

**Department of Public Health
Institute of Social & Cultural Studies
Faculty of Behavioral & Social Sciences
University of the Punjab, Lahore**

Course Outline

Programme	BS Workplace Health & Safety Promotion	Course Code	WHSP 405	Credit Hours	3
Course Title	Basic Epidemiology				

WHSP 405- Basic Epidemiology

Course Description

- This course will focus on introducing concepts of epidemiology, using principles and methods of both descriptive and analytical epidemiology to address public health problems and issues.
- Emphasis will be placed on examining the trend and patterns of major public health epidemic and endemic infectious and chronic diseases and environmental health and emerging diseases in populations and communities using epidemiological study designs.

Course Objectives

After studying this course, students should be able to:

1. Outline epidemiological measures of disease occurrence, calculate basic measures and describe patterns of disease occurrence.
2. Demonstrate an understanding of routine sources of data used in descriptive epidemiology, and appreciate their strengths and limitations accordingly.
3. Differentiate epidemiological study designs, recognize the most appropriate circumstances in which to use each design, and describe the measures of disease occurrence that can be generated using each design.
4. Recognize potential threats to correctly interpreting results from epidemiological studies, and identify those most relevant to each study design.
5. Distinguish the difference between association and causation, and appreciate relevant issues in inferring causation from observational designs.
6. Demonstrated ability to review and critically appraise observational studies.

Course Contents

1. History of Epidemiology

- Natural history of disease and levels of prevention
- Distribution and determinants of disease
- Measures of disease frequency
- Overview of epidemiologic study designs
- Measures of association

2. Types of studies

- Cross sectional studies
- Case control studies
- Cohort studies
- Experimental and Intervention Studies
- Population dynamics

2. Introduction to surveillance

- Investigation of an outbreak
- Screening for disease

3. Ethics in epidemiologic practice

4. Critical appraisal of epidemiologic literature.

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work.

Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Carneiro, I. & Howard, N. (2011). Introduction to Epidemiology (Understanding Public Health) Paperback. 2nd Ed. ISBN-10: 0335244610.
2. Rothman, K. J. (2012). Epidemiology: An Introduction Paperback.
3. Bonita, R., Beaglehole, R. & Kjellstrom, T. (2006). Basic epidemiology, World Health Organization. (2nd Ed).