

In the Name of God
Isfahan University of Medical Sciences

Course Syllabus

Course Title: Principles of Epidemiology

Second Semester of the ۲۰۲۵-۲۰۲۶ Academic Year

Faculty: Medicine

Educational Department: Community and Preventive Medicine

Course Title and code: Principles of Epidemiology (۱۳۶۴۰۲۹)

Field and Level of Study: General Medicine / Basic Sciences

Number and type of unit (practical): ۲ theoretical units

Prerequisite: None

Course Instructor's Name: Dr Neda Tavakoli

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Lesson Description:

Epidemiology is the study of the distribution and determinants of health outcomes. As such, epidemiology is the basic science of public health. This course is designed to introduce students in all fields of public health to the background, basic principles and methods of public health epidemiology. Topics covered in this course include basic principles of epidemiology; measures of disease frequency; epidemiologic study designs: experimental and observational; outbreak investigations.

Overall course objective:

Familiarizing students with the general concepts and principles of epidemiology

Behavioral objectives:

By the end of this lesson, learners are expected to be able to:

- Apply the basic terminology and definitions of epidemiology.
- Understand the different types of Prevention.
- Describe a public health problem in terms of person, place, and time.
- Calculate basic epidemiology measures.
- Evaluate the strengths and limitations of epidemiologic studies.
- Draw appropriate inferences from epidemiologic data.
- Identify the principles and limitations of public health screening programs.
- Explain the importance of epidemiology for informing scientific, clinical, ethical, economic and political discussion of health issues.

Main Course Resources:

Title: Epidemiology, Author: Leon Gordis Edition: Vth Edition

Classroom topics

References for More Reading:

Jekel's Epidemiology, Biostatistics, Preventive Medicine, and Public Health ۲۰۲۰

Teaching Method (for offline and in-person sessions):

- Lessons are uploaded to the Navid system on a weekly basis.
- A specific timeframe is set for viewing the lessons.
- Assignments are assigned for some lessons.
- Assignments are to be completed individually.
- A specific deadline is set for the submission of assignments.
- In-person sessions involve a question-and-answer format accompanied by practical exercises.

Learner responsibilities (during offline and in-person sessions):**Offline Sessions:**

- ١-Students are required to study the content uploaded to the Navid system within the specified timeframe.
- ٢-Students must complete their assignments and submit them via the Navid system within the designated period.
- ٣-Students must use the Navid system to submit any questions they may have.
- ٤-Students are required to study the topics designated for quizzes prior to the exam.

In-Person Sessions:

- ١- The student is required to attend in-person sessions at the scheduled time.
- ٢- The student must pay attention to the topics discussed throughout the class and inform the instructor if they have any questions.
- ٣- The student must study the assigned material prior to the class.

Class Rules and Regulations (differentiated for offline and in-person sessions):

١. Attendance is verified through the completion of assignments, participation in discussions, and taking quizzes.
٢. Assignments submitted after the designated deadline will not be accepted.
٣. Assignment and exam solutions will be uploaded to the Navid platform.
٤. Your grade is determined based on the established grading scheme.
٥. Assignment scores are calculated using a checklist.
٦. All inquiries and issues must be raised and addressed through the class representative.
٧. Please refrain from making any personal contact.
٨. The reference textbook will be uploaded to the Navid platform.
٩. Supplementary resources or articles for further understanding of the material will be uploaded as optional reading.

Student assessment method and the marks allocated to each assessment:

Row	Assessment	Score from ٢٠
١	Midterm Exam	٨
٢	Final exam	١٢

No of session	Date	Main topic	Session Type	Time
١	٣١ Febriary	Introduction to Epidemiology	Off line	Sunday ٨-١٠
٢	٧ March	Epidemiology & prevention	Off line	Sunday ٨-١٠
٣	١٤ March	Dynamics of Disease Transmission	Off line	Sunday ٨-١٠
٤	٥ April	Investigating an Outbreak	Off line	Sunday ٨-١٠
٥	١٢ April	Measuring Occurrence of Disease: Morbidity	in-person	Sunday ٨-١٠
٦	١٩ April	Measuring Occurrence of Disease: Mortality	in-person	Sunday ٨-١٠
٧	٢٦ April	Standardization of rates	in-person	Sunday ٨-١٠
٨	٣ May	Natural History and prognosis	in-person	Sunday ٨-١٠
٩	١٠ May	Measures of Public Health Impact	in-person	Sunday ٨-١٠
١٠	١٧ May	Surveillance	in-person	Sunday ٨-١٠
١١	٢٤ May	Descriptive Epidemiology	in-person	Sunday ٨-١٠
١٢	٣١ May	Analytic Epidemiology (Case- control)	in-person	Sunday ٨-١٠
١٣	٧ June	Analytic Epidemiology (Cohort)	in-person	Sunday ٨-١٠
١٤	١٤ June	Analytic Epidemiology (Clinical Trial)	in-person	Sunday ٨-١٠
١٥	٢١ June	Risk Estimation	in-person	Sunday ٨-١٠
١٦	٢٨ June	Validity and Reliability of Tests/ Screening And it's principles	in-person	Sunday ٨-١٠
١٧	٥ July	Overview	in-person	Sunday ٨-١٠

Final Exam Date: Based on the academic calendar.

Other important notes for students:

Given the necessity of internet access for virtual sessions, it is essential to make the necessary arrangements and secure the required equipment prior to the start of classes. Therefore, no excuses regarding a lack of internet access or similar issues will be accepted.