

MODULE DESCRIPTION (ANALYTICAL PROGRAM).

1. Module Information Code:	
• Name of the Institution and School	Universidad Autónoma de Nuevo León, School of Medicine
• Name of the learning Unit	Preventive Medicine
• Total classroom hours for theory and/or practice.	100 hours
• Total extra classroom hours	50 hours
• Course Modality	Schooled.
• Type of academic period in which the module is offered	4° Semester
• Type of Learning Unit in the Curriculum	Compulsory
• Curriculum area:	ACFB
• UANL credit points	5 credits
• Date of module creation:	20/04/2015
• Date of last amendment:	14/01/2021
• Person(s) responsible for the module design and amendment	Dr. Raúl Gabino Salazar Montalvo Dr. Luis Gerardo Castillo Reyna Dra. med. Hilda Cristina Ochoa Bayona MSP. David Emmanuel Castañeda Vásquez
2. Introduction:	
<p>The preventive medicine learning unit, it is structured in five stages of study, The first phase analyses of Preventive Medicine in its multidisciplinary nature, with the aim of recognizing its importance in health science and its interrelationship with other disciplines that enable it to prevent detection and contribute to the control of individual disease second phase recognizes medical techniques for preventing most frequent diseases in the country;</p>	

identifying the main causes of morbidity and mortality in Mexico, through the Model of Natural History of Disease and Levels of Prevention of Leavell and Clark, allowing to integrate pre pathogenic and pathogenic periods of each disease the third phase identifies the characteristics of a healthy environment by allowing pupil to distinguish risks from a holistic perspective for care in a integral ; the fourth phase, holistic manner, The National Health System and various health programmes are analysed in the local state and national context to identify areas of opportunity. During the fifth stage, medical and nonmedical techniques are applied for the prevention of diseases in real occupation scenarios with the aim of promoting and preserving health.

3. Purpose(s)

In the preventive medicine learning unit, the student develops knowledge and skills that enable him to prevent detection and contribute to the control of individual diseases, through healthy lifestyle analysis and the study of pathogens to which he is exposed and the environmental factors in which he lives.

This is intended to select and apply medical techniques for the prevention of diseases affecting the host through health promotion, specific protection and rehabilitation of most common diseases.

Similarly, it helps to ensure that graduate students are able to solve main health problems from the first level of medical care, with a holistic perspective, with the competence to treat the patient with ethical and Moral principles, being a responsible leader with the ability to work as a team, learning to seek up-to-date medical information and thus acquire the habit of obtaining continuous medical education. The knowledge acquired will provide the graduate with the ability to exercise their knowledge.

It relates to the learning units of the Medical Surgeon and obstetrician degree as follows: Introduction to medicine by knowing the concepts of health and disease facilitates the understanding of natural History of the Disease of Sir Mcfarlane Burnet and the levels of prevention of Leavell and Clark to apply it to any health problem. With Anatomy when learning the anatomical benchmarks indispensable in anthropometric measurements and the application of immunizations. Embryology, in establishing human life development from conception to birth allows the student to integrate the maternal and Child Health Programme and the healthy kid, and thus follow up on pregnancy and recommend family planning methods.

Microbiology and Immunology allow the mechanisms knowledge for susceptibility and resistance of different pathogens to understand the risk of life transmission and it privileges immunization actions throughout the individual's life as stipulated in the Mexican Standard NOM-036-SSA2-2002. Epidemiology is linked to distinguishing the country's demography and being able to recognize the different living groups and being able to recognize

the different living groups that focus on health programmes, as well as establishing the prevention and control of communicable and degenerative chronic diseases. Biostatistic supports mathematical reasoning of the use of fees and percentages in the health study.

And with subsequent learning units the knowledge acquired applies to all diseases that are studied in the curriculum of the bachelor's degree of Physician Surgeon and Orthopedist at the UANL Medical School. The Unit of Preventive Medicine promotes skills regarding the general competences of the UANL, when requesting the search for Spanish and English literature, this allows the analysis and development of script schemes and teaching materials to communicate it in scientific and common language, using electronic tools that speed up and allow their application with quality.

With regard to personal and social interaction, it's encouraged, with the teachers, peers, in the community in an environment of respect for diversity, in any of its manifestations without any discrimination. The challenges arising in society at the local are also addressed with global and self-critical vision for continuous improvement and self-sustaining development of new contributions required, truly, fairness, honesty, respect and freedom to work without obstacles and solidarity with the sensed needs of the community.

The student is constantly being encouraged to innovate to address holistically the social needs arising in the individual, the family, and society. The student applies knowledge when integrating into health institutions' service, where he exercises leadership in achieving multidisciplinary goals set by them and to achieve preventive intervention in the main causes of morbidity and mortality in the population. Adaptability to emergency conditions and re-emergence of health problems is urged to contribute to their control and/or solution.

4. Competences of the graduate's profile

a. General competences contributing to this learning unit.

Instrumental skills:

- 1..Apply autonomous learning strategies in the different levels and fields of knowledge that allow them make appropriate and relevant decisions in the personal, academic and professional fields.
2. Use the logical, formal, mathematical, iconic, verbal and non-verbal languages according to their stage of life, in order to understand, interpret and express ideas, feelings, theories and streams of thinking with an ecumenical focus.
3. Use the information and communication technologies as access tools to information and its transformation in knowledge, as well as for learning and collaborative work with cutting-edge techniques that allow its constructive participation in society.
4. Dominate their native language in oral and written form with correctness, relevancy, opportunity and ethics adapting its message to the

situation or context, in order to transmit ideas and scientific findings.

5. Employ logical, critical, creative and proactive thinking to analyze natural and social phenomena that let them make relevant decisions in its area of influence with social responsibility.

7. Develop inter, multi and transdisciplinary academic and professional proposals according to the best global practices to promote and consolidate the collaborative work.

Personal and social interaction skills

9. Maintain an attitude of commitment and respect towards the diversity of social and cultural practices that reaffirm the principle of integration in the local, national and international context with the purpose of promoting environments of peaceful coexistence

11. Practice the values promoted by the UANL: truth, equality, honesty, liberty, solidarity, respect for life and anyone's, peace, respect for nature, integrity, ethics, behavior and justice, within their personal and professional environment in order to make a sustainable society.

Integrative skills

12. Make innovative proposals based on the holistic understanding of reality to help overcome the challenges of the interdependent global environment.

14. Resolve personal and social conflicts in accordance with specific techniques in the academic field and their profession for the proper decision making.

15. Achieve the adaptability required in uncertain professional and social environments of our time to improve living conditions.

b. Specific competences of the graduate profile to which the learning unit contributes:

Medicine scientific base

1.- Use the medicine scientific fundamentals considering economical, psychological, social, cultural and environmental factors which contribute to the development and evolution of a disease for decision-making and medical actions.

Professional clinical practice

2.- Solves clinical problems through deductive reasoning, interpretation of findings and definition of their nature with the aim of making

decisions and determine action principles of the medical practice to follow in a responsible way, impacting individual and collective health.

Critical thinking and research

7.- Applies the scientific method for the resolution of medical problems with an innovative, analytic and self-critical attitude for preventing, diagnosing and treating diseases

Professional and ethical values

8.- Integrates professional values and ethics into his medical practice, making no difference due to gender, race, political or sexual preference, religious beliefs, activities developed, disabilities or socioeconomic level, promoting social inclusion and contributing to the population's well-being, their life quality and human development.

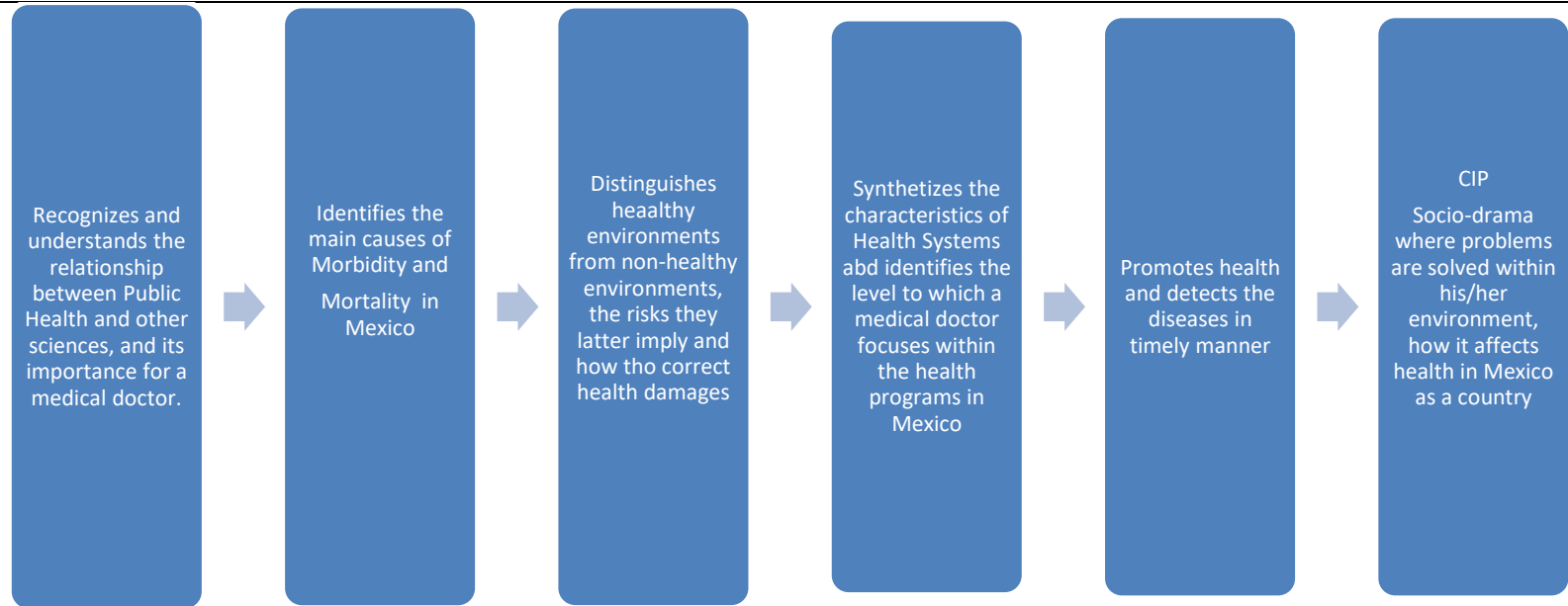
Organizational work

10.- Promotes an organizational work culture for the health field, acknowledging the multidisciplinary work, respect for institutional policies and the observance of rules in order to contribute to a comprehensive treatment of patients.

Communication

11.- Applies effective communication principles, establishing a respectful and sympathetic relationship with the patient, relatives, the community and other health professionals in order to use the information properly.

5. Course roadmap:



Structuring into stages or phases

Phase 1: Public health definition and relation with other sciences.

Component(s) of the competence:.

Analysing Preventive Medicine in its multidisciplinary nature with a view to recognizing its importance in health sciences.

Evidence of student learning	Performance Criteria	Learning activities	Content	Resources
Essay on preventive medicine and its relationship to other health sciences.	<ul style="list-style-type: none"> • Defines the concept of preventive medicine • Describes the characteristics of preventive medicine and functions. • Analyses the multidisciplinary nature of the matter and its relationship with other health problems. • The main theme provides several secondary ideas or examples. • The information is complete and is properly organized. 	<ul style="list-style-type: none"> • Advises previously on Public health and Functions of Public health with a focus on Preventive Medicine and its multidisciplinary nature. • Active reading on the subject. • Exposición oral del tema por parte del facilitador sobre la medicina preventiva y su carácter multidisciplinario. • Oral statement on the topic by the facilitator on preventive medicine and its multidisciplinary nature. • Design of support material. 	<p>Conceptual Content.</p> <p>. preventive medicine and its extent in first-contact medicine and its relationship to other health sciences.</p> <p>Procedural content</p> <ul style="list-style-type: none"> • Reflection on description and characteristics and functions of preventive medicine. • Oral presentation of ideas. 	<ul style="list-style-type: none"> • Classroom • Projector • Backboard • Platform • Manual <p>References</p>

	<ul style="list-style-type: none"> • The paragraphs include an introduction, explanations or details and conclusions. There are no spelling errors • All sources of information and graphs are documented and in the desired format. Cover with title characteristics, name, group, registration, and theory teacher. Font Arial 12. 	<ul style="list-style-type: none"> • Prepares questions during the exhibition to raise them at the end of the class. • It is actively involved in the group and plenary exhibition. • Runs questions and answers session. • Clarifica y ejemplifica conceptos y principios. Clarifies and exemplifies concepts and principles. 	<ul style="list-style-type: none"> • Assessment of the status of preventive medicine in the exercise of the profession and its multidisciplinary nature. <p>Attitudinal Content</p> <ul style="list-style-type: none"> • Respect for diversity of views. • Willingness for collaborative work responsibility and leadership. 	
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Phase2: Morbidity and mortality:**Component(s) of the competence:**

Identify the main causes of morbidity and mortality in Mexico by the model of natural history of disease and levels of prevention Leavell and Clark, allowing to integrate pre pathogenic and pathogenic stages of each disease.

Evidence of student learning	Performance Criteria	Learning activities	Content	Resources
Scheme of Natural History of disease	<ul style="list-style-type: none">• Clear and detailed description of the topic, including pre-pathogenic, pathogenic and prevention periods of Leavell and Clark.• Presents a logical sequence..• All sources of information and graph are documented and in the desired format: portada con características de título, nombre, grupo, matrícula y profesor de teoría,Cover with characteristics of title,name,group,registration, and theory teacher.	<ul style="list-style-type: none">• provides guidance on the themes of Natural History of the disease, and levels of prevention of Leavell and Clark, of the main causes of morbidity and mortality in Mexico.• Active reading on the theme of Natural History of disease and levels of prevention of Leavell and Clark.• Oral presentation of the main causes of morbidity and mortality in Mexico, with the natural history of the disease scheme.• Prepares questions during the exhibition to raise them at the end of the class.	<p>Conceptual content.</p> <p>Natural history of the disease with the definition of:</p> <p><i>Pre pathogenic period:</i></p> <p><i>Ecological Triad:</i></p> <ul style="list-style-type: none">• Agent• Host• Environment <p><i>Pathogenic period</i></p> <p><i>Subclinical stage</i></p> <ul style="list-style-type: none">• Defensive mechanisms• Pathogenic mechanisms	<ul style="list-style-type: none">• Classroom• Projector• Blackboard• Platform• Manual• References

	<p>Arial font and with no spelling errors.</p>	<ul style="list-style-type: none"> • It is actively involved in the group and plenary exhibition. • It runs questions and answers sessions of the levels of prevention of Leavell Clark, of the main causes of morbidity and mortality in Mexico.. • Clarifies and exemplifies concepts and principles. 	<p><i>clinical Stage</i></p> <ul style="list-style-type: none"> • Symptoms and non specific signs • Síntoms and specific signs • Complications • aftermath <p>Prevention levels of leavell and Clark</p> <p>1.- First level of prevention</p> <ul style="list-style-type: none"> • Health promotion • Communication process • teaching learning process • education auxiliary techniques. • didactic resources in the education process 	
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			<ul style="list-style-type: none"> • Specific protection. • Immunization bases • Immunization time table in our country. <p>2.- Second level of prevention</p> <ul style="list-style-type: none"> • Early diagnosis • Timely treatment <p>3.- Third level of prevention</p> <ul style="list-style-type: none"> • Rehabilitation • Physical, mental and social rehabilitation. <p>First causes of mortality in México: obesity, Arterial hypertension, diabetes mellitus, breast cancer, cancer of cervix, prostate cancer, lung cancer and</p>	
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			<p>liver cirrhosis, accidents and drug dependencies .</p> <p>First causes of morbidity in Mexico:</p> <p>Acute respiratory infections, influenza, pulmonary tuberculosis, acute diarrhoeal infections, sexually transmitted infections, gonorrhea, syphilis, non-gonococcal urethritis, and AIDS</p> <p>Procedural content:</p> <ul style="list-style-type: none"> • Implementation of the techniques and methodologies used in promoting health • Rational use of medical and non-medical language in a communication process. 	
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			<ul style="list-style-type: none"> ● Use of verbal and non verbal communication, with the proper construction of support material for health promotion. ● Acquisition of timely detection techniques such as: weight, size, blood pressure, and hair glycaemia through reactive tyre. ● Acquisition of calculation techniques of the waist hip index and body mass index for nutritional evaluation. ● The application of theoretical-practical skills in the correct breast-exploration techniques as a measure of promotion and detection, as well as in the correct vaginal 	
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1st partial exam			<p>mirror insertion technique for timely detection of cervix cancer</p> <ul style="list-style-type: none"> • Analysis of questionnaires for the detection of risk factors for obesity, arterial hypertension, and diabetes mellitus, as well as social diseases such as alcohol consumption, tobacco consumption, and family violence, in addition to interpretation of results and reference, appropriate to the corresponding medical service. • Application of benchmark criteria and counter-reference. 	
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			<ul style="list-style-type: none"> ● Reflection on the characteristics of the third level of prevention. <p>Attitudinal Content:</p> <ul style="list-style-type: none"> ● Respect for human dignity. ● Relationship of empathy and respect for teachers, health personnel, medical equipment and non medical equipment, population attending a health service. ● Use of knowledge of the code of professional ethics in patient medical interaction. 	
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Phase 3: Health and Environment.

Component(s) of the competence:

Understand the healthy and unhealthy environment, analysing its benefits and risks involved to implement preventive and corrective measures affecting health.

Evidence of student learning	Performance Criteria	Learning activities	Content	Resources
Project: Problem-based learning, describes the characteristics of the healthy and unhealthy environment and how it affects the health of the individual.	<ul style="list-style-type: none">• Presents information on the case in an organized manner.• Analyses the elements of the case: Environment.• Use of the right terminology.• Clarifies concepts. <p>Sanitation water, soil, air.</p> <p>Contamination: visual, auditory radiations.</p> <p>Zoonosis</p> <ul style="list-style-type: none">• Substantiates hypothesis <ul style="list-style-type: none">• Clearly expresses points of views, in the face of actions to be taken.	<ul style="list-style-type: none">• The teacher previously advises on the characteristics of a healthy environment: water and air sanitation, excretion disposition.• Visual, auditive pollution and harmful fauna.• Active reading on the subject of water and air sanitation.• Oral presentation of water and air sanitation, excrete disposition. <p>Visual, auditive pollution and harmful fauna.</p> <ul style="list-style-type: none">• Design of support material.	Conceptual Content <ul style="list-style-type: none">• Water sanitation, elementary biological processes.• Sources of water supply for human use and consumption, and rational use of water supply• Water quality for human use and consumption.• More frequent diseases caused by environmental pollution, lack of basic sanitation and water for human use and consumption.	<ul style="list-style-type: none">• Classroom• Manual• Platform.• Projector• Videos• Didactic material

	<ul style="list-style-type: none"> Feedback the group with reflections. Feedback the group with suggestions. 	<ul style="list-style-type: none"> Prepares questions during the exhibition to raise them at the end of the class. It is actively involved in the group and plenary exhibition. It Runs questions and answers sessions on the healthy environment. Clarifies and exemplifies concepts and principles to prevent the unhealthy environment. 	<ul style="list-style-type: none"> Prevention and control of water pollution, water quality of receiving bodies; pollution problems and alternatives to solution. Soil sanitation, minimisation and recycling of solid urban and hazardous waste. Prevention and control of soil pollution. Quality and problematic of soil for agricultural, housing and industrial use, mitigation and control measures. Introduction in the sampling and analysis of contaminated soil. Particle control air sanitation. Sampling and analysis of particles suspended in the atmosphere, 	
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			<ul style="list-style-type: none"> • Air pollution prevention and control, quality and problems in air basins and measures to reduce air pollution. • : Visual, Auditive and radiation pollution <p>Procedural Content</p> <ul style="list-style-type: none"> • Conscious of the use of contamination sources and water supply for human consumption an addition to the characteristics and quality of drinking water, purified water, and treated and/or hard industrial water. • Analysis of the origin of soil pollution by excrete. • It is aware of sources of air pollution and how to implement preventive measures 	
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			<ul style="list-style-type: none"> ● Analysis of visual pollution by noise and radiation and its impact on human health. <p>Attitudinal Content</p> <ul style="list-style-type: none"> ● Respect for human dignity. ● Relationship of empathy and respect for teachers, health personnel, medical equipment and non medical equipment, population attending a health service. ● Social responsibility between events in pollution and their contribution to an inclusive society 	
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Phase 4: Health systems and programmes**Component(s) of the competence:**

Analysing the Health System in Mexico in the local, State, and National context to identify areas of opportunity and the characteristics of the project.

Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
Conceptual map on the health system in Mexico	<ul style="list-style-type: none">• Clear and detailed description of the topic, including the concepts of the health system in Mexico and its relationship to health programmes.• A well-organized and clearly presented theme and easily followed up.• An outstanding and attractive mental map that meets the design criteria posed, without spelling errors.• Central image is correctly associated with the topic, the main and secondary ideas are distinguished from each other, and the	<ul style="list-style-type: none">• Previously mentors on the health system in Mexico• Active reading on the subject, health programming and medical institutions.• Design of support material.• Prepares questions during the exhibition to raise those at the end of the class.• It Runs questions and answers sessions on the open and closed population.• It clarifies and exemplifies concepts and principles on the health rectory in Mexico.	<p>Conceptual Content</p> <ul style="list-style-type: none">• . The Health System in Mexico and its structure at the local, state and national level.• The Health secretariat as a rectory for a health system in Mexico.• Public and private institutions and their contribution to health in Mexico: IMSS, ISSSTE, PEMEX, SEDENA among others..• description of the open and closed population. <p>Procedural Content</p>	<ul style="list-style-type: none">• Classroom• Manual• Platform• Projector• Blackboard

	<p>keywords represent important concepts, the images used are appropriate.</p> <ul style="list-style-type: none"> • Must present cover with identification data Font 12 interlined at 1.5. 		<p>Analysis of health instructions and current health policies in Mexico.</p> <p>Attitudinal Content</p> <ul style="list-style-type: none"> • Respect for the diversity of points of view. • Relationship of empathy and respect for teachers, health personnel, medical equipment and non medical equipment, population attending a health service • Provision for collaborative work responsibility and leadership. 	
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Phase 5: Promotion of health and timely detection.**Component(s) of the competence:**

Applying medical and non-medical techniques in real professional scenarios with the aim of promoting and preserving health.

Evidence of student learning	Performance Criteria	Learning activities	Content	Resources
Role play on community health promotion and submission of written script.	<ul style="list-style-type: none">• The point of view, the arguments and solutions proposed were consistent and related to preventive medical activities.• Students included updated information on preventive medicine.• Can clearly explain preventive medicine action where his character saw things differently from other characters and is able to explain why.• It took seriously the role entrusted, focusing on the proposed indent according to the promotion, specific	<ul style="list-style-type: none">• mentors previously on the subjects: effective communication and quality systems, chronic non-transmissible and transmissible diseases, neoplastics, of the elderly, and associated risk factors, specific protection through vaccination and timely detection.• It is actively involved in the group and plenary discussion.• Teamwork• Elaboration of a written script• Establish characters.• To clearly establish the functions of the physician to promote and reserve health.	Conceptual Content <ul style="list-style-type: none">• Effective communication and quality service in the system• Nutrition• Overweight and/or obesity.• Arterial Hypertension.• Diabetes Mellitus• Immunization according to the lifeline.• Cervix, breast and prostate cancer• Tobacco and alcohol consumption.• Cognitive deterioration, depression and osteoporosis to the	<ul style="list-style-type: none">• Information technology• Didactic material• Manual• Baumanometer and stethoscope• Anatomical models• Material for the application of vaccines• Glycaemia equipment.• Scale, Tallimeter

	<p>protection or timely detection in decision-making in preventive medicine.</p> <ul style="list-style-type: none"> • The students used material aid for the role play scene.(furniture, notebooks, papers, technology, suitable clothing,etc..) 	<ul style="list-style-type: none"> • Adviser on the implementation of teaching materials. 	<p>population over 60 years of age.</p> <ul style="list-style-type: none"> • Sexually transmitted infections and HIV <p>Procedural Content</p> <ul style="list-style-type: none"> • Application of health promotion techniques, with auxiliary education techniques.. <ul style="list-style-type: none"> ○ Diptych ○ Triptych ○ Poster • Application of somatometria techniques and detection of obesity and overweight with: <ul style="list-style-type: none"> ○ Weight ○ Size ○ Abdominal waist • Application of correct blood pressure -taking technique 	
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			<ul style="list-style-type: none"> • Application of correct capillary glycaemia-taking technique through glucometer. • intramuscularApplication of intramuscular immunization technique. • Application of breast-exploration technique, medical examination and timely diagnostic technique for cervical cancer. • Application of the correct use of female and male condom • Use of technologies for the delivery of information material. • Application of specific protection techniques. • Application of medical and non-medical techniques for timely detection. 	
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			Attitudinal Content <ul style="list-style-type: none">● Respect for the diversity of points of view.● Relationship of empathy and respect for teachers, health personnel, medical equipment and non medical equipment, population attending a health service● Provision for collaborative work responsibility and leadership.	
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7. Summative Evaluation:

Essay on preventive medicine and its relationship to other health sciences.....	2.5%
Scheme of the natural history of disease.....	2.5%
PBL project describing the characteristics of healthy and unhealthy environments and how the latter affects the health of the individual	15%
Concept map of the health system in Mexico.....	5%
Role play on community health promotion.....	35%
First partial exam.....	10%
Second partial exam.....	10%
Socio-drama that encompasses preventive medicine actions.....	20%
Total.....	100%

8. Course Integrative Product

Socio-drama which includes Preventive Medicine, Integrating health, disease, Leavell and Clark prevention levels and health promotion; knowing the characteristics of the healthy environment; thereby demonstrating the skills to address the problems in which the population lives.

9. References

Textbooks:

1. Piédrola Gil. Medicina Preventiva y Salud Pública. 11ª Ed. 2008. Editorial Elsevier Masson.
2. Álvarez-Kuri Morales. Salud Pública y Medicina Preventiva 4a ed. Manual Moderno.

Other textbooks

3. Martínez González Miguel Ángel, Conceptos de Salud pública y estrategias Preventivas, Elsevier 2013
4. Maxey-Rosenau-Última Salud Pública y Medicina Preventiva: Decimoquinta edición 2007
5. Vega Franco Leopoldo. García Manzanedo Héctor. Bases Esenciales de la Salud Pública. 1ª Ed. 1976. 18ª reimpresión 2004
6. [Hugh Rodman Leavell](#) , [Edwin Gurney Clark](#). Medicine Preventiva, McGraw-Hill. 1953
7. [Sir Frank Macfarlane Burnet](#) , [David O. Blanco](#). Historia Natural de la Enfermedad Infecciosa. COPA Archive. 1972

Sitios web

http://www.promocion.salud.gob.mx/dgps/descargas1/cartillas/guia_ninos.pdf

http://www.promocion.salud.gob.mx/dgps/descargas1/cartillas/cartilla_adolescentes.pdf

http://www.promocion.salud.gob.mx/dgps/descargas1/cartillas/cartilla_mujer.pdf

http://www.promocion.salud.gob.mx/dgps/descargas1/cartillas/cartilla_hombre.pdf

http://www.promocion.salud.gob.mx/dgps/descargas1/cartillas/cartilla_adultos.pdf

APPENDIX.

ASSESSMENT AND WORKLOAD

Module workload		Number of hours	Percentage
Contact hours	Class-based instruction	36h (36%%)	66.66%= 100 horas
	Essay	2h (2%)	
	Scheme	6h (6%)	
	PBL Project	6h (6%)	
	Concept map	2h(2%)	
	Role play	40h(40%)	
	Exam taking	4h (4%)	
	Course integrative producto (CIP)	4h (4%)	
Independent study	Study	46h (92%)	33.33%= 50 horas
	Exam preparation	4h (8%)	
Total hours of the workload: 30 hours X 5 credits UANL/ECTS*		150 h	

*European Credit Transfer and Accumulation System

1 UANL credit = 30 hours

NOTE: Rubrics, checklists and evaluation formats are elaborated by using the performance criteria described in each stage of the module.

SUPLEMENTO COVID-19

Siguiendo las recomendaciones de la Secretaría de Salud del país y la Rectoría de la Universidad, ante la coyuntura de salud COVID-19, la organización de la docencia desde marzo del 2020, seguirá un modelo híbrido, donde la docencia se ajustará a los horarios aprobados por la Secretaría de Salud siguiendo un modelo de Presencialidad / No presencialidad en la medida en que las circunstancias sanitarias y la normativa lo permitan. Los estudiantes asistirán a las clases de manera no presencial mediante la transmisión de las mismas de manera síncrona/asíncrona vía “on line”.