

## Module Description: Epidemiology of Environmental Health

### Epidemiologi Kesehatan Lingkungan

<b>Module name</b>	Modul Mata Kuliah
<b>Module level, if applicable</b>	Sarjana Kesehatan Masyarakat
<b>Code, if applicable</b>	343K1322
<b>Subtitle, if applicable</b>	-
<b>Course, if applicable</b>	Epidemiology of Environmental Health
<b>Semester(s) in which the module is taught</b>	VI
<b>Person responsible for the module</b>	Prof. Dr. drg. A. Arsunan Arsin, M.Kes
<b>Lecturer</b>	<ol style="list-style-type: none"> <li>1. Dr. Wahiduddin, SKM, MKM</li> <li>2. dr. H. Hasanuddin Ishak, P.Hd</li> <li>3. Anwar Mallongi, SKM., M.Sc., Ph.D</li> <li>4. Ryza Jazid, SKM., MKM</li> </ol>
<b>Language</b>	Indonesian Language [Bahasa Indonesia]
<b>Relation to Curriculum</b>	This course is a compulsory course and offered in the 6 <sup>th</sup> semester.
<b>Type of teaching, contact hours</b>	<p>Teaching methods used in this course are:</p> <ol style="list-style-type: none"> <li>1. Lecture (small group discussion, discovery learning, presentation)</li> <li>2. Structure assignments (essay, quiz, paper, literature review)</li> </ol> <p>The class size for lecture is approximately 50 students                      contact hours for lecture is 23 hours, assignment is 28 hours for structured assignments, and 28 hours for independent learning</p>
<b>Workload</b>	<p>For this course, students are required to meet a minimum of 79 hours in one semester, which consist of:</p> <ul style="list-style-type: none"> <li>- 23 hours for lecture,</li> <li>- 28 hours for structured assignments,</li> <li>- 28 hours for independent learning,</li> </ul>
<b>Credit Points</b>	2 credit points (equivalent with 3.17 ECTS)
<b>Requirements according to the examination regulations</b>	Students must have attended all classes and submitted all class assignments that are scheduled before the mid and final tests.
<b>Recommended prerequisites</b>	-
<b>Module objectives/intended learning outcomes</b>	<p>After completing the course and given with an Epidemiology of Environmental Health:</p> <p><b>CLO1:</b> Mahasiswa mampu menjelaskan tentang konsep epidemiologi lingkungan (P1)</p> <p><b>CLO2:</b> Mahasiswa mampu menjelaskan aplikasi studi epidemiologi di bidang kesehatan lingkungan (KU)</p> <p><b>CLO3:</b> Mahasiswa mampu menjelaskan dasar risk assesment, risk communication dan penggunaan biomarker (KK1)</p>
<b>Content</b>	<ol style="list-style-type: none"> <li>1. Kontrak belajar dan konsep epidemiologi lingkungan</li> <li>2. Ecological study</li> <li>3. Risk Assesment</li> </ol>

	<ol style="list-style-type: none"> <li>4. Risk Communication</li> <li>5. Penggunaan biomarker</li> <li>6. Critical appraisal terhadap laporan yang telah di publikasikan</li> <li>7. Analisis dampak lingkungan</li> </ol>
<b>Forms of Assessment</b>	<ol style="list-style-type: none"> <li>1. Structured assignments (essay, quiz, case study): 20%</li> <li>2. Individual and group presentation (paper and presentation): 35%</li> <li>3. Written exam (Mid and Final Test): 35%</li> <li>4. Class attendance and participation: 10%</li> </ol>
<b>Study and examination requirements and forms of examination</b>	<p>Study and Examination requirements:</p> <ul style="list-style-type: none"> <li>- Students must attend 15 minutes before the class starts</li> <li>- Students must switch off all electronic devices</li> <li>- Students must inform the lecturer if they will not attend the class due to sickness, etc.</li> <li>- Students must submit all class assignment before the deadline</li> <li>- Students must attend the exam to get final grade</li> </ul> <p>Form of examination: Written exam: Essay/Multiple Choice Questions</p>
<b>Media employed</b>	PowerPoint Presentation
<b>Reading list</b>	<ol style="list-style-type: none"> <li>1. Aldrich, T.E. Cooke, C. (1993) Environmental Epidemiology and Risk Assesment. Van Nonstrand Reinhoid. New York</li> <li>2. Stenland K, Savits D (1997). Topics in Environmental Epidemiology. Oxford. New York</li> <li>3. APHA (2001). Geographical Information system in Health Care, APHA</li> <li>4. WHO, (1999). Biomarkers and Risk Assesment: Concept and Principles.</li> <li>5. WHO, (2001). Helath Risk Assesment and Risk Management.</li> <li>6. WHO, (2000). Principles for the Assesment of Risks to Human Health</li> <li>7. Greenland. (2003) Critical appraisal in Epidemiology Study, Oxford</li> </ol>

### Course Learning Outcome Assessment of Learning Outcomes for Course Modules

**Course Module Name** : Epidemiology of Environmental Health  
**Code** : 343K1322  
**Semester** : VI  
**Person responsible for the module** : Prof. Dr. drg. A. Arsunan Arsin, M.Kes  
**Lecturers** : 1. Dr. Wahiduddin, SKM, MKM  
                   2. dr. H. Hasanuddin Ishak, P.Hd  
                   3. Anwar Mallongi, SKM., M.Sc.,Ph.D  
                   4. Ryza Jazid, SKM., MKM

Intended Learning Outcomes	Course Module Objectives	List of Assessments	List of Rubrics
<b>Knowledge (K1):</b> Mampu menjelaskan konsep dasar ilmu kesehatan masyarakat dalam peningkatan status kesehatan masyarakat	<b>CLO1:</b> Mahasiswa mampu menjelaskan tentang konsep epidemiologi lingkungan	Assignment: <ul style="list-style-type: none"> <li>● Essay</li> </ul> Written Test <ul style="list-style-type: none"> <li>● Quiz</li> <li>● Mid Test</li> </ul>	<ul style="list-style-type: none"> <li>● Rubric penilaian tatap muka</li> <li>● Rubric partisipasi kelas</li> </ul>
	<b>CLO2:</b> Mahasiswa mampu menjelaskan aplikasi studi epidemiologi di bidang kesehatan lingkungan	Assignment: <ul style="list-style-type: none"> <li>● Essay</li> </ul> Written Test <ul style="list-style-type: none"> <li>● Quiz</li> <li>● Mid Test</li> </ul>	<ul style="list-style-type: none"> <li>● Rubric penilaian tatap muka</li> <li>● Rubric partisipasi kelas</li> </ul>
<b>Competence (C1):</b> Mampu menerapkan pemikiran logis, kritis, sistematis, dan inovatif dalam konteks pengembangan kesehatan masyarakat;	<b>CLO3:</b> Mahasiswa mampu menjelaskan dasar risk assesment, risk communication dan penggunaan biomarker	Assignment: <ul style="list-style-type: none"> <li>● Essay</li> </ul> Written Test <ul style="list-style-type: none"> <li>● Quiz</li> <li>● Mid Test</li> </ul>	<ul style="list-style-type: none"> <li>● Rubric penilaian tatap muka</li> <li>● Rubric partisipasi kelas</li> </ul>

	<p><b>4:</b> Mahasiswa mampu menganalisis dampak masalah lingkungan</p>	<p>Assignment:</p> <ul style="list-style-type: none"> <li>● Essay</li> </ul> <p>Written Test</p> <ul style="list-style-type: none"> <li>● Quiz</li> <li>● Final Test</li> </ul>	<ul style="list-style-type: none"> <li>● Rubric penilaian tatap muka</li> <li>● Rubric partisipasi kelas</li> </ul>
<p><b>Skill (S1):</b> Mampu menerapkan prinsip epidemiologi dan biostatistik dalam analisis situasi bidang kesehatan masyarakat</p>	<p><b>5:</b> Mahasiswa mampu melakukan critical appraisal terhadap study epidemiology yang terpublikasi</p>	<p>Assignment:</p> <ul style="list-style-type: none"> <li>● Essay</li> <li>● Paper and Presentation</li> </ul> <p>Written Test</p> <ul style="list-style-type: none"> <li>● Quiz</li> <li>● Final Test</li> </ul>	<ul style="list-style-type: none"> <li>● Rubric penilaian tatap muka</li> <li>● Rubric partisipasi kelas</li> <li>● Rubric Makalah</li> <li>● Rubrik Presentasi</li> <li>● Rubrik Penilaian Diskusi</li> </ul>

### Example of Written Test Exam

1. Jelaskan yang dimaksud dengan Studi Ekologi serta sebutkan manfaat dari studi ekologi! **(CLO1)**
2. Sebutkan kelebihan dan kekurangan dari Studi Ekologi! **(CLO1)**
3. Sebutkan alasan pentingnya dilakukan penelitian Epidemiologi Lingkungan **(CLO2)**
4. Buatlah 1 (satu) contoh kasus risiko kesehatan lingkungan dan jelaskan strategi risk communication terhdap risiko kesehatan lingkungan tersebut **(CLO3)**
5. Jelaskan secara singkat 4 Tahap Penilaian Risiko Lingkungan **(CLO3)**
6. Sebutkan 4 Langkah Prosedur AMDAL **(CLO4)**
7. Jelaskan Penilaian Dokumen KA dan ANDAL **(CLO4)**
8. Jelaskan Penilaian Dokumen RKL dan RPL **(CLO4)**