
 Universitas Airlangga	SEMESTER LEARNING PLAN		Prepared by	Examined by	Approved by	Document Registration Number
	SLP		(Person in Charge)	(Head of Bachelor Program / Head of Department)	Vice Dean I	01/S1Kesmas/RPS/2019
	Revision - Date	January 1 st , 2019	Dr. Atik Choirul Hidajah, dr., M.Kes	Dr. Diah Indriani, S.Si., M.Si	Dr. Santi Martini, dr., M.Kes	
Faculty of Public Health	Valid on Semester (odd/even) / Academic Year	Odd Semester 2019/2020	(sign)	(sign)	(sign)	

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A. DETAILS OF COURSE


1. Course Name	Mapping of Risk and Disease Pattern
2. Course Code	KME 423
3. Credits (SKS)	2 (two) SKS
4. Semester / Term	7 (seventh)
5. Study Program	Bachelor of Public Health
6. Graduate Learning Outcomes	After completing the disease pattern and risk mapping course, students will be able to descriptively analyze case patterns and their risk factors.
7. Course Learning Outcomes	Collect and interpret data and information related to risks and benefits.
8. Course Description	This course discusses descriptive epidemiology as a basis for mapping disease patterns and risks. Skills for doing mapping will be learned using the <i>software</i> Health Mapper and Epi Map. Lectures are carried out in classrooms and computational laboratories. Dissemination of material is carried out through lecture, discussion, and practice methods.
9. Course Prerequisites (if any)	None
10. Instructor	Dr. Atik Choirul Hidajah, dr., M.Kes
11. Teaching Assistants	Dr. Atik Choirul Hidajah, dr., M.Kes Arief Hargono, drg. M.Kes Lucia Y. Hendrati, S.KM., M.Kes

B. TEACHING PROGRAM

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Week	Skills expected at the end of each learning phase (Sub-Course Achievement) (C, A, P)	Study Materials	Teaching Methods	Additional Materials for Learning	Meeting Time	Course Objectives	Criteria and Indicator of Evaluation / Measurable Learning Outcome (hard dan soft skills)	Mark / Grade / Percentage (%)	Reference Number Ref. (nomor)
1	2	3	4	5	6	7	8	9	10
1	Students are able to explain the concept of descriptive epidemiology	1. Definition of Descriptive Epidemiology 2. Importance of Descriptive epidemiology	1. Lectures 2. Discussions	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		5
2	Students are able to map with Health Mapper	1. Introduction to Health Mapper 2. Installation of Health Mapper 3. Using the Health Mapper Interface 4. Moving Around the map 5. Creating thematic maps based on area 6. Creating graphs and reports 7. Inputting data in Health Mapper	Practicum	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		3,4

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1	2	3	4	5	6	7	8	9	10
		8. Joint external data 9. Add external shapefile and image 10. Open data manager 11. Create new indicator 12. Create new population subgroup 13. Performing data management with Health Mapper							
3	Students are able to map with Health Mapper	1. Introduction to Health Mapper 2. Installation of Health Mapper	Practicum	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		3,4

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1	2	3	4	5	6	7	8	9	10
		3. Using the Health Mapper Interface 4. Moving Around the map 5. Creating thematic maps based on area 6. Creating graphs and reports 7. Inputting data in Health Mapper 8. Joint external data 9. Add external shapefile and image 10. Open data manager 11. Create new indicator							

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Week	Skills expected at the end of each learning phase (Sub-Course Achievement) (C, A, P)	Study Materials	Teaching Methods	Additional Materials for Learning	Meeting Time	Course Objectives	Criteria and Indicator of Evaluation / Measurable Learning Outcome (<i>hard dan soft skills</i>)	Mark / Grade / Percentage (%)	Reference Number Ref. (nomor)
1	2	3	4	5	6	7	8	9	10
		12. Create new population subgroup 13. Performing data management with Health Mapper							
4	Students are able to map with Health Mapper	1. Introduction to Health Mapper 2. Installation of Health Mapper 3. Using the Health Mapper Interface 4. Moving Around the map 5. Creating thematic maps based on area 6. Creating graphs and reports	Practicum	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		3,4

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1	2	3	4	5	6	7	8	9	10
		7. Inputting data in Health Mapper 8. Joint external data 9. Add external shapefile and image 10. Open data manager 11. Create new indicator 12. Create new population subgroup 13. Performing data management with Health Mapper							
5	Students are able to conduct a descriptive spatial analysis using Epi Map	1. Creating spatial data entry forms using Epi Info	Practicum	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		2

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1	2	3	4	5	6	7	8	9	10
		2. Connecting data with map data 3. Making a choropleth map 4. Displaying data coordinate points on the map 5. Layering spatial data							
6	Students are able to conduct a descriptive spatial analysis using Epi Map	1. Creating spatial data entry forms using Epi Info 2. Connecting data with map data 3. Making a choropleth map 4. Displaying data coordinate points on the map 5. Layering spatial data	Practicum	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		2

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1	2	3	4	5	6	7	8	9	10
7	Students are able to conduct a descriptive spatial analysis using Epi Map	1. Creating spatial data entry forms using Epi Info 2. Connecting data with map data 3. Making a choropleth map 4. Displaying data coordinate points on the map 5. Layering spatial data	Practicum	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		2
MID-SEMESTER EXAMINATION									
8	Students are able to perform analysis and interpretation of mapping results	1. Time series data analysis using Health Mapper and its interpretation. 2. Time series data analysis with Epi Map and its interpretation.	Case-study	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		2

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1	2	3	4	5	6	7	8	9	10
9	Students are able to perform analysis and interpretation of mapping results	1. Time series data analysis using Health Mapper and its interpretation. 2. Time series data analysis with Epi Map and its interpretation.	Case-study	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		2
10	Students are able to perform analysis and interpretation of mapping results	1. Time series data analysis using Health Mapper and its interpretation. 2. Time series data analysis with Epi Map and its interpretation.	Case-study	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		2
11	Performing analysis and interpretation of mapping results	1. Time series data analysis using Health	Case-study	Laptop, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication		2

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1	2	3	4	5	6	7	8	9	10
		Mapper and its interpretation. 2. Time series data analysis with Epi Map and its interpretation.							
12	Students are able to design and present the results of mapping analysis and interpretation	Presentation of the results of mapping analysis and interpretation	Presentation	Presentation materials, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication 3. Critical thinking Teamwork		
13.	Students are able to design and present the results of mapping analysis and interpretation	Presentation of the results of mapping analysis and interpretation	Presentation	Presentation materials, LCD, and Whiteboard	2x50 minutes		1. Discipline 2. Communication 3. Critical thinking 4. Teamwork		

FINAL EXAMINATION

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C. REQUIRED TEXTS / REFERENCES / ESSENTIAL READINGS

Readings:

1. CDC, 2015, Using Epi Info in an Outbreak Investigation, Advanced Analysis & Mapping <ftp://ftp.cdc.gov/pub/NIPGID/>
2. dces.wisc.edu , 2015, Spatial Regression Analysis in R A Workbook, http://dces.wisc.edu/wp-content/uploads/sites/30/2013/08/W14_Anselin2007.pdf
3. WHO, 2015, a WHO information and mapping application for public health, <http://www.who.int/hac/techguidance/training/predeployment/Health%20Mapper.pdf>
4. Hendrati, 2014, Panduan penggunaan program health mapper dalam kesehatan masyarakat, Diklat
5. Gordis, L., 2008. *Epidemiology 4th Edition*, Saunders, Philadelphia