	Universitas Negeri Surabaya **Faculty of Mathematics and Natural Sciences** **Natural Sciences** **Education Undergraduate Study Program**	**Document Code**

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Animal Anatomy and Physiology	8420103167	Compulsory Study Program Subjects	**T=2**	**P=1**	**ECTS=4.77**	4	July 18, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	.....	.....	Prof. Dr. Erman, M.Pd.

Learning model	**Project Based Learning**
Program Learning Outcomes (PLO)	**PLO study program that is charged to the course**
	Program Objectives (PO)
	PLO-PO Matrix

P.O

PO Matrix at the end of each learning stage (Sub-PO)

P.O	Week															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Short Course Description	This lecture aims to provide knowledge and skills about animal anatomy and physiology. In it, this course discusses the physiology of the human body in the context of comparison with animals in the vertebrate group. Learning begins with an introduction in the form of important terms. Furthermore, the lecture invites students to study the anatomy and physiology of organ systems (nervous, motor, cardiovascular, digestive, respiratory, uropoetic and urogenital), animal navigation systems, and embryonic development. Lectures are also supported by laboratory activities to make it easier for students to access knowledge about material that is generally abstract. Others, learning opportunities outside of face-to-face lectures are provided in the form of structured assignments. On the topic of communication and navigation in animals, the main focus is on the processes and mechanisms of animal migration from one place to another within a certain time span; range in vertebrates.
References	**Main :**

1. Allen, Connie dan Valerie Harper. 2011. Laboratory Manual for Anatomy and Physiology 4th Edition. Danvers: John Wiley & Sons.
2. Despopoulus, A. dan Stefan Silbernagl. 2003. Color Atlas of Physiology . New York: Thieme.
3. Hill, Richard W., Gordon A. Wyse, dan Margaret Anderson. 2012. Animal Physiology, Third Edition . Sunderland: Sinauer Associates.
4. Sherwood, L, Hillar Klandorf, dan Paul H. Yancey. 2012. Animal Physiology: From Genes to Organisms 2nd Edition . UK: Brooks Cole
5. Tim SFPH. 2014. Panduan Praktikum Struktur, Fungsi, dan Perkembangan Hewan (SFPH) . Unesa.
6. Tortora, GJ dan Bryan Derrickson. 2014. Principles of Anatomy and Physiology 13th Edition Volume 1 . Danvers: John Wiley & Sons.
7. Tortora, GJ dan Bryan Derrickson. 2014. Principles of Anatomy and Physiology 13th Edition Volume 2 . Danvers: John Wiley & Sons.

Supporters:	

Supporting lecturer	

Week-	Final abilities of each learning stage (Sub-PO)	Evaluation		Help Learning, Learning methods, Student Assignments, [Estimated time]		Learning materials [References]	Assessment Weight (%)
		Indicator	Criteria & Form	Offline (*offline*)	Online (*online*)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1							0%
2							0%
3							0%
4							0%
5							0%
6							0%
7							0%
8							0%
9							0%
10							0%
11							0%
12							0%
13							0%
14							0%
15							0%
16							0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
		0%

Notes

1. **Learning Outcomes of Study Program Graduates (PLO - Study Program)** are the abilities possessed by each Study Program graduate which are the internalization of attitudes, mastery of knowledge and skills according to the level of their study program obtained through the learning process.
2. **The PLO imposed on courses** are several learning outcomes of study program graduates (CPL-Study Program) which are used for the formation/development of a course consisting of aspects of attitude, general skills, special skills and knowledge.
3. **Program Objectives (PO)** are abilities that are specifically described from the PLO assigned to a course, and are specific to the study material or learning materials for that course.
4. **Subject Sub-PO (Sub-PO)** is a capability that is specifically described from the PO that can be measured or observed and is the final ability that is planned at each learning stage, and is specific to the learning material of the course.
5. **Indicators for assessing** ability in the process and student learning outcomes are specific and measurable statements that identify the ability or performance of student learning outcomes accompanied by evidence.

6. **Assessment Criteria** are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
7. **Forms of assessment:** test and non-test.
8. **Forms of learning:** Lecture, Response, Tutorial, Seminar or equivalent, Practicum, Studio Practice, Workshop Practice, Field Practice, Research, Community Service and/or other equivalent forms of learning.
9. **Learning Methods:** Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, and other equivalent methods.
10. **Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
11. **The assessment weight** is the percentage of assessment of each sub-PO achievement whose size is proportional to the level of difficulty of achieving that sub-PO, and the total is 100%.
12. TM=Face to face, PT=Structured assignments, BM=Independent study.