

COURSE DESCRIPTION

***COURSE/SUBJECT PREVENTION AND PUBLIC
HEALTH***

1ST. YEAR - SEMESTRAL COURSE 2ND. SEMESTER

DEGREE: DENTISTRY

MODALITY: ATTENDANCE IS REQUIRED

ACADEMIC YEAR 2021/2022

FACULTY OF MEDICINE

1. COURSE/SUBJECT IDENTIFICATION

1.- COURSE/SUBJECT:

Name: PREVENTION AND PUBLIC HEALTH		
Code: 19691		
Year (s) course is taught: 1 ST .	Semester (s) when the course is taught: 2 ND .	
Type: COMPULSORY SUBJECT	ECTS of the course: 6	Hours ECTS: 150
Language: ENGLISH	Modality: ON CAMPUS/ ATTENDANCE IS REQUIRED	
Degree (s) in which the course is taught: DENTISTRY		
School which the course is taught: MEDICINE		

2.- ORGANIZATION OF THE COURSE:

Department: Dentistry
Area of knowledge: Estomatology

2. LECTURERS OF THE COURSE/SUBJECT

1.-LECTURERS:

Responsible of the Course	CONTACT
Name:	Caridad Margarita Arias Macias
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Teaching and Research profile	Doctor in dentistry by UCM. Especialist in direction and organization of health services. University of la Habana. Master in Public Health and Epidemiology. University of la Habana. Master in university teaching. University CEU San Pablo. Collaborating Professor Doctor Dentistry Department.
Research Lines	Prevention and prevalence of oral diseases. Caries risk valoration. Stress and oral diseases.

Lecturer(s)	CONTACT
Name:	Isabel Adoración Martin Antoniano
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Lecturer(s)	CONTACT
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2.- TUTORIALS:

For any queries students can contact lecturers by e-mail, phone or visiting their office during the teacher's tutorial times published on the students' Virtual Campus.

3. COURSE DESCRIPTION

It is intended that the student acquires a preventive approach in addressing general and oral health. For all this, thematic blocks, such as demographics, health education, epidemiology and preventive dentistry, are developed highlighting the importance of the knowledge of the individual risk of disease before designing a therapeutic strategy.

4. COMPETENCIES

1.- COMPETENCIES

Code	Basic and General Skills
CB 2	Students know how to apply their knowledge to their work or vocation in a professional form and have the skills that tend to be demonstrated by means of a preparation and defence of arguments and problem-solving within their area of study.

CB 3	Students have the capacity to collect and interpret relevant data (normally within their area of study), to give judgements that include a reflection on relevant issues of a social, scientific or ethical nature.
CG 7	Promote self-learning of new knowledge and techniques, as well as motivation for quality.
CG 18	Learn, critically value and be able to use the sources of clinical and biomedical information to obtain, organize, interpret and communicate scientific and health information.
CG 29	Recognise the determining factors of dental health in the population, both genetic and those dependent on lifestyle, demographic, environmental, societal, economic, psychological and cultural factors.
CG 30	Recognise the role of the dentist in actions preventing and protecting against oral diseases, as well as the maintenance and promotion of dental health at both individual and community level.
CG 31	Understand the National Health System, as well as the basic aspects of health legislation, clinical management and the correct use of health resources, being aware of the importance of the role of dentists in primary health care.

Code	Specific Skills
CE 14	Learn about the National Health System, as well as the basic aspects of health legislation, clinical management and the correct use of health resources, understanding the importance of the role of the dentist in primary health care.
CE 17	Provide a global approach to oral care and apply the principles of health promotion and prevention of oral diseases.
CE 18	Educate and motivate patients in the prevention of oral diseases, control pathogenic oral habits, instruct in correct oral hygiene, dietary and nutritional measures and, in short, on all methods for maintaining oral health.
CE 19	Learn the effects of tobacco on oral health and participate in the measures that help patients who want to break the tobacco habit. Also, learn the complex interactions between environmental, social and personal conduct factors in oral and general health

2.- LEARNING OUTCOMES:

Code	Learning outcomes
	Knowing diagnostic methods that allows the student to identify risk factors for planning a preventive individualized program.
	Know the different methods of applying preventive measures.
	Identify high-risk groups in planning preventive strategies to achieve equity in oral health
	Understand the various strategies to enable individuals and groups in the responsibility for their own oral health and their environment.
	Understanding the importance of education and health promotion as a primary prevention.
	Knowing the tools to identify the main problems of oral health as well as the perceived needs of the population, their actual health status and treatment needs.
	The evolution and current concept of prevention, different levels and improve implementation strategies of Public Health in general and oral health.
	Knowing how to use and analyze methods of calculation and demographic and epidemiological analyzes, and equally apply and interpret the results of the screening test for the detection of health-disease-general and oral level.

	Predict, appreciate and know how to respond to the impact they can have the demographic and epidemiological changes on the corresponding particularly in health care and dental care.
	Understand the consequences of human interactions on the environment, and vice versa, as public health problems.
	Know the epidemiology and prevention of communicable diseases and chronic evolution chain and identifying the tangle of factors or circumstances of general and oral health with which those can be associated risk.
	Know the different health models, levels of care, health systems, planning, programming and methods of general and dental health assessment, and also international organizations related to it all.

5. LEARNING ACTIVITIES

1.- DISTRIBUTION OF STUDENTS' ASSIGNMENT:

Total hours of the course	150
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Code	Name	On-campus hours
	Theoretical'Practical classes	56
	Laboratory Practices	15
	Evaluation tests	4
TOTAL Presence Hours		75

Code	Name	Not on-campus hours
	Self student work	75

2.- DESCRIPTION OF LEARNING ACTIVITIES:

Activity	Definition
Theoretical'Practical classes	Training activity in which the teacher exposes theoretical contents, interspersing them with didactic exercises that consolidate the learning process: We will carry out theoretical classes and practical classes. The latter will consist of performing demographic calculations and health indicators of general and dental morbidity. Likewise, poster sketches will be made for health education and health habits surveys, among others.
Laboratory Practices	<p>Training activity that prioritizes the realization by the student of practical activities in the laboratory that involve the application of theoretical knowledge and the acquisition and development of knowledge and practical skills, may include peer work, learning basic and specific techniques and methods, practice notebooks, use of ICTs, simulation with typodonts on phantoms and virtual simulation in 3D, etc.</p> <p>The practices in the chairs/laboratories will be aimed at the determination of microbial plaque, saliva analysis, prophylaxis and fluoride application between pairs of students with the direct supervision of the professor. There</p>

	<p>will be 4 practices of 3 hours in the laboratory and/or chairs, distributed throughout the semester.</p> <p>Practice groups are assigned by the secretary's office and never exceed 14 students.</p> <p>Once assigned the corresponding internship shift, no change will be allowed unless there is a justified cause in writing and it must be authorized by the professor responsible for the subject.</p> <p>At the end the student will present a clinical case as a summary of all the activities carried out in the laboratory.</p>
Evaluation tests	Classroom training activity in which the student performs the evaluation tests under the supervision of the professor.
Field work	The field work will consist of carrying out a health and educational activity survey aimed at university students at the Montepíncipe campus, for which they will have to prepare all the theoretical content as well as the supporting didactic material and the instruments to evaluate the results of the activity.

6. ASSESMENT OF LEARNING

1.- CLASS ATTENDANCE:

- In order to be eligible for examination by continuous assessment students must attend at least 75% of scheduled class time (attendance sheets will be used). As students may be absent 25% of the classes, no attenuating circumstances will be accepted for absences.
- 100% attendance at practices** (classroom and lab practices) **is required**. Not being contemplated practical classes between the ordinary and extraordinary call, the non-realization of these in the months scheduled carries the suspense of both calls.

For laboratory practice it is essential to provide all the previously requested materials, the lab notebook and the corresponding white coat, perfectly clean.

In case of not complying with these requirements, the teacher may not let the student carry out the specific practice, which will cause him to lose the right to continuous evaluation.

2.- ASSESMENT SYSTEM AND CRITERIA:

ORDINARY EXAMINATION (continuous assessment)		
Code	Name	Percentage
	Attendance and participation in lectures and seminars (> 75%)	5
	Laboratory and classroom practices	20
	Partial test	20
	Final tests	45
	Fieldwork: Development of an educational poster and health education activities	10
	FINAL SCORE OF THE COURSE	100

RE-TAKE EXAM/EXTRAORDINARY EXAMINATION

Code	Name	Percentage
	<p>Extraordinary written examination theoretical/practical. To pass the test it is essential to have performed the practices of laboratories and armchairs.</p> <p>In the qualification of the extraordinary call will not apply the percentages established in the continuous evaluation, this qualification will be that of the extraordinary examination, taking into account the note of practices that must be greater or equal to five points over ten And, in the appropriate case, other activities carried out by the student.</p>	100

3.- DESCRIPTION OF ASSESSMENT CRITERIA:

Assesment criteria	Definition
Laboratory and classroom practices	<p>Attendance and participation to 100% of practices is mandatory. Every practice is an evaluation of 10 points. 40% of that assessment corresponds to an initial written exam on the subject that is required to know and the teacher will previously indicate. The remaining 60% is related to the assessment that the teacher performs of the development and results of the practice.</p> <p>There will be an average of all practices that must be equal to or greater than 5 points to pass the subject.</p>
Partial and final tests	<p>A continuous evaluation exam will be carried out in the middle of the semester, which will consist of test questions, in which the wrongly answered questions subtract. In addition, the exam will include essay questions, short and / or open questions.</p> <p>It is essential to achieve the minimum grade of <u>7 out of 10</u> in this exam to free the subject included in it.</p> <ul style="list-style-type: none"> · The final ordinary exam is mandatory for all students. The same will evaluate all the subject taught in the course, except for those students who with 75% or more of attendance have obtained an evaluation ≥ 7 in the continuous assessment exam, in which case they will only go to the final ordinary exam with the subject that was not evaluated in the partial assessment of continuous evaluation. · The final ordinary exam will consist of test questions and writing questions. The ordinary exam must be passed (5 or more points) to pass the subject.
Field work	<p>It will consist of carrying out educational activities to students of the faculties of Pharmacy, Polytechnic and Medicine. The preparation of all didactic material and, also, the realization of health and satisfaction surveys will be assessed.</p> <p>The assistance and preparation of all the material and to obtain an evaluation of 5 or more points is essential to pass the course.</p>

7. COURSE PROGRAMME

1. - COURSE PROGRAMME:

THEORETICAL:

Thematic Block A: Overview of Prevention

1. Prevention concept, its historical evolution
2. Considerations on the concepts of Health and its determinants
3. Public Health and Community Health. Functions of the Public Health
4. Natural history of disease. Prevention levels
5. Components of the standard of living and their relationship to health.
6. Health education. Principles, methods and applications

Block B: Health Demography

7. Demographics and health: concept, applications of demography in Public Health. data sources.
8. Static Demographics: population pyramids. demographic indices: Coefficient of masculinity index Sundbarg, dependency rates.
9. Demographic dynamics: evolution of populations, birth, death and migration
10. Analysis of data in dynamic demographics: birth rates, fertility, mortality, Swaroop-Vemura Index, Index-Acosta Varo. Natural growth rates, migration balance, annual growth rate. Life expectancy. potential years of life lost
11. Adjusting rates: direct and indirect method
12. Demographic and epidemiological transition

Thematic Block C: Public Health and Health Systems

13. Sources of information in Public Health
14. Diagnosis of Community Health. health indicators
15. International Public health, health situation in the world. Analysis of health inequalities in the world
16. Health Planning. Health plans and health surveys. Health Economics. health assessment
17. Health systems: concepts, general principles, elements that make it up. Model health systems. Current problems facing health systems. Reforms needed. Prioritization and allocation of health resources
18. Spanish health system. Evolution, competitions, coverage and financing. Centers of the National Health System. Health Care levels. Dentistry within the Spanish Health System

Thematic Block D Epidemiology

19. Concept and uses of epidemiology.
20. General epidemiology, prevention and control of communicable diseases. epidemiological chain, characteristics of the causative agent. Source and reservoir. Transmission mechanisms: direct and indirect transmission.
21. Communicable diseases such as community phenomenon. Epidemics: types of epidemics. Prevention of communicable diseases. Prevention and control levels.
22. Environment and human health. environmental epidemiology. environmental determinants of health factors. Atmospheric pollution
23. Health aspects of water. Water consumption and waste. Solid waste management and treatment.
24. Epidemiological surveillance. Epidemiological surveillance systems: Functions. Components of a surveillance system. System notifiable diseases
25. Epidemiology of chronic diseases.

Thematic Block E: Prevention and Epidemiology in Dentistry

26. Preventive and Community Dentistry. Principles of health promotion and prevention
27. Caries: basics of current prevention and control. Epidemiology
28. Oral Media: Saliva
29. Diet, nutrition and oral health
30. Control Methods plaque
31. Fundamentals and current concept of preventive and therapeutic action of fluoride. rational use
32. Other methods of caries prevention: pit and fissure sealants

- 33. Caries Risk assessment
- 33. Epidemiology other oral diseases: periodontal disease, malocclusion and oral cancer
- 34. Prevention of disease transmission in dental clinic
- 35. epidemiological indices most frequently used in dentistry

PRACTICAL WORK PROGRAMME:

CLASSROOM PRACTICES: To be carried out within the theoretical and practical class schedule:

PRACTICE 1: Prevention and Health Education: Educational sketch.

PRACTICE 2: Demographic Indicators: Resolution of exercises with calculation of rates and demographic indicators, as well as their analysis and interpretation.

PRACTICE 3: Elaboration of aids for educational talks: presentation and discussion of posters and other educational media formats. Health Education: Brushing techniques: The student will practice with the typodont all the student brushing techniques and will check that his co-worker performs them properly under the supervision of the teacher.

PRACTICE 4: Dental Indicators: Calculation and interpretation of dental indicators in specific cases presented by the professor.

PRACTICE 5: Dietary analysis: Application of a consumption frequency questionnaire, analysis and proposal of recommendations.

PRACTICE 6: Cariogram and other computer programs: Applying Cariogram to specific cases.

PRACTICE 7: Presentation of clinical cases. Present a synthesis of all the work done in chair practices considering your fellow student as your patient so you should present the case and propose recommendations to overcome identified risk factors that should be improved to prevent oral diseases.

LABORATORY PRACTICES (3 hours/practice):

A face-to-face seminar will be held in the first week of classes, prior to the start of the laboratory practicals, in which the main concepts included in the laboratory practicals will be discussed.

PRACTICE 1: Clinical History and Health Education Perform anamnesis and clinical examination of the partner who will be your partner throughout the semester.

PRACTICE 2: Sanitary Education and bacterial plaque disclosure: Perform a record of the presence of bacterial plaque and calculate the O'Leary and Silness-Löe Index. Instruct on how to improve brushing technique.

PRACTICE 3: Fluoride: The student will record the presence of bacterial plaque and will calculate the O'Leary Index to compare with the one performed in practice 3. Subsequently, you will perform a topical application of fluoride.

PRACTICE 4: Sealants Laboratory. The student will fix natural teeth on plaster models and apply pit and fissure sealants. The student will apply the saliva tests (S. Mutans, salivary flow and pH) to his practice partner in order to make an evaluation of caries risk taking into account the quantity and quality of saliva.

8. RECOMMENDED READING

1.- ESSENTIAL BIBLIOGRAPHY:

- Hardy Limeback. Comprehensive preventive dentistry.. Wiley-Blackwell.2012.
- CM Mara. A textbook of preventive health dentistry. Jaypee.
- Cuenca Sala, E. y Baca García P. Odontología preventiva y comunitaria. 4ª edición. Elsevier Masson; 2013.
- Piédrola Gil: Medicina Preventiva y Salud Pública. 11ª edición. Masson; 2008.
- Gordis: Epidemiología. Elsevier España, SA. 2005.

2.- ADDITIONAL BIBLIOGRAPHY:

- Hernández-Aguado, Gil, Delgado, Bolmar. Manual de Epidemiología y Salud Pública para licenciaturas y diplomaturas en ciencias de la salud. Madrid Panamericana,, 2005.
- Piédrola Gil: Medicina Preventiva y Salud Pública. 11ª edición. Masson; 2008
- Demografía y salud: concepto, aplicaciones de la demografía en Salud Pública. fuentes de datos.
- Martínez Navarro F. Salud Pública. McGraw-Hill-Interamericana de España, S.A.U. Madrid, 1998.
- Szklo M, Nieto FJ. Epidemiología intermedia. Conceptos y aplicaciones. Madrid:Díaz de Santos, 2003.
- Organización Mundial de la Salud. Informe sobre la salud en el mundo 2004. cambiamos el rumbo de la historia. Geneva: World Health Organization; 2004.
- Genova R. Demografía. Salud pública y enfermería comunitaria. Madrid, McGraw-Hill Interamericana, 2003
- Livi-Bacci M. Introducción a la demografía. Barcelona, Ariel, 1993.
- Rioboó R. Odontología preventiva y odontología comunitaria.: Avances Médico Dentales Madrid.2002
- Higashida. Odontología preventiva. McGraw-Hill Interamericana, cop. México 2000.
- Torrell JM^a. Métodos de investigación en odontología: bases científicas y aplicaciones del diseño de la investigación clínica en las enfermedades dentales: Masson, Barcelona 2000.

4.- WEB RESOURCES :

<http://www.saludpreventiva.com/web/index.php>
<http://www.ine.es/>
<http://cne.isciii.es/>
<http://www.msc.es/>
<http://www.madrid.org/sanidad>
<http://sespo.es/>

9. ATTITUDE IN THE CLASSROOM

1. - REGULATIONS

Any irregular act of academic integrity (no reference to cited sources, plagiarism of work or inappropriate use of prohibited information during examinations) or signing the attendance sheet for fellow students not present in class, will result in the student not being eligible for continuous assessment and possibly being penalized according to the University regulations.

The use of mobile phones in any theoretical or practical activity is prohibited/not allowed.

The use of computers or other electronic device will be allowed only in order to take notes.

Recording classes or other educational activity, without permission is also prohibited.

Likewise, the use of the documentation provided by the teacher through the student portal (presentations, questions, exercises, seminars, practical notebooks, etc.) is also restricted to the preparation of the subject.

The / teachers have the right reserved to make use of the measures contained in the legislation on Intellectual Property, in cases where use and / or unauthorized disclosure of such material is detected.

Principio del formulario

10. EXCEPTIONAL MEASURES

Should an exceptional situation occur which prevents continuing with face-to-face teaching under the conditions previously established to this end, the University will take appropriate decisions and adopt the necessary measures to guarantee the acquisition of skills and attainment of learning outcomes as established in this Course Unit Guide. This will be done in

accordance with the teaching coordination mechanisms included in the Internal Quality Assurance System of each degree.