


3rd Semester
Planning Analysis Method

		SEMESTER LEARNING PLAN			
		DEPARTMENT: URBAN AND REGIONAL PLANNING			
		FACULTY: CIVIL, PLANNING, AND EARTH			
COURSES NAME	PLANNING ANALYSIS METHOD				
COURSES CODE	DK184306				
SEMESTER	III				
CREDITS	3 SKS (4.8 ECTS)				
LECTURER	Ir. Putu Rudy Satiawan, MSc				
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STUDY MATERIALS	BK 3	BK 8	BK 12	BK 13	BK 14
	Technical Analysis of Urban Planning	Technical Analysis of Regional Planning	Quantitative approaches and techniques of analysis	Qualitative approaches and techniques of analysis	Theory & Concept of Space Projection, forecasting & vision formulation - scenarios
PROGRAM LEARNING OUTCOME (PLO)					
SPESIFIC KNOWLEDGE	1.2	Able to apply the techniques and processes of urban and regional planning in qualitative, quantitative, spatial modeling (geographic information systems) and presentation techniques			
SPESIFIC SKILLS	2.2	Able to utilize ICT in the management of data to produce information that is easily understood by the public and the decision makers			
COURSE LEARNING OUTCOME (CLO)					
SPESIFIC KNOWLEDGE	1. Survey Technique / Qualitative Data Collection				

Week	CP - MK	CP - MODULE	MODULE	Sub CP-MK final capability (from weekly material)	Learning Methods	Time Estimation (in minutes)	Student Learning Experience (presentations, assignments, discussions, quizzes, practicum)	Performance Criteria and Indicators	Score
1	2	3	4	5	6	7	8	9	10
1	Introduction to Courses of Planning Analysis Method	Students are able to understand the concepts / theoretical and basic principles in quantitative and qualitative analysis	Fundamental also Planning Analysis Method	Lecture plans discussion, evaluation, tasks. Definition of Analysis Methods in Planning	M5	60	Lecture, Discussion		
		Students are able to understand the role of quantitative		Principles of basic principles in planning analysis	M5	180	Lecture, Discussion		

		e and qualitative data analysis in planning		Introduction of outputs of quantitative and qualitative analysis	M5	180	Lecture, Discussion		
				The role of data and analysis in urban and regional planning	M5	60	Lecture, Discussion	Understanding of theory	5
2	Qualitative Data Survey / Taking Technique	Students are able to understand the concept of Population and Sample	Qualitative Data Collection and Processing Process	Population and Sample	M5	120	Lecture, Discussion		
				Sample Design	M5	180	Lecture, Discussion		
				Sample Counting	M2, M3	180	Practice	Manual Counting Capability	5
3		Students are able to choose the right sample method		Survey Method	M5	120	Lecture, Discussion		
				Survey Equipment	M5	180	Lecture, Discussion		
				Processing of survey results	M2, M3	180	Practice	Manual Counting Capability	5

4	Data Analysis with Various Regression Techniques	Students understand the types of Regression and How to Calculate manually	Multivariate Linear Regression	Regression Types	M5	60	Lecture, Discussion		
				Regression Implementation	M3	180	Practice	Practice Score	5
			Non-Linear Regression	Non-Linear Regression Types	M5	180	Lecture, Discussion		
				Manual Counting	M3	60	Practice	Manual Counting Capability	5
5		Students are able to operate software for regression analysis	Non-Linear Regression	Examples of Implementation	M5	60	Case Study		
				Non-Linear Regression Implementation	M3	60	Practice	Practice Score	5
			Logistic Regression	Logistic Regression Concept	M5	120	Lecture, Discussion		
				Examples of Implementation	M3, M3	120	Case Study	Understanding of Theory	5
				Implementation of Logistic Regression	M3	120	Practice	Practice Score	5

6	Analysis of Interrelations between Variables	Students understand and can implement Factor and	Factor Analysis	Factor Analysis Introduction	M5	120	Lecture, Discussion		
				Factor Analysis Examples	M2, M3	180	Case Study		
				Factor Analysis Implementation	M3	180	Practice	Practice Score	5
7		Cluster Analysis	Cluster Analysis	Cluster Analysis Introduction	M5	120	Lecture, Discussion		
				Cluster Analysis Examples	M2, M3	180	Case Study		
				Cluster Analysis Implementation	M5	180	Practice	Practice Score	5
8	Optimization in Decision Making	Students understand and can implement	MDS Analysis	MDS Analysis Introduction	M5	120	Lecture, Discussion		

		MDS and Linear Programming Method		MDS Analysis Examples	M2, M3	180	Case Study		
				MDS Analysis Implementation	M3	180	Practice	Practice Score	5
9			Linear Programming	Linear Programming Introduction	M5	60	Lecture, Discussion		
				Linear Programming Examples	M2, M3	120	Case Study		
				Linear Programming Implementation	M3	120	Practice		
				Linear Programming Implementation	M7	180	Practice	Practice Score	5
10	Analyze data by sharing	Students understand	Content Analysis	Pengenalan Analisa CA	M5	120	Lecture, Discussion		

	qualitative analysis techniques	and can implement the Content Analysis, SWOT, and PES Techniques		Contoh Analisa CA	M2, M3	180	Case Study		
				Aplikasi Analisa CA	M3	180	Practice	Practice Score	5
			SWOT and PES Analysis	Pengenalan Analisa SWOT dan PES	M5	120	Lecture, Discussion		
				Contoh Analisa SWOT & PES	M2, M3	180	Case Study		
11			Aplikasi Analisa SWOT & PES	M3	180	Practice	Practice Score	5	
12		Students understand and can implement the DELPHI, IPA, and AHP Techniques	Delphi Analysis	Delphi Technique Introduction	M5	60	Lecture, Discussion		
				Delphi Examples	M2, M3	120	Case Study		
				Delphi Linear Implementation	M3	120	Practice		
				Delphi Linear Implementation	M7	180	Practice	Practice Score	5

13			Important Performance Analysis	IPA Introduction	M5	60	Lecture, Discussion		5
				IPA Examples	M2, M3	120	Case Study		
				IPA Implementation	M3	120	Practice		
				IPA Implementation	M7	180	Practice	Practice Score	5
14			AHP	AHP Introduction	M5	60	Lecture, Discussion		
				AHP Examples	M2, M3	120	Case Study		
				AHP Implementation	M3	120	Practice		
				AHP Implementation	M7	180	Practice	Practice Score	5
15	Data Validation Technique	Students can assess the quality of data	Quantitative Data Validation	Konsep Kualitas Data Kuantitatif	M5	120	Lecture, Discussion		
				Data Quality Assessment	M3	360	Practice	Manual Counting Capability	5
16			Qualitative Data	Qualitative Data Quality	M5	120	Lecture, Discussion		

			Validation	Concepts					
				Data Quality Assessment	M3	360	Practice	Manual Counting Capability	5

Student Evaluation: Planning Analysis Methods Course Overview

ELO		CLO	Learning Outcome	EVALUATION			
				Evaluation 1 (Quiz)	Evaluation 2 (Quiz)	Practicum	Group Assignment
1.2	Able to apply the technique and process of urban and regional planning in qualitative, quantitative, regional, and spatial modeling techniques and processes of planning and geographic planning and presentation techniques.	Students understand and able to explain the basic principles in analysis for planning, which includes Data collection methods and the roles of data and analysis in urban and regional planning.	Data collecting technique (survey) for qualitative data	5%			
			Data analysis using regression techniques				
			Variable linkage analysis				
			Decision making optimization				
2.2	Able to utilize ICT in data management to produce information that is easily understood by the public and decision makers.	Students are able to implement Quantitative Analysis techniques and methods to solve problems in planning and decision making	Cluster Analysis	10%		35%	35%
			Multi-Dimensional Scaling				
			Linear and Non-Linear Regression				
			Linear Programming				
		Students are able to implement Qualitative	Content Analysis				
			SWOT Analysis				

		Analysis techniques and methods to solve problems in planning and decision making	DELPHI		15%		
			Analytical HierachyProcess (AHP)				

1. Evaluation 1: Quiz

Subject	<i>Planning Analysis Methods</i> (Intermediate Category)
Evaluation	Evaluation 1 (This Quiz measures 8 from 12 Learning Outcome)
Evaluation Type	Quiz (Essay)
ELO Expected	ELO 1.2 - 5%
	ELO 2.2 – 10%
Techniques	Online Quiz (Using google form), gathering insight from google feedback for ELOachievement
System	Remidial, open correct answer after remedial

Evaluation Criteria

The weight of Evaluation I is 15%, with focus on qualitative analysis in urban and regional planning. The score for each question will be given for the students using the following criteria:

Students' Answer Criteria	Score
All questions have the correct answer, accompanied by a proper explanation and the steps to reach the answer.	86-100
Most questions have the correct answer, accompanied by a proper explanation but some of the answers without the steps to reach the answer.	76-85
At least half of the questions have the correct answer, the correct ones accompanied but some of the answers without the steps to reach the answer.	66-75
At least half of the questions have the correct answer, without a proper explanation and the steps to reach the answer.	56-65
Less than half of the questions have the correct answer, without a proper explanation and the steps to reach the answer.	0-55

2. Evaluation 2: Quiz

Subject	<i>Planning Analysis Methods</i> (Intermediate Category)
Evaluation	Evaluation 2 (This evaluation measures 4 from 12 Learning Outcome)
Evaluation Type	Quiz
ELO Expected	ELO 2.2 – 15%
Techniques	Online Quiz (Using google form), gathering insight from google feedback for ELOachievement
System	Remidial, open correct answer after remedial

Evaluation Criteria:

The weight of Evaluation II is 15%, with focus on qualitative analysis in urban and regional planning. The score for each question will be given for the students using the following criteria:

Students' Answer Criteria	Score
All questions have the correct answer, accompanied by a proper explanation and the steps to reach the answer.	86-100
Most questions have the correct answer, accompanied by a proper explanation but some of the answers without the steps to reach the answer.	76-85
At least half of the questions have the correct answer, the correct ones accompanied but some of the answers without the steps to reach the answer.	66-75
At least half of the questions have the correct answer, without a proper explanation and the steps to reach the answer.	56-65
Less than half of the questions have the correct answer, without a proper explanation and the steps to reach the answer.	0-55

3. Evaluation 3: Practicum

Subject	<i>Planning Analysis Methods</i> (Intermediate Category)
Evaluation	Evaluation 3 (This evaluation measures 8 from 12 Learning Outcome)
Evaluation Type	Practicum
ELO Expected	ELO 2.2 – 35%
Techniques	Class-Practicum, where students work on their own computer/laptop to operate softwares with the guidances from teaching assistants.
System	Students are evaluated by post-test after each practicum.

A. TYPE OF PRACTICUM

The practicum is to evaluate students individually, with the weight of 35%. For this semester, there will be 8 practicums that held for 8 weeks. During the practicum, students are assisted by laboratory's assistants, provided with softwares and the modules, and given post-test evaluations.

B. PRACTICUM MATERIALS

The practicum includes:

1. Non-Linear Regressions
2. Logistic Regressions
3. Linear Programming
4. SWOT Analysis
5. PES Analysis
6. Content Analysis
7. Delphi
8. AHP

Evaluation Criteria:

(1) Calculation and Analysis Process – Weight 25%

Evaluation Criteria

ITEM	Score
Variables and Criteria are properly defined and explained	3
Adequate Assumptions	2
Underlying concepts properly explained	2
Explanation about the analysis process	10
Results	5
Description of results	3
Total Score	25

(2) Interpretation of Results – Weight 75%

Scores for Interpretation of Results

Grade	Score	Performance Indicators
Very Inadequate	≤ 20	No clear idea about how to solve the tasks and questions using the analysis.
Inadequate	$21 - \leq 40$	Proposed solution is not compatible with the questions at hand.
Adequate	$41 - \leq 65$	Clear and relevant analysis was implemented, but not performed thoroughly.
Good	$65 - \leq 85$	Clear and relevant analysis was implemented, with all steps completed. However, the interpretation lacking the depth.
Excellent	≥ 85	A rigorous analysis and an in-depth interpretation of the results.