
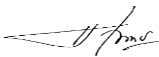



STUDY OF BIOLOGY CURRICULUM LESSON PLAN

	MINISTRY OF EDUCATION AND CULTURE MULAWARMAN UNIVERSITY FACULTY OF TEACHER TRAINING AND EDUCATION BIOLOGY EDUCATION STUDY PROGRAM	No. Dock	4.9
		Release	6 July 2020
		Date	
		No Revision	3
		Case	18

LESSON PLAN

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Subject	Course Code	Clusters of Courses	Weight (credit)	Semester	Date Compilation
EVOLUTION	19050162W028	MKPS	2 credits	4	March 8, 2020
Authorization	Course Coordinator	Team Teaching Courses		Coordinator Study Program	
	 Dr. Hj. Herliani, M.Pd	1. Dr. Hj. Herliani, M.Pd 2. Ruqoyyah Nasution, S.Pd., M.Pd.		 Dr. Hj. Herliani, M.Pd	
Learning Outcomes	Program Learning Outcomes Of Undergraduate On Biology Education Study Program				

	Attitude	S2 : Collaborate and take responsibility for work in their fields of biology and learning
	Knowledge	P1: Able to master basic theories, concepts, principles and procedures in the scientific field of biology and the interaction of organisms with Tropical Rain Forest and its Environment
	Course Learning Outcomes	
	<ol style="list-style-type: none"> 1. Collaborate and take responsibility for his work in the field of evolution and learning 2. Able to master the theory, concepts, principles and basic procedures in the field of evolution and interaction of organisms in the humid tropical forest environment. 	
Integrated Principle Scientific Studies of Unmul	<p>1.4 PLANT BIODIVERSITY: contains various types of plants in tropical forest areas as timber, food and fruit plants, herbal plants, and others that have the potential to be developed. Can be added with various pests and plant diseases typical of tropical rain forests.</p> <ul style="list-style-type: none"> • Biodiversity of plants in tropical rain forest areas • Types or types of plants in the tropical rain forest and their characteristics • The benefits of various kinds and types of plants in tropical rain forest areas <p>1.5 ANIMAL BIODIVERSITY: contains various kinds of animals in tropical forest areas, whether they live on land, fresh water, or salt water and have the potential to be developed. Can be added with various pests and diseases in animals typical of tropical rain forests.</p> <ul style="list-style-type: none"> • Biodiversity of animals in tropical rain forest areas, • Types of animals in the tropical rain forest and their characteristics • The benefits of the kinds and types of animals in the tropical rain forest, • Types of pests and diseases of animals in tropical rain forest areas. 	

Course Description	This course contains material on the notion of evolution, the views of experts on evolution, human potential in evolution, development towards modern humans, evolution of primates, the relationship between cultural evolution and evolution of biology, humans and technology, natural selection, direction of evolution, gene pool, factors factors affecting genetic balance, genetic variation as the basis of evolution, mechanisms and the process of the occurrence of new species, intrinsic isolation and other isolation.		
Reference	<ol style="list-style-type: none"> 1. Allan C, Wilson and Rebecca L. Canna, 1997. <i>Where and Modern Humans Originate</i>. Scientific American. 2. Debzhanky. Thodosius, 1979. <i>Evolution, Genetics and Man</i>. Jhon Willey & Sons, New York. 3. Douglas C. Wallace, 1997. <i>Mitochondrial DNA in Aging and Disease</i>, Sientific American. 4. Koenrjoroningrat, 1976. <i>Pengantar Antropologi</i>. Aksara Baru, Jakarta. 5. Widodo, 1992. <i>Teori Evolusi Biologis</i>. Depdiknas, IKIP Malang 		
Instructional Media	Software :	Hardware :	
	Powerpoint, MOLS, Video, e-learning, Journal, Paper	Focus Projector, Laptop, Android, Television	
Prerequisite Course (if any)			

Weeks	Sub-CLO	Indicator	Study Material	Learning Strategies	Student Learning Experience	Evaluation			Reference
						Type	Criteria	Weight (%)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Students are able to explain the meaning of evolution and describe some facts about the existence of evolution	Definition of Evolution	Lecture Contract and Definition of Evolution	Model STAD Method Discussion, question and answer, lecture, assignment	Receive an explanation about RPS 1. Analyze the material in outline 2. Giving group assignments 3. Literacy of materials from various sources about the material being studied	Assessment process which includes assessment of attitudes, skills and knowledge Written Assessment	Assessment indicators: • Communication skills in making presentations • activity • Discipline	7%	1,2,3,5

					<p>independently</p> <ol style="list-style-type: none"> 4. Conduct discussions and ask questions about the material being discussed 5. Carry out presentations, discussions and questions and answers 6. Write down the results of the discussion and draw conclusions from the results of the discussion 7. Receive an explanation of assignments to compile papers and compile study journals 	nt			
2	Students are able to describe the views of experts on evolution	The Expert's View on Evolution	The Expert's View on Evolution	Model CBL	<ol style="list-style-type: none"> 1. Define the problem (so the problem is clear and structured 2. facilitate students to prepare for investigations, 3. Providing direction for and during the conduct of the investigation 	<p>Assessment process which includes assessment of attitudes, skills and knowledge</p> <p>Written Assessment</p>	<p>Assessment indicators:</p> <ul style="list-style-type: none"> • Communication skills in making presentations • activity • Discipline 	7%	1,3, ,5

3	Students are able to Explain: Human Potential in Evolution	Explaining: Human Potential in Evolution	Human Potential in Evolution	Model CBL	<ol style="list-style-type: none"> 1. Define the problem (so the problem is clear and structured 2. facilitate students to prepare for investigations, 3. Providing direction for and during the conduct of the investigation 	Assessment process which includes assessment of attitudes, skills and knowledge Written Assessment	Assessment indicators: <ul style="list-style-type: none"> • Communication skills in making presentations • activity • Discipline 	8%	1,2,3,5
4	Students are able to explain the development towards modern humans	Explaining the Development Towards Modern Man	Development Towards Modern Man	Model CBL	<ol style="list-style-type: none"> 1. Define the problem (so the problem is clear and structured 2. facilitate students to prepare for investigations, 3. Providing direction for and during the conduct of the investigation 	Assessment process which includes assessment of attitudes, skills and knowledge Written Assessment	Assessment indicators: <ul style="list-style-type: none"> • Communication skills in making presentations • activity • Discipline 	8%	1,2,3
5	Students are able to Explain Primate Evolution	Explaining Primate Evolution	Primate Evolution	Model CBL	<ol style="list-style-type: none"> 1. Define the problem (so the problem is clear and structured 2. facilitate students to prepare for investigations, 3. Providing direction for and during the conduct of the 	Assessment process which includes assessment of attitudes, skills and knowledge	Assessment indicators: <ul style="list-style-type: none"> • Communication skills in making presentations • activity • Discipline 	7%	1,2,4

					investigation	Written Assessment			
6	Students are able to explain the relationship between cultural evolution and biological evolution	Explaining the Relationship between Cultural Evolution and Biological Evolution	The link between cultural evolution and biological evolution	Model PBL	<ol style="list-style-type: none"> 1. Identify unstructured authentic problems (Ill structured problems) 2. Selection of solutions from the existing alternative solutions 3. Carrying out individual and group investigations to solve problems 4. Development and presentation of works 5. Authentic post-troubleshooting reflection 	Assessment process which includes assessment of attitudes, skills and knowledge Written Assessment	Assessment indicators: <ul style="list-style-type: none"> • Communication skills in making presentations • activity • Discipline 	9%	3.4
7	Students are able to analyze the process of anabolism in the metabolism of living things	Explaining Humans and Technology	Humans And Technology	Model TTW Method discussion Lecture Questions and answers, assignments	Think <ol style="list-style-type: none"> 1. Looking for material from various sources about the material being studied independently, namely the concept of life and compiling it in the form of a paper 	Assessment process which includes assessment of attitudes, skills and knowledge Written	Assessment indicators: <ul style="list-style-type: none"> • Communication skills in making presentations • activity • Discipline 	10%	1.4

					<p>Talk</p> <ol style="list-style-type: none"> Presenting to classmates the search results (presenting a paper) Conduct discussions and ask questions about the material being discussed <p>Write</p> <ol style="list-style-type: none"> Write down the results of the discussion Drawing conclusions from the discussion Receive an explanation of the task of the next meeting, namely writing a paper 	Assessment			
8	Mid-Semester Examination (UTS)								
9	Students are able to Explain Natural Selection	Explaining Natural Selection	Natural selection	Model STAD Method Discussion, question and answer, lecture, assignment	<ol style="list-style-type: none"> Analyze the material in outline Giving group assignments Literacy of materials from various sources about the material being studied independently Conduct discussions and ask questions about the material being discussed 	Assessment process which includes assessment of attitudes, skills and knowledge Written Assessment	Assessment indicators: <ul style="list-style-type: none"> Communication skills in making presentations activity Discipline 	5%	1,3,4,5

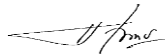
					<ol style="list-style-type: none"> 5. Carry out presentations, discussions and questions and answers 6. Write down the results of the discussion and draw conclusions from the results of the discussion 7. Receive an explanation of assignments to compile papers and compile study journals 				
10	Students are able to explain the direction of evolution	Explaining the Direction of Evolution	Evolution Direction	<p>Model TTW</p> <p>Method discussion Lecture Questions and answers, assignments</p>	<p>Think</p> <ol style="list-style-type: none"> 1. Looking for material from various sources about the material being studied independently, namely the concept of life and compiling it in the form of a paper <p>Talk</p> <ol style="list-style-type: none"> 2. Presenting to classmates the search results (presenting a paper) 3. Conduct discussions and ask questions 	Assessment process which includes assessment of attitudes, skills and knowledge Written Assessment	Assessment indicators: <ul style="list-style-type: none"> • Communication skills in making presentations • activity • Discipline 	5%	1,4,5

					<p>about the material being discussed</p> <p>Write</p> <ol style="list-style-type: none"> 4. Write down the results of the discussion 5. Drawing conclusions from the discussion 1. Receive an explanation of the task of the next meeting, namely writing a paper 				
11	Students are able to Explain Gene Pool	Explaining the Gene Pool	Gene Pool	Model CBL	<ol style="list-style-type: none"> 1. Define the problem (so the problem is clear and structured 2. facilitate students to prepare for investigations, 3. Providing direction for and during the conduct of the investigation 	Assessment process which includes assessment of attitudes, skills and knowledge Written Assessment	Assessment indicators: <ul style="list-style-type: none"> • Communication skills in making presentations • activity • Discipline 	7%	1,2,4,5
12	Students are able to explain the factors that affect genetic balance	Explaining the Factors Affecting Genetic Balance	Factors Affecting Genetic Balance	Model TTW Method discussion Lecture Questions and answers,	<p>Think</p> <ol style="list-style-type: none"> 1. Looking for material from various sources about the material being studied independently, namely the concept of life and compiling 	Assessment process which includes assessment of attitudes, skills and	Assessment indicators: <ul style="list-style-type: none"> • Communication skills in making presentations • activity 	7%	1,2,4,5

				assignments	<p>it in the form of a paper</p> <p>Talk</p> <ol style="list-style-type: none"> Presenting to classmates the search results (presenting a paper) Conduct discussions and ask questions about the material being discussed <p>Write</p> <ol style="list-style-type: none"> Write down the results of the discussion Drawing conclusions from the discussion Receive an explanation of the task of the next meeting, namely writing a paper 	<p>knowledge</p> <p>Written Assessment</p>	<ul style="list-style-type: none"> Discipline 		
13	Students are able to explain genetic variation as the basis for evolution	Explaining Genetic Variation as the Basis of Evolution	Genetic Variation as the Basis of Evolution	Model PBL	<ol style="list-style-type: none"> Identify unstructured authentic problems (Ill structured problems) Selection of solutions from the existing alternative solutions Carrying out individual and group investigations to solve problems 	<p>Assessment process which includes assessment of attitudes, skills and knowledge</p> <p>Written</p>	<p>Assessment indicators:</p> <ul style="list-style-type: none"> Communication skills in making presentations activity Discipline 	5%	1,3,4,5

					8. Development and presentation of works 9. Authentic post-troubleshooting reflection	Assessment			
14	Students are able to explain the mechanism and process of the occurrence of new species	Explaining the Mechanism and Process of New Species Occurrence	Mechanism and Process of New Species Occurrence	Model CBL	1. Define the problem (so the problem is clear and structured 2. facilitate students to prepare for investigations, 3. Providing direction for and during the conduct of the investigation	Assessment process which includes assessment of attitudes, skills and knowledge Written Assessment	Assessment indicators: • Communication skills in making presentations • activity • Discipline	7%	1,2,4,5
15	Students are able to explain Intrinsic Isolation and Other Isolation	Explaining Intrinsic and Other Insulation	Intrinsic and Other Insulation	Model CBL	1. Define the problem (so the problem is clear and structured 2. facilitate students to prepare for investigations, 3. Providing direction for and during the conduct of the investigation	Assessment process which includes assessment of attitudes, skills and knowledge Written Assessment	Assessment indicators: • Communication skills in making presentations • activity • Discipline	8%	1,2,3
16	Final Semester Exam (UAS)								

Knowing
Coordinator Study Program
Biology Education



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Samarinda, March 8, 2020

Course Coordinator



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