

## COURSE OUTLINE

### ENVIRONMENTAL PREVENTION AND CONTROL OF DISEASE

Course Title

CPH 121

Dept. & Course No.

#### **I. COURSE DESCRIPTION:**

This course addresses the main principles and concepts linking disease agents, susceptible hosts and the environment, in the progression through a "disease spectrum". The relevance of the environment: soil, air, and water, in the transmission of disease agents is highlighted, along with the determining role of vectors responsible for vector-borne diseases.

#### **II. SEMESTER CREDITS:**3

**III. CONTACT HOURS PERWEEK:**      Lecture: 3      Lab: 0      Total: 3

#### **IV. PREREQUISITE:**CPH 101

#### **V. STUDENT LEARNING OUTCOMES:**

Upon completion of this course the student will be able, with 65% level of accuracy, to:

1. Describe and illustrate the interaction between disease agents, susceptible host and the environment.
2. Describe and illustrate the disease spectrum.
3. Describe and illustrate the basic concepts and principles of vectors and vector-borne diseases.

#### **VI. COURSE CONTENTS:**

- A. Interaction between disease agents, susceptible host and the environment
  1. Categories of disease agents
  2. Host' susceptibility and resistance
  3. Disease transmission and the environment: air
  4. Disease transmission and the environment: soil
  5. Disease transmission and the environment: water
- B. The disease spectrum:
  1. The reservoir
  2. The portal of escape
  3. Transmission modes
  4. The portal of entry
  5. Infection
  6. The incubation period
  7. Disease onset
  8. Disease outcomes
- C. Vectors and vector-borne diseases
  1. Pacific-relevant disease vectors
  2. Pacific-relevant vector-borne diseases
  3. Vector control
  4. Vector surveillance
  5. Prevention and protection

**VII. EQUIPMENT AND MATERIALS:**

1. Projector
2. Routine classroom materials
3. 1 USB storage device (at least 1 GB)—student-furnished

**VIII. TEXT:**

Required Text: Lucas, AO, Giles, HM A Short Textbook of Preventive Medicine for the Tropics [2002] – Hodder Arnold ISBN 978 034 033 8186

**IX. METHODS OF INSTRUCTION:**

1. Lecture
2. Group work on practical classroom exercises
3. Questions and Answers (Discussion) and/or Guest Speakers

**X. METHOD OF EVALUATION:**

1. Description	Points
a. Class participation and assignments	25%
b. Tests/Quizzes	25%
c. Mid-term Exam	25%
d. Final Exam	25%
e. Total	100%
2. Transmutation of percent to letter grade	
a. 90-100	A
b. 80-89	B
c. 70-79	C
d. 65-69	D
e. 0-64	F

**Palau Community College**  
**CPH 121 Environmental Prevention and Control of Disease**  
**Course Learning Outcomes**

During the course experience, the *course learning outcomes* (CLOs) will be assessed through the use of signature assignments. A rating scale will be used to determine the students' proficiency level of each CLO using specifically aligned assignments. The numerical ratings of 4, 3, 2 and 1 are not intended to represent the traditional school grading system of A, B, C, D and F. The descriptions associated with each of the numbers focus on the level of student performance for each of the course learning outcomes listed below.

- Rating Scale:
4. Exceeds Expectations
  3. Meets Expectations
  2. Developing
  1. Below Expectations

**CLO#1: Students will be able to describe and discuss the interaction between disease agents, susceptible host and environment.**

<b>4</b>	Perform all of the following tasks accurately and completely: <ul style="list-style-type: none"> <li>• Describe the different disease agents</li> <li>• Describe the characteristics of susceptible hosts</li> <li>• Describe the role of the environment in the interaction between agent and host</li> <li>• Describe disease transmission and the environment</li> </ul>
<b>3</b>	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
<b>2</b>	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
<b>1</b>	Unable to perform the tasks mentioned above.

**CLO#2: Students will be able to describe and illustrate the disease spectrum.**

<b>4</b>	Perform all of the following tasks accurately and completely: <ul style="list-style-type: none"> <li>• Describe the reservoir and the portal of escape, in disease transmission</li> <li>• Describe the portal of escape and the different disease transmission modes</li> <li>• Discuss "infection" as a process; incubation period as a potential agent identifier</li> <li>• Elaborate on the several possible disease outcomes</li> </ul>
<b>3</b>	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
<b>2</b>	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
<b>1</b>	Unable to perform the tasks mentioned above.

**CLO#3: Students will be able to describe the basic concepts and principles of vectors as disease transmitters.**

<b>4</b>	Perform all of the following tasks accurately and completely <ul style="list-style-type: none"> <li>• Describe Pacific-relevant disease vectors</li> <li>• Describe Pacific-relevant vector-borne diseases</li> <li>• Describe vector surveillance and control</li> <li>• Explain prevention and protection options against vector-borne diseases</li> </ul>
<b>3</b>	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
<b>2</b>	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
<b>1</b>	Unable to perform the tasks mentioned above.