



Universitas Negeri Surabaya
Faculty of Social and Legal Sciences
Geography Education Undergraduate Study Program

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date																																
Geopathic Data Management	8720202095	Study Program Elective Courses	T=2	P=0	ECTS=3.18	7	July 18, 2024																																
AUTHORIZATION	SP Developer		Course Cluster Coordinator			Study Program Coordinator																																	
	Dr. Eko Budiyanoto, M.Si.		Dr. Eko Budiyanoto, M.Si.			Dr. Nugroho Hari Purnomo, S.P., M.Si.																																	
Learning model	Case Studies																																						
Program Learning Outcomes (PLO)	PLO study program which is charged to the course																																						
	PLO-5	Able to make appropriate decisions to solve educational problems and transformative geography learning by utilizing various learning resources based on science and technology and the arts																																					
	PLO-8	Able to obtain, process, analyze, present geosphere data and information using geospatial technology in integrated geographic studies with in-depth urban studies that support regional sustainability																																					
	Program Objectives (PO)																																						
	PLO-PO Matrix																																						
		<table border="1" style="margin: auto;"> <tr> <td style="width: 15%;">P.O</td> <td style="width: 15%;">PLO-5</td> <td style="width: 15%;">PLO-8</td> <td colspan="4"></td> </tr> </table>						P.O	PLO-5	PLO-8																													
P.O	PLO-5	PLO-8																																					
PO Matrix at the end of each learning stage (Sub-PO)																																							
	<table border="1" style="margin: auto;"> <tr> <td rowspan="2" style="width: 10%;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 5%;">1</td> <td style="width: 5%;">2</td> <td style="width: 5%;">3</td> <td style="width: 5%;">4</td> <td style="width: 5%;">5</td> <td style="width: 5%;">6</td> <td style="width: 5%;">7</td> <td style="width: 5%;">8</td> <td style="width: 5%;">9</td> <td style="width: 5%;">10</td> <td style="width: 5%;">11</td> <td style="width: 5%;">12</td> <td style="width: 5%;">13</td> <td style="width: 5%;">14</td> <td style="width: 5%;">15</td> <td style="width: 5%;">16</td> </tr> </table>						P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
P.O	Week																																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																							
Short Course Description	The Spatial Data Management course discusses techniques for acquiring, processing and managing geospatial data. This course has an important role regarding the basic understanding of spatial data and how to manage it in accordance with the function and nature of the data. A good understanding of this course will contribute to other courses, namely GIS, Advanced GIS, Basic PJ and Advanced PJ. This course is related to several acquisition and formation processes, namely with the Land Surveying and Cartography courses. The material is prepared based on the SKKNI material of Permenpan No. 95 of 2017.																																						
References	Main :																																						
	<ol style="list-style-type: none"> 1. Chris Brunson and Lex Comber, 2014, An Introduction to R for Spatial Analysis and Mapping , SAGE Publications Ltd 2. Lilywati, H dan Budiman, 2007, Data Spasial, Pilihan Cerdas Bangsa Yang Bijak , PT Sarana Komunikasi Utama, Bogor. 																																						
	Supporters:																																						
Supporting lecturer	Dr. Muzayanah, S.T., M.T. Dr. Eko Budiyanoto, 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	Students are able to develop methods for implementing data collection	Accuracy in preparing methods for implementing data collection	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practice / Performance, Tests	discussion 2 X 50		Material: database Bibliography: Chris Brunson and Lex Comber, 2014, An Introduction to R for Spatial Analysis and Mapping , SAGE Publications Ltd	5%																																

2	Students are able to obtain primary regional socio-biophysical data	Accuracy in obtaining primary regional socio-biophysical data	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Face to face 2 X 50 structured assignments		Material: database Bibliography: Chris Brunsdon and Lex Comber, 2014, <i>An Introduction to R for Spatial Analysis and Mapping</i> , SAGE Publications Ltd	10%
3	Students are able to validate regional socio-biophysical secondary data	accuracy in obtaining regional socio-biophysical secondary data	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Face to Face Structured Tasks 2 X 50		Material: database Bibliography: Chris Brunsdon and Lex Comber, 2014, <i>An Introduction to R for Spatial Analysis and Mapping</i> , SAGE Publications Ltd	10%
4	Students are able to validate regional geospatial data	accuracy of validating regional geospatial data	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Face to face, Independent assignments. 2 X 50		Material: database Bibliography: Chris Brunsdon and Lex Comber, 2014, <i>An Introduction to R for Spatial Analysis and Mapping</i> , SAGE Publications Ltd	5%
5	Students can carry out sampling and ground truthing techniques		Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practice / Performance, Tests	Face to face Guided practice 2 X 50		Material: database Bibliography: Chris Brunsdon and Lex Comber, 2014, <i>An Introduction to R for Spatial Analysis and Mapping</i> , SAGE Publications Ltd	10%
6	Students can convert between geospatial data storage file formats	accuracy of converting between geospatial data storage file formats	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Face to face Guided practice 2 x 50		Material: database Bibliography: Lilywati, H and Budiman, 2007, <i>Spatial Data, Smart Choices for a Wise Nation</i> , PT Saranakomunikasi Utama, Bogor.	5%
7	Students understand geospatial database management techniques (Private – Interconnected Server)	Accuracy of geospatial database management techniques (Private – Interconnected Server)	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practice / Performance, Tests	Face to face Independent assignment 2 X 50		Material: database Bibliography: Chris Brunsdon and Lex Comber, 2014, <i>An Introduction to R for Spatial Analysis and Mapping</i> , SAGE Publications Ltd	10%
8	UTS			Written Test 1 X 50			0%
9	Students can design spatial databases	Accuracy of designing spatial databases	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practice / Performance, Tests	Face to Face Structured Tasks 1 X 50		Material: database Bibliography: Lilywati, H and Budiman, 2007, <i>Spatial Data, Smart Choices for a Wise Nation</i> , PT Saranakomunikasi Utama, Bogor.	0%

10	Students can design spatial databases	Accuracy of designing spatial databases	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Face to Face Structured Tasks 1 X 50		Material: database Bibliography: <i>Chris Brunsdon and Lex Comber, 2014, An Introduction to R for Spatial Analysis and Mapping , SAGE Publications Ltd</i>	10%
11	Students can build spatial databases		Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Face to face Guided practice Structured Assignments 1 X 50		Material: database Bibliography: <i>Chris Brunsdon and Lex Comber, 2014, An Introduction to R for Spatial Analysis and Mapping , SAGE Publications Ltd</i>	5%
12	Students can build spatial databases	accuracy of building a spatial database	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Face to face Guided practice Structured Assignments 1 X 50		Material: database Bibliography: <i>Lilywati, H and Budiman, 2007, Spatial Data, Smart Choices for a Wise Nation, PT Saranakomunikasi Utama, Bogor.</i>	10%
13	Students can build spatial databases	accuracy of building a spatial database	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practice / Performance, Tests	Face to face Guided practice Structured Assignments 1 X 50		Material: database Bibliography: <i>Lilywati, H and Budiman, 2007, Spatial Data, Smart Choices for a Wise Nation, PT Saranakomunikasi Utama, Bogor.</i>	0%
14	Students are able to integrate spatial data with non-spatial data	accuracy of integrating spatial data with non-spatial data	Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Face to face Guided Practice Structured Assignments 1 X 50		Material: database Bibliography: <i>Lilywati, H and Budiman, 2007, Spatial Data, Smart Choices for a Wise Nation, PT Saranakomunikasi Utama, Bogor.</i>	10%
15	Students are able to integrate spatial data with non-spatial data	accuracy of integrating spatial data with non-spatial data	Criteria: Complete > 69 Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practice / Performance, Tests	Face to face Guided Practice Structured Assignments 1 X 50		Material: database Bibliography: <i>Lilywati, H and Budiman, 2007, Spatial Data, Smart Choices for a Wise Nation, PT Saranakomunikasi Utama, Bogor.</i>	10%
16	UAS			Written test or practice 1 X 50			0%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	30.41%
2.	Project Results Assessment / Product Assessment	30.41%
3.	Practice / Performance	30.41%
4.	Test	8.75%
		99.98%

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.