UANL
UNIVERSIDAD AUTÓNOMA DE NUEVO LEÓN

FACULTAD DE MEDICINA

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	Introduction to Medicine.
• Total classroom hours for theory and/or practice.	56 hours
• Total extra classroom hours	34 hours
• Course Modality	Schooled
• Type of academic period in which the module is offered	1st semester
• Type of Learning Unit in the Curriculum	Compulsory
• Curriculum area:	ACFB Basic
• UANL credit points	3
• Date of module creation:	September 22, 2014
• Date of last amendment:	Jan. 12, 2021
• Person(s) responsible for the module design and amendments:	Dr. Raúl Gabino Salazar Montalvo, Dra. Hilda Cristina Ochoa Bayona.

2. Introduction

The learning unit Introduction to Medicine is divided in five phases. Phase 1 refers to “History of medicine”, and it analyzes the concepts of health and disease from primitive man up to present time to understand this profession’s evolution. Phase 2 “Medicine as Science and the medical practice” interprets the process health-disease and it is related with the practice of Scientific Medicine to understand the disease’s natural history. Phase 3 refers to the doctor’s development in Mexico in order to recognize the development stages from undergraduate to postgraduate and the importance on continuous medical education. Phase 4 analyses the medical professional practice related to the national health system’ structure and functioning for recognizing different systems which are present in our country in order to have a comprehensive scheme about the functions a primary health care practitioner has. Phase 5 called “The practitioner’s development at emergency scenarios” enables and trains the student with first aid techniques to solve emergency cases opportunely and safeguard the patient’s integrity and life.

3. Purpose(s)

This learning unit analyses the general basic concepts of Medicine as a scientific discipline, its historical and philosophical development; it promotes learning as a developmental process and the graduate's development during his professional practice with different medical attention alternatives: preventing, therapeutic and first aids.

It contributes to the graduate profile referring to the preparation they need to offer primary health care services. It also provides the basis which work as preamble for postgraduate studies and continuous medical education.

The relationships it has to other learning units are as follows: During the first year, there is a strong connection with Human Anatomy as it deepens in the biographies of people who allowed the development of knowledge; with Cell and Tissue Biology it explains and deepens in the concepts which give a start to the microscopic stage of knowledge of the human body. It also represents the basis for health and preventive activities which will continue in their fourth semester con Preventive Medicine. After that, during the eighth semester with Epidemiology and Public Health, students will obtain conceptual bases related to the health-disease process to promote in them interest for research methodology, which is essential for addressing health problems in the medical propaedeutics. It is related to the microbiological disease theories, having a close connection with Microbiology. It provides Pharmacology a source of background concepts and chronological and historical references, as well as for learning units such as Internal Medicine, Surgery, Gynecology and Obstetrics, Pediatrics, and the ones related to the human mind; for all of them ***Introduction to Medicine*** will make it easier for the student to the understanding of the origin and causes of diseases, as well as the historical development of the scientific discoveries and technological advancements.

Through the use and application of a methodology which privileges autonomous learning, with collaborative purposes and centered in problem solving, students develop general competences for the graduate profile. In a specific way, the course provides scientific basis from a historical perspective for understanding the professional practice, providing the theoretical-practical knowledge for solving cases with the main medical emergencies. It also gives the students effective communication principles for an adequate physician-patient relationship, as well as with other health professionals. Additionally, it helps the student understand the professional context of the career by presenting him the operations the National Health System has, besides making a special emphasis in a continuous medical education.

4. Competences of the graduate 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.

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 of 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.

Personal and social interaction skills

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

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

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

Scientific Base of Medicine

1.- To use the scientific foundations of medicine by considering the economical, psychological, social, cultural and environmental factors which contribute to the development and evolution of diseases in order to make decisions and take medical actions.

Professional Clinical Practice

2.- To solve clinical problems through deductive reasoning, interpretation of findings and the definition of their nature in order to make decisions and determine principles of actions of the medical practice to be followed in a responsible way, impacting individual and collective health.

3. To evaluate the development and evolution of diseases through the analysis of biomedical information and related physical, social and cultural factors; promoting health education and boosting preventive medicine.

5. To manage common medical emergencies by applying primary treatment, procedures and interventions, and to refer patients who require critical care in an appropriate and timely way for the preservation of life.

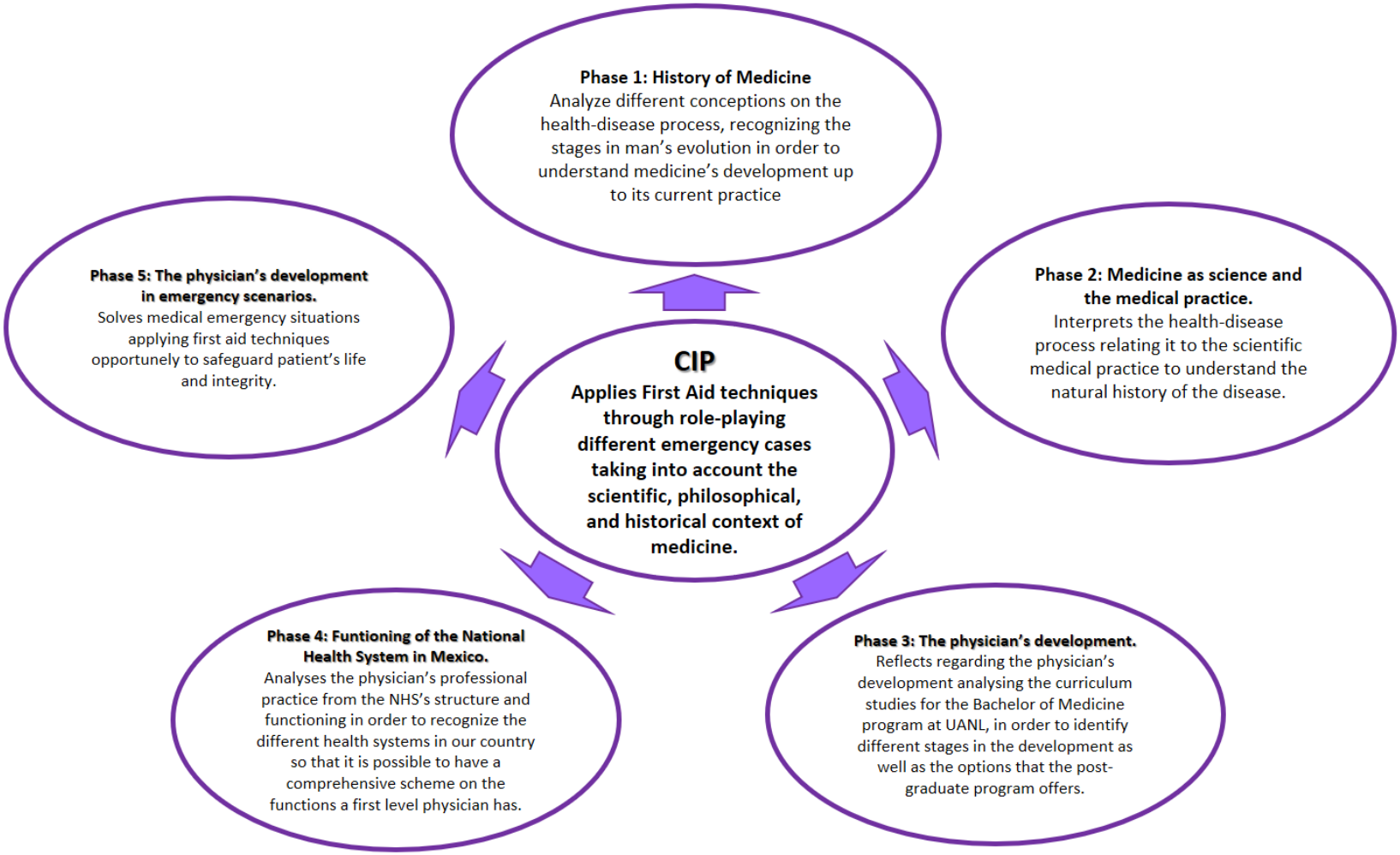
Professional Values and Ethics

9.- To respect patient's integrity by keeping his medical information as an essential part of the professional secrecy in order to guard his rights.

Communication

11.- To apply the principles of effective communication by establishing a respectful and empathetic relationship with the patient, relatives, the community and other health professionals in order to use the information properly.

5. Course roadmap:



6. Structuring into stages or phases

Phase 1. History of medicine

Component(s) of the competence:
Analyze different conceptions on the health-disease process, recognizing the stages in man's evolution in order to understand medicine's development up to its current practice

Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
Evidence 1. Venn diagram regarding the perspective health-disease in different cultures and humankind development.	- Analyzes the perspective for health-disease that primitive humans had and their interpretation on how to face them. - Compares the concepts health and disease that the great cultures from ancient times had. - Analyzes the influence of the Pre-Socratic philosophy in Rational Medicine, the Hippocratic Oath and the concept for clinic. - Bases the contributions made by doctors from the greek-latin period. - Bases the contributions made by doctors from the	**Facilitation activities** Exposition in class, case discussion, embryonic images analysis during plenary sessions. **Learning activities** Written report about readings on cell division. Elaboration of concept maps with anatomy terms of position, development mechanisms, and cell division. Content analysis through the use of images and cases of congenital abnormalities. Class exposition on the normal and abnormal development, as well as the location and movement of structures.	**Conceptual Content:** The conception of health and disease of early man. ➢ Procedures carried out by primitive peoples to preserve and restore health and compare it with current procedures. The great cultures of antiquity, their differences and similarities of the concept of health and disease, their diagnostic and therapeutic procedures and alternative medicines ➢ Mesopotamian ➢ Egyptian ➢ Hindu ➢ China ➢ Hebrw ➢ Árabic The conception of health	Classrooms from the School of Medicine. Projector Computer Whiteboard. Technological tools support. Textbooks Reference books

	Arabian culture in the western medicine's evolution. - Analyzes the concepts for health and disease that prevailed in the Nahuatl world before Europeans arrived and diseases arrived too with the conquerors to the New World and the ones they took to Europe from America. - Compares the feeding pattern that Americans and Europeans had before and after conquering America. - Identifies the main branches for Alternative Medicine. - Determines the social impact that Alternative Medicine practice has and its correlation to the General Practitioner and Obstetrician's professional practice. - Elaborate the diagram through the word processor or hand-written. - Paper letter size,	Revision of embryonic sections with a microscope. Self-evaluation through an analysis and interpretation of images from anatomy terminology	and disease during: ➢ Rational stage of medicine ➢ Greco-latin medicine ➢ Nahuatl medicine The impact of medical inventions and discoveries: Thermometer, baumanometer, stethoscope, percussion method, microscope, major circulation, anesthetic substances, asepsis, hand washing, antimicrobials, psychoanalysis **Procedural Content** Analysis of the evolution of medicine. Oral presentation of ideas. Assessment of the status of current medicine in the practice of the profession based on the evolution of the concept of health and disease. **Attitudinal Content** Respect for various conceptions, beliefs and customs of the patient with respect to the disease.	

	identified through a cover which has the student's name, student number and topic. -Hands in the diagram on time.		Willingness to work collaboratively, responsibility and leadership.	
Evidence 2: Multimedia video about a timeline which shows discoveries and inventions in medicine, the evolution of specialties and how they influenced in the diagnostic and treatment of diseases.	**Evidence 2:** - Analyses the relevance of the most important discoveries and inventions in medicine. - Identifies the characters that contributed to the conceptualization of medicine's scientific stage. - Relates Anatomy and Physiology with the advance of Surgery and anesthetic. - Analyses development of medical therapeutic since the use of medicinal plants up to traditional medications, modern chemotherapy. - Analyses the evolution of medical specialties			

	from organic areas to functional ones, considering Neurology and Psychiatry. - Describes the historical process about the foundation of the first and second schools of medicine in Monterrey. - Distinguishes between the biographic data and contributions made by Pascual Constanza and the ones by Gonzalitos. - In team, create a multimedia video with a musical background combining images, text, videos, tales. The images must be related to the topic presented. Students must use a rhythm according to the music or sounds choosen and must be 3 minutes long as MP4 in a CD. - Cover that includes the names and student numbers of all the team members, and the topic. - Hand in on time and according to requirements.			

Phase 2: Medicine as a form of Science and the Medical Practice

Component(s) of the competence:
Interprets the health-disease process relating it to the scientific medical practice to understand the disease's natural history.

Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
Evidence 3: Role-play where students apply an adeqcuate medical practice based in the International Code of Medical Ethics.	Includes the definition and application of medical concepts. Establishes hierarchical relationships among concepts and ideas. Analyses the setting determined for the medical practice: place, conditions, level of intervention and responsibility. Applies professional values about national and international ethical codes. Explains the characteristics a good physician-patient relationship must have. In 3 minutes, performs a role-play about an ethical dilemma or related to the physician-patient relationship with 3	**Knowledge-Acquisition activities** Leads question and answer sessions. Clarifies and exemplifies concepts and principles. Previously tutors about the topics assigned. **Learning activities**. Students make active reading about the topic. Concepts map about the most frequent concepts related to the health field. Oral exposition of the topics. Design supporting material. Makes questions during the presentation to solve them at the end of the class. Participates actively in group discussions and plenary session.	**Conceptual Content** Most frequently used terms: medicine, health, disease, risk factor, prevention, cure, rehabilitation, health education, health promotion, agent, host environment, ecological triad, incubation period, pathogenic and pre-pathogenic periods, prevention levels, death, recovery, chronicity, first aid, disease risk factors. National and international codes of ethics, duties of physicians, rights of patients, Declaration of Geneva. **Procedural content** Enriches his vocabulary related to the medical practice. Exposition and discussion of topics. Take decisions related to	Classrooms from the School of Medicine. Projector Computer Whiteboard. Technological tools support. Textbooks Reference books International Ethical Code Patients' Rights Practitioners' Rights Declaration of Ginebra.

	minutes for conclusions.	Elaborate cases with the concepts learned about the setting for the medical practice to be used during the role-play for its corresponding analysis.	the physician's obligations and rights **Attitudinal content.** Respect for different religious beliefs, and opinión diversity Willingness to do collaborative work. Responsibility and leadership.	

Phase 3: The Physician's Development

Component(s) of the competence :

Reflects regarding the physician's development analysing the curriculum studies for the Bachelor of Medicine program at UANL, in order to identify different stages in the development as well as the options that the post-graduate program offers.

Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
Evidence 4: Concepts map of the bachelorette curricular program, the public service goal, and postgraduate studying options.	Distinguishes the stages for the physician and obstetrician's development. Synthetize the objectives for public service, continuous education, certification, and accreditation in the practice of medicine.	**Knowledge-Acquisition Activities:** Leads question and answer sessions. Clarifies and exemplifies concepts and principles. The professor previously tutors students about assigned topics.	**Conceptual Content** Undergraduate curriculum and the different types of graduate studies, requirements and field of work Continuing education programs, certification and accreditation for the practice of the profession	Classrooms from the School of Medicine. Projector Computer Whiteboard. Technological tools support. Textbooks

	Distinguishes the study field and application for postgraduate studies such as specialization courses, master degree or PhD. Establishes hierarchical relationships among concepts and ideas. Makes authentic written compositions. Written compositions are made in a word processor or hand written. Letter size for sheets. The document is properly identified with a cover including data such as: student's name, student's number, topic. Hands in according to deadlines set for this.	**Learning Activities:** Students make active reading about the topic. Oral exposition of the topics. Design supporting material. Makes questions during the presentation to solve them at the end of the class. Participates actively in group discussions and plenary session.	**2 .Procedural content**: Analysis and synthesis of topics. Reflection regarding continuous education. Oral exposition of conclusions. **3. Attitudinal content.** Respect for opinión diversity. Willingness to do collaborative work. Responsibility and leadership.	Reference books Internet

Phase 4. Functioning of the National Health System in Mexico

Component(s) of the competence:
Analyses the physician's professional practice from the NHS's structure and functioning in order to recognize the different health systems in our country so that it is possible to have a comprehensive scheme on the functions a first level physician has.

Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
Resolution of a case on congenital abnormalities in the placenta and twin abnormalities	Identifies correctly the embryological terminology. Recognizes and interprets embryonic structures in images or through the use of a microscope. Correctly synthetizes the embryonic development of tissues and organs. Develops the embryological perspective for its application in the clinical area. Applies the knowledge acquired correctly. Presents the complete assignment and it has the suggested structure or format (introduction, body and conclusions). Includes the elaboration of a diagnostic and images. Uses Arial 12 as font in the assignment.	**Facilitation activities** Exposition in class, case discussion, analysis of images about the different stages in placenta development during plenary sessions. **Learning activities** Text analysis and review on book references about placentation. Written report about readings on morphogenesis and placenta physiology. Elaboration of concept maps about the placenta morphogenesis. Analysis of the placenta's morphology and physiology through the study of images and clinical cases. Revision of embryonic sections with a microscope. Self-evaluation through an analysis and interpretation of images from the implantation process. .	**Conceptual Content** The physicians professional practice with the structure and functioning of the National Health System in Mexico. Institutions which make up the National Health System: IMSS, ISSSTE, SEDENA, Seguro Popular. Medical attention levels. **Procedural content:** Research about the institutions which are available for the community as well as information on current health policies held. Analysis on the National Health System and its functional structure. Oral exposition of conclusions **Attitudinal content :** Respect for opinión diversity. Willingness to do collaborative work, responsibility and leadership.	• Medschool Classrooms • Textbook • Images • Histological sections • Embryonic models • Microscope • Digital platform • Videorecordings • Embryology museum • Embryology Laboratory • Reference books • Manual (workbook) • Electronic references

Phase 5: The physician's development in emergency scenarios.

Componenet(s) of Competence:
Solves medical emergency situations applying first aid techniques opportunely to safeguard patient's life and integrity.

Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
Evidence 6: Written screenplay about different scenarios from the Emergency Medical Service (EMS) for First Aids.	- Classifies the security levels from a scene according to their risks using the 3S. - Evaluates the victim's state of consciousness through the use of AVDI - Identifies the situations in which they will activate the EMS. - Analyses the components of the primary evaluation (CABDE) and secondary one (SAMPLE, PIRRL, Glasgow Scale). - Applies the knowledge acquired in the prehospital treatment; a correct management of			

7. Summative Evaluation:

Portfolio
- Venn diagram …….....4%
- Timeline……7%
- Role play…….....5%
- Concept map……4%
- Flowchart……..4%
- Written script……6%

Written exercises……..10%
CIP: Role play……20%
Partial Exams…….……...40%
Total…….……100%

8. Course Integrative Product.

Carry out a dramatization about the different contexts of the Emergency Medical Service (EMS) in first-aid, solution given to a determined situation is presented and it allows to transfer elements from real situations.

9. References

Textbooks
Historia y Evolución de la Medicina
Manual Moderno, 1 edición.

Adittional textbooks
Historia y Filosofía Médicas. Dr. Hernán Salinas Cantú. Mac Graw-Hill, Interamericana. 2ª edición.
Historia Universal de la Medicina. Pedro Lain Entralgo. Ed. Salvat.
Historia de la Medicina. Lyons y Petrocelli.
Medicina Preventiva y Salud Pública. Dr. Rafael Álvarez Alba. Ed. El Manual Moderno. 2ª. Edición.
Compendio de Salud y Enfermedad. Dr. Hernán San Martín. Ed. Interamericana. Tomos I y II.
Pensar como Médico. Como resolver casos clínicos desde el primer día de clases.

Websites
www.ssa.gob.mx
www.uanl.mx
www.medicina.uanl.mx

www.paho.org
www.imss.gob.mx
www.issste.gob.mx

APPENDIX.

ASSESSMENT AND WORKLOAD

Module workload		Number of hours	Percentage
Contact hours	Class-based instruction	25h (44.64%)	62.22%= 56 hours
	Workshop on First-Aid Techniques	25h (44.64%)	
	Portfolio	1h (1.78%)	
	Exam taking	4h (7.14%)	
	Course integrative product (CIP)	1h (1.78%)	
Independent study	Study	26h (76.47%)	37.77%= 34 hours
	Exam preparation	8h (23.52%)	
Total hours of the workload: 30 hours X 3 credits UANL/ECTS*		90h	

*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”.