



Universitas Negeri Surabaya
Faculty of Sports and Health Sciences
Sports Science Doctoral Study Program

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Biopsychology	8900102003	Compulsory Study Program Subjects	T=2	P=0	ECTS=5.04	1	July 17, 2024
AUTHORIZATION	SP Developer	Course Cluster Coordinator			Study Program Coordinator		
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Learning model	Case Studies																																																	
Program Learning Outcomes (PLO)	PLO study program which is charged to the course																																																	
	PLO-6 Demonstrate an attitude of responsibility for work in the field of sports science independently (S2) (PLO-2)																																																	
	PLO-7 Able to discover or develop new scientific theories/conceptions/ideas, contribute to the development and practice of science and/or technology in the field of sports science which pays attention to and applies humanities values by producing scientific research based on scientific methodology, logical, critical, systematic and systematic thinking, creative.																																																	
	PLO-10 Able to develop knowledge in the field of sports performance analysis through a scientific approach based on critical, logical and creative thinking (KK1) (PLO-10)																																																	
	PLO-14 Master scientific principles theoretically and practically well in solving problems that arise in the field of sports.																																																	
	Program Objectives (PO)																																																	
	PO - 1 Able to explain and demonstrate basic concepts, nerve function and organ structure of the human body as well as their relationship to sports scientifically																																																	
	PLO-PO Matrix																																																	
	<table border="1"> <tr> <td>P.O</td> <td>PLO-6</td> <td>PLO-7</td> <td>PLO-10</td> <td>PLO-14</td> </tr> <tr> <td>PO-1</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	P.O	PLO-6	PLO-7	PLO-10	PLO-14	PO-1																																											
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PO-1																																																		
PO Matrix at the end of each learning stage (Sub-PO)																																																		
<table border="1"> <tr> <td rowspan="2">P.O</td> <td colspan="16">Week</td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td> </tr> <tr> <td>PO-1</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>	P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	PO-1																
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PO-1																																																		

Short Course Description Understanding and mastery of human physiology which includes the structure and function of nerves, the central nervous system and skeletal muscles, especially brain function regarding motor control, as well as the complex functions of the brain in terms of sleep, emotions, reproduction and learning.

References

Main :

- Neil R. Carlson. 2014. Physiology of behavior 11th edition. Edinburg gate. Pearson Education Limited
- Pencarian di internet

Supporters:

Supporting lecturer Dr. dr. Endang Sri Wahjuni, M.Kes.

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	understand the general structure and function of the central and peripheral nervous system, cerebral cortex, brainstem, cranial and spinal nerves	1.explain the structure of nerves 2.explain the relationship between nerves and motor behavior	Form of Assessment : Participatory Activities	lectures, discussions and questions and answers 2 X 50		Material: general structure and function of the central and peripheral nervous system Reference: Neil R. Carlson. 2014. <i>Physiology of behavior 11th edition.</i> Edinburgh Gate. Pearson Education Limited	5%
2	understand how the nervous system works in communication	1.explain neurons 2.explain myelin 3.explain saltatory conduction 4.explain synapse	Form of Assessment : Participatory Activities	lectures, discussions and questions and answers 2 X 50			5%
3	understand the nervous conduction system	1.Name and explain the function of nerves 2.explain neurotransmitters 3.explain ionotropic and metabotropic 4.explain excitation and inhibition	Form of Assessment : Participatory Activities	lectures, discussions and questions and answers 2 X 50			5%
4	understand about the types of neurotransmitters and hormones	explains the function of adrenaline, acetylcholine, serotonin, dopamine, glutamate and several hormones: testosterone, estrogen, growth hormone	Form of Assessment : Participatory Activities	lectures, discussions and questions and answers 2 X 50			5%
5	understand sensory and motor systems	explain the structure and function of sensory and motor systems	Form of Assessment : Participatory Activities	lectures, discussions and questions and answers 2 X 50			5%
6	understand movement and motor control systems	Explain the flow of movement from the brain to skeletal muscle	Form of Assessment : Participatory Activities	lecture, question and answer and discussion 2 X 50			5%
7	understand complex brain function, forebrain, limbic forebrain.	explain the structure and function of the forebrain and limbic forebrain	Form of Assessment : Participatory Activities	lectures, discussions and questions and answers 2 X 50			5%
8				2 X 50			15%
9	understand sleep behavior	1.explain the stages of sleep 2.explains non REM and REM sleep	Form of Assessment : Participatory Activities	presentation, lecture, discussion, question and answer 2 X 50			5%
10	understand reproductive behavior	1.explain sexual development 2.explains hormonal control of sexual behavior 3.explains the neural control of sexual behavior	Form of Assessment : Participatory Activities	presentation, discussion, question and answer 2 X 50			5%

11	understand emotions and stress	<ol style="list-style-type: none"> 1.explains the neural control of emotional response patterns 2.explain simple, complex and social emotional situations 		presentation, discussion, question and answer 2 X 50		Material: neural control over emotional response patterns Reference: Neil R. Carlson. 2014. <i>Physiology of behavior 11th edition.</i> Edinburgh Gate. Pearson Education Limited	5%
12	understand eating and drinking behavior	<ol style="list-style-type: none"> 1.explains fluid balance, hormones, vasopressin 2.Describe the renin angiotensin system 3.explain food metabolism 		presentation, discussion, question and answer 2 X 50		Material: understanding eating and drinking behavior Reader: Neil R. Carlson. 2014. <i>Physiology of behavior 11th edition.</i> Edinburgh Gate. Pearson Education Limited	5%
13	understand about learning and remembering	<ol style="list-style-type: none"> 1.explains the influence of learning on neural structure and function 2.explain long-term potential 3.explain the role of the NMDA receptor 4.explain the mechanisms of synaptic plasticity 	Form of Assessment : Participatory Activities	presentation, discussion, question and answer 2 X 50		Material: understanding learning and remembering Reader: Neil R. Carlson. 2014. <i>Physiology of behavior 11th edition.</i> Edinburgh Gate. Pearson Education Limited	5%
14	understand the relational learning process	<ol style="list-style-type: none"> 1.explain the role of the hippocampus 2.explain declarative and non-declarative memory 3.explain relational learning 	Criteria: Formulating the relational learning process Form of Assessment : Participatory Activities, Tests	presentation, discussion, question and answer 2 X 50		Material: relational learning process Reference: Neil R. Carlson. 2014. <i>Physiology of behavior 11th edition.</i> Edinburgh Gate. Pearson Education Limited	5%
15	understand learning and remembering	<ol style="list-style-type: none"> 1.explain the terms perceptual training, classical conditioning, instrumental conditioning 2.explains about strengthening synapse connections, the role of dopamine 	Form of Assessment : Participatory Activities	presentation, discussion, question and answer 2 X 50		Material: perceptual learning, classical conditioning, instrumental conditioning Reference: Neil R. Carlson. 2014. <i>Physiology of behavior 11th edition.</i> Edinburgh Gate. Pearson Education Limited	5%
16		Midterm exam					15%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	57.5%
2.	Test	2.5%
		60%

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.