

Academic Year/course: 2022/23

26721 - Preventive Medicine and Public Health

Syllabus Information

Academic Year: 2022/23

Subject: 26721 - Preventive Medicine and Public Health

Faculty / School: 104 - Facultad de Medicina

Degree: 304 - Degree in Medicine

ECTS: 6.0

Year: 4

Semester: First semester

Subject Type: Compulsory

Module:

1. General information

1.1. Aims of the course

Health care is the fundamental purpose of all the activities of the medical profession. This course has three overall goals:

- Provide a complementary vision to individual health care, focusing on the population dimension of health problems.
- Contribute to the application of criteria of rationality and application of the best available knowledge in the decision making of clinical practice.
- Identify drivers of the health system and health management at different levels that determine effective, efficient and safe clinical practice.

These overall goals are aligner with the following sustainable development goals to transform our world of the 2030 Agenda of United Nations in such a way that the acquisition of the learning results of the subject provides training and competence to contribute to its achievement.

<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

- [GOAL 3: Good Health and Well-being](#)
- [GOAL 5: Gender Equality](#)
- [GOAL 6: Clean Water and Sanitation](#)
- [GOAL 10: Reduced Inequality](#)
- [GOAL 11: Sustainable Cities and Communities](#)
- [GOAL 16: Peace and Justice Strong Institutions](#)
- [GOAL 17: Partnerships to achieve the Goal](#)

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of

teaching and learning tasks are implemented, such as

- Attendance and participation in theory and working sessions.
- Development of scheduled autonomous work.
- Autonomous study of papers and documents and teamwork

4.2. Learning tasks

The course includes the following learning tasks:

- Lectures.
- In-class activities.
- Autonomous work online (documentation provided by Department)
- Teamwork
- Review and analysis of papers.
- Case study and seminars
- Video analysis.
- A short quiz for self-learning.

4.3. Syllabus

The course will address the following topics:

1. LECTURES:

Introduction and scope of Public Health and Preventive Medicine

1. Public Health and Preventive Medicine: strategies for action. Contribution to sustainable development goals

Epidemiological methods

1. The analysis of the population. Demography. Health information systems.
2. Concept and applications of epidemiology.
3. Measuring the level of health (I): Health indicators.
4. Measuring the level of health (II): Comparability and adjustment
5. Measuring the level of health (III): Accuracy and validity. Error and bias
6. Strategies in epidemiological research. Studies design.
7. Descriptive epidemiology: person, place and time. Prevalence and longitudinal studies.
8. Experimental and analytical epidemiological studies. Clinical trials.
9. Observational epidemiological studies: case-control and cohort studies.
10. Causality in epidemiology.

Epidemiology and clinical practice

1. Evidence based medicine. Cochrane Collaboration. Systematic reviews.
2. Clinical Epidemiology I: Evaluation of diagnostic tests. Strategies for early diagnosis.
3. Clinical Epidemiology II: Prognosis and survival.
4. Critical appraisal of scientific literature on treatment, prognosis, causation and diagnostic tests.

Clinical and health care management

1. Health system. Patterns of health systems. Determinants of health policy. International health organizations. Non-governmental organizations focused on health care.
2. The Spanish health system: resources, organization and regulation. Levels of health care: Primary health care. Specialized care. Hospital structure and functioning.
3. Planning and programming in health services. Clinical guidelines, protocols and clinical pathways. Teamwork in Health.
4. Evaluation of health services. Rational of evaluation. Health technology assessment. Health Care Technology and Evaluation in Health Care.
5. Health Economics. Economic evaluation studies.
6. Clinical management. Clinical reasoning and determinants of clinical decision making. Clinical practice variations.
7. Quality in health care. Quality management.
8. Patient safety. Incidents and adverse events. Failures and mistakes. Quaternary prevention. Iatrogenic

Strategies of prevention and promotion and protection of health

1. Health protection. Pollution and environmental risks: measuring and health effects.
2. Occupational Health. Work and daily life risks.
3. Health Promotion. Lifestyle and health. Health and work: Nutrition and Public Health. Nutritional risk factors. Tobacco and alcohol as public health problems.
4. Health education. Medical counseling.
5. Epidemiology and prevention strategies for chronic diseases and accidents.
6. Current problems in epidemiology and prevention of communicable diseases. Epidemiological surveillance. Vaccinations.
7. Communicable diseases as population phenomenon. Emerging and reemerging diseases. Epidemiology and prevention of diseases requiring quarantine and special regulations.
8. Epidemiology and prevention of health care-associated infections.

2. CASE STUDIES AND PRACTICE SESSIONS

1. Incidence and prevalence. Descriptive studies. Clinical trials.
2. Case-control studies and cohort.
3. Outbreaks studies.
4. Validity of diagnostic tests.
5. Evidence-based medicine. Critical appraisal and evaluation of evidence.

3. SUPERVISED TEAMWORK

4.4. Course planning and calendar

For further details concerning the timetable, classroom and further information regarding this course please refer to the Facultad de Medicina and Microbiology, Pediatrics, Radiology and Public Health websites:

<https://medicina.unizar.es/> and <https://mmpysp.unizar.es/>

4.5. Bibliography and recommended resources

Available in: <http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=26721>