



Universitas Negeri Surabaya
Faculty of Mathematics and Natural Sciences
Biology Education Undergraduate Study Program

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Bioethics	8420502295		T=2	P=0	ECTS=3.18	7	July 18, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	Dr. Rinie Pratiwi Puspitawati, M.Si.

Learning model	Case Studies
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Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																	
	Program Objectives (PO)																																	
	PLO-PO Matrix																																	
	<table border="1" style="margin: auto;"> <tr> <td style="width: 50px; height: 30px;">P.O</td> </tr> </table>	P.O																																
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	PO Matrix at the end of each learning stage (Sub-PO)																																	
	<table border="1" style="margin: auto;"> <tr> <td rowspan="2" style="width: 30px; height: 20px;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 20px;">1</td> <td style="width: 20px;">2</td> <td style="width: 20px;">3</td> <td style="width: 20px;">4</td> <td style="width: 20px;">5</td> <td style="width: 20px;">6</td> <td style="width: 20px;">7</td> <td style="width: 20px;">8</td> <td style="width: 20px;">9</td> <td style="width: 20px;">10</td> <td style="width: 20px;">11</td> <td style="width: 20px;">12</td> <td style="width: 20px;">13</td> <td style="width: 20px;">14</td> <td style="width: 20px;">15</td> <td style="width: 20px;">16</td> </tr> </table>	P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																		

Short Course Description	<p>The Bioethics course is an elective course that will provide knowledge and implications of the results of developments in the latest technological advances that are used or consumed by humans, the processes of biological applications in everyday life. The results and process of biological applications will be studied from the perspective of science and ethics and religion. The scope of this course includes environmental ethics and biotechnology ethics. Environmental ethics discusses: learning bioethics as a guardian of the development of modern biology and saving the environment; the concept of Environmental Ethics, Principles of Environmental Ethics (there are 9) and preparation of environmental care questionnaires; anthropocentrism and the environmental crisis; environmental ethics and its application in education; environmentally friendly lifestyle; environmental ethics based on local wisdom. Meanwhile, biotechnology ethics includes the results of technological advances related to everyday life and discussed in this lecture include Genetic Modified Food, Genetic Modified Organisms, Animal Handling and Treatment, Cloning and gene transfer in mammals, Surrogate mother, Abortion, Banking Egg/Sperm and Embryo Freezing, Analysis, Intra Uterine Insemination (IU), and several other results of the latest technological advances.</p>
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References	<p>Main :</p> <ol style="list-style-type: none"> 1. 1. Alberts, B., Bray, D., Lewis, J., Raff, M. Roberts, K., and Watson, J.D. 1994. Molecular biology of the cell . 3rd ed. Gerland Publ., Inc. New York & London. p. 512 – 516. 2. 2. Karp, G. 1996. Cell and molecular biology. Concepts and Experiments . John Willey & Sons, Inc. New York. 3. 3. Hogan, B., Constantini, F., and Lacy, E. 1986. Manipulating the mouse embryo : a laboratory manual . Cold-Spring Laboratory. New York. p. 88-106. 4. 4. Almeida, P.A., and Bolton, V.N. 1998. Cytogenetic analysis of human preimplantation embryos following developmental arrest in vitro . Reprod. Fertil. Dev . 10 : 505 – 513. 5. 5. Barz, Wolfgang H. 2002. Biotechnology and Transgenic Plants. Marcel Dekker, Inc. New York. 6. 6. Romero, Roberto., Gianluigi, P., Philipe, J. 1998. Prenatal Diagnosis of Conginetal Anomalies. Appleton & Lange, California. 7. 7. Primrose, S.B., Richard, M.T., and Robert, W.O. Principle of Gene Manipulation. 8. 8. Finch, C.E. 2007. The Biology of Human Longevity. Academic Press, New York. <p>Supporters:</p>
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Supporting lecturer		Ahmad Bashri, S.Pd., M.Si.					
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: Case Study

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.