



SEMESTER LEARNING PLAN

DEPARTMENT: URBAN AND REGIONAL PLANNING

FACULTY: CIVIL, PLANNING, AND EARTH

COURSES NAME	SUSTAINABLE DEVELOPMENT	
COURSES CODE	DK184716	
SEMESTER	VIII	
CREDITS	3/ 4,86	
LECTURER	Karina Pradinie Tucunan, S.T., M.Eng.	
COURSE METHODOLOGY	BK 22	Analysis and evaluation of the physical environment
	BK 18	Social interaction and social system
	BK 45	Modeling and formulation of economic scenarios
	BK 41	Thematic scenario formulation
	BK 49	Spatial optimization modeling
PROGRAM LEARNING OUTCOME (PLO)		
KNOWLEDGE	1,1	Master the theoretical concepts of regional and urban planning in aspects of urban studies, regional studies, spatial science, data science & computer application, socio-politics, environmental management, built environment design, infrastructure and transportation systems, coastal studies, management, and economics.
	1,2	Master the techniques and processes of urban and regional planning qualitatively, quantitatively, spatial modeling (geographic information systems), and presentation techniques.
	1,3	Master the methods of spatial/aspatial planning in decision-making.
SPECIFIC SKILLS	2,1	Able to formulate planning concepts and plan directions through the study of strategic problems in the context of cities, regions, coastal areas with an understanding of planning issues through observation and utilization of physical/spatial, social, economic, and environmental data.
	2,2	Able to utilize ICT in data management to produce information that is easily understood by the public and decision-makers.
	2,3	Able to describe the spatial characteristics of cities, regions, and coasts by analyzing the interrelationships of aspatial and spatial aspects so that information is available as a basis for developing planning models.
	2,4	Able to develop alternative spatial models through qualitative and quantitative approaches in scenarios for regulating spatial patterns and structures of cities, regions, coasts and proposing solutions according to context.

	2,5	Able to produce spatial plans that are creative, innovative, sustainable, and accommodate public interests whose results are reviewed against planning principles and theories and communicate them visually, verbally, and in writing that can be academically accountable.
	3,1	Able to apply logical, critical, systematic, and innovative thinking to develop or implement science and technology that pays attention to and uses humanities values under their field of expertise.
	3,2	Able to demonstrate independent, quality, and measurable performance.
	3,5	Able to make appropriate decisions in solving problems in their area of expertise, based on the results of analysis of information and data.
	3,7	Able to be responsible for group work achievement and supervise and evaluate the assigned group task for the group member under their responsibility.
	3,9	Able to document, store, secure, and retrieve data to ensure validity and prevent plagiarism.
COURSE LEARNING OUTCOMES (CLO)		
KNOWLEDGE	Mastering the principles and philosophy of planning and articulating the issues in human relations that form the pillars of sustainable development (socially, economically, and environmentally).	
	Master the regional and urban planning processes in the aspect of urban studies that consider sustainable development in terms of spatial implications.	
	Apply aspects and principles in understanding sustainable development and its implications in planning documents.	
SPECIFIC SKILLS	Able to take measurements on the sustainability of the city	
	Able to collect, process appropriate social, economic, and environmental data following strategic planning approaches and social conditions and utilize ICT aspects in its implementation	
	Able to analyze and integrate sustainability analyzes in planning documents	
	Able to show responsible and measurable independent and group performance by using case studies in urban sociology	
MAP OF PLO - CLO		
MODULES		
1. History and context in sustainable development		
2. How sustainable development affects planning		
3. Tools and indicators in sustainable development		
4. Sustainable development in terms of natural resources		
5. The concept and application of sustainable development in planning documents		

**SUSTAINABLE DEVELOPMENT COURSE LEARNING PLAN
ODD SEMESTER OF ACADEMIC YEAR 2021–2022**

WEEK	MODULE LEARNING OUTCOME	MODULE	LEARNING METHODS (M1 - M7)	DURATION (MINUTES)	MODES OF DELIVERY	GRADING POLICY	ASSESSMENT (%)
1	2	3	4	5	6	7	8
Week 1	Understand the principles of sustainable development	Principles and fundamental objectives of sustainable development <ul style="list-style-type: none"> • Definition and Milestones of Sustainable Development • Basic Concept of Sustainable Development 	M1, M4	100	Lecture and discussion	Individual activeness	5%
	Understanding sustainable development is assessed from a global, local and international scale		M1, M4	100	Lecture and discussion	Individual activeness	
			M1, M4	100	Collaborative group discussion and assignment		
			M1, M4	100	Lecture, discussion, case study, workshop, and assignment	Individual activeness	
Week 2	Understanding the urgency of sustainable development	Principles and fundamental objectives of sustainable development <ul style="list-style-type: none"> • The urgency of sustainable development 	M1, M4	100			
			M1, M4	100			
			M1, M4	100	Lecture, discussion, case study	Individual activeness	
Week 3	Understand the crucial issues of sustainable development in terms of	Key environmental issues that are linked to sustainability <ul style="list-style-type: none"> • Waste management 	M4, M3	100			

WEEK	MODULE LEARNING OUTCOME	MODULE	LEARNING METHODS (M1 - M7)	DURATION (MINUTES)	MODES OF DELIVERY	GRADING POLICY	ASSESSMENT (%)
1	2	3	4	5	6	7	8
	world standards	<ul style="list-style-type: none"> Freshwater resources 	M4, M3	100	Lecture, discussion, case study, and assignment	Individual activeness	
			M4, M3	100			
			M4, M3	100	Lecture, discussion, case study, and assignment	Survey Design	10%
Week 4		Key environmental issues that are linked to sustainability <ul style="list-style-type: none"> Air quality Climate Change 	M1, M3, M4	100			
			M1, M3, M4	100	Case study, assignment	Inception report	15%
Week 5		Tools for sustainability planning and Indicators of Sustainability <ul style="list-style-type: none"> Identifying Values for Quantitative Indicators 	M4, M5, M7	100			
			M4, M5, M7	150			
Week 6		<ul style="list-style-type: none"> Identifying Values for Quantitative Indicators Qualitative Sustainability Indicators Quantitative Sustainability Assessment (IUSIL, ESI, EPI, SCI, GCI, LCI) 	M5, M7	200			
			M5, M7	200	Lecture, discussion, case study	Individual activeness	
Week 7		Midterm exam	M1, M3, M4	200	Workshop, collaborative group discussion, case study, assignment	Individual activeness	
Week 8		Sustainable Development based on Natural Resources (food agriculture)	M7	200	Lecture, discussion, case study	Individual activeness	

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Week 9		Sustainable Development based on Natural Resources(Water resources)	M5, M7	200	Workshop, collaborative group discussion, case study, assignment	Individual activeness	
Week 10		Sustainable Development based on Natural Resources(Carrying Capacity)	M1, M4, M7	200	Lecture, discussion,case study	Individual activeness	
			M1, M4, M7	200	Workshop, collaborative group discussion, case study, assignment	Intermediate Report (Facts and Analysis Report)	20%
Week 11		Urban and Regional Planning, Concept and Application of SustainablePlanning	M1, M4, M7	200	Workshop, collaborative group discussion, case study, assignment		
			M1, M4, M7	200	Lecture, discussion,case study.		
Week 12		Sustainable Coastal Planningand Concept	M1, M4, M7	200	Lecture, discussion,case study		
			M1, M4, M7	200			
Week 13		Evaluation 2: Quiz 2	M1, M4, M7	200			
Week 14		Final Report Assistance (Big Project)	M1, M7	200	Presentation, discussion	Presentation	15%
Week 15		Evaluation 3: Final Report Presentation (Big Project)	M7	400	Quiz.	Quiz	20%
Week 16		Evaluation 4: Final Report Submission (Big Project)	M3, M5, M7	100	Big Project submission	Final Report	15%

REFERENCES

1. Houghton, Graham and Colin Hunter. (2003) Sustainable Cities: Regional Policy & Development Series. Routledge. London.
2. Roosa, Stephen A. (2007). Sustainable Development Handbook. The Fairmont Press. Georgia.
3. Muschett, Douglas. et al (editors). (1997). Principles of Sustainable Development. St. Lucie Press. Florida.
4. Sorensen, Andre. et al (editors). (2004). Towards Sustainable Cities: East Asian, North American, and European Perspectives on Managing Urban Regions. Ashgate. Hampshire.
5. United Nations. (2007). Indicators of Sustainable Development: Guidelines and Methodologies. 3rd Edition. United Nations. New York.
6. Wong, Tai-Chee and Belinda Yuen (editors). (2011). Eco-city Planning: Policies, Practice and Design. Springer. London.