ENF203 EPIDEMIOLOGY

Semester Credits: 3
In-class Hours: 32
Out-of-Class Hours: 16
Level: 2

OVERVIEW

Epidemiology is the study of the distribution of diseases and their determinants in a population. This means that Epidemiology closely coordinates with the clinic: it draws on the knowledge that is provided by observations and experimentations in groups of people. In addition to the clinic, Epidemiology depends on knowledge of other disciplines: social sciences, environmental, statistics, etc. It is no coincidence, since it coincides with demographic and social changes, that the spread of many diseases, such as cholera, plague, respiratory diseases and deficiency diseases, provides an opportunity to study the phenomena of epidemics.

OBJECTIVES

- To understand the basics of Epidemiology and its importance based on methodological processes, knowledge of disease prevention and intervention strategies.
- To determine the health status at different stages of life, both in the healthy individual, as well as the sick.
- To develop knowledge, skills, and abilities as well as to provide understanding on disease prevention for communicable and non-communicable diseases.
- To teach students the concept of disease distribution and behavior in Ecuador and the world as well as epidemiological terminologies and prevention strategies.
- To correctly interpret the results of studies and/or research that evolve throughout the teaching and learning process.
- To categorize priorities, with case studies, involving different public health problems, and presenting potential intervention strategies to improve the quality of life of the population in question, with an epidemiologic focus.

CONTENTS

KNOWLEDGE	SKILLS	VALUES
UNIT I: GENERAL EPIDEMIOLOGY LEARNING CYCLE Epidemiology as a science, concepts, history and importance of.	Analyze the basic knowledge and principles of epidemiology as one of the health sciences.	Value teamwork, respecting the different criteria in question.
UNIT II EPIDEMIOLOGY		

FUNCTIONS LEARNING CYCLE Epidemiological Triad. Clinical Approach vs. Epidemiological Approach. Describe the Natural History of Disease. Describe the Levels of Prevention. Epidemiology functions. Definition of Health Problems. Describe the factors that increase the risks of disease.	Recognize the Epidemiological Approach process as a working method and that it can be applied in the field.	Working in study groups with ethics, responsibility and performance, while considering the different points of view.
UNIT III: BRANCHES OF EPIDEMIOLOGY LEARNING CYCLE Descriptive Epidemiology. Analytic Epidemiology. Experimental Epidemiology. Eco-Epidemiology. Satellite Epidemiology. Ecosystem Change. Factors influencing Epidemiological Processes.	Establish the conceptual differences, allowing you to apply knowledge in the development of different intervention strategies, like an epidemiological studies professional.	Contribution of ideas with critical judgment, active and thoughtful participation.
UNIT IV: METHODOLOGY IN EPIDEMIOLOGY LEARNING CYCLE Research Methodology. Exercises rates. Hypothesis. Results. Conclusions. Recommendations.	To develop skills in the calculation and the final preparation of research paper through application exercises.	Responsibility and teamwork performance with social commitment.
UNIT V: ETIOLOGY OF DISEASES LEARNING CYCLE Epidemiological Triad. Epidemiological Transition (prevalence and incidence). Epidemiological Chain	Acquire skills in the use of the tools available to create intervention strategies and prevention of disease.	Sustains spontaneous, efficient, ethical and scientific criteria.

EVALUATION

Final grade is based on…

1. Assignments & Quizzes 30%
2. Exams 40%
3. Laboratory/Clinical 30%

BIBLIOGRAPHY

AUTHOR	TITLE	YEAR	EDITION
BOTERO-RESTREPO	Parasitosis Humana	2003	4
FERNANDEZ TELMO	Medicina Tropical	2004	3
FLETCHER ROBERTH	Epidemiologia Clínica, Aspectos Fundamentales	2007	2
FRIDA OSUNA ROBERT	Epidemiologia y Bioestadística	2006	1
GORDIS LEON	Epidemiologia	2005	3
HERNANDEZ MAURICIO	Epidemiologia Diseño y Análisis de Estudio	2007	1
HEYMANN DAVID L.	El Control de las Enfermedades Transmisibles	2005	18
PALOMEQUE JULIO	Epidemiología, Guía Didáctica	2009	1