



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

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Physics of Photography	8420302246		T=2	P=0	ECTS=3.18	4	July 18, 2024
AUTHORIZATION	SP Developer		Course Cluster Coordinator			Study Program Coordinator	
	Abd. Kholiq, S.Pd., M.T.				Mita Anggaryani, M.Pd., Ph.D.	

Learning model Project Based Learning

Program Learning Outcomes (PLO) PLO study program that is charged to the course

Program Objectives (PO)

PO - 1	Examining the theory and development of photography
PO - 2	Skilled in reviewing and using digital cameras
PO - 3	Examining the language of photography
PO - 4	Examining photovoice or photonovella theories
PO - 5	Skilled in applying photovoice in the field of physics
PO - 6	Skilled at applying theory into photography physics mini-projects

PLO-PO Matrix

	<table border="1" style="margin: auto;"> <tr><td>P.O</td></tr> <tr><td>PO-1</td></tr> <tr><td>PO-2</td></tr> <tr><td>PO-3</td></tr> <tr><td>PO-4</td></tr> <tr><td>PO-5</td></tr> <tr><td>PO-6</td></tr> </table>	P.O	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6
P.O								
PO-1								
PO-2								
PO-3								
PO-4								
PO-5								
PO-6								

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

	<table border="1" style="margin: auto;"> <thead> <tr> <th rowspan="2">P.O</th> <th colspan="16">Week</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th> </tr> </thead> <tbody> <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> <tr><td>PO-2</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> <tr><td>PO-3</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> <tr><td>PO-4</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> <tr><td>PO-5</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> <tr><td>PO-6</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> </tbody> </table>	P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	PO-1																	PO-2																	PO-3																	PO-4																	PO-5																	PO-6																
P.O	Week																																																																																																																																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																																																																																																																								
PO-1																																																																																																																																								
PO-2																																																																																																																																								
PO-3																																																																																																																																								
PO-4																																																																																																																																								
PO-5																																																																																																																																								
PO-6																																																																																																																																								

Short Course Description This course is a course that develops knowledge and skills related to photography which includes the development of photography, camera reviews, basic photography techniques using DSLR cameras and Android cellphone cameras, the language of photography, photovoice/photonovella, photovoice in physics, and photography physics mini-projects.

References Main :

1. Tom Ang. 2018. *Digital Photography: An Introduction*, 5th edition. DK, Dorling Kindersley.
2. David Taylor, Tracy Hallett, Paul Sainders, & Paul Lowe. 2015. *Digital Photography Complete Course*. DK, Dorling Kindersley.
3. A O Latz & Thalia M. Mulvihill. 2017. *Photovoice research in education and beyond: A practical guide from theory to exhibition*. New York: Taylor Francis.
4. Michele Jarldorn. 2019. *Photovoice Handbook for Social Workers*. Palgrave, Mac Millan, Springer Nature.
5. Nadi Suprpto, Titin Sunarti, & Suliyannah. 2020. *Profil laboratorium Fisika SMA di Jawa Timur melalui Photovoice*. Penerbit Popes Jagad Alimussiry.
6. Nadi Suprpto, Titin Sunarti, Suliyannah, Desi Wulandari, Hasan N. Hidayatullaah, Alif S. Adam, Husni Mubarak. 2020. *Systematic review of photovoice as participatory action research strategies*. *International Journal of Evaluation and Research in Education (IJERE)*
7. Ryan F. Reese, Christopher M. Seitz, Marjorie Gosling & Hannah Craig. 2019. *Using photovoice to foster a student vision for natural spaces on a college campus in the Pacific Northwest United States*, *International Journal of Environmental Health Research*, DOI: 10.1080/09603123.2019.1593950
8. Sheri M. Treadwell & Neva Taylor. 2017. *PE in Pictures: Using Photovoice to Promote Middle School Students Reflections on Physical Activity during Free Time*, *Journal of Physical Education, Recreation & Dance*, 88:4, 26-33, DOI: 10.1080/07303084.2017.1280436
9. Camille A. Sutton-Brown. 2014. *Photovoice: A Methodological Guide*, *Photography and Culture*, 7:2, 169-185, DOI: 10.2752/175145214X13999922103165
10. Meagan Call-Cummings, Melissa Hauber-Özer, Christie Byers & Greer Peden Mancuso. 2018. *The power of/in Photovoice*, *International Journal of Research & Method in Education*, DOI: 10.1080/1743727X.2018.1492536
11. Katharine J. Herbert, Amy Baize-Ward & Amanda O. Latz. 2018. *Transformative Pedagogy with Innovative Methodology: Using Photovoice to Understand Community College Students' Needs*, *Community College Journal of Research and Practice*, 42:7-8, 536-549, DOI: 10.1080/10668926.2018.1431572
12. Lance Brendan Young. 2017. *PhotoVoice participatory action research for the communication classroom*, *Communication Teacher*, 31:4, 226-230, DOI: 10.1080/17404622.2017.1358381
13. Marc Behrendt & Krisanna Machtmes. 2016. *Photovoice as an evaluation tool for student learning on a field trip*, *Research in Science & Technological Education*, DOI: 10.1080/02635143.2015.1124410
14. Jody L. Langdon, Ashley Walker, Gavin Colquitt, & Tony Pritchard. 2014. *Using Photovoice to Determine Preservice Teachers Preparedness to Teach*, *Journal of Physical Education, Recreation & Dance*, 85:1, 22-27, DOI: 10.1080/07303084.2014.855595
15. Claudia Baldwin & Lisa Chandler. 2010. "At the waters edge": community voices on climate change. *Local Environment: The International Journal of Justice and Sustainability*, 15:7, 637-649, DOI: 10.1080/13549839.2010.498810

Supporters:

1. Buku, artikel ilmiah, dan sumber lain yang relevan

Supporting lecturer

Abd. Kholiq, S.Pd., M.T.
 Prof. Nadi Suprpto, S.Pd., M.Pd., Ph.D.
 Mita Anggaryani, M.Pd., Ph.D.
 Utama Alan Deta, S.Pd., M.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	Examining the development of photography	Examining the development of photography	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: Development of photography Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
2	Examining photography theories	Examining photography theories	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: Photography theories Bibliography: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%

3	Skilled in reviewing and using digital cameras	Skilled in reviewing and using digital cameras	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: DSLR digital camera and Android cellphone camera Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
4	Skilled in reviewing and using digital cameras	Skilled in reviewing and using digital cameras	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: DSLR digital camera and Android cellphone camera Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
5	Skilled in applying basic photography techniques using a digital camera (DSLR) or Android cellphone camera	Skilled in applying basic photography techniques using a digital camera (DSLR) or Android cellphone camera	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2x 50 minutes	Material: Basic photography techniques using a digital camera (DSLR) or Android cellphone camera Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
6	Skilled in applying basic photography techniques using a digital camera (DSLR) or Android cellphone camera	Skilled in applying basic photography techniques using a digital camera (DSLR) or Android cellphone camera	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: Basic photography techniques using a digital camera (DSLR) or Android cellphone camera Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
7	Skilled in applying basic photography techniques using a digital camera (DSLR) or Android cellphone camera	Skilled in applying basic photography techniques using a digital camera (DSLR) or Android cellphone camera	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: Basic photography techniques using a digital camera (DSLR) or Android cellphone camera Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%

8	Midterm Evaluation / Midterm Exam	<ol style="list-style-type: none"> 1.Examining the development of photography 2.Examining photography theories 3.Skilled in reviewing and using digital cameras 4.Skilled in reviewing and using digital cameras 5.Skilled in applying basic photography techniques using a digital camera (DSLR) or Android cellphone camera 	Criteria: Quantitative	Written Test 2 x 50 minutes	Written Test 2 x 50 minutes	Material: Mid-semester Evaluation Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	10%
9	Examining the language of photography	Examining the language of photography	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: The language of photography Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
10	Examining photovoice or photonovella theories	Examining photovoice or photonovella theories	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: Photovoice or Photonovella Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
11	Skilled in applying photovoice in the field of physics	Skilled in applying photovoice in the field of physics	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: Photovoice in the field of physics Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
12	Skilled at applying theory into photography physics mini-projects	Skilled at applying theory into photography physics mini-projects	Criteria: Qualitative	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: Photography physics miniproject Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%

13	Skilled at applying theory into photography physics mini-projects	Skilled at applying theory into photography physics mini-projects	Criteria: Qualitative Form of Assessment : Participatory Activities, Project Results Assessment / Product Assessment	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: Photography physics miniproject Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
14	Skilled at applying theory into photography physics mini-projects	Skilled at applying theory into photography physics mini-projects	Criteria: Qualitative Form of Assessment : Participatory Activities	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: Photography physics miniproject Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
15	Reporting a mini project on Physics in the context of photography physics in the form of a scientific article	Create scientific articles based on mini projects that have been implemented.	Criteria: Qualitative Form of Assessment : Project Results Assessment / Product Assessment	Small Group Discussion 2 x 50 minutes	Small Group Discussion 2 x 50 minutes	Material: Photography physics miniproject Reader: Tom Ang. 2018. <i>Digital Photography: An Introduction, 5th edition.</i> DK, Dorling Kindersley.	5%
16	Final Semester Evaluation / Final Semester Examination	Present scientific articles based on mini projects that have been implemented	Criteria: Qualitative Form of Assessment : Project Results Assessment / Product Assessment	2 x 50 minute Project Assignments	2 x 50 minute Project Assignments	Material: Final Semester Evaluation Literature: Books, scientific articles and other relevant sources	20%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	57.5%
2.	Project Results Assessment / Product Assessment	27.5%
		85%

Notes

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- Forms of assessment:** test and non-test.
- 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.
- 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.