



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	Forensic Medicine
• Total classroom hours for theory and/or practice.	47 hours
• Total extra classroom hours	43 hours
• Course Modality	Schooled
• Type of academic period in which the module is offered	Semester
• Type of Learning Unit in the Curriculum	Compulsory
• Curriculum area:	ACFP
• UANL credit points	3.
• Date of module creation:	July 8, 2013.
• Date of last amendment:	March 24, 2020
• Person(s) responsible for the module design and amendments:	Dr. med. Mario Alberto Hernández Ordoñez. Dra. Blanca I. Almaguer Pecina. Dra. Shamira Nohemí Saucedo Nacienceno.
2. Introduction:	
The Forensic Medicine Learning Unit is designed in seven stages in which the student will learn the basic foundations of Legal Medicine, through the study of the biological, physical, chemical and pathological processes of the human being from its embryological state to death, in order to apply them in their professional performance to clarify, guide or solve problems of a medical-legal nature.	
3. Purpose(s)	
The purpose of the Learning Unit of Forensic Medicine is that students learn how our profession directly helps justice, being this a discipline that uses all the medical sciences to respond to legal issues by highlighting some topics, such as: how the doctor in the daily exercise of their professional	

work should be governed by certain ethical principles, suitability, prudence or careful professional attention in addition to knowing in depth that is the medical deontology and professional responsibility.

For this reason the Forensic Medicine course is placed in the curriculum after the basic training subjects, within the fundamental professional training area; and it is related to the other learning units as it requires previous knowledge of body morphology both macroscopic and microscopic; human anatomical-pathological aspects, as well as physical examination.

This Learning Unit contributes greatly to the acquisition of the general competencies of the UANL in terms of the necessary and responsible decision making, because in order to carry out a good professional practice in the field of Forensic Medicine it is indispensable to have solid scientific knowledge and adequate clinical reasoning, which allows the doctor to elaborate medical legal documents that could imply the freedom or the deprivation of it for an individual. In addition, oral and written communication is fundamental for the integration of the diagnosis and medical opinion.

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.
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 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.
6. Use a second language, English in particular, with clarity and correctness to communicate in common, academic, professional and scientific contexts.

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

8. Use methods and techniques of traditional and cutting-edge research for the development of their academic work, the practice of their profession and the generation of knowledge.

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.

10. Intervene in front of the challenges of contemporary society at the local and global level with a critical attitude and human, academic and professional commitment to help consolidate the general wellness and sustainable development.

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

13. Take the lead according to social and professional needs to promote relevant social change.

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 that contributes to the learning unit

Scientific Basis of Medicine

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.

3.- Evaluate the development and evolution of the disease through the analysis of biomedical information and related physical, social and cultural factors, promoting health education and encouraging preventive medicine.

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 Values and Ethics

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.

9.- Respects the patient's integrity keeping the patient's medical information as an essential part of their professional secret in order to preserve his rights.

Organizational Work

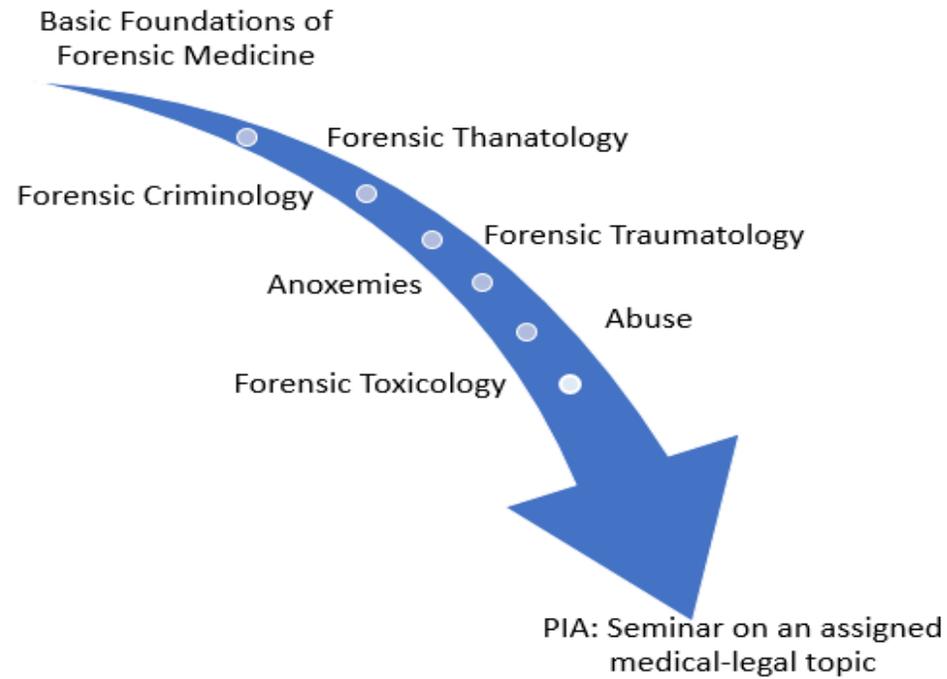
10.- Promotes an organizational work culture for the health field, acknowledging the multidisciplinary work, respect for institutional policies and the observance of rules in order to contribute to a comprehensive treatment of patients.

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:

FORENSIC MEDICINE



Phase 1. Basic concepts and application of Forensic Medicine.

Component(s) of the competence:

- Understand the basic foundations of legal medicine as well as its history, through the study of the theoretical concepts of professional responsibility, morals and ethics, in order to apply them in their professional performance.

Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
<p>Written presentation of medical-legal documents (death certificate).</p>	<p>Death certificate:</p> <ul style="list-style-type: none"> • The death certificate is made in a copy of the official format, identifying correctly: <p>Mechanism of Death; physiopathological disorder set in motion by the disease or injury (cause of death) leading to the cessation of cellular electrical activity.</p> <p>Cause of Death; trauma, illness or combination of both responsible for the initiation of the series of physiopathological disorders, brief or prolonged, that end a person's life. Mode of death; violent or natural death.</p>	<ul style="list-style-type: none"> • Reading of books and articles recommended by the professor. • Students make oral presentations in teams on assigned topics. • Facilitator's intervention in class for clarification of doubts and comments. • The students perform Essays on Generalities of Legal Medicine, rights, ethics, morals and medical deontology. • The professor provides examples of clinical cases for the elaboration of medical-legal documents. • Filling of medico-legal documents is performed. • Clinical cases are assigned for analysis and 	<p>Conceptual Content</p> <ul style="list-style-type: none"> • Legal Medicine Overview <ul style="list-style-type: none"> ○ Importance, objective and classification. ○ History. ○ Relationship of legal medicine with other branches of medicine. ○ Administration of justice in Mexico. ○ Medical experts and expert opinions. • Rights, ethics, morals and medical deontology <ul style="list-style-type: none"> ○ Moral ○ Ethics ○ Professional responsibility ○ Euthanasia, Distancing and Assisted Suicide ○ Deontology and professional secrecy 	<ul style="list-style-type: none"> • Classroom • Computer • Projector • Videos • Audios • Board • Bookmarks • Pointer • Machine sheets • Textbooks: • Scientific articles • Internet • Facebook Groups • University Hospital • SE.ME.FO Facilities

	<ul style="list-style-type: none"> • Completed based on one of the cases provided. • Delivered individually. • Filled by hand, with black pen. • Includes a computer cover. • On-time delivery. 	<p>discussion in subsequent sessions.</p>	<ul style="list-style-type: none"> • Medical-legal documents <ul style="list-style-type: none"> ○ Types of documents and their importance ○ Report ○ Certificate ○ Informed consent ○ Consultation ○ Clinical file ○ Recipe ○ Clinical summary • Procedural Content <ul style="list-style-type: none"> • Resolution of clinical cases considering professional, moral and ethical responsibility. • Identify types of medical experts and expert opinions. • Elaborate medical legal documents (death certificate, informed consent, clinical file, prescription and clinical summary). • Attitudinal Content <ul style="list-style-type: none"> • Act with ethical and professional responsibility in medical practice. 	
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			<ul style="list-style-type: none"> • Recognize the importance of individual or team work in the solution of medical-legal problems • Responsibility and confidentiality in the use of information • Rigorous and accurate information collection. • Respect for life and death. 	
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Phase 2. Forensic Thanatology.

Component(s) of the competence:

- Interpreting the signs around the cadaverous phenomena analyzing the extinction of the vital biochemical processes to determine the diagnosis of death.

	<ul style="list-style-type: none"> • Report of the activities performed during the practice • Delivered in the first class after the visit to the SEMEFO • One sheet of paper • Machine sheet • Handwritten • Computer Cover • Individual • On-time delivery 		<p style="text-align: center;">complementary studies</p> <p>Procedural Content</p> <ul style="list-style-type: none"> • Interpreting early and late signs around cadaverous phenomena. • Identify type of death in each case. • Apply forensic entomology for chronotanatodiagnosis • Participation in the performance of autopsies. <p>Attitudinal Content</p> <ul style="list-style-type: none"> • Act with ethical and professional responsibility in medical practice. • Recognize the importance of individual or team work in the solution of medical-legal problems • Responsibility and confidentiality in the use of information 	
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			<ul style="list-style-type: none"> • Rigorous and accurate information collection. • Respect for life and death. 	
<p>Phase 3. Forensic Criminology.</p> <p>Component(s) of the competence:</p> <ul style="list-style-type: none"> • Recognize the elements present in crime scenes considering relevant factors for identification in order to contribute to the clarification of the facts. 				
Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
Elaboration and interpretation of own Decadactilogram.	<p>Decadactilogram using the Pocketbook format</p> <ul style="list-style-type: none"> • Interpretation of the decadactilogram by applying the Vucetich System: <ul style="list-style-type: none"> ○ arc ○ internal clip ○ external clip ○ whorl • Computer Cover • Individual • On-time delivery 	<ul style="list-style-type: none"> • Reading of books and articles recommended by the professor. • Oral presentation by teams on assigned topics. • Intervention of the facilitator in class to clarify doubts and comments. • Fingerprints are interpreted. • Research scenarios are exemplified. • Analysis of clinical cases of DNA applications and legal criteria. 	<ul style="list-style-type: none"> • Crime scene exploration <ul style="list-style-type: none"> ○ Death scene methodology research ○ Action by the medical examiner ○ Sequence of procedures • Examination, classification and origin of hair • Stain identification • Identification <ul style="list-style-type: none"> ○ Definition of identity and identification. 	<ul style="list-style-type: none"> • Classroom • Computer • Projector • Videos • Audios • Board • Bookmarks • Pointer • Machine sheets • Textbooks: • Scientific articles • Internet • Facebook Groups

			<ul style="list-style-type: none">○ Judicial identification techniques.○ Dactyloscopy, Vucetich system.○ Pohtography, spoken portrait (methodology).● Application of recombinant DNA in forensic medicine.<ul style="list-style-type: none">○ Introduction.○ DNA.○ Determination of genetic identity.○ Satellite DNA.○ DNA Banks and the CODIS system.○ Applications and legal criterio of the DNA fingerprint. <p>Contenido Procedimental</p> <ul style="list-style-type: none">● Identify the relevant elements at the scene of the crime● Identify origin of hairs and stains● Apply the correct use of the different techniques of judicial identification.	
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			<ul style="list-style-type: none"> • Interpreting fingerprints using the Vucetich system <p>Attitudinal Content</p> <ul style="list-style-type: none"> • Act with ethical and professional responsibility in medical practice. • Recognize the importance of individual or team work in the solution of medical-legal problems • Responsibility and confidentiality in the use of information • Rigorous and accurate information collection. • Respect for life and death. 	
<p>Phase 4. Forensic Traumatology.</p> <p>Component(s) of the competence:</p> <ul style="list-style-type: none"> • Assess the body injuries antemortem and postmortem analyzing the presumption of production mechanisms for the correct classification of the same in the presence or absence of crime. 				
Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources

<p>Elaboration of a previous report of injuries of a patient of the Shock Trauma room of the University Hospital "José Eleuterio González".</p> <p>Written report prior to the second SEMEFO practice.</p>	<p>Preliminary Injury Report</p> <ul style="list-style-type: none"> • Description of each of the injuries found on the patient • Medical-legal classification of injuries: <ul style="list-style-type: none"> ○ Are these injuries by their nature life-threatening? ○ Are they injuries that take more than 15 days to heal? ○ Are they injuries that leave a perpetual and visible scar? <ul style="list-style-type: none"> • Machine sheet • Handwritten • Computer Cover • Individual • On-time delivery <p>Written report prior to the second SEMEFO practice:</p> <ul style="list-style-type: none"> • Describe the types of injuries • Delivered before the guided tour to the SEMEFO • In machine sheet 	<ul style="list-style-type: none"> • Reading of books and articles recommended by the professor. • Oral presentation by teams on assigned topics. • Intervention of the facilitator in class to clarify doubts and comments. • Exemplifying with clinical cases the medical-legal classification of injuries. • Students go to the shock trauma room and prepare an injury report. 	<p>Injuries</p> <ul style="list-style-type: none"> -Definition and types of injuries. -Medical-legal classification of injuries -Types of contusions. -Types of injuries. <p>Firearms injuries.</p> <ul style="list-style-type: none"> -Classification of firearms. -Types of firearms. -Internal and external ballistics; elements of the firearms and their operation. -Terminal ballistics; characteristics of the injuries produced by firearm projectile: Entry hole; Components and trajectory; Exit hole and its components. -Medical legal problems: distance from the one that was shot: Contact shot and its signs; Short distance shooting; Intermediate distance shooting; Long distance shooting. <p>Burns</p>	<ul style="list-style-type: none"> • Classroom • Computer • Projector • Videos • Audios • Board • Bookmarks • Pointer • Machine sheets • Textbooks: • Scientific articles • Internet • Facebook Groups • University Hospital • SE.ME.FO Facilities
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<p>Written report after the second SEMEFO practice.</p>	<ul style="list-style-type: none"> • Handwritten • One sheet of paper • Includes cover to computer • It is individual • Must have a bibliographic foundation • On-time delivery <p>Written report after the second SEMEFO practice:</p> <ul style="list-style-type: none"> • Report of the activities carried out during the practice • Delivered in the first class after the visit to the SEMEFO • One sheet of paper • Machine sheet • Handwritten • Computer Cover • Individual • On-time delivery 		<ul style="list-style-type: none"> -Classification and extension. -Causal agents. -Electrical burns. -Medical-legal issues. -Chemical burns. -Radiation burns. <p>Procedural Content</p> <ul style="list-style-type: none"> • Recognize types and mechanisms of injuries. • Differentiate the characteristics of firearm projectile wounds based on the distance of the shot. • Differentiate the characteristics of the types of burns according to the degree or causal agent. • To carry out previous, evolutionary and final reports of injuries. <p>Attitudinal Content</p> <ul style="list-style-type: none"> • Act with ethical and professional 	
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			responsibility in medical practice. <ul style="list-style-type: none"> • Recognize the importance of individual or team work in the solution of medical-legal problems • Responsibility and confidentiality in the use of information • Rigorous and accurate information collection. • Respect for life and death. 	
Phase 5. Anoxemias. Component(s) of the competence: <ul style="list-style-type: none"> • Identify the types of anoxemias by interpreting the differential lesions, signs and symptoms in order to determine the existence of medical-legal implications. 				
Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
Anoxemias Comparative Chart.	<ul style="list-style-type: none"> • Must include anoxemias from hanging, strangulation, suffocation and immersion. • Classification. • Medical-legal etiology. 	<ul style="list-style-type: none"> • Reading of books and articles recommended by the professor. • Oral presentation by teams on assigned topics. • Intervention of the facilitator in class to 	Generalities and classification. -Pathological, mechanical and chemical. Anoxemia by hanging.	<ul style="list-style-type: none"> • Classroom • Computer • Projector • Videos • Audios • Board • Bookmarks • Pointer

	<ul style="list-style-type: none"> • Physiopathology of death. • Anatomopathological findings. • Machine sheet. • Handwritten. • Computer Cover. • Individual. • On-time delivery. 	<p>clarify doubts and comments.</p> <ul style="list-style-type: none"> • Discussion on medical-legal etiology. 	<p>-Classification: Complete and incomplete.</p> <p>-Medical-legal ethology.</p> <p>-Physiology of death.</p> <p>-Anatomopathological findings.</p> <p>Strangulation anoxemia.</p> <p>-Classification: Manual and instrumental.</p> <p>-Medical-legal ethiology.</p> <p>-Physiopathology of death</p> <p>-Anatomopathological findings.</p> <p>Suffocation anoxemia.</p> <p>-Types of suffocation: Manual Obstruction, Internal airway obstruction, Thoracoabdominal compression, Lack of breathable air, Confinement, Sepulsion.</p> <p>-Medical-legal ethiology.</p> <p>-Physiopathology of death</p> <p>-Anatomopathological findings.</p>	<ul style="list-style-type: none"> • Machine sheets • Textbooks: • Scientific articles • Internet • Facebook Groups
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			<p>Immersion anoxemia</p> <ul style="list-style-type: none">-Classification: Complete and incomplete-Medical-legal etiology.-Physiopathology of death-Anatomopathological findings <p>Procedural Content</p> <ul style="list-style-type: none">• Identify the different types of anoxemia• Identify the physiopathological mechanism of each anoxemia.• Identify anatomopathological findings of each anoxemia• Identify medical-legal implications <p>Attitudinal Content</p> <ul style="list-style-type: none">• Act with ethical and professional responsibility in medical practice.	
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			<ul style="list-style-type: none"> • Recognize the importance of individual or team work in the solution of medical-legal problems • Responsibility and confidentiality in the use of information • Rigorous and accurate information collection. • Respect for life and death. 	
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Phase 6. Mistreatment: a medical-legal perspective.

Component(s) of the competence:

- Recognize the types of abuse by describing the injuries and evidence in a relevant manner, and congruent with their chronology and thus contribute to the development of judgments in conjunction with interdisciplinary teams.

Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
Sexual instinct scheme: perversions.	Sexual instinct scheme: perversions <ul style="list-style-type: none"> • Define concept of sexual identity. Gender and orientation. • Defining the concept of deviation, perversion and paraphilia. 	<ul style="list-style-type: none"> • Reading of books and articles recommended by the professor. • Oral presentation by teams on assigned topics. • Intervention of the facilitator in class to clarify doubts and comments. 	Domestic violence. <ul style="list-style-type: none"> • Epidemiology, risk factors, interactions and consequences • Violence in minors. Abused Child Syndrome • Violence against women 	<ul style="list-style-type: none"> • Classroom • Computer • Projector • Videos • Audios • Board • Bookmarks • Pointer • Machine sheets • Textbooks

	<ul style="list-style-type: none"> • Lacasagne Classification. • Define each of the paraphilias. • Machine sheet. • Handwritten. • Computer Cover. • Individual. • On-time delivery. 	<ul style="list-style-type: none"> • Discussion of clinical cases on medical-legal implications and importance of the different topics. • Provide the framework for the creation of the scheme. 	<ul style="list-style-type: none"> • Violence against men and older adults • The denunciation. Treatment and rehabilitation <p>Sexual crimes: rape, statutory rape, indecent assault</p> <ul style="list-style-type: none"> • Violation: constituent elements of the crime, consent and interrogation • Hymen types, physical examination and rape kits • Attacker profile, infections. Psychological help, prophylaxis and aftermath • Attempts at modesty and rape. Constitutive elements of the crime • Incest, abduction and adultery <p>Sexual crimes II: child prostitution, trafficking and abortion</p> <ul style="list-style-type: none"> • Abortion: concept, types and elements of the crime • Medical-legal expertise and determination: tests on the woman and the product 	<ul style="list-style-type: none"> • Scientific articles • Internet • Facebook Groups
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			<ul style="list-style-type: none">• Child Prostitution: Incidence and Consequences• Human trafficking, "white slavery" and sex tourism• The culture of denunciation <p>Sexual instinct: perversions</p> <ul style="list-style-type: none">• Concept of sexual identity. Gender and orientation• Concept of perversion and paraphilia• Classification of Lacasagne and DSM IV- TR• Sexual behaviors• Medical-Legal Implications and Importance <p>Procedural Content</p> <p>Recognize the different types of abuse</p> <p>Identify the medium-legal implications</p> <p>Recognize the constitutive elements of the different sexual crimes</p>	
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			<p>Identify the different types of sexual identity disorders and paraphilias and medical-legal implications</p> <p>Attitudinal Content</p> <ul style="list-style-type: none"> • Act with ethical and professional responsibility in medical practice. • Recognize the importance of individual or team work in the solution of medical-legal problems • Responsibility and confidentiality in the use of information • Rigorous and accurate information collection. • Respect for life and death. 	
<p>Phase 7. Forensic Toxicology: its application and drugs of abuse.</p>				

Component(s) of the competence:

- Assess the harmful effects of substances in the body indicating the relevant studies and analyses to diagnose the degree of intoxication and the legal implications.

Evidence of student learning	Performance Criteria	Learning activities	Contents	Resources
<p>Comparative table of alcohol, marijuana and cocaine intoxications.</p>	<ul style="list-style-type: none"> Classification. Symptomatology. Clinical Stages. Medical-legal issues. Machine sheet. Handwritten. Computer Cover. Individual. On-time delivery. 	<ul style="list-style-type: none"> Reading of books and articles recommended by the professor. Oral presentation by teams on assigned topics. Intervention of the facilitator in class to clarify doubts and comments. Discussion of clinical cases. Provide the framework for the creation of a comparison chart. 	<p>Generalities of Forensic Toxicology</p> <ul style="list-style-type: none"> Branches of toxicology and classification of toxic agents Phase. Routes and variations of exposure, toxicokinetics and distribution Factors that modify toxicity Accustomment and idiosyncrasy What our laws say. Penalties <p>Particular Poisons I: Alcohol</p> <ul style="list-style-type: none"> Symptomatology Clinical Stages Pathological anatomy and medical-legal issues Diagnosis and prognosis of ethylism Differences between acute and chronic ethylism <p>Particular Poisons II: Marijuana and Cocaine</p>	<ul style="list-style-type: none"> Classroom Computer Projector Videos Audios Board Bookmarks Pointer Machine sheets Textbooks <ul style="list-style-type: none"> Fundamentos de Medicina Legal (Dr. Mario Hernández) Medicina Legal (Salvador Martínez Murillo) Otros de consulta Scientific articles Internet Facebook Groups

			<ul style="list-style-type: none">• Toxic and deadly doses• Signs, symptoms and metabolism• Different types of intoxication• Prognosis and rehabilitation• Other drugs (morphine, amphetamines and benzodiazepines)• Medical-legal issues <p>Procedural Content</p> <p>Identify each of the intoxications</p> <p>Diagnosing the degree of intoxication</p> <p>Recognize the medical-legal implications</p> <p>Attitudinal Content</p> <ul style="list-style-type: none">• Act with ethical and professional responsibility in medical practice.• Recognize the importance of individual or team work in the solution of medical-legal problems	
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			<ul style="list-style-type: none"> • Responsibility and confidentiality in the use of information • Rigorous and accurate information collection. • Respect for life and death. 	
7. Summative Evaluation				
Evidence 1: Written presentation of medical-legal documents (death certificate).....				2%
Evidence 2: Written report prior to the first SEMEFO practice				2.5%
Evidence 3: Written report after the first SEMEFO practice				2.5%
Evidence 4: Elaboration and interpretation of Decadactilogram				2%
Evidence 5: Elaboration of a preliminary report of injuries of a patient in the Shock Trauma room of the University Hospital "José Eleuterio González".....				2%
Evidence 6: Written report prior to the second SEMEFO practice				2.5%
Evidence 7: Written report after the second SEMEFO practice				2.5%
Evidence 8: Anoxemias Comparative Chart				1%
Evidence 9: Sexual instinct scheme: perversions				1%
Evidence 10: Comparative table of alcohol, marijuana and cocaine intoxications				2%
Partial Exam 1.....				16%
Partial Exam 2.....				16%
Integrative Exam.....				32%
PIA.....				16%
Total.....				100%
8. Course Integrative Product				
Seminar on an assigned medico-legal topic.				

9. References

- **Fundamentos de Medicina Legal**
Hernández, Ordoñez, Mario Alberto
Editorial Mc Graw Hill. Edición: 1ª ED
- **Fundamentos de la Medicina Legal Atlas**
http://www.mhhe.com/med/hernandez_fm11e
- **Medicina legal**
Martínez Murillo- Saldívar S.
Editorial: Méndez Editores. Edición: 18ª ED

Libros de consulta:
- **Medicina Legal**
Eduardo Vargas Alvarado.
Editorial: Trillas. Edición: 2ª ED
- **Medicina legal y Toxicología**
J.A. Gisbert Calabuig
Editorial : ELSEVIER Edición. 6a ED
- ***Código penal federal, Código penal y civil del Estado de Nuevo León***
- ***Ley General de Salud de los Estados Unidos Mexicanos***
- ***Agenda de Salud 2004 (editorial ISEF)***
- **Centers for Disease Control and Prevention: www.cdc.gov**
- **UNICEF | El Fondo para la Infancia de las Naciones Unidas: www.unicef.org**
- **Organización Mundial de la Salud: OMS: www.who.int/es**
- **Clinical Key: www.clinicalkey.com**
- **Catálogo Maestro de Guías de Práctica Clínica. (CMGPC): <http://www.cenetec.salud.gob.mx/>**
- **Dirección General de Información en Salud: <http://www.dgjis.salud.gob.mx/contenidos/difusion/cdefuncion.html>**

APPENDIX.

ASSESSMENT AND WORKLOAD

Module workload		Number of hours	Percentage
Contact hours	Class-based instruction	38h (80.8%)	52.2%= 47 hours
	Written reports and exercises	4h (8.5%)	
	Course integrative product (CIP)	2h (4.25%)	
	Exam taking	3h (6.38%)	
Independent study	Study	28h (65.1%)	47.8%= 43 hours
	Exam preparation	15h (34.8%)	
Total hours of the workload: 30 hours X 3 credits UANL/ECTS*		90 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”.