percentage Contribution	Participation	20%
Assessment Components	Percentage Contribution					
Participation	20%					

	Assignment	30%
	Mid-semester test	20%
	Final semester test	30%
	Total	100%
Learning Methods	student-centred approach, lecturing, group and class discussion, lab work investigation, and presentation (structured activities), and flip learning	
Form of Media:	PowerPoint slides, student worksheets, videos, virtual laboratory, and preserved organs	
Literature (primary references):	<ol style="list-style-type: none"> 1. Kardong, K. V. (2012). <i>Vertebrates: Comparative Anatomy, Function, and Evolution</i>. New York: McGraw-Hill. 2. Knobbil & Neill's. (2015). <i>Physiology of Reproduction</i>. 4th Edition. Plant & Zeleznik (Eds). Oxford: Elsevier. 3. Kay, I. (1998). <i>Introduction to Animal Physiology</i>. Manchester: Bios Scientific Publisher. 4. Sherwood, Klandorf, & Yancey. (2013). <i>Animal Physiology: from Genes to Organisms</i>. Belmont, USA: Brooks/Cole. 5. Tortora & Derrickson. (2012). <i>Principles of Anatomy and Physiology</i>. 13th Edition. USA: John Wiley & Sons, Inc. 6. Hill, Wyse, & Anderson. (2012). <i>Animal Physiology</i>. 3rd Edition. Massachusetts: Sinauer Associate Inc. 7. Gilbert, S. F. (2010). <i>Developmental Biology</i>. 9th Edition. Massachusetts: Sinauer Associate Inc. 8. Ellie, J. (2011). <i>Visualizing Human Biology: Lab Manual</i>. USA: John Wiley & Sons, Inc. 9. Treuting & Dintzis (Eds). (2012). <i>Comparative Anatomy and Histology: A Mouse and Human Atlas</i>. San Francisco: Elsevier. 10. Rappole, J. H. (2013). <i>The Avian Migrant: The Biology of Bird Migration</i>. New York: Columbia University Press. 11. Wood & Kellermann (Eds). (2015). <i>Phenological Synchrony and Bird Migration: Changing Climate and Seasonal Resources in North America</i>. London: CRC Press. 12. Ladich (Ed). (2015). <i>Sound Communication in Fishes</i>. Dordrecht: Springer. 	
Notes:	<p>*1 sks in learning process = three contact hours that consist of: (a) scheduled instruction in a classroom or laboratory (50 minutes); (b) structured activity (60 minutes); and (c) individual activity (60 minutes) according to the Regulation of Indonesia Ministry of Research, Technology, and Higher Education No. 44 Year 2015 jo. the Regulation of Indonesia Ministry of Research, Technology, and Higher Education No. 50 Year 2018.</p> <p>**1 sks = 1,59 ECTS</p>	