
 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. Fariani Syahrul, SKM.,M.Kes	Dr. Diah Indriani, S.Si., M.Si	Dr. Santi Martini, dr., M.Kes	
Valid on Semester (odd/even) / Academic Year	Odd Semester 2019/2020	(sign)	(sign)	(sign)		
Faculty of Public Health						

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A. DETAILS OF COURSE


1. Course Name	Epidemiological Research
2. Course Code	KME417
3. Credits (SKS)	2 (two) SKS
4. Semester / Term	VI (sixth)
5. Study Program	Bachelor of Public Health
6. Graduate Learning Outcomes	After completing this course, students are expected to be able to determine the design of epidemiological research, do association calculations according to epidemiological research design and be able to understand research ethics and ethical clearance in public health research.
7. Course Learning Outcomes	Identifying and applying basic research methods used in Public Health 6.3. identifying limitations of research and the importance of observation and interconnection (interrelationship)
8. Course Description	This course covers the concepts and principles of epidemiological research, causal relationship criteria in concluding the results of epidemiological research, association calculations, types and designs of epidemiological research and their components, research ethics, and ethical clearance.
9. Course Prerequisites (if any)	None
10. Instructor	Dr. Fariani Syahrul, SKM.,M.Kes
11. Teaching Assistants	Dr. Fariani Syahrul, SKM.,M.Kes Prof. Dr. Chatarina UW., dr.,MS.,MPH Priyono Satyabhakti, dr.,MS.,MPH Dr. Santi Martini, dr.,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. (number)
1	2	3	4	5	6	7	8	9	10
1	Students are able to explain the concepts and principles of epidemiological research	<ol style="list-style-type: none"> The concept of epidemiological research Principles of epidemiological research 	<ol style="list-style-type: none"> Lectures Question and answer 	LCD, Laptop, and Module	2 x 50 minutes		Communication skill		
2	Students are able to explain association relations between research variables and perform calculations and use association size.	<ol style="list-style-type: none"> Definition of research variables Definition of association relations Types of association relationships Criteria of causal relationship 	<ol style="list-style-type: none"> Lectures Question and answer Practices 	LCD, Laptop, and Module	2 x 50 minutes		Complex thinking		
3	Students are able to do calculations and use association sizes.	<ol style="list-style-type: none"> Association sizes and their types Relative Risk (RR) Odds Ratio (OR). 	<ol style="list-style-type: none"> Lectures Question and answer Practices 	LCD, Laptop, Whi teboard, Worksheet, and Module	2 x 50 minutes		Accuracy		

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1	2	3	4	5	6	7	8	9	10
4	Students are able to explain the types of epidemiological research	1. Definition of Observational Research 2. Definition of Experimental Research 3. Definition of Descriptive Research 4. Definition of Analytical Research 5. Types of Epidemiology Research 6. Observational Research: Case Studies, Periodic Circles, Correlation Studies	1. Lectures 2. Question and answer	LCD, Laptop, and Module	2 x 50 minutes		1. Critical thinking 2. Logical thinking 3. Communication		Book 1 Book 2

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1	2	3	4	5	6	7	8	9	10
5	Students are able to explain and identify observational research design	Observational Research (Cross Sectional): a. Definition b. Scheme c. Strengths and Weaknesses d. Population and Sample e. Examples of Research	1. Lectures 2. Question and answer	LCD, Laptop, and Module	2 x 50 minutes		Communication skill		
6	Students are able to explain and identify the control case study research design	1. Definition 2. Scheme 3. Strengths and Weaknesses 4. Population and Sample 5. Examples of Research	1. Lectures 2. Question and answer	LCD, Laptop, and Module	2 x 50 minutes		Communication skill		
7	Students are able to explain and identify the cohort study design	1. Definition 2. Scheme	1. Lectures 2. Question and answer	LCD, Laptop, and Module	2 x 50 minutes		Communication skill		

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1	2	3	4	5	6	7	8	9	10
		3. Strengths and Weaknesses 4. Population and Sample 5. Examples of Research							
MID-SEMESTER EXAMINATION									
8	Students are able to explain and identify the experimental research design	1. The concept of experimental research: a. Definition and examples of experimental research b. Essential characteristics of experimental research	1. Lectures 2. Question and answer 3. Practices	LCD, Laptop, and Module	2 x 50 minutes		Communication skill		

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1	2	3	4	5	6	7	8	9	10
		c. Variables in experimental research 2. Pure Experiment: a. Definition, strengths, and weaknesses of pure experiment b. Principal elements c. Scheme							
9	Students are able to explain and identify the experimental research design	1. Pseudo-Experiment: a. Definition, strengths, and weaknesses of pseudo-experiment	1. Lectures 2. Question and answer 3. Practices	LCD, Laptop, and Module	2 x 50 minutes		Communication skill		

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		b. Principal elements c. Scheme 2. Types of experiments in epidemiology: a. Laboratory Experiment b. Clinical trial c. Field experiment d. Community Intervention							
10	Students are able to explain the benefits of research ethics and create ethical clearance forms	1. Research Ethics: a. Definition b. Basic Values of Research Ethics 2. Ethical Clearance: a. Definition	1. Lectures 2. Question and answer	LCD and Laptop	2 x 50 minutes		1. Communication skill 2. Complex thinking		

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		b. Contents of a ethical clearence form c. Examples of ethical clearence							
11	Students are able to conduct critical analysis in a simple manner	Critical Study (Critical Appraisal): a. Definition of critical appraisal b. The stages of doing critical appraisal c. Examples of critical appraisal	1. Lectures 2. Question and answer	LCD and Laptop	2 x 50 minutes		Complex thinking		
12	Students are able to explain epidemiological research	Student Presentation (by group)	1. Lectures 2. Question and answer	LCD, Laptop, and Worksheet	2 x 50 minutes		1. Complex thinking 2. Communicati on skill 3. Accuracy		

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1	2	3	4	5	6	7	8	9	10
13.	Students are able to determine the types and designs of epidemiological research according to the research topics.	Review of types and designs of epidemiological research	1. Discussions 2. Assignments	LCD, Laptop, and Worksheet	2 x 50 minutes		1. Complex thinking 2. Communication skill 3. Accuracy		
FINAL EXAMINATION									


C. REQUIRED TEXTS / REFERENCES / ESSENTIAL READINGS

Required Readings :

- Murti, Bhisma (1997) Prinsip Metode Riset. Gadjah Mada Univ. Press Yogyakarta
- Murti, Bhisma (2003) Prinsip dan Metode Riset Epidemiologi (Edisi Kedua) Jilid Pertama. Gadjah Mada Univ. Press Yogyakarta
- Syahrul, Fariani dan Prijono Satyabhakti (2013). Bahan Ajar Riset Epidemiologi. Departemen Epidemiologi, FKM Unair. Surabaya

Additional Readings :

- Murti, Bhisma (2010) Desain dan Ukuran Sampel untuk Penelitian Kuantitatif dan Kualitatif Bidang Kesehatan. Gadjah Mada Univ. Press Yogyakarta
- Klainbaum, DG et al (1992) Epidemiologic Research – Principles and Quantitative Methode Van Nastrand Reinhold Company – New York
- Gordis, L (1996) Epidemiology, WB Saunders Company
- Mausner and Bahn, (1995) Epidemiology – An Introductory Text WB Saunders Company – Philadelphia
- Noor Nasri Noor (1997) Dasar Epidemiologi Rineka Cipta – Ujung Pandang
- Lance A. Waller and Carol A. Gotway (2004), "Applied Spatial Statistics for Public Health Data", John Wiley & Sons, Inc Hoboken, New Jersey.
- Silman, Alan J dan Gary JM (2002). Epidemiological Studies – A Practical Guide. Cambridge University Press. New York.

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