

Title of Module:
Epidemiological Methods

Coordinator(s) / organiser(s):
 Dr. Fariani Syahrul, SKM., M.Kes. (Module Leader)

Teaching Faculty			
Title	Name	Qualifications*	Hours contributed
Dr.	Fariani Syahrul	S.KM., M.Kes., Dr.	18
Professor	Chatarina Umbul Wahjuni	dr., M.S., M.PH., Dr.	10,8
Dr.	Santi Martini	dr., M.Kes., Dr.	10,8
Dr.	Atik Choirul Hidajah	dr., M.Kes., Dr.	15,6
drg.	Arief Hargono	drg., M.Kes.	13,2
dr.	Prijono Satyabakti	dr., M.S., MPH.	16,8
dr.	Kurnia Dwi Artanti	dr., M.Sc.	12
Ms.	Lucia Yovita Hendrati	S.KM., M.Kes.	22,8

* PhD, Master, 20 years service(in practice) etc. Only provide details for faculty responsible for 25% or more of course load.

Core /elective or optional	<p>Core: Basic Epidemiology (KME201)</p> <p>Elective: Epidemiological Research (KME417) Data Management in Epidemiology (KME413) Screening in Public Health (KME414)</p>
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Number of SKS credits allocated	Student's workload in hours	Contact work hours*	Self-study work hours
9 SKS	408	120	288

* includes lectures, seminars, face-to-face, assessments

<p>Learning competences / objectives</p> <p>On successful completion of this module students will be able to:</p> <p>Basic Epidemiology:</p> <ol style="list-style-type: none"> 1. Understand basic concept of epidemiology dan disease. 2. Be able to calculate measures of disease frequency and standardization 3. Understand type and design epidemiology <p>Epidemiological Research:</p> <ol style="list-style-type: none"> 1. Identify and choose the correct design research 2. Be able to calculate measures of association 3. Understand ethical clearance public health research <p>Data Management in Epidemiology:</p> <ol style="list-style-type: none"> 1. Understand the stage of rpidemiology data management

2. Implement and analyze data in Epi Info software

Screening in Public Health:

1. Designing and conducting screening activities
2. Assess diagnostic testing of screening tools
3. Evaluating screening program

Syllabus content. Brief overview of syllabus using bullet points.

Basic Epidemiology:

- Basic concept of epidemiology dan disease.
- Concept of disease causes
- Natural history of disease
- Level of disease prevention
- Screening
- Measures of disease frequency
- Pattern of disease
- Type and design epidemiology research

Epidemiological Research:

- Concept and principle of the epidemiology research
- Type of epidemiology research
- Design of observational, analytical and experimental research
- Association between research variables, performing calculation and analyzing the result
- Critical Appraisal

Data Management in Epidemiology:

- Stage of epidemiology data management
- Epi Info software
- Implementing the EPI INFO program which includes making instruments for data collection using CREATE FORM
- Editing and coding, automation data entry using CHECK CODE, entering data with ENTER DATA,
- Using STATCALC to calculate Odd Ratio and Relative Risk,
- Using ANALYZE DATA facilities to perform data cleaning, data transformation and health program data analysis and epidemiological research.
- Health programs include prevention, control, surveillance and disaster programs including outbreak.

Screening in Public Health:

- Screening Concept
- Application of Screening for Diseases / Health Problems
- Physical and Laboratory Examination for Screening
- Epidemiology Approach for Screening Program Evaluation
- Designing and conducting screening activities
- Assess diagnostic testing of screening tools

Module level timetable - indicate the timing of the teaching sessions from the previous and upcoming teaching year:

Basic Epidemiology: 07.00-09.00 a.m., Tuesday 2nd semester

Epidemiological Research: 6th semester
Data Management in Epidemiology: 7th semester
Screening in Public Health: 7th semester

Pedagogic/teaching methodology:

In this module, scheduled learning includes lectures and discussions. The students are divided into groups and each gets the different topic for discussion. During this module, the students also have to arrange the individual and group assignment. Then, they have to present their result in the seminar. This module is held at laboratory, class, and out of campus.

Assessments used:

Basic Epidemiology:

The are three types of assessment:

1. Middle examination (40%)
2. Final examination (40%)
3. Individual and groups assignments (20%)

Each examination takes 100 minutes includes multiple choice questions, essays, and short answer questions. The examination assesses the students' knowledge and understanding and all learning outcomes of the module. Individual assignment is given by lecturer in the end of lecture. Group assignment is given by writing a paper then the students present it.

Epidemiological Research:

The are three types of assessment:

1. Middle examination (30%)
2. Final examination (50%)
3. Individual assignment (20%)

Each examination takes 100 minutes includes multiple choice questions, essays, and short answer questions. The examination assesses the students' knowledge and understanding and all learning outcomes of the module. Individual assignment is given by writing a paper then the students present it.

Data Management in Epidemiology:

The are three types of assessment:

1. Group assignment (25%)
2. Individual written assessment (25%)
3. Individual practice assessment (50%)

The assessments assess the students' knowledge and understanding and all learning outcomes of the module in written and practice assignment. Group assignment is given by lecturer and the students are asked for implementing epi data in health program data analysis and epidemiological research. Health programs include prevention, controlling, and surveillance and disaster programs included the outbreak program. Individual written assessment is done through final examination in essay method. Individual practice

assessment is done by the students' direct practice through evaluation of managing data implementation.

Screening in Public Health:

The are four types of assessment:

1. Laboratory examination ability (30%)
2. Theoretical ability (20%)
3. Screening activities (35%)
4. Result screening activities (15%).

The students are divided into small groups and each gets the different topic for doing screening activities. Then, they have to present their result in the seminar. During study, the lecturers will assess the students' abilities, knowledge, and activities in understanding of module's outcomes.

Weeks required and place in academic calendar:	Number of weeks	Week number
Basic Epidemiology Tuesday, 07.00-09.00 a.m. Weeks beginning 13/02/2018-29/05/2018	16	17 - 32
Epidemiological Research Weeks beginning 02/2020 -05/2020	16	17 - 32
Data Management in Epidemiology Weeks beginning 08/2020 -11/2020	16	1 - 16
Screening in Public Health Weeks beginning 08/2020 -11/2020	16	1 - 16