



## University of Nicosia, Cyprus

<b>Course Code</b> BIOL-443	<b>Course Title</b> Public Health II: Epidemiology	<b>ECTS Credits</b> 8
<b>Department</b> Life and Health Sciences	<b>Semester</b> Spring/Fall	<b>Prerequisites</b> BIOL-231 Biostatistics
<b>Type of Course</b> Health Sciences Elective	<b>Field</b> Health, Medicine	<b>Language of Instruction</b> English
<b>Level of Course</b> 1 <sup>st</sup> Cycle	<b>Year of Study</b> 3 <sup>rd</sup> or 4 <sup>th</sup>	<b>Lecturer</b>
<b>Mode of Delivery</b> Face-to-face	<b>Work Placement</b> N/A	<b>Co-requisites</b> None

### Objectives of the Course:

The course aims to provide a comprehensive introduction to principles applied in the practice of epidemiology. The main objectives of the course are to:

- Provide students with knowledge on the basic principles of epidemiology and on the methods and parameters used in the analysis and interpretation of epidemiological data.
- Expose students to epidemiologic study designs and enable them to practice on designing epidemiological studies under various scenarios.
- Make students aware of the ethical issues in epidemiologic research.
- Provide students with the opportunity to develop skills in reading, interpreting and critically evaluating health information from epidemiological literature

### Learning Outcomes:

After completion of the course students are expected to be able to:

1. Identify and describe the key concepts (screening and testing), use the terminology applied in the practice of epidemiology and explain the relevance of epidemiology to public health.
2. Describe how epidemiological approaches can be used to identify and measure health problems in specific populations and apply causal thinking using epidemiological criteria to establish causal relationships.
3. List the requirements in designing epidemiological research (experimental, cohort and case-control studies) and compare the strengths and weaknesses of each.
4. Evaluate epidemiological data and identify sources of bias and confounding.
5. Identify and discuss ethical issues in the conduct of epidemiological research.
6. Critically evaluate and report epidemiological scientific and public health

literature.

**Course Contents:**

1. The history and scope of epidemiology
2. Practical applications of epidemiology
3. Measures of morbidity and mortality used in epidemiology
4. Descriptive epidemiology: person, place, time
5. Sources of data for use in epidemiology
6. Study designs; experimental study design
7. Measures of effect
8. Data interpretation issues
9. Screening for diseases in the community
10. Epidemiology of infectious diseases
11. Molecular and genetic epidemiology
12. Psychological behavior epidemiology
13. Social epidemiology

**Learning Activities and Teaching Methods:**

Lectures, Case studies and Literature discussions

**Assessment Methods:**

Oral presentations, written assignments, Mid-term Exam; Final Exam

**Required Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
1. Robert H. Friis, Thomas A. Sellers	Epidemiology for public health practice	Jones and Bartlett  Chapman & Hall/CRC, c2004	2004, 3 <sup>rd</sup> ed.	ISBN-0763731706
2. Jewell, Nicholas P	Statistics for epidemiology		2004	ISBN-: 1584884339

**Recommended Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
1. Ann Aschengrau George R. Seage II	Essentials of epidemiology in public health	Jones and Bartlett,	2003	ISBN-0763725374