COURSE PORTFOLIO

Ecology, Environment, and Conservation
Academic Year – 2020/2021

PLO1	Have integrity and professional ethics, self-development, and make innovations to improve the quality of education and community lifelong learning..
PLO2	Able to apply analytical, critical thinking skills, and innovative in the field of biology education.
PLO3	Able to work together in multicultural groups and collaborate with various parties/stakeholders in solving a problem in the field of education.
PLO4	able to analyse the basic philosophy and theory in the study of biology and biology learning
PLO5	Able to design and manage classical, laboratory, natural and digital/virtual-based biology learning in education units.
PLO6	Able to design and publish a research through various approaches/methods to solve problems in the field of biology education (PLO6).
PLO7	Able to manage and develop digital technology-based biology learning tools according to the characteristics of students.
PLO8	Able to design and conduct evaluations and assessments of learning in educational units.
PLO9	Able to improve mastery of biological material in the fields of plant and animal structure, environment, bio-conservation, biomolecular, and biotechnology.
PLO10	Able to analyse and synthesize problem solutions in biology learning through interdisciplinary, transdisciplinary and multidisciplinary approaches

Course Outcome (CO):

CO 1.	Ability to analyze the ecological dan biology conservation concepts;
CO 2.	Ability to correlate the relationship between ecological, environmental and biology-conservation concepts;
CO 3.	Ability to identify the issues about ecological, environmental, conservation
CO 4.	Ability to analyse the stakeholder on ecological, environmental, bio-conservation problem and issues;
CO 5.	Ability to design and analyse methods for conducting research in ecological, environmental, bio-conservation issues;
CO 6.	Ability to compile a scientific paper on ecological, environmental, bio-conservation issues;;
CO 7.	Ability to design innovative learning to overcome ecological, environmental, bio-conservation issues;.

Lecturers :

1. Dr. Ratna Komala, M.Si
2. Dr. Diana Vivanti S., M.Si

Mapping Course Learning Outcome (CO) and Program Learning Outcome (PLO)

Program Learning Outcome / Course Outcome	PLO 2. Able to apply analytical, critical thinking skills, and innovative in the field of biology education	PLO 3. Able to work together in multicultural groups and collaborate with various parties/stakeholders in solving a problem in the field of education.	PLO 9. Able to improve mastery of biological material in the fields of plant and animal structure, environment, bio-conservation, biomolecular, and biotechnology	PLO 10. Able to analyse and synthesize problem solutions in biology learning through interdisciplinary, transdisciplinary and multidisciplinary approaches
CO 1. Ability to analyse the ecology, environment, and biology conservation concepts;	● (Assignment, Midterm Exam)			
CO 2. Ability to correlate the ecology, environment, and biology conservation concepts;	● (Assignment, Midterm Exam)			
CO 3. Ability to identify the issues about ecological, environmental, conservation;	● (Assignment)			
CO 4. Ability to analyze the stakeholder on ecological, environmental, bio-conservation problem and issues;	● (Assignment, Final Exam)			
CO 5. Ability to analyze design and analyse methods for conducting research in ecological, environmental, bio-conservation issues;		● (Midterm Exam)		
CO 6. Ability to compile a scientific paper on ecological, environmental, bio-conservation issues;				● (Project)
CO 5. Ability to analyze methods for design innovative learning to overcome ecological, environmental, bio-conservation issues;.		● (Final Exam)		

Forms of Assessment

Group/Individuals Assignment = 20%
Midterm examination = 30%
Final examination = 30%
Research project = 20%
Total = 100%

	PLO 3 Critical Thinking	PLO 5 Problem Solving	PLO 9 Decision Making	PLO 10 Decision Making
Group/Individuals Assignment	50%	50%	0%	0%
Midterm examination	60%	40%	0%	0%
Final examination	60%	40%	0%	0%
Research project	0%	0%	50%	50%

Outcomes Assessment

No	Nama	Assignment			Midterm Exam	Final Exam	Project	Grade	
		Assignment 1	Assignment 2	Average					
1	A	85	82	83,5	**60**	**82**	**84**	76,10	B+
2	B	85	85	85	**78**	**87**	**84**	83,30	A-
3	C	90	90	90	**88**	**90**	**87**	88,80	A
4	D	90	82	86	**83**	**84**	**83**	83,90	A-
5	E	88	84	86	**90**	**86**	**85**	87,00	A
6	F	90	85	87,5	**90**	**87**	**85**	87,60	A
7	G	90	84	87	**75**	**85**	**88**	83,00	A-
8	H	85	84	84,5	**78**	**86**	**86**	83,30	A-
9	I	90	84	87	**75**	**87**	**83**	82,60	A-
10	J	85	86	85,5	**90**	**84**	**85**	86,30	A
11	K	85	82	83,5	**70**	**82**	**88**	79,90	B+

Calculation of Weight per PLO

Form of Assessment	Weight	Weight per PLO				Total	Total Weight			
		PLO 2	PLO 3	PLO 9	PLO 10		PLO 2	PLO 3	PLO 9	PLO 10
Group/Individuals Assignment	0,20	0,50	0,50	0,00	0,00	1,00	0,10	0,10	0,00	0,00
Midterm examination	0,30	0,60	0,40	0,00	0,00	1,00	0,18	0,12	0,00	0,00
Final examination	0,30	0,60	0,40	0,00	0,00	1,00	0,18	0,12	0,00	0,00
Research project	0,20	0,00	0,00	0,50	0,50	1,00	0,00	0,00	0,10	0,10
Total	1,00	1,70	1,30	0,50	0,50	1,00	0,46	0,34	0,10	0,10

Example of PLO Calculation

No	Nama	Assignment			Midterm Exam	Final Exam	Project	Grade	
		Assignment 1	Assignment 2	Average					
1	A	85	82	83,5	**60**	**82**	**84**	76,10	B+

PLO Assessment Rubric

PLO	Performance Criteria	Excellent (E)	Good (G)	Satisfy (S)	Fail (F)
2	Analyze fundamental concepts, such as ecology, environment, and conservation as well as applications at high school and university levels	Students are ability to correlate the relationship between ecological, environmental and biology-conservation concepts; **with a score of at least 80.**	Students are ability to correlate the relationship between ecological, environmental and biology-conservation concepts; **with a score of at least 70 and less than 80.**	Students are ability to correlate the relationship between ecological, environmental and biology-conservation concepts; **with a score of at least 60 and less than 70.**	Students are ability to correlate the relationship between ecological, environmental and biology-conservation concepts; **with a score of less than 60.**
3	Students are able to analyse the stakeholder on ecological, environmental, bio-conservation problem and issues	Students are able to analyse the stakeholder on ecological, environmental, bio-conservation problem and issues **with a score of at least 80.**	Students are able to analyse the stakeholder on ecological, environmental, bio-conservation problem and issues with a score of at least 70 and less than 80.	Students are able to analyse the stakeholder on ecological, environmental, bio-conservation problem and issues with a score of at least 60 and less than 70.	Students are able to analyse the stakeholder on ecological, environmental, bio-conservation problem and issues with a score of less than 60.
9	Ability to design and analyse methods for conducting research in ecological, environmental, bio-conservation issues	Students are able to Ability to design and analyse methods for conducting research in ecological, environmental, bio-conservation issues with a score of at least 80.	Students are able to Ability to design and analyse methods for conducting research in ecological, environmental, bio-conservation issues with a score of at least 70 and less than 80.	Students are able to Ability to design and analyse methods for conducting research in ecological, environmental, bio-conservation issues with a score of at least 60 and less than 70.	Students are able to Ability to design and analyse methods for conducting research in ecological, environmental, bio-conservation issues with a score of less than 60.
10	Ability to design innovative learning to overcome	Students are able to Ability to design innovative learning to	Students are able to Ability to design innovative learning to	Students are able to Ability to design innovative learning to	Students are able to Ability to design innovative learning to

	ecological, environmental, bio-conservation issues	overcome ecological, environmental, bio-conservation issues with a score of at least 80.	overcome ecological, environmental, bio-conservation issues with a score of at least 70 and less than 80.	overcome ecological, environmental, bio-conservation issues with a score of at least 60 and less than 70.	overcome ecological, environmental, bio-conservation issues with a score of less than 60.

Example of PLO Predicates for Each Student

Name	PLO 2	PLO 3	PLO 9	PLO 10
A	73,72	74,68	84,00	84,00
	Good	Good	Excellent	Excellent

PLO Predicates for All Students

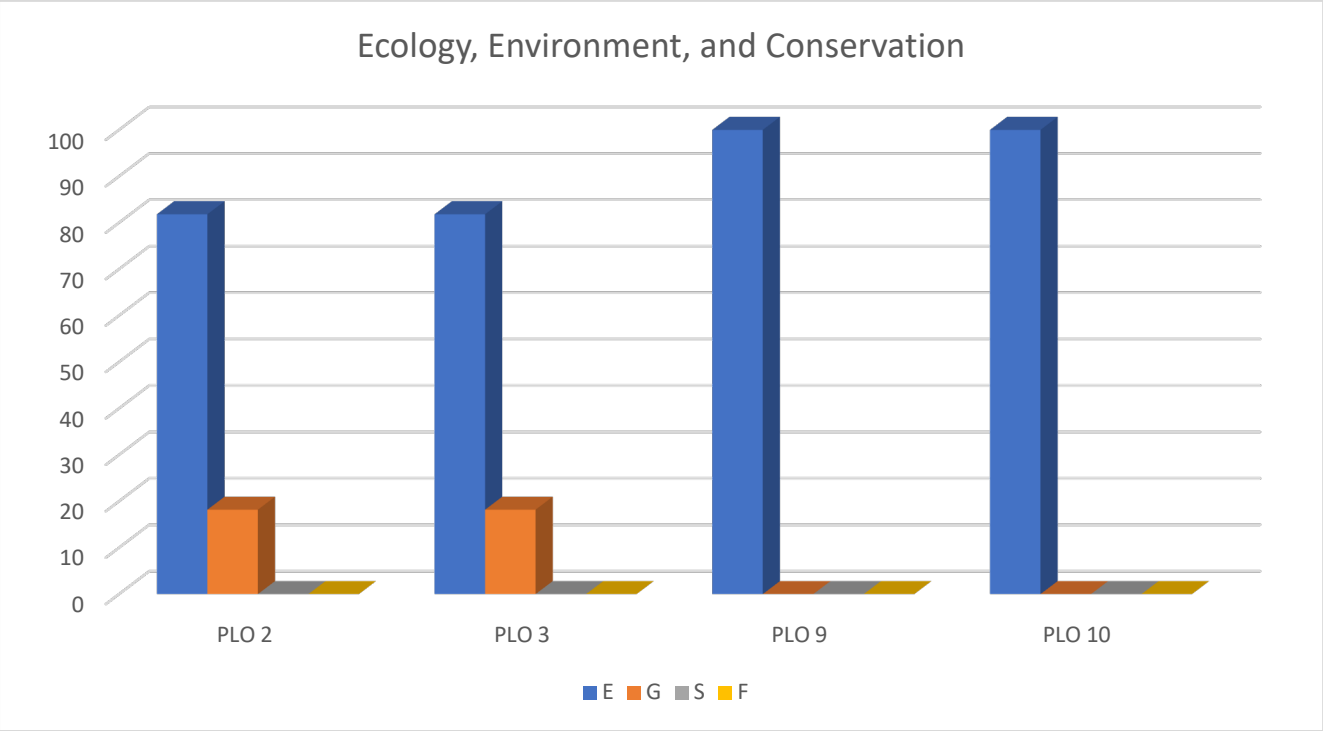
No	Name	Assignment			Midterm Exam	Final Exam	Project	Grade	
		Assignment 1	Assignment 2	Mean					
1	A	85	82	83,5	**60**	**82**	**84**	76,10	B+
2	B	85	85	85	**78**	**87**	**84**	83,30	A-
3	C	90	90	90	**88**	**90**	**87**	88,80	A
4	D	90	82	86	**83**	**84**	**83**	83,90	A-
5	E	88	84	86	**90**	**86**	**85**	87,00	A
6	F	90	85	87,5	**90**	**87**	**85**	87,60	A
7	G	90	84	87	**75**	**85**	**88**	83,00	A-
8	H	85	84	84,5	**78**	**86**	**86**	83,30	A-
9	I	90	84	87	**75**	**87**	**83**	82,60	A-
10	J	85	86	85,5	**90**	**84**	**85**	86,30	A
11	K	85	82	83,5	**70**	**82**	**88**	79,90	B+

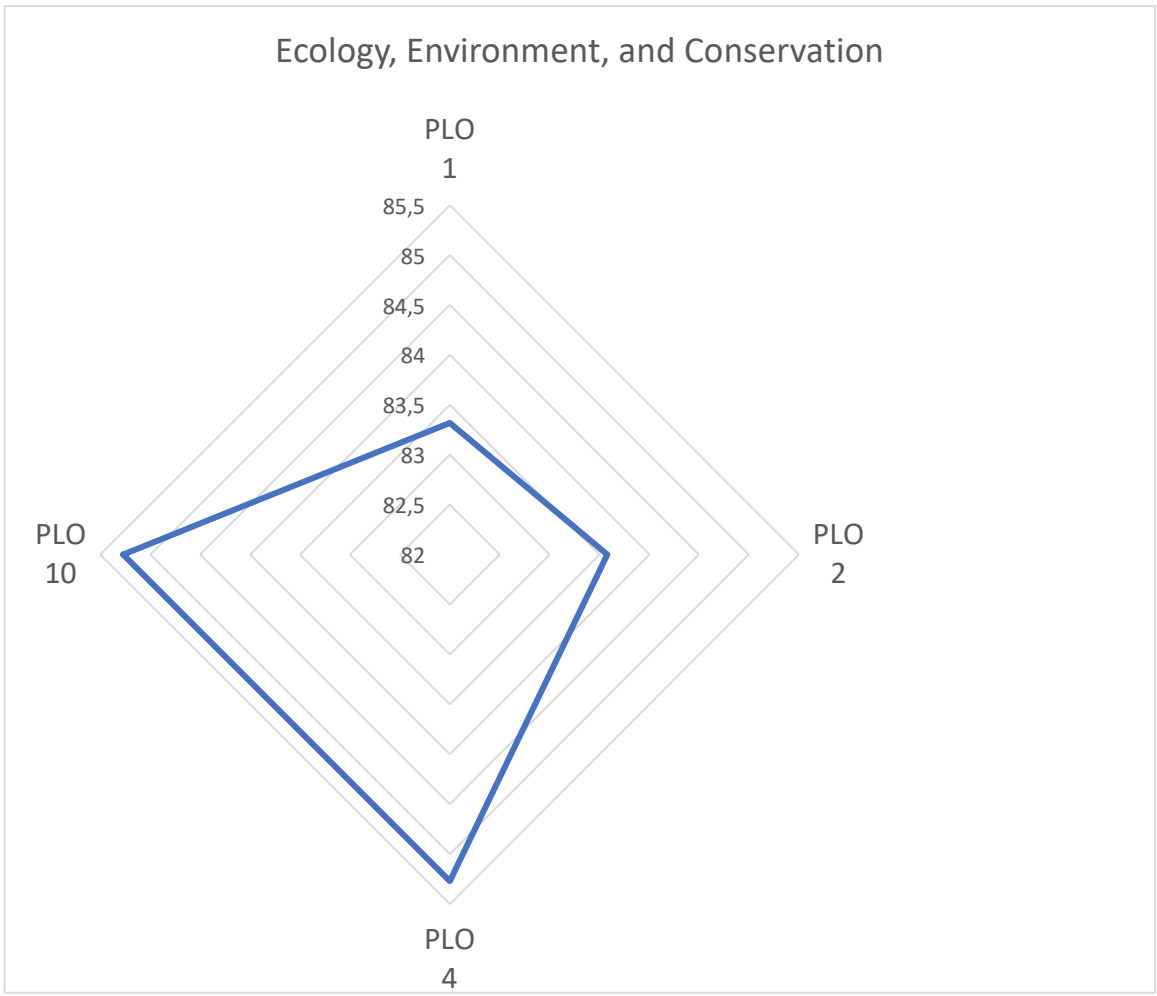
NAMA	PLO 2	PLO 3	PLO 9	PLO 10
A	73,72	74,68	84,00	84,00
B	83,04	83,24	84,00	84,00
C	89,22	89,29	87,00	87,00
D	84,04	84,24	83,00	83,00
E	87,57	87,41	85,00	85,00
F	88,28	88,21	85,00	85,00
G	81,52	82,06	88,00	88,00
H	82,54	82,74	86,00	86,00
I	82,30	82,76	83,00	83,00
J	86,67	86,56	85,00	85,00
K	77,63	78,21	88,00	88,00

Distribution of PLO Achievements

GRADE	PLO 2	PLO 3	PLO 9	PLO 10
E	82%	82%	100%	100%
G	18%	18%	0%	0%
S	0%	0%	0%	0%
F	0%	0%	0%	0%

Achievement Percentage of PLO




Ecology, Environment, and Conservation
PLO 1
85,5
85
84,5
84
83,5
83
82,5
82
PLO 2
PLO 4
PLO 10