College of Micronesia-FSM
Course Outline

GENERAL INFORMATION:

Course Code and Title: PH 251 Management of Health Information Systems & Epidemiology		
Course owner by program: Health Sciences/ASDPH		
Campus: Kosrae, National	**Initiator:** Frehiwot Teshome	**Date:** August 2025
Course description: This course introduces students to the principles and practices of health information systems (HIS) and epidemiology in public health. Students will learn to collect, manage, analyze, and interpret public health data, apply quantitative reasoning, and design evidence-based community health interventions. Emphasis is placed on using credible sources, professional ethics, and cultural competence in public health decision-making.		

COURSE HOURS/CREDITS:

	Hours per Week		No. of Weeks		Total Hours		Semester Credits
Lecture	3	x	16	=	48 /16	=	3
Laboratory		x		=		=	
Workshop		x		=		=	
Co-op		x		=		=	
				Total Semester	Credits		3

PURPOSE OF COURSE:

[X] Degree requirement
[ ] Degree elective
[ ] Certificate
[ ] Other

PREREQUISITES: PH 101, PH 111

PSLOs OF OTHER PROGRAMS THIS COURSE MEETS:

PSLO#	Program

CC Chair signature: _____ **Date recommended:** _02/10/2026_

VPIA signature: _____ **Date approved:** 2/20/2026

1) INSTITUTIONAL STUDENT LEARNING OUTCOMES

[X]	1. **Effective oral communication**: capacity to deliver prepared, purposeful presentations designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.
[X]	2. **Effective written communication**: development and expression of ideas in writing through work in many genres and styles, utilizing different writing technologies, and mixing texts, data, and images through iterative experiences across the curriculum.
[X]	3. **Critical thinking**: a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.
[X]	4. **Problem solving**: capacity to design, evaluate, and implement a strategy to answer an open-ended question or achieve a desired goal.
[ ]	5. **Intercultural knowledge and competence**: a set of cognitive, affective, and behavioral skills and characteristics that support effective and appropriate interaction in a variety of cultural contexts.
[ ]	6. **Information literacy**: the ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand.
[ ]	7. **Foundations and skills for life-long learning**: purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills, and competence.
[ ]	8. **Quantitative Reasoning**: ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations; comprehends and can create sophisticated arguments supported by quantitative evidence and can clearly communicate those arguments in a variety of formats.

2) PROGRAM STUDENT LEARNING OUTCOMES (PSLOs): The student will be able to:

1. Deliver effective public health presentations.
2. Develop well-researched written public health reports.
3. Analyze public health data using critical thinking.
4. Design and evaluate community health solutions.
5. Apply cultural competence in public health interventions.
6. Utilize credible sources and research for public health decision-making.
7. Engage in professional development for lifelong learning.
8. Apply quantitative reasoning to epidemiological and statistical data.

3) COURSE STUDENT LEARNING OUTCOMES (CSLOs) (General): The student will be able to:

1. Apply epidemiological principles and health information system techniques to analyze public health data.
2. Develop Evidence-based public health reports and presentations using credible sources.
3. Design community health solutions based on data analysis.

4) COURSE STUDENT LEARNING OUTCOMES (CSLOs) (Specific): The student will be able to:

CSLO (General) 1: Apply epidemiological principles and health information system techniques to analyze public health data.			
Student Learning Outcome (specific)	ISLO	PSLO	Assessment Strategies
1.1. Demonstrate understanding of epidemiological measures (incidence, prevalence, morbidity, mortality). 1.2. Apply statistical and quantitative reasoning to interpret public health datasets.	3	3	Quizzes on epidemiological measures Data analysis assignments to be graded with a rubric.
CSLO (General) 2: Develop Evidence-based public health reports using credible sources.			
Student Learning Outcome (specific)	ISLO	PSLO	Assessment Strategies
2.1. Identify and critically evaluate credible sources for public health research. 2.2. Prepare written public health reports summarizing epidemiological data.	1,2	1,2	Written report submission and Presentation of findings on epidemiological data to be graded with a rubric.
CSLO (General) 3: Design community health solutions based on data analysis			
Student Learning Outcome (specific)	ISLO	PSLO	Assessment Strategies
3.1. Identify community health problems using analyzed data. 3.2. Develop intervention strategies that incorporate best practices.	1, 4*	1,4	Presentation on community health intervention to be graded with a rubric. Case study evaluation and intervention proposal submission to be graded with a rubric.

5) COURSE CONTENT:

1. Introduction to Epidemiology & HIS
2. Measures of Disease Frequency
3. Data Sources & Health Information Systems
4. Data Management and cleaning
5. Biostatistics and Quantitative Reasoning
6. Epidemiological Study Designs
7. Disease Surveillance Outbreak Investigation
8. Literature Review and Research Methods
9. Public Health Reporting and Presentations
10. Community Health Needs Assessment
11. Designing Public Health Interventions
12. Cultural Competence in Public Health
13. Evaluating Intervention Outcomes

6) METHOD(S) OF INSTRUCTION:

[X] Lecture [X] Cooperative learning groups
[ ] Laboratory [X] In-class exercises
[ ] Audio visual [ ] Demonstrations
[X] Other: online

7) TEXT(S) AND COURSE MATERIALS:

Bovbjerg, Marit L. (2020). Foundations of Epidemiology, 1st edition.

https://open.oregonstate.education/epidemiology

8) REFERENCE MATERIALS: Relevant Free Online Resources

9) INSTRUCTIONAL COSTS: None

10) EVALUATION: Students must have a grade of 70%[C] or better to pass this course. The student is graded based on the submission of Case Study evaluation and intervention proposal.

11) CREDIT BY EXAMINATION: None