	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
Transportation Geography	8720202054		T=2	P=0	ECTS=3.18	7	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
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Learning model	**Case Studies**	
Program Learning Outcomes (PLO)	**PLO study program that is charged to the course**	
	PLO-3	Develop logical, critical, systematic and creative thinking in carrying out specific work in their field of expertise and in accordance with work competency standards in the field concerned
	PLO-7	Able to make appropriate decisions to resolve regional problems in a spatial context based on an integrated geographic approach
	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)	
	PO - 1	Synthesizing the concept of transportation modes in geography
	PO - 2	Apply vehicle equivalence calculations and road capacity
	PO - 3	Synthesize spatial, regional and environmental theories in analyzing transportation problems in supporting sustainable regional development
	PO - 4	Implement traffic survey planning, observation, calculation and analysis of traffic survey results

PLO-PO Matrix

P.O	PLO-3	PLO-7	PLO-8
PO-1	✔	✔	✔
PO-2		✔	
PO-3	✔	✔	
PO-4			✔

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

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									✔	✔	✔	✔	✔	✔	✔	

Short Course Description	Transportation geography is a course that analyzes transportation problems using a geographical approach. After taking this course, students are expected to understand: the concept of transportation geography; transportation system; basic transportation planning; city transportation modes; transportation problems and solutions. Apart from that, it is also able to calculate vehicle equivalent and road capacity; vehicle equivalence; planning and carrying out traffic surveys; and analyzing survey results using a geographic approach. The learning model used is a project based learning approach with discussion methods, lectures accompanied by questions and answers and group assignments. It is hoped that this study material will be able to enable students to master Transportation Geography as practitioners or teachers. For practitioners, this study can be used as a basis for working in sustainable regional planning and development. For teachers, this study can introduce students to analyzing transportation problems using geospatial technology.	
References	**Main :**	

1. Adisasmita, R., Adisasmita, S.A. 2011. Manajemen transportasi darat, mengatasi kemacetan lalu lintas di kota besar (Jakarta) . Graha Ilmu.
2. Adisasmita, S.A. 2011. Jaringan transportasi, teori dan analisis. Graha Ilmu.
3. Gunardo. 2014. Geografi Transportasi. Ombak.
4. Miro, Fidel. 1997. Sistem transportasi kota. Transito Bandung.
5. Miro, Fidel. 2005. Perencanaan transportasi untuk mahasiswa, perencana dan praktisi . Erlangga.
6. Miro, Fidel. 2012. Pengantar sistem transportasi . Erlangga.
7. Morlok, E. 2010. Pengantar teknik dan perencanaan transportasi
8. Taaffe, E, Howard L.G., Morton, E.O.1996. Geography of transportation 2ed. Printed in the United States of America.
9. Murtini, S. 2021. Buku Ajar Geografi Transportasi. Unesa Press

Supporters:

1. Marbun. 1994. Kota Indonesia masa depan, masalah & prospek . Erlangga.
2. Muta 'ali, Lutfi. 2013. Penataan ruang wilayah dan kota (tinjauan normatif-teknis) . BPFG UGM Yogyakarta
3. Nursid, K. 1988. Geografi pembangunan. Depdikbud, Dirjen Dikti, Jakarta.

Supporting lecturer	Dr. Sri Murtini, M.Si. Dr. Muzayanah, S.T., M.T. Dr. Nugroho Hari Purnomo, S.P., 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 understand the concept of transportation geography and the study of transportation geography	Able to explain the concept of transportation geography	**Criteria:** Participation: carried out by observing student activities (weight 2) Tasks: carried out on each indicator (weight 3) **Form of Assessment** : Participatory Activities	cooperative learning 2 X 50		**Material:** definition of transportation **Bibliography:** *Miro, Fidel. 2012. Introduction to transportation systems. Erlangga.* **Material:** transportation problems **References:** *Adisasmita, R., Adisasmita, SA 2011. Land transportation management, overcoming traffic congestion in big cities (Jakarta). Science House.* **Material:** transportation geography concept **Reader:** *Gunardo. 2014. Transportation Geography. Wave.* **Material:** impact of development on transportation **Reference:** *Nursid, K. 1988. Geography of development. Department of Education and Culture, Director General of Higher Education, Jakarta.*	5%

						Material: the relationship between spatial planning and transportation **References:** *Muta 'ali, Lutfi. 2013. Regional and urban spatial planning (normative-technical review). BPFG UGM Yogyakarta* **Material:** introduction to transportation geography **References:** *Taaffe, E, Howard LG, Morton, EO1996. Geography of transportation 2ed. Printed in the United States of America.*	

2	Students are able to understand transportation problems	1. Explain the national transportation system 2. Explain the city's transportation policy 3. Explain effective and efficient transportation	**Criteria:** description rubric **Form of Assessment** : Participatory Activities	cooperative learning 2 X 50		**Material:** basics of transportation **Reference:** *Adisasmita, R., Adisasmita, SA 2011. Land transportation management, overcoming traffic congestion in big cities (Jakarta). Science House.* **Material:** sistranas **Reference:** *Adisasmita, SA 2011. Transportation networks, theory and analysis. Science House.* **Material:** effective and efficient transportation **Reference:** *Adisasmita, SA 2011. Transportation and regional development. Science House.* **Material:** effective and efficient transportation system **References:** *Miro, Fidel. 1997. City transportation systems. Transito Bandung.* **Material:** transportation in supporting regional development **Reference:** *Marbun. 1994. Indonesian cities of the future, problems & prospects. Erlangga.*	5%

3	Students are able to understand the role of geographic elements in transportation	1. Explain the transportation planning process 2. Explains the 4 stage transportation planning model	**Criteria:** Participation: carried out by observing student activities (weight 2) Tasks: carried out on each indicator (weight 3) **Form of Assessment** : Participatory Activities	2 X 50	cooperative learning	**Material:** land transportation management **Reference:** *Adisasmita, R., Adisasmita, SA 2011. Land transportation management, overcoming traffic congestion in big cities (Jakarta). Science House.* **Material:** transportation in supporting regional development **Reference:** *Adisasmita, SA 2011. Transportation and regional development. Science House.* **Material:** 4 stages of transportation planning **Reference:** *Miro, Fidel. 2005. Transportation planning for students, planners and practitioners. Erlangga.*	5%
4	Able to understand city transportation modes	1. 1. Explain the city's modes of transportation 2. 2. Explain the mode choice model 3. 3. Explain the route selection model	**Criteria:** Participation: carried out by observing student activities (weight 2) Tasks: carried out on each indicator (weight 3) **Form of Assessment** : Participatory Activities	Presentation, discussion and reflection 2 X 50	cooperative learning	**Material:** city transportation system **References:** *Miro, Fidel. 1997. City transportation systems. Transito Bandung.* **Material:** city transportation modes **References:** *Taaffe, E, Howard LG, Morton, EO1996. Geography of transportation 2ed. Printed in the United States of America.*	5%

5	Students are able to understand the role of transportation in human life	1. Explain transportation problems 2. Providing alternative solutions to transportation problems	**Criteria:** Participation by observing student activities (weight 2) Task: carried out on each indicator (weight 3) **Form of Assessment** : Participatory Activities	cooperative learning 2 X 50		**Material:** city transportation problems **References:** *Adisasmita, R., Adisasmita, SA 2011. Land transportation management, overcoming traffic congestion in big cities (Jakarta). Science House.* **Material:** city transportation system **References:** *Miro, Fidel. 1997. City transportation systems. Transito Bandung.* **Material:** solutions to transportation problems **References:** *Taaffe, E, Howard LG, Morton, EO1996. Geography of transportation 2ed. Printed in the United States of America.*	5%
6	Able to calculate vehicle equivalent and road capacity	1. Calculating vehicle equivalence 2. Calculate vehicle capacity	**Criteria:** Participation: carried out by observing student activities (weight 2) Tasks: carried out on each indicator (weight 3) **Form of Assessment** : Participatory Activities	cooperative learning 2 X 50		**Material:** vehicle capacity and equivalents **Reference:** *Adisasmita, SA 2011. Transportation development planning. Science House.*	10%
7	Able to calculate vehicle equivalent and road capacity	1. Calculating vehicle equivalence 2. Calculate vehicle capacity	**Criteria:** Participation: carried out by observing student activities (weight 2) Tasks: carried out on each indicator (weight 3) **Form of Assessment** : Portfolio Assessment	cooperative learning 2 X 50		**Material:** road capacity **References:** *Adisasmita, R., Adisasmita, SA 2011. Land transportation management, overcoming traffic congestion in big cities (Jakarta). Science House.*	10%
8	UTS	UTS	**Criteria:** 5% **Form of Assessment** : Test	UTS 2 X 50		**Material:** transportation **Reader:** *Gunardo. 2014. Transportation Geography. Wave.*	4%

9	Able to carry out traffic surveys	1. Able to explain the benefits of traffic surveys 2. Able to explain types of traffic surveys 3. Able to explain the preparation of a traffic survey (determining surveyor points, filling out survey forms, surveys (determining surveyor points, filling out survey forms, surveying traffic environmental impacts)	**Criteria:** Participation: carried out by observing student activities (weight 2) Tasks: carried out on each indicator (weight 3) **Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Project Base Learning 2 X 50		**Material:** traffic survey **Bibliography:** *Miro, Fidel. 1997. City transportation systems. Transito Bandung.*	5%
10	Able to carry out traffic surveys	1. Able to explain the benefits of traffic surveys 2. Able to explain types of traffic surveys 3. Able to explain the preparation of a traffic survey (determining surveyor points, filling out survey forms, surveys (determining surveyor points, filling out survey forms, surveying traffic environmental impacts)	**Criteria:** Participation: carried out by observing student activities (weight 2) Tasks: carried out on each indicator (weight 3) **Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Project Base Learning 2 X 50		**Material:** traffic survey **Bibliography:** *Miro, Fidel. 1997. City transportation systems. Transito Bandung.*	5%
11	Able to carry out traffic surveys	Able to carry out traffic surveys	**Criteria:** performance rubric **Form of Assessment** : Participatory Activities	Project Base Learning 2 X 50		**Material:** traffic survey **Bibliography:** *Miro, Fidel. 1997. City transportation systems. Transito Bandung.*	10%
12	Able to carry out traffic surveys	Able to analyze data from traffic surveys	**Criteria:** performance rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	discussion 2 X 50		**Material:** traffic survey **Bibliography:** *Miro, Fidel. 1997. City transportation systems. Transito Bandung.*	10%

13	Able to carry out traffic surveys	Able to analyze data from traffic surveys	**Criteria:** Completed > 65 **Forms of Assessment** : Portfolio Assessment, Practical Assessment, Practical / Performance	Practice 2 X 50		**Material:** traffic survey **Bibliography:** *Miro, Fidel. 1997. City transportation systems. Transito Bandung.*	5%
14	Able to analyze survey results with a geographical approach	Analyzing survey results with a geographical approach	**Criteria:** Completed > 65 **Form of Assessment** : Portfolio Assessment	discussion 2 X 50		**Material:** analysis of TC and OD survey data. **Reference:** *Miro, Fidel. 1997. City transportation systems. Transito Bandung.* **Material:** geographical analysis **Bibliography:** *Taaffe, E, Howard LG, Morton, EO1996. Geography of transportation 2ed. Printed in the United States of America.* **Material:** geographical analysis **Reference:** *Murtini, S. 2021. Textbook of Transportation Geography. Unesa Press*	5%
15	Able to analyze survey results with a geographical approach	Analyzing survey results with a geographical approach	**Criteria:** Completed > 65 **Form of Assessment** : Portfolio Assessment	discussion 2 X 50		**Material:** analysis of TC and OD survey data. **Reference:** *Miro, Fidel. 1997. City transportation systems. Transito Bandung.* **Material:** geographical analysis **Bibliography:** *Taaffe, E, Howard LG, Morton, EO1996. Geography of transportation 2ed. Printed in the United States of America.* **Material:** geographical analysis **Reference:** *Murtini, S. 2021. Textbook of Transportation Geography. Unesa Press*	4%

16	UAS	UAS	**Criteria:** Completed > 65 **Form of Assessment** : Test		test 2 x 50	**Material:** transportation system **References:** *Miro, Fidel. 2012. Introduction to transportation systems. Erlangga.*	6%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	50%
2.	Project Results Assessment / Product Assessment	10%
3.	Portfolio Assessment	25.67%
4.	Practical Assessment	1.67%
5.	Practice / Performance	1.67%
6.	Test	10%
		99.01%

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.