

Legal Medicine and Toxicology

Code: 106698
ECTS Credits: 4

Degree	Type	Year	Semester
2502442 Medicine	OB	5	0

Contact

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Teaching groups languages

You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Teachers

Jose Castella Garcia

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Prerequisites

It is advisable and convenient for the student to have acquired basic skills to understand the structure and functions of the body, understanding the manifestations of the disease and the impact on the body, indication of complementary tests and their interpretation, knowledge and respect of the patient's basic rights in relation to beliefs, origin and culture, as well as their autonomy.

The student will acquire the commitment to preserve the confidentiality and professional secrecy of the data that they may have access because of the learning in the assistance services. Also in maintaining an attitude of professional ethics in all their actions.

Objectives and Contextualisation

The subject is programmed in the 5th year of Medicine when you already have adequate medical knowledge and is part of the compulsory subjects. The goals are to acquire minimum skills that allow understand and

know the use of medical knowledge in other professional fields such as law and the practical application in the service of the administration of justice. In this way, the knowledge acquired allows us to understand the effects of violence on the body, in the different forms, the need to communicate this violence to the courts, the consequences on the injured and the corpse. It also knows about the contribution of medical sciences to the doctrinal body of law, the rules that regulate daily medical practice, the health organization and the consequences of the defects of these rules, that is to say the basic principles of normopraxis.

At the level of Toxicology, the goals are to know the current epidemiological profile of acute poisonings in emergencies and the epidemiology of serious poisonings that require admission to the ICU. Knowing how the clinical toxicology laboratory works. Knowing how to carry out a general diagnosis of poisoning, being able to apply fundamental concepts of toxicokinetics and know antidotes, digestive decontamination techniques and extracorporeal purification. Knowledge will be imparted on drug poisoning, non-drug poisoning and drugs of abuse.

This subject is complemented by the subject of Bioethics and communication.

skills

Recognize the essential elements of the medical profession as the result of an evolutionary, scientific and sociocultural process, including ethical principles, legal responsibilities and patient-centered professional practice.

Demonstrate that they understand the importance of ethical principles for the benefit of the patient, society and the profession, with special attention to professional secrecy.

Recognize the ethical, legal and technical aspects of patient documentation, plagiarism, confidentiality and intellectual property.

Demonstrate that they understand the causative agents and risk factors that determine health states and the development of disease.

Demonstrate that they understand the basics of normal human behavior and its alterations in different contexts.

Recognize the role of complexity, uncertainty and probability in decision-making in medical practice.

Obtain and prepare a clinical history with all the relevant information, structured and focused on the patient, taking into account all age groups, sex, cultural, social and ethnic factors

Indicate the basic diagnostic techniques and procedures and analyze and interpret the results to better specify the nature of the problems.

Develop a diagnostic orientation and establish a reasoned action strategy, evaluating the results of the anamnesis and physical examination, as well as the subsequent results of the indicated complementary examinations

Caring for patients, the family and the community in an effective and efficient way, in accordance with ethical principles, with special emphasis on health promotion and disease prevention, being part of multidisciplinary teams.

Write clinical histories, medical reports and other medical records in a way that is comprehensible to third parties.

Communicate clearly, both orally and in writing, with other professionals and the media.

Competences

- Care for patients, families and the community in an effective and efficient manner, in accordance with professional ethics, with special emphasis on health promotion and disease prevention, as part of multidisciplinary teams.
- Communicate clearly, orally and in writing, with other professionals and the media.
- Demonstrate understanding of the causal agents and the risk factors that determine states of health and the progression of illnesses.
- Demonstrate understanding of the importance of ethical principles in dealings with patients, society and the profession, in particular with regard to professional confidentiality.
- Demonstrate understanding of the principles of normal human behaviour and its alterations in different contexts.
- Establish a diagnostic approach and a well thought-out strategy for action, taking account of the results of the anamnesis and the physical examination, and the results of the appropriate complementary tests carried out subsequently.
- Indicate the basic diagnosis techniques and procedures and analyse and interpret the results so as to better pinpoint the nature of the problems.
- Obtain and prepare a patient record that contains all important information and is structured and patient-centred, taking into account all age and gender groups and cultural, social and ethnic factors.
- Recognise ethical, legal and technical factors in patients' documentation, plagiarism, confidentiality and propriety.
- Recognise the basic elements of the medical profession as the result of an evolving, scientific, social and cultural process, including ethical principles, legal responsibilities and patient-oriented professional practice.
- Recognise the role of complexity, uncertainty and probability in decision-making in medical practice.
- Write patient records and other medical documents that can be understood by third parties.

Learning Outcomes

1. Appreciate the importance of seeking out incriminating evidence without hindering the investigation.
2. Assess medico-legal considerations and conclusions.
3. Assess the difficulties regarding information given to patients and/or family-members in cases of malpractice.
4. Communicate clearly, orally and in writing, with other professionals and the media.
5. Define the elements of forensic traumatology and idiosyncrasies of the different parties involved in the conflict.
6. Describe and interpret instruments of psychiatric evaluation in a medico-legal context.
7. Describe chronathanatology, indicating the negative signs of life or positive signs of death.
8. Describe the legal and ethical rules governing professional medical practice and possible legal implications related to the practice of medicine, showing respect for the principle of patient autonomy, the right to informed consent and professional confidentiality.
9. Describe the procedure for carrying out a judicial autopsy.
10. Enumerate and describe the component parts of an expert report.
11. Explain the law on gender violence.
12. Explain the scale related to traffic accidents.
13. Formulate a medico-legal diagnosis of the different types of injuries and know the legal implications of these.
14. Formulate a medico-legal expert report.
15. Formulate the problems that a person's death can give rise to, their diagnosis and their medical and legal importance.
16. Identify a case of intoxication and solve the main medico-legal problems posed by it.
17. Identify sources for obtaining information to conduct an expert appraisal and link them.
18. Identify the ethical principles of medical law, forensic pathology, forensic psychiatry and clinical bioethics in relation to problems that may arise, such as rape, transplantation, the right to life, parenthood and donation.
19. Interpret toxicological analyses in a medico-legal context.
20. Link medical and/or psychiatric pathology with the legal implications of the rules governing it (accountability, civil capacity, etc.).
21. Perform the differential diagnosis between natural death and legal death and, within the latter, differentiate between sudden death and death from violence.

22. Write a forensic autopsy report, a report on violence and a psychiatric report.
23. Write the medico-legal documents that pertain to professional medical practice.

Content

Legal medicine and toxicology. Medical law and health legislation

Medicolegal documents (6 hours)

Professional secrecy and clinical-care information. Informed consent. Medicolegal and administrative-health criteria on human reproduction, research and clinical experimentation, right to life and dignified death (Euthanasia Law) (1 hours)

Diagnosis of death and clinical use of cadavers. Forensic thanatology (2 hours)

Forensic pathology (violent and suspected criminal deaths) (6 hours)

Forensic psychiatry (1 hour)

Acute intoxications (AI): Epidemiological aspects. Diagnosis, clinical manifestations. Laboratory value. Therapeutics (I): general measures. Therapeutics (II): specific decontamination measures. - Therapeutics (III): extractive techniques. Preparation of a type sheet. barbiturates Benzodiazepines. Cyclic antidepressants. Phenothiazines Paracetamol salicylates opiates amphetamines Methanol. Ethanol. ethylene glycol Organophosphate insecticides. Organochlorine insecticides. Herbicides: Paraquat. caustics plants Mushrooms. poisonous gases Metals (16 hours)

Methodology

Subject credits: 4ECTS= 100 hours

AUTONOMOUS WORK (50 hours).

Comprehensive reading of texts and articles, study and creation of diagrams, summary and conceptual assimilation of the contents. Preparation of presentations and deliveries.

EVALUATION (5 hours): 1 subject passing exam. Students who did not pass the subject or did not take the scheduled exam may take a final exam.

Theory (TE typology). Group Size: Enrollment Group.

Seminars (SEM typology) The standard size is 20 and splits are established from 25 students per group.

Exceptionally and according to the criteria of the responsible teaching staff, the available resources and the current health situation in the different Teaching Units, part of the content corresponding to the theoretical lessons, practicals and seminars may be taught face-to-face or virtually.

Note: 15 minutes of a class will be set aside, within the schedule established by the center/degree, for students to fill in surveys to evaluate the performance of the teaching staff and to evaluate the subject/module

This Guide describes the framework, contents, methodology and general rules of the subject, in accordance with the current study plan. The final organization of the subject in terms of the number and size of groups, distribution in the calendar and exam dates, specific evaluation criteria and examination review, will be specified in each of the Hospital Teaching Units (UDH), which will explain this through their web pages and on the first day of class of each subject, through the professors responsible for the subject at the UDH.

Exceptionally and according to the criteria of the responsible teaching staff, the available resources and the health situation at each moment in the different Teaching Units, part of the content corresponding to the theoretical lessons, practicals and seminars may be taught face-to-face or virtually.

During the current academic year, the professors designated by the Departments as responsible for the subject at Faculty and UDH level are:

Department(s) responsible: Department of Psychiatry and Legal Medicine

Head of subject: Santiago Crespo Alonso

UDH managers

- Santiago Crespo Alonso. Santiago.crespo@uab.cat Responsable UDHSP
- Sara Milian Sebastian. Sara.Milian@uab.cat. Responsable UDHVH
- Jose Castellà García. Josepcastella10@gmail.com Responsable UDHGTP
- Joan Ignasi Galtés Vicente. ignasigaltes@uab.cat Responsable UDHPT

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
PLAB	1	0.04	13, 2
Seminars (SEM)	12	0.48	4, 10, 15, 14, 18, 17, 19, 23, 22, 3
Theory (TE)	32	1.28	5, 9, 6, 7, 8, 13, 12, 11, 15, 18, 17, 16, 19, 21, 20, 2, 1
Type: Autonomous			
personal study	40	1.6	5, 9, 6, 7, 8, 13, 12, 11, 15, 18, 16, 19, 21, 20, 2, 1, 3
reading paper, reports of interest	10	0.4	17, 2

Assessment

The objective test will consist of a multiple choice exam, where there is only one correct answer. One correct is subtracted from every four mistakes. The result of the exam represents 50% of the final grade. It may also be in the form of short, directed questions or clinical cases.

30% of the grade will come from the assessment of a report or oral presentation of a topic of your choice. The said report or presentation will deal with forensic pathology, forensic psychiatry, toxicology.

10% Discussion of medico-legal problems using short questions

The remaining 10% will be given by the discussion of a clinical case, through oral defense, or presentation of a report, or short questions about it.

From the first day, the student must be informed about the methodology and assessment to be carried out and be sufficiently clear for the student.

Students who have not passed the subject/module through continuous assessment may sit a final exam or a make-up test, which will never be used to improve grades.

Students who do not take both the theoretical and practical evaluation tests will be considered as Not evaluated, exhausting their rights to enroll in the subject

Students have the right to review the exam. It is the responsibility of the teacher responsible for the subject to establish a date for the aforementioned revision and the criteria for the same (pass or fail assessment, no presentation to raise the grade, assessment only of errors, de-scoring, etc.).

This subject offers the possibility of a single assessment. The test will be done on the same day as the objective test for continuous assessment students. It will consist of a multiple choice exam, short questions, clinical or forensic cases. In the case of suspension, you can take a final exam that will be on the same day as the one scheduled for the suspended subject in continuous modality.

The subject is approved both in the modality of continuous evaluation and single evaluation at the moment that the mark reaches 50% (5)

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Clinical case oral essay or report presentation	10	1	0.04	4, 10, 12, 15, 14, 18, 17, 23, 22, 2, 3
Discussion of medical problems legal, psychiatry, toxicology or pathology	10	1	0.04	4, 8, 13, 15, 18, 17, 16, 1, 3
Expert report-question essay test open or oral or report presentation	30	1	0.04	4, 6, 10, 15, 14, 17, 16, 23, 22, 2, 3
Written assessments using objective tests: multiple choice items / essay tests of open questions/restricted question essay tests or clinical cases	50%	2	0.08	5, 9, 6, 7, 8, 13, 11, 18, 16, 19, 21, 20, 2, 1, 3

Bibliography

- Delgado Bueno, Santiago. Psiquiatría legal y forense. Madrid: Colex, 1994. 2 vol.

- Gisbert Calabuig, Juan Antonio. Medicina legal y toxicología. 7ª ed. Barcelona: Elsevier, 2018.
- Harrison principios de medicina interna. 21ª ed. Joseph Loscalzo (ed.). Ciudad de México: McGraw-Hill, 2022.

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- Ellenhorn's Medical toxicology: diagnosis and treatment of human poisoning. 2nd ed. Matthew J. Ellenhorn (ed.). Baltimore: Williams & Wilkins, cop. 1997.

- Morán Chorro, Indalecio; Baldirà Martínez de Irujo, Jaume; Marruecos-Sant, Luis; Nogué Xarau, Santiago. Toxicología clínica. Madrid: Difusión Jurídica y Temas de Actualidad, 2011.

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- Medicina interna. 19ª ed. P. Farreras, C. Rozman, F. Cardellach (dir.). Barcelona: Elsevier, 2020.

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Recursos d'Internet

Asociación Catalana de Médicos Forenses

Toxi-NET en <http://wzar.unizar.es/stc/toxicologianet> No funciona la pàgina web

<https://www.fetoc.es/>

Software

No specific software required