



UNIVERSITÀ  
degli STUDI  
di CATANIA

## **EDUCATIONAL REGULATION**

**Single-cycle Master's Degree Course  
in "MEDICINE AND SURGERY" (CdLM-MS)**

*CLASS LM-41 – Medicine and Surgery*  
COHORT A.Y. 2024/25

*approved by the Academic Senate in the session of 23 July 2024*

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<b>1. GENERAL DATA</b>
<p><b>1.1. Department of affiliation:</b> General Surgery and Medical-Surgical Specialties.  <b>Associated departments:</b> Clinical and Experimental Medicine; Biomedical and Biotechnological Sciences; Medical, Surgical Sciences and Advanced Technologies "GF Ingrassia".</p>
<p><b>1.2. Class:</b> LM-41. Medicine and Surgery</p>
<p><b>1.3. Teaching site:</b> Azienda Ospedaliero-Universitaria Policlinico Universitario "G. Rodolico-San Marco" - Via Santa Sofia, 78 - Catania</p>
<p><b>1.4. Specific organizational rules:</b> With regard to the definition of curricula preordained for the execution of activities envisaged by Directive 75/363/EEC, this educational regulation of Class LM-41 'Medicine and Surgery' conforms to the provisions of Article 102, paragraph 1, of Legislative Decree No. 18/2020 and Article 6, paragraph 3, of Ministerial Decree No. 270/04.</p>
<p><b>1.5. Reference professional profiles</b></p> <p><u>Function in a work context</u> - The Single-cycle Master's Degree Program in 'Medicine and Surgery' (CdLM-MS), enabling the practice of the medical-surgical profession, shapes the professional profile of a physician at an initial professional level (general practitioner, ISTAT code 2.4.1.1.0) with additional knowledge and skills in the areas of high technology and future medicine of emerging medical challenges.</p> <p>General practitioners:</p> <ul style="list-style-type: none"> <li>• Diagnose, treat, and care for the most common and widespread dysfunctions, diseases, and injuries in the population.</li> <li>• Implement measures for early diagnosis of severe pathologies in at-risk patients.</li> <li>• Prescribe medications and non-pharmacological therapies, clinical tests for diagnoses, hospitalizations, and visits to specialist doctors.</li> <li>• Monitor the course of diseases and their treatments.</li> <li>• Prompt and implement preventive interventions for patients or organizations they operate within, at both individual and population levels.</li> </ul> <p>Duties of the doctor are "<i>the protection of life, physical and mental health of humans, and relief from suffering while respecting the freedom and dignity of the human person, without discrimination based on age, gender, race, religion, nationality, social status, or ideology, in times of peace as well as in times of war, regardless of the institutional or social conditions in which one operates</i>", as stated by the Art. 3 of the Code of Ethics.</p> <p><u>Skills associated with the function</u> - The physician must be equipped with:</p> <ul style="list-style-type: none"> <li>• The scientific foundations and theoretical-practical preparation necessary for the practice of the medical profession under Directive 75/363/EEC, and the methodology and culture necessary for continuous education, as well as a level of professional autonomy, decision-making, and operational autonomy resulting from a training path characterized by a holistic approach to the health problems of both healthy and sick individuals, also in relation to gender differences and the chemical-physical, biological, and social environment surrounding them.</li> <li>• Essential theoretical knowledge derived from basic sciences, in view of their subsequent professional application.</li> <li>• The ability to critically detect and evaluate, from a clinical perspective and within a comprehensive socio-cultural and gender dimension, data related to the health and disease status of the individual, interpreting them in light of basic scientific knowledge, pathophysiology, and organ-system pathologies.</li> <li>• Skills and experience, combined with self-assessment ability, to responsibly address and resolve priority health issues from a preventive, diagnostic, prognostic, therapeutic, and rehabilitative standpoint, ensuring continuity of care.</li> <li>• Knowledge of the historical, epistemological, and ethical dimensions of medicine.</li> <li>• The ability to communicate clearly and humanely with patients and their families, showing empathy and providing comfort to alleviate suffering.</li> <li>• The ability to collaborate with different professional figures in various group health activities, with the ultimate goal of providing the best possible patient care.</li> <li>• The ability to apply principles of health economics in medical decisions.</li> <li>• The ability to recognize health challenges in the community and the territory to intervene competently, also using technology.</li> </ul> <p>These competencies are acquired in the educational path of CdLM-MS, structured to allow the acquisition of specific theoretical knowledge and its application.</p>

Employment opportunities - The graduate in Medicine and Surgery, with the possession of professional qualification, can carry out activities in various clinical, health, and biomedical professional roles and areas. To complete the training, the graduate can access, through selective exams, Medical, Surgical, and Service Area Specialization Schools (lasting 4-5 years), specific training courses in General Medicine (lasting 3 years), Research Doctorate programs, and second-level Master's programs.

Employment opportunities include:

- Work in structures of the National Health Service, public entities, and state or private companies. Specifically, the graduate can operate in National Health Service facilities, i.e., public structures of Local Health Authorities, public structures and those with a public function not belonging to Local Health Authorities (e.g., university doctors, doctors in institutes for research and care, doctors in classified hospitals, doctors of the Ministry of Health, military doctors, in social security institutions, in the prison administration, in the State Railways, in the State Police, in the Red Cross), and in private health facilities, companies, and other organizations, including Scientific Institutes for Research and Care (IRCCS) and industries.
- Private practice, either individually or in association, based on the professional's specialization or completion of specific training in General Medicine to practice as a General Practitioner. Private practice can be carried out in medical offices, outpatient clinics, and polyclinics, private laboratories for analysis, physical therapy and rehabilitation clinics, radiology and radiotherapy clinics, either individually or in association.
- Research activity in clinical or preclinical areas, both within an academic career and within research institutions. In this case, it is advisable to pursue a Ph.D. after graduation.

The exercise of the profession is regulated by the laws of the State.

The Course prepares for the profession of General Practitioners - ISTAT (2.4.1.1.0).

**1.6. Access to the course:** National programmed number.

**1.7. Course language:** English.

**1.8. Course duration:** The duration of the course for the achievement of the Master's Degree in Medicine and Surgery is 6 years.

## **2. ADMISSION REQUIREMENTS**

### **2.1. Knowledge required for entry**

Admission to the CdLM-MS is open to candidates holding a high school diploma or another qualification obtained abroad, recognized as suitable in accordance with current regulations. European Union citizens and non-EU citizens residing in Italy under Article 26 of Law No. 189 of 30/7/2002 can apply under the same conditions as Italians.

As a numerus clausus national degree program (formerly Law No. 264 of August 2, 1999), candidates must pass an admission test. The right to enrollment is earned by candidates based on available positions and their placement in the ranking list drawn up in descending order of scores, provided they have achieved a minimum score defined by the Admission Notice. Candidates with a score below the specified minimum in the Notice will not be able to enroll, regardless of their position in the ranking.

The test, besides being selective, also aims to verify the possession of adequate initial preparation obtained in previous studies. In case the verification of initial preparation is not successful, additional training requirements (OFA) are provided, which must be fulfilled in the first year of the course. For information on the characteristics of OFA and the methods for fulfilling them, refer to section 2.3 of this regulation.

Candidates must also have language proficiency equivalent to at least B2 level of the Common European Framework of Languages in English. The scientific and technical terms used in the entrance test for the course are considered to be above the B2 competence level but are necessary for students intending to enroll in the CdLM-MS. For non-native Italian speakers, no basic knowledge level is required at the time of entry into the degree program, but refer to section 3.6 for instructions regarding the acquisition of Italian language proficiency by the end of the third year of the program.

### **2.2. Methods of verifying the knowledge required for access**

The admission test for the CdLM-MS is conducted according to procedures defined by the Ministerial Decree published annually by the Ministry of University and Research, and subsequent Rectoral Notices. Candidates must possess the knowledge described in the Ministry of University and Research decree specifying the required knowledge for admission and the specific contents of the admission tests. Currently, these tests consist of multiple-choice questions on topics including Biology, Chemistry, Physics, and Mathematics, General Culture, and Logical Reasoning.

The conduct of the test, the assignment of scores, and any other related matters are regulated by a specific Rectoral Notice published annually by the University. Enrollment in the study programs is reserved for students placed successfully in the respective rankings. According to current regulations, based on the scores obtained in the admission test, any OFA (additional training requirements) are determined for each admitted student.

### **2.3. Additional training obligations in the event of a non-positive verification**

The CdLM-MS requires that students admitted to the first year of the course have adequate initial preparation from their previous studies.

If a student, despite being eligible for admission to the CdLM-MS, scores below 25% of the maximum achievable score in the Biology or Chemistry questions, the assessment is considered "not positive." In such a case, the student will be assigned additional training requirements (OFA) to be fulfilled within the first year of the course. These requirements involve specific activities organized in the first semester of the first year, and the student must pass the corresponding exams. The student is enrolled with a reservation and, as such, cannot take exams or final assessments or request, under any circumstances, the recognition of university educational credits (CFU) obtained in other study programs until the OFA are successfully completed.

### **2.4. Minimum score to be achieved for admission**

Reference is made to the corresponding Ministerial Decree "Methods and Contents of Admission Tests for nationally restricted access degree programs".

### **2.5. Criteria for the recognition of credits obtained in other courses**

The preliminary assessment of credit recognition requests is carried out by the Technical Commission for Current Affairs (CTAC) of the CdLM-MS, after consulting the professors in the relevant scientific-disciplinary sectors, and then submitted for approval to the CdLM-MS Council.

1) Incoming Students Transferred from Another University - Students who have already earned CFUs, including those from foreign universities, that are partially or fully recognizable for the degree can, upon request, be allowed to enroll in the academic year for which they have applied (the academic year following the last one attended) if there are available spots. Enrollment in years beyond the first is subject to seat availability, as announced annually in the study manifesto for each academic year, based on the number of available spots due to transfers or study withdrawals.

The transfer request should be submitted to the Student Career Office - Medical Sector, concurrently with the recognition of the previous academic record. The recognition request for students previously enrolled in another university (incoming transfers) must be accompanied by the exam programs completed in the previous academic career. Without these programs, the activities will not be recognized.

For details, refer to the guide attached to the University's transfer announcement from other locations.

2) Students Enrolled in the CdLM-MS in the A.Y. 2024-25 from Other Degree Programs - Students who have already earned CFUs from other degree programs, partially or fully recognizable for the degree, can submit a recognition request (total or partial) for the CFUs acquired through exams and/or attendance.

The credit recognition request must be submitted electronically following the procedures indicated in a specific notice from the Student Career Office - Medical Sector, concurrently with the enrollment application, and must be accompanied by the programs of the subjects for which recognition is requested.

Enrollment is, in any case, subject to placement in a favorable position in the admission ranking for the first year at the University of Catania.

If the CFUs for which recognition is requested were obtained more than twelve years ago, due to the continuous need for updates in the medical field, recognition cannot be granted due to the obsolescence of knowledge content.

The recognition of CFUs in Human Anatomy, Biology, Genetics, Physiology, Pathology, Immunology, Systematic Pathologies, and medical-surgical specialties, Diagnostic Imaging, Radiotherapy, and Professionalizing and Enabling Internships is conditional on them being obtained within a Master's Degree Program (LM-41) taught in English. CFUs related to the preparation of the final exam are not recognizable.

In evaluating recognition requests, the CTAC adheres to the following criteria:

1. Credits earned in Single-cycle Master's Degree Programs in Medicine and Surgery (LM-41) held at Italian universities:
  - Teaching delivered and exam taken in English;
  - Total recognition of CFUs earned in a specific scientific-disciplinary sector up to the maximum allowed for that sector in the study plan of the University of Catania's degree program, provided that the educational objectives have been achieved;
  - Total recognition of any excess CFUs or in areas not present in the study plan, up to the maximum credits specified as Elective Educational Activities;
  - Partial recognition of CFUs to the extent that the disciplinary contents can be related to one or more subjects in the study plan, through integration and examination of the missing contents;
2. Credits earned in Degree Programs belonging to classes other than LM-41 at Italian universities or in Degree Programs at foreign universities:
  - Teaching delivered and exam taken in English;
  - Recognition is limited to CFUs obtained in disciplines whose contents are present in one or more subjects of the degree program;
  - Recognition is limited to the number of CFUs specified for the corresponding subject in the study plan;
  - Recognition is total in cases where, in addition to a general correspondence of contents, common educational objectives are also present;
  - Recognition is partial in cases where the correspondence of CFUs and/or contents is partial and is subject to integration and examination of the missing contents.

Both for students mentioned in point 1 and those in point 2, the following criteria apply:

- The recognized exams will maintain the same grades obtained in the previous degree program;

- Credit recognition will consider the educational objectives through a comparison of programs, and if these are comparable, a possible discrepancy in the number of CFUs will be tolerated up to a maximum of 20%;
- Admitted students must attend classes (at least 70% of the time) for subjects not passed.

For anything not provided, refer to the current University Teaching Regulations (RDA).

**2.6. Criteria for the recognition of professional knowledge and skills**

The knowledge and professional skills certified in accordance with current regulations can be recognized as credits (CFU) related to Elective Educational Activities (maximum 3 CFU of individual Elective Educational Activities) only if they have a close relevance to the skills and professionalism pursued by the CdLM-MS.

**2.7. Criteria for recognition of knowledge and skills gained in post-secondary level training activities carried out with the aid of the University**

The knowledge acquired in post-secondary level educational activities carried out with the collaboration of the University and certified in accordance with current regulations can be recognized as credits (CFU) related to Elective Educational Activities (maximum 3 CFU of individual Elective Educational Activities) only if they have a close relevance to the skills and professionalism pursued by the CdLM-MS.

**2.8. Maximum number of recognizable credits**

For the knowledge mentioned in points 2.6 and 2.7, the maximum number of recognized credits (CFU) is limited to 3.

### 3. TEACHING ORGANIZATION

#### 3.1. Frequency

The student is required to attend face-to-face educational activities for at least 70% of the scheduled hours for each Integrated Course/Teaching and, in any case, for at least 50% in each individual module.

A student who undergoes an authorized period of study/internship abroad lasting a minimum of one month during the first or second semester is required to attend face-to-face educational activities for at least 50% of the scheduled hours for each Integrated Course/Teaching.

In any case, for professionalizing and enabling internships (practical-evaluative), attendance is mandatory for 100% of the scheduled hours.

Article 30 of the University Didactic Regulation provides specific measures to facilitate the educational path for working students, athletes, those in vulnerable situations, with disabilities, and in a state of detention, including:

- a) Further reduction of the attendance obligation (to a maximum of 20%) for each subject (integrated course), which cannot be less than 50% of the scheduled face-to-face teaching hours and does not apply to professionalizing and enabling internships.
- b) Access to extraordinary exam sessions reserved for out-of-course students.
- c) Specific educational support activities.

The request for recognition of the benefits provided by the aforementioned Article 30 must be submitted to the Student Career Office - Medical Sector, which will verify the fulfillment of the requirements.

If the student does not meet the requirements for accessing the above-mentioned benefits but is in a state of illness or unable to attend due to serious and documented family problems, they may submit a request to the President of the Master's Degree Course for exemption from attendance in face-to-face teaching up to a maximum of 50%. The exemption does not apply to professionalizing and enabling internships. In case of illness, the relevant documentation must be issued by an appropriate structure of the National Health Service.

A student who has not acquired the attendance for the subjects included in their study plan in the expected academic year is regularly enrolled in the following academic year, with the obligation to attend the subjects for which they did not obtain the attendance certificate to be able to take the final exam.

At the end of six years of regular enrollment, the student is enrolled as out-of-course with the obligation to obtain the attendance certificate for the subjects according to the principle of their propaedeuticity. Student members of collegiate bodies are exempt from attending educational activities that take place during the sessions of the bodies to which they belong. For professionalizing and enabling internships, considering that the required attendance is mandatory for 100% of the scheduled hours, a student benefiting from any form of exemption described above must submit a recovery request to the Internship Coordinator who will organize specific activities, also taking into account the indications provided by the Occupational Physician.

#### 3.2. How to verify attendance

The verification of attendance is the responsibility of the teacher (through a roll call or sign-in sheets for face-to-face classes; a specific register for professionalizing and enabling internships). The teacher is required to communicate to the President of the CdLM-MS only the names of students who have not reached the minimum required hours of face-to-face teaching. For professionalizing and enabling internships, the information recorded in the trainee's booklet, validated and signed by the Tutor, is considered valid.

#### 3.3. Typology of the didactic forms adopted

The adopted educational forms are categorized as follows:

- a) Frontal Teaching Activities aimed at knowledge acquisition (DF): 1 CFU = 7 hours.
- b) Classroom activities aimed at applying knowledge (theoretical-practical activities, ATP): 1 CFU = 15 hours.
- c) Other activities supervised by the University (AA): 1 CFU = 25 hours. These activities include laboratories, seminars, theoretical-practical activities, specific courses also delivered online, group discussions, guided study, and literature review, etc. These activities may be supervised by the Teacher, junior and/or senior Tutors, Tutors from affiliated institutions, and do not include activities delivered by the Teacher as frontal teaching or those of internships or laboratories codified as specific courses.
- d) Professionalizing internships and biomedical laboratories (TP): 1 CFU = 25 hours.

- e) Practical-evaluative internship (enabling) according to DM 58/2018 (TPV): 1 CFU = 25 hours.
- f) Final Exam (PF): 1 CFU = 25 hours.

Frontal teaching activities and theoretical-practical activities can be scheduled in both morning and afternoon hours, depending on the academic calendar and the organization planned by the CdLM-MS, taking into account various logistical needs.

Professionalizing internships and practical-evaluative internships are organized by Tutors in healthcare facilities, following the CdLM-MS's schedule, and considering the logistical needs of each department. They can be organized throughout the calendar year, including night shifts.

### **3.4. How learning is verified**

Learning assessment occurs through certifying evaluations, with the possibility of intermediate assessments solely aimed at gauging the effectiveness of learning and teaching processes for specific content.

Preparation is assessed as follows:

- Through a pass certificate (AP) if the credits to be acquired relate to subjects or integrated courses.
- Through a suitability certificate (I) for credits related to other training activities, Elective Teaching Activities, and professionalizing internships.
- Through an attendance certificate (AF) for the internship for the thesis.

Examinations may take the form of oral, written, practical, or their combinations.

The certifying evaluation of the exam is expressed on a scale of thirty and may take into account any interim assessments and the results obtained in any written or practical tests. If the exam consists of multiple parts, the Commission records the results at the end of the exam; in cases where only a written test is foreseen, the recording will be done only after receiving the student's intention to complete the procedure.

The exam is considered passed if the student achieves a grade of at least eighteen out of thirty. A student who obtains the maximum grade may also be awarded honors.

The exam is considered concluded at the end of the recording process. The Commission records the positive outcome of the exam, including the topics covered and the assigned grade, if applicable.

Professionalizing internships and enabling internships do not have a profit grade, but the acquisition of the corresponding CFUs is subject to the suitability judgment issued by the Tutor. The recording of the internship is the responsibility of the Internship Coordinator, who receives the evaluation sheets completed by the Tutors.

Passing the exam accredits the student with the number of CFUs corresponding to the course indicated in the Educational Plan of the CdLM-MS, as outlined in the Study Manifesto valid at the time of enrollment or first registration in the CdLM-MS.

### **3.5. Rules for submitting individual study plans**

The CdLM-MS does not foresee individual study plans submitted by the student.

### **3.6. Knowledge of foreign language**

The CdLM-MS mandates the mandatory acquisition of knowledge of the Italian language by the third year of the course to ensure productive learning during patient bedside professionalizing activities. The required level of proficiency in the Italian language corresponds to level B2 of the Common European Framework of Languages. A "Italian Language" course, equivalent to 3 CFUs, is scheduled during the first year to obtain the corresponding proficiency certificate. Italian language courses are also organized from the first year onwards at the University Language Center, which will certify the achievement of the required minimum level of knowledge. The corresponding CFUs will be recognized among the additional language skills required by the Didactic Plan of the CdLM-MS.

### **3.7. Criteria for periodic verification of the non-obsolescence of cognitive contents**

Periodic assessments are not envisaged in the CdLM-MS.

### **3.8. Verification criteria for credits earned more than twelve years ago**

Should the student not attain the Master's Degree in Medicine and Surgery within a timeframe equal to twice the legal duration of the course of study plus one additional year, access to the final examination is contingent upon an assessment of the credits (CFU) acquired more than twelve years ago to ascertain the non-obsolescence of knowledge content. In the event of an unfavorable assessment, the student may be required to pass the corresponding proficiency exams.



### 3.9. Criteria for recognition of studies completed abroad

The student enrolled in the Master's Degree in Medicine and Surgery at the University of Catania can pursue part of their studies at foreign universities or equivalent institutions with which the University has established student mobility programs recognized by EU universities and/or bilateral agreements that entail the attainment of mutually recognized degrees.

To avail this opportunity, the student must submit a specific application indicating the university they intend to attend and the courses they plan to take. The Master's Degree Council deliberates on the matter, specifying which courses are recognized and providing adequate justifications if any course cannot be acknowledged.

The deliberation indicates the correspondence between the recognized educational activities and those within the curriculum of the Master's Degree, the number of CFUs, and the grade in thirtieths assigned to each, based on pre-established conversion tables. The Master's Degree Council decides based on general criteria previously defined, ensuring that the chosen courses abroad align with the objectives of the degree program, rather than focusing on perfect content matching.

The educational activities carried out abroad (courses taken, credits earned, and grades achieved) are recorded in the student's academic record, following the prior deliberation of the Master's Degree Council, based on documentation transmitted by the host university.

Recognition of the Medicine and Surgery Degree obtained at foreign universities - The Medicine and Surgery Degree obtained at foreign universities is recognized if there are bilateral agreements or international conventions providing for the equivalence of the degree. Concerning the discipline of equivalence of degrees within the European Union, degrees issued by EU universities are recognized, subject to verifying the acts attesting to their curricular congruity. In the absence of agreements between states, based on the combined provisions of articles 170 and 332 of the Consolidated University Education Act, academic authorities may declare equivalence on a case-by-case basis.

For this recognition, the Master's Degree Council:

- a. verifies the authenticity of the submitted documentation and the reliability of the original Degree program, relying on attestations from specifically qualified central bodies;
- b. reviews the curriculum and assesses the congruity, compared to the current educational system, of the didactic-formative objectives, teaching programs, and assigned credits at the original university;
- c. establishes the following criteria useful for processing requests:
  - having passed an admission selection procedure at the university that awarded the degree, to a nationally numerus clausus Medicine and Surgery program
  - availability of places in the fifth year
- d. conditions the recognition of the Medicine and Surgery Degree obtained at foreign universities on:
  - passing, at the University of Catania, after acquiring attendance (according to the criteria in point 3.1), the exams in:
    - a. Basics of diagnostics and pharmacology
    - b. Global health, public health, and community medicine
    - c. Forensic and occupational medicine
    - d. Obstetrics, gynecology, and pediatric diseases
    - e. Emergencies
    - f. Patient management 1 and Patient management 2
  - completing the Internship in the fifth and sixth years
  - drafting and defending the Thesis.

The preliminary evaluation of requests, performed by the CTAC according to the above criteria, is subject to the approval of the Master's Degree Council.

Professionalizing internships can be recognized based on the achieved educational objectives. The enabling internship carried out before or after the Degree can be recognized for the issuance of the enabling title, subject to compliance with current regulations (D.L.18/2020), except for the internship in General Medicine, which must be carried out in Italy.



## 4. OTHER EDUCATIONAL ACTIVITIES

### 4.1. Student's choice of activities

#### Elective teaching activities (ADE) – 8 CFU

The CdLM-MS, based on the proposal of the Technical-Pedagogical Commission (CTP) and the instructors, organizes the offering of optional didactic activities, achievable through lectures, seminars, interactive small-group courses, non-coordinated activities, or connected in "homogeneous didactic paths." The student exercises their personal choice until obtaining a total of 8 CFU. Elective activities (ADE) also include elective internships aimed at specific topics carried out in research laboratories, clinical departments, or other learning activities relevant to the objectives of the CdLM-MS.

The CdLM-MS, based on the instructors' proposal, defines the formative objectives that individual ADE aim to achieve, as well as the course's modalities.

Concerning the planning of elective activities, the CdLM-MS Council assigns the instructor the task of organizing the ADE and evaluating the commitment made by individual students in achieving the defined formative objectives.

The schedule of elective activities is published before the start of the academic year or semester, along with the schedule of mandatory didactic activities. Additionally, elective activities can be planned and scheduled throughout the academic year.

#### Individual Elective Didactic Activities at the Student's Request

The student can acquire a maximum of 3 CFU (of the 8 provided for ADE) through the following activities:

- certified participation in conferences and congresses
- elective internships in research or clinical facilities of the University or in accredited external facilities
- voluntary work in the healthcare sector at accredited institutions

### 4.2. Additional training activities (art. 10, paragraph 5, letters c, d of Ministerial Decree 270/2004)

#### Training and Orientation Internships

Within the educational curriculum, the student is required to acquire specific professional skills in Internal Medicine, General Surgery, Pediatrics, Gynecology and Obstetrics, as well as Medical-Surgical Specialties. To achieve this, the student must undertake professionalizing training activities by attending healthcare facilities identified by the CdLM-MS Council, for a total of at least 60 CFU.

The CdLM-MS Council designates a Coordinator responsible for organizing all practical internship activities. The mandatory internship is a form of tutorial educational activity involving practical simulations of professional activities. Throughout the internship, the student must operate under the direct supervision of a tutor. The tutor's didactic functions for students involved in mandatory internships are the same as those prescribed for tutorial teaching within the regular courses. At the end of each mandatory internship period, the student will be evaluated and declared either eligible or ineligible.

The CdLM-MS Council may identify non-university healthcare facilities where the internship can be partially or entirely conducted. The School of Medicine, considering the CdLM-MS guidelines, will initiate procedures for agreements with hospitals and healthcare companies for the completion of professionalizing internships and thesis preparation.

The CdLM-MS has developed regulations governing the conduct of professionalizing internships, published on the "Internship" section of the Course's website (<https://www.chirmed.unict.it/en/courses/lm-41-eng>).

#### Pre-graduate practical-evaluative internship

Within the 60 CFU to be earned in the entire educational path, allocated for professionalizing activities, 15 CFU are designated for the completion of the trimester-long practical and evaluative internship within the framework of the Ministerial Decree no. 58 of May 9, 2018, and subsequent amendments, aimed at obtaining professional qualification. This internship spans a number of hours corresponding to at least 5 CFU per month and is structured in the following periods, even if not consecutive: i) one month in Surgical Area; ii) one month in Medical Area; iii) one month, to be carried out not earlier than the sixth year of the course, specifically in the field of General Medicine.

The pre-graduation practical and evaluative internship is organized in collaboration with the State Examination Office and the Medical Board. The medical and surgical internship can be conducted abroad within the University's international mobility programs, following the regulations for the practical evaluative internship and subject to approval by the Course of Study.

**Computer and telematic skills:** a course of "Health Informatics" (3 credits) is foreseen.

**Other useful knowledge for entering the world of work:** not foreseen.

#### 4.3. Study periods abroad

The CdLM-MS encourages International Exchange Programs by providing a reward for the purpose of calculating the degree mark (maximum 2 points), namely:

- INTERNATIONAL EXCHANGES authorized by the Degree Course: 0.5 points for each continuous period from 1 to 4 months.
- ERASMUS: Learning Agreement for Traineeship ( $\geq 2$  months): 1 point for each period from 2 to 4 months.
- ERASMUS: Learning Agreement for Studies ( $\geq 3$  months): 1.5 points (acquisition of at least 6 credits of frontal teaching).
- ERASMUS: Learning Agreement for Studies ( $\geq 3$  months): 2 points (acquisition of at least 12 credits of frontal teaching).

#### 4.4. Final test

The student is allocated 15 CFU for the preparation of the Master's thesis. The acquisition of these CFUs involves a minimum 12-month internship at the clinical department or biomedical laboratory affiliated with the thesis advisor. The thesis advisor will specify the type of thesis (e.g., experimental, case report, or compilative). The thesis is to be written and defended in English.

To be eligible for the Master's Degree Examination, the student must have attended all courses and passed the respective exams. The examination focuses on the discussion of the thesis, which is prepared in an original manner by the student under the guidance of a thesis advisor, with the possibility of having a co-advisor.

The criteria for determining the degree mark are established by the "Regulation for the Attribution of the Final Examination Score for the Master's Degree" approved by the CdLM-MS Council. The degree mark is expressed in one hundredths. A minimum of three examination sessions is scheduled for each academic year.

## 5. PROGRAMMED TEACHING SUA-CDS

List of courses for the academic year 2024/2025

N.	SSD	Denomination	CFU	n. hours		Propaedeutics	Educational objectives
				Classes	Other activities		
1	FIS/07 BIO/10	<p><b>PRINCIPLES OF THE HUMAN MATTER</b></p> <ul style="list-style-type: none"> <li>• Applied physics</li> <li>• Chemistry and biochemistry propaedeutics</li> </ul>	9	66	75	-	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the principles and laws of physics and their application in the medical field.</li> <li>• Of general and inorganic chemistry as a basis for understanding natural processes and phenomena (e.g., atomic structure, properties of elements, chemical bonds, states of matter. solutions and their properties, chemical reactions, thermodynamics and kinetics of reactions, concepts of electrochemistry).</li> <li>• Of organic chemistry aimed at the study of biochemistry (e.g., carbon chemistry, structure of organic molecules, functional groups and their main characteristics and reactions).</li> </ul>
2	BIO/11 BIO/13 MED/03	<p><b>THE CELL: MOLECULES AND PROCESSES (annual)</b></p> <ul style="list-style-type: none"> <li>• Molecular biology I</li> <li>• Applied biology II</li> <li>• Medical genetics I</li> <li>• Molecular biology II</li> <li>• Applied biology II</li> <li>• Medical genetics II</li> </ul>	14	100	50	-	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the basic mechanisms involved in cellular processes (e.g., expression, duplication, and transmission of genetic information, development, differentiation, cell proliferation, biogenesis of organelles and cellular structures, interaction between cells, biological</li> </ul>

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				Classes	Other		
							bases of behavior and evolution). <ul style="list-style-type: none"> <li>• Of biotechnological applications and general and molecular genetics.</li> <li>• Of advanced biological technologies (e.g., recombinant technologies and the use of transgenic animals).</li> </ul>
3	BIO/17 BIO/16	<b>BODY GENESIS AND ARCHITECTURE (annual)</b> <ul style="list-style-type: none"> <li>• Histology, cytology, embryology, and organogenesis</li> <li>• Regional anatomy and gross neuroanatomy</li> </ul>	12	88	100	2	To provide a solid knowledge base and develop the ability to use knowledge: <ul style="list-style-type: none"> <li>• Of the morphological characteristics of the cell and its organelles.</li> <li>• Of the relationship between the morphology and function of cytological structures.</li> <li>• Of the embryological origin, typology, structure, function, and criteria for recognizing a histological specimen.</li> <li>• Of the general notions on the embryonic development of mammals as a scientific basis for the study of the ontogenesis of individual organs and systems.</li> <li>• Of the organogenesis and the various stages of development, identifying individual diversities, congenital variations of different organs or systems, and researching the primary causes of morphogenetic events.</li> <li>• Of the conformation and structure of the human body in its macroscopic and microscopic aspects in various life periods.</li> <li>• Of the anatomy of the brain and nervous system.</li> </ul>

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				Classes	Other		
4	INF/01	<b>HEALTH INFORMATICS</b>	3	22	25	-	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• In computer science, including programming, operating systems, networks, and databases;</li> <li>• In medical informatics, including clinical data management, telemedicine, data security, and regulatory compliance.</li> <li>• In advanced medical technologies, including medical imaging, diagnostic and therapeutic support systems, and rehabilitation technologies;</li> <li>• On how to use computer systems in clinical practice, including patient management, medication management, and test result management.</li> <li>• On how to use computer systems for medical research, including clinical data analysis, imaging data processing, and genomic data analysis.</li> <li>• On how to use computer systems for the management and evaluation of data and clinical process quality.</li> </ul>
5	BIO/09 BIO/10	<b>THE CELL: FUNCTIONS AND REGULATIONS</b> <ul style="list-style-type: none"> <li>• Cellular physiology</li> <li>• Biochemistry</li> </ul>	9	66	75	2	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• On the main characteristics and reactions of the most important biomolecules (e.g., carbohydrates, lipids, amino acids and proteins, nucleotides).</li> <li>• On the relationship between the structure and function of proteins, biological</li> </ul>

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				Classes	Other		
							<p>membranes, and the main transport systems.</p> <ul style="list-style-type: none"> <li>On the principles of enzymology, bioenergetics, and the catabolic and anabolic pathways of carbohydrates, lipids, and amino acids.</li> </ul>
6	MED/42	<b>HEALTH AND THE CLIMATE CHANGES</b>	2	14	0	-	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>On the health and environmental risks associated with climate change.</li> <li>On prevention and management interventions for health risks related to climate change.</li> <li>Of communication and advocacy tools to raise awareness and engage society and authorities in addressing the challenge of climate change and its implications for health.</li> </ul>
7	BIO/09 BIO/10 BIO/16	<b>BODY FUNCTIONS 1</b> <ul style="list-style-type: none"> <li>Human physiology</li> <li>Biochemistry</li> <li>Organ structure</li> </ul>	11	80	75	3, 5	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>In achieving and maintaining the internal homeostasis of the human body at the molecular, cellular, and tissue levels, within the context of changes in the surrounding environment.</li> <li>On the electro-physiological and functional mechanisms of transport and communication systems in biological membranes, cellular motility, and the specialized functions of individual cells.</li> </ul>



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				Classes	Other		
							<ul style="list-style-type: none"> <li>• On the applications of the main laws of biophysics in models of maximum complexity, studying mechanisms and interrelationships of all organ functions.</li> <li>• On the integrated functioning of different organs and systems during motor activities and in extreme environmental conditions.</li> </ul>
8	MED/04 MED/07 MED/08	<b>DISEASE ONSET 1</b> <ul style="list-style-type: none"> <li>• General pathology and immunology</li> <li>• Microbiology</li> <li>• Principles of anatomopathology</li> </ul>	12	88	100	7	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• On the scientific aspects and clinical application of general pathology and general physiopathology.</li> <li>• On the cellular and molecular bases of microbial pathogenicity, microorganism-host interactions, and microbial biotechnologies.</li> <li>• On anatomopathological pictures, cellular, tissue, and organ lesions, and their evolution in relation to the most relevant diseases of different systems.</li> </ul>
9	BIO/17 MED/46	<b>BIO-ENGINEERING</b> <ul style="list-style-type: none"> <li>• Tissue engineering, bioprinting</li> <li>• Scaffolding and organoid</li> </ul>	7	51	50	4	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• In medical bioengineering, including the basic principles of biology, physiology, and engineering.</li> <li>• In engineering methods and techniques to solve medical problems.</li> <li>• In medical devices and prosthetics, as well as</li> </ul>

N.	SSD	Denomination	CFU	n. hours		Propaedeutics	Educational objectives
				Classes	Other		
							<p>diagnostic and therapeutic systems.</p> <ul style="list-style-type: none"> <li>• In the ability to work in an interdisciplinary team and communicate effectively with doctors, engineers, and other professionals in the medical field.</li> <li>• In research and development opportunities in medical bioengineering, including current advances and trends in the field.</li> <li>• In a global and critical perspective on the use of medical bioengineering in clinical practice and research.</li> </ul>
10	BIO/09 BIO/10 BIO/16	<p><b>BODY FUNCTIONS 2</b></p> <ul style="list-style-type: none"> <li>• Human physiology</li> <li>• Biochemistry</li> <li>• Organ structure</li> </ul>	12	88	100	3, 5, 7	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the electrophysiological and functional mechanisms of the central, peripheral, and autonomic nervous systems.</li> <li>• Of the mechanisms and interrelationships of all organ functions and the general foundations of endocrinology.</li> <li>• Of the neurobiological and psychophysiological foundations related to behavior and cognitive and emotional interactions between the individual and the environment.</li> </ul>

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				Classes	Other		
11	MED/04 MED/07 MED/08	<b>DISEASE ONSET 2</b> <ul style="list-style-type: none"> <li>• General pathology and immunology</li> <li>• Microbiology</li> <li>• Principles of anatomopathology</li> </ul>	11	81	100	7, 8	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of molecular medicine and cellular pathology with specific reference to oncology, immunology and immunopathology, and genetic, ultrastructural, and molecular pathology.</li> <li>• Of the principles of bacteriology, virology, mycology, and parasitology and the diagnostic-clinical aspects of microbiological and virological analysis.</li> <li>• Of the contribution of the anatomopathologist to clinical decision-making with reference to the use of histopathological and cytopathological diagnostics, including biomolecular techniques, for the diagnosis, prevention, prognosis, and therapy of individual patient diseases.</li> <li>• Of anatomopathological reports.</li> </ul>
12	MED/49	<b>WATER, FOOD AND SUSTAINABLE DIETS</b>	3	22	25	-	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the nutritional characteristics of foods, nutritional status, energy expenditure and needs, and the physiological use of nutrients in the diet.</li> <li>• Of the principles of applied nutrition and clinical nutrition integrated with psychological care and functional rehabilitation of the patient.</li> <li>• Of the physiopathological, psychological, functional,</li> </ul>

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				Classes	Other		
							and clinical issues of different forms of malnutrition (obesity and pathological leanness) and the principles of therapy.
13	BIO/14 MED/36	<b>BASICS OF DIAGNOSTICS AND PHARMACOLOGY</b> <ul style="list-style-type: none"> <li>• General pharmacology</li> <li>• Introduction to diagnostic imaging</li> </ul>	6	44	50	1, 2, 3, 5	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the different classes of drugs, their molecular and cellular mechanisms, their action, and the fundamental principles of pharmacodynamics and pharmacokinetics.</li> <li>• Of the therapeutic uses of drugs, variability of response in relation to gender, genetic, and physiopathological factors, pharmacological interactions, and criteria for defining therapeutic regimens.</li> <li>• Of the principles and methods of clinical pharmacology, pharmacovigilance, and pharmacoepidemiology, side effects and toxicity of drugs and substances of abuse.</li> <li>• Of the various imaging diagnostic procedures, assessing their risks, costs, and benefits.</li> <li>• Of the reports of diagnostic imaging.</li> <li>• Of radiotherapy and knowledge of the principles of radioprotection.</li> </ul>

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				Classes	Other		
14	BIO/14 MED/08 MED/11 MED/13 MED/22 MED/23 MED/36	<b>DISEASES OF THE CARDIOVASCULAR AND ENDOCRINE SYSTEMS</b> <ul style="list-style-type: none"> <li>• Applied pharmacology</li> <li>• Anatomopathology</li> <li>• Cardiovascular diseases</li> <li>• Endocrinology</li> <li>• Vascular surgery</li> <li>• Cardiac surgery</li> <li>• Applied diagnostics</li> </ul>	14	100	50	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the anatomical, physiological, biochemical, and genetic aspects of the cardiac system in order to establish the basis for learning laboratory analysis, clinical aspects, and cardiological therapy.</li> <li>• Of the etiopathogenic and physiopathological mechanisms that determine the development of congenital and acquired heart diseases.</li> <li>• Of clinical semiotics, instrumental diagnostics, and laboratory diagnostics applicable to cardiovascular diseases.</li> <li>• Of the theoretical and technical foundations of non-invasive cardiology (e.g., standard and dynamic electrocardiography, electrophysiology, one-dimensional, two-dimensional, Doppler and Color Doppler echocardiography, radioisotopic methods, CT, MRI).</li> <li>• Of the physiopathological, psychological, and clinical issues related to diseases of the endocrine system (e.g., diabetology, andrology, growth, metabolic diseases, obesity, carbohydrate, lipid, and electrolyte metabolism);</li> <li>• Of the physiopathological, psychological, and clinical issues related to male fertility, male sexuality and its dysfunctions from a</li> </ul>

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				Classes	Other		
							<p>medical sexological perspective, natural and assisted procreation from an endocrine-andrological point of view, the ability to recognize the most common forms of andrological pathology, indicating fundamental preventive and therapeutic measures, and identifying conditions that require the professional input of a specialist.</p>
15	INF/01	<b>ARTIFICIAL INTELLIGENCE, MACHINE LEARNING AND BIG DATA</b>	3	22	25	4	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of how to use artificial intelligence, machine learning, and big data to improve the diagnosis and treatment of diseases.</li> <li>• Of artificial intelligence and machine learning techniques for the analysis of clinical data, including vital sign processing, medical image analysis, and genomic data modeling.</li> <li>• Of artificial intelligence and machine learning techniques for medical research, including the identification of new therapeutic molecules, the discovery of new</li> </ul>

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				Classes	Other		
							biomarkers, and the optimization of therapeutic protocols.
16	BIO/14 MED/10 MED/14 MED/21 MED/24 MED/36	<b>DISEASES OF THE RESPIRATORY AND URO-NEPHROLOGICAL SYSTEMS</b> <ul style="list-style-type: none"> <li>• Applied pharmacology</li> <li>• Respiratory diseases</li> <li>• Kidney diseases and transplantation</li> <li>• Thoracic surgery</li> <li>• Urology</li> <li>• Applied diagnostics</li> </ul>	10	71	25	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the etiopathogenesis, physiopathology, and systematic nosography of the main thoracic-respiratory diseases.</li> <li>• Of thoracic-respiratory symptoms and signs;</li> <li>• Of laboratory and instrumental diagnostic procedures, as well as therapeutic principles in major respiratory pathologies.</li> <li>• Of the most frequent urological and nephrological diseases, indicating their main directions for prevention, diagnosis, and therapy and identifying conditions that require the professional input of a specialist.</li> <li>• Of the basics of dialytic therapy.</li> </ul>
17	MED/28 MED/29 MED/30 MED/31	<b>DISEASES OF THE SKULL AND SENSE ORGANS</b> <ul style="list-style-type: none"> <li>• Odontostomatological diseases</li> <li>• Maxillofacial surgery</li> <li>• Ophthalmological diseases</li> </ul>	6	42	0	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the most frequent otorhinolaryngological, odontostomatological, oral cavity, and visual apparatus diseases, indicating their main directions for</li> </ul>

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				Classes	Other		
		<ul style="list-style-type: none"> <li>Otorhinolaryngological diseases</li> </ul>					<p>prevention, diagnosis, and therapy and identifying conditions that require the professional input of a specialist.</p> <ul style="list-style-type: none"> <li>Of the main pathologies that require the intervention of specialists in plastic surgery and maxillofacial surgery.</li> </ul>
18	M-PSI/08 MED/02 SPS/07	<p><b>BEING A MEDICAL DOCTOR</b></p> <ul style="list-style-type: none"> <li>Clinical psychology</li> <li>History of medicine and bioethics</li> <li>Sociology and communication skills</li> </ul>	6	43	25	-	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>Of the fundamental concepts of the human sciences regarding the historical evolution of medical values, including epistemological and ethical aspects.</li> <li>Of deontological norms and those related to high professional responsibility, critically evaluating the ethical principles underlying different possible professional choices and the ability to develop an interdisciplinary and transcultural mental approach, especially in collaboration with other healthcare team members. This includes a deepened understanding of the rules and dynamics characterizing group work, as well as adequate experience in general work organization, sensitivity to its characteristics, bioethics, the history and epistemology of medicine, patient-doctor relationships, and community medicine issues.</li> <li>Of the distinctive aspects of a multi-ethnic society, with</li> </ul>



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				Classes	Other		
							<p>specific reference to the variety and diversification of cultural and value-related aspects.</p> <ul style="list-style-type: none"> <li>• Of the origins and determinants of human behavior, cognitive, emotional, and psychosocial factors influencing health, and general principles of effective and person-centered communication.</li> </ul>
19	ING-INF/03	<b>TELEMONITORING AND PROXIMITY MEDICINE</b>	3	22	25	4	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the technologies and methodologies used for patient telemonitoring, including wearable devices, remote monitoring devices, and telemedicine systems.</li> <li>• Of the clinical aspects of telemonitoring and proximity medicine, including the management of chronic patients, telemedicine, and chronic disease management.</li> <li>• Of the organizational and managerial aspects of proximity medicine and telemonitoring, including service planning and management, regulatory compliance, and data security.</li> </ul>
20	BIO/14 MED/08 MED/12 MED/18 MED/36	<b>DISEASES OF THE GASTROENTERIC SYSTEM</b> <ul style="list-style-type: none"> <li>• Applied pharmacology</li> <li>• Anatomopathology</li> <li>• Gastroenterology</li> <li>• General surgery</li> <li>• Applied diagnostics</li> </ul>	9	64	25	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the most frequent diseases affecting the digestive system, indicating the main directions for prevention, diagnosis, and therapy, and the ability to</li> </ul>

N.	SSD	Denomination	CFU	n. hours		Propaedeutics	Educational objectives
				Classes	Other		
							<p>identify conditions requiring the professional input of specialists.</p> <ul style="list-style-type: none"> <li>Of digestive and nutritional pathophysiology, functional and instrumental semiotics, clinical methodology, and pharmacological and instrumental therapy in gastroentero-hepatology and pancreatology.</li> </ul>
21	MED/33 MED/36	<p><b>DISEASES OF THE BONES AND JOINTS</b></p> <ul style="list-style-type: none"> <li>Orthopedics</li> <li>Radiology</li> </ul>	4	29	25	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>Of the most frequent diseases affecting the musculoskeletal system, indicating the main directions for prevention, diagnosis, and therapy, and the ability to identify conditions requiring the professional input of specialists.</li> <li>Conditions requiring the intervention of specialists in Physical Medicine and Rehabilitation.</li> </ul>
22	BIO/12 MED/05 MED/07 MED46	<p><b>LAB WORKS</b></p> <ul style="list-style-type: none"> <li>Clinical biochemistry and clinical molecular biology</li> <li>Clinical pathology</li> <li>Microbiology and clinical microbiology</li> <li>Technical and laboratory medical sciences</li> </ul>	5	35	0	11	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>Of the main and most up-to-date methodologies for laboratory diagnostics in clinical, cellular, and molecular pathology.</li> <li>Of various laboratory diagnostic procedures, evaluating their costs and benefits, and the ability to rationally interpret laboratory data.</li> <li>Of correct criteria for collecting a biological sample to avoid altering its characteristics and enabling</li> </ul>

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							<p>a truthful analysis for diagnostic and therapeutic purposes.</p> <ul style="list-style-type: none"> <li>• Related to operating safely for oneself and the individual in the context of collecting biological samples.</li> </ul>
23	ING-INF/06	<b>MEDICAL AND SURGICAL ROBOTICS</b>	<b>3</b>	22	25	4	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the technologies and methodologies used in medical and surgical robotics, including assisted robots, autonomous robots, and navigation systems.</li> <li>• Of the clinical applications of medical and surgical robotics, including minimally invasive surgical procedures, robotic therapies, and robotic rehabilitation.</li> <li>• Of the principles of engineering and design of medical and surgical robotic systems, including mechanics, electronics, controllability, and safety.</li> </ul>
24	BIO/14 MED/16 MED/17 MED/35	<b>RHEUMATOLOGICAL, INFECTIOUS AND SKIN DISEASES</b> <ul style="list-style-type: none"> <li>• Applied pharmacology</li> <li>• Rheumatology</li> <li>• Infectious diseases</li> <li>• Dermatology</li> </ul>	<b>8</b>	57	25	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of the physiopathological, anatomopathological, preventive, and clinical issues related to rheumatic diseases, indicating diagnostic and therapeutic directions and identifying</li> </ul>

N.	SSD	Denomination	CFU	n. hours		Propaedeutics	Educational objectives
				Classes	Other		
							<p>conditions requiring specialist input.</p> <ul style="list-style-type: none"> <li>• Of the most common skin and venereal diseases, indicating the main directions for prevention, diagnosis, and therapy, and the ability to identify conditions requiring specialist input.</li> <li>• Of the most common infectious and tropical diseases, indicating the main directions for prevention, diagnosis, and therapy, and the ability to identify conditions requiring specialist input.</li> <li>• Of clinical methodology in the fields of infectiology, parasitology, mycology, clinical virology, and sexually transmitted diseases.</li> </ul>
25	MED/42 M-EDF/01 MED/01	<p><b>GLOBAL HEALTH, PUBLIC HEALTH AND COMMUNITY MEDICINE</b></p> <ul style="list-style-type: none"> <li>• General and applied hygiene</li> <li>• Wellness and exercise medicine</li> <li>• Biostatistics</li> </ul>	8	58	50	-	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of epidemiological data and their use for promoting health and preventing diseases in individuals and communities.</li> <li>• Of the essential principles of health economics, with specific regard to the cost/benefit ratio of diagnostic and therapeutic procedures, the continuity of care between hospital and community, and organizational appropriateness.</li> <li>• Of fundamental norms for preserving and promoting the health of individuals and communities.</li> </ul>

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				Classes	Other		
							<ul style="list-style-type: none"> <li>• Of norms and practices to maintain and promote health in the workplace, identifying situations requiring specialist competence, as well as knowledge of the main legislative norms regulating healthcare organization.</li> <li>• Of the principles and applications of preventive medicine in diverse and articulated communities.</li> </ul>
26	MED/42 BIO/14 MED/07 MED/46	<b>VACCINE PREVENTABLE INFECTIOUS DISEASES AND EPIDEMICS</b> <ul style="list-style-type: none"> <li>• Epidemic intelligence and outbreak response</li> <li>• Advanced medical therapy products (ATMPs) 1</li> <li>• Advanced medical therapy products (ATMPs) 2</li> <li>• Advanced medical therapy products (ATMPs) 3</li> </ul>	4	28	0	11, 24	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Of vaccine-preventable infectious diseases, including diphtheria, measles, pertussis, polio, and influenza.</li> <li>• Of the physiology and pathology of infectious diseases, as well as modes of transmission and associated symptoms.</li> <li>• Of the epidemiological aspects of vaccine-preventable infectious diseases, including the spread of viral strains, infection surveillance, and the management of epidemics and pandemics.</li> <li>• Of prevention and control strategies for infectious diseases, including vaccination, epidemic management, and health promotion.</li> <li>• Of effective communication techniques to inform and raise awareness among the population about the importance of vaccination and best practices to avoid infectious diseases.</li> </ul>

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				Classes	Other		
							<ul style="list-style-type: none"> <li>Of laws and regulations concerning vaccination and the management of epidemics and pandemics in the healthcare sector and society.</li> </ul>
27	BIO/14 MED/08 MED/25 MED/26 MED/27 MED/37	<b>BRAIN AND NERVOUS SYSTEM DISEASES</b> <ul style="list-style-type: none"> <li>Neuro-psychopharmacology</li> <li>Anatomopathology</li> <li>Psychiatry</li> <li>Neurology</li> <li>Neurosurgery</li> <li>Neuroradiology</li> </ul>	14	100	50	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>Of the main alterations of the nervous system, providing their etiopathogenetic interpretation and indicating diagnostic and therapeutic approaches.</li> <li>Of the potentials and limitations of new diagnostic technologies for neuroimaging and therapy, and the multiple facets of therapies that modify the neuro-transmitter activities of neurons.</li> <li>Of the main psychiatric and social context pathologies, providing their etiopathogenetic interpretation and indicating diagnostic and therapeutic approaches.</li> <li>Of the principles underlying the analysis of human behavior, the doctor-patient relationship, and communication.</li> </ul>

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				Classes	Other		
							<ul style="list-style-type: none"> <li>• Of skills related to study methods and intervention techniques that, in different operational models (e.g., individual, relational, family, and group), characterize the clinical applications of psychology in different areas (e.g., individuals, groups, systems) for solving their problems.</li> <li>• Of functional and instrumental semeiotics, clinical methodology, and therapy in neurology, neuropsychology, psychiatry, psychopathology, and psychiatric, neuro-psychomotor, and cognitive rehabilitation in the developmental age.</li> </ul>
28	MED/09 MED/18	<b>PATIENT MANAGEMENT I</b> <ul style="list-style-type: none"> <li>• Internal medicine</li> <li>• General surgery</li> </ul>	8	58	50	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• In conducting a proper clinical examination of an internist or surgical patient, reaching a diagnostic hypothesis, evaluating differential diagnoses, integrated with para-clinical tests (e.g., laboratory, imaging, etc.).</li> <li>• In the main internist and surgical pathologies, being able to analyze the symptomatology, objectivity, and diagnostic pathways using the presentation of clinical cases.</li> </ul>

N.	SSD	Denomination	CFU	n. hours		Propaedeutics	Educational objectives
				Classes	Other		
29	ING-INF/05	<b>DIGITAL HEALTH AND TECHNOLOGICAL INNOVATION</b>	3	22	25	4, 15	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• In the technologies and methodologies used in the field of digital health, including telemedicine, remote patient monitoring systems, data processing, and artificial intelligence.</li> <li>• In the clinical aspects of digital health, including the use of technology to improve diagnosis, treatment, and patient management.</li> <li>• In the organizational and managerial aspects of digital health, including planning and managing services, regulatory compliance, and data security.</li> <li>• In the principles of engineering and design of digital health systems.</li> <li>• In the ethical, legal, and social issues related to the use of digital health.</li> </ul>



N.	SSD	Denomination	CFU	n. hours		Propaedeutics	Educational objectives
				Classes	Other		
30	MED/08 MED/20 MED/38 MED/39 MED/36 MED/40	<b>OBSTETRICS, GYNECOLOGY AND PEDIATRIC DISEASES</b> <ul style="list-style-type: none"> <li>• Anatomopathology</li> <li>• Pediatric and child surgery</li> <li>• Pediatrics</li> <li>• Infant neuropsychiatry</li> <li>• Applied diagnostics</li> <li>• Obstetrics and gynecology</li> </ul>	11	79	50	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• In the physiopathological, psychological, and clinical issues related to female fertility and sexuality, including its dysfunctions from a medical sexology perspective, natural and assisted procreation from an endocrine-gynecological standpoint, pregnancy, prenatal morbidity, and childbirth.</li> <li>• In the most common forms of gynecological pathology, indicating fundamental preventive and therapeutic measures and identifying conditions that require the specialist's input.</li> <li>• In issues related to the health and disease status in neonates, children, and adolescents within the competence of the non-specialist physician.</li> <li>• In conditions that require the specialist's input and the planning of essential medical interventions for the most frequent and risky health problems in pediatric specialist pathology.</li> <li>• In the indications for genetic testing and related technical issues, biological implications (genotype/phenotype correlation) linked to test interpretation, and associated ethical and social issues.</li> </ul>
31	BIO/14 MED/05	<b>CLINICAL AND MOLECULAR</b>	12	86	50	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p>

N.	SSD	Denomination	CFU	n. hours		Propaedeutics	Educational objectives
				Classes	Other		
	MED/06 MED/15	<b>PRINCIPLES OF CANCER MEDICINE</b> <ul style="list-style-type: none"> <li>• Applied pharmacology</li> <li>• Molecular diagnostics</li> <li>• Medical oncology</li> <li>• Blood diseases</li> </ul>					<ul style="list-style-type: none"> <li>• In clinical oncology problems, addressing the diagnostic-therapeutic process based on evidence-based medicine principles.</li> <li>• In recognizing features suggestive of neoplastic pathology, defining the necessary diagnostic process, prognostic assessment, and management hypotheses for tumors affecting various organs in different disease stages.</li> <li>• In pain therapy and palliative care.</li> <li>• In the epidemiology, pathogenesis, and clinical aspects of major myelo- and lymphoproliferative diseases.</li> <li>• In the clinical-laboratory methodological investigations enabling the proposal of a therapeutic scheme for identified hemo-coagulative pathology.</li> </ul>
32	MED/07 MED/42	<b>HEALTH IN COUNTRIES WITH PROTRACTED CONFLICTS, REFUGEES AND MIGRANTS</b> <ul style="list-style-type: none"> <li>• Health in countries with protracted conflicts</li> <li>• Refugees and migrants health</li> </ul>	4	28	0	11, 24	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• Regarding the health effects of prolonged conflicts and situations of forced displacement on individuals, families, and communities.</li> <li>• In managing the unique health challenges that arise in providing care to refugees and migrants, including issues of access to care, language and cultural barriers, and mental health problems.</li> <li>• Of the social, economic, and political factors</li> </ul>

N.	SSD	Denomination	CFU	n. hours		Propaedeutics	Educational objectives
				Classes	Other		
							influencing the health of refugees and migrants, and how these can be addressed to improve their living conditions and health.
33	MED/09 MED/18 MED/19 MED/41	<b>EMERGENCIES</b> <ul style="list-style-type: none"> <li>• Emergency medicine</li> <li>• Emergency surgery</li> <li>• Plastic surgery</li> <li>• Anesthesiology and life support</li> </ul>	11	80	75	2, 7, 8, 10, 11, 13	To provide a solid knowledge base and develop the ability to use knowledge: <ul style="list-style-type: none"> <li>• In clinical emergency and urgency situations, in medical, surgical, and traumatological fields in pre-hospital and intra-hospital phases, implementing necessary first intervention measures to ensure survival and provide the best possible care.</li> <li>• In the intervention methods in disaster situations.</li> <li>• In the fundamentals of anesthesiology and pain therapy.</li> </ul>
34	MED/43 MED/44	<b>FORENSIC AND OCCUPATIONAL MEDICINE</b> <ul style="list-style-type: none"> <li>• Forensic medicine</li> <li>• Occupational medicine</li> </ul>	5	36	25	2, 7, 8, 10, 11, 13	To provide a solid knowledge base and develop the ability to use knowledge: <ul style="list-style-type: none"> <li>• In social medicine, criminology, forensic psychopathology, forensic toxicology, deontology, medical ethics, and clinical bioethics.</li> <li>• In the procedures and techniques used for forensic medical investigations, including autopsy and analysis of biological traces.</li> <li>• In the laws and regulations governing forensic medicine, including requirements for testifying as an expert in a court.</li> <li>• In common professional diseases and injuries, as</li> </ul>

N.	SSD	Denomination	CFU	n. hours		Propaedeutics	Educational objectives
				Classes	Other		
							well as techniques to prevent and manage them.
35	MED/09 MED/18	<b>PATIENT MANAGEMENT 2</b> <ul style="list-style-type: none"> <li>• Internal medicine</li> <li>• General surgery</li> </ul>	6	44	50	2, 7, 8, 10, 11, 13	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• In conducting a proper clinical examination of an internist or surgical patient, reaching a diagnostic hypothesis, evaluating differential diagnoses, and integrating with para-clinical exams (e.g., laboratory, imaging, etc.).</li> <li>• In analyzing the symptoms, objectivity, and diagnostic pathways of major internal medicine and surgical pathologies, using clinical case presentations.</li> <li>• In the main issues of territorial medicine from the perspective of the family doctor.</li> <li>• In preventive and therapeutic methodologies based on physical activity and other forms of intervention related to so-called wellness medicine.</li> </ul>
36	MED/42 BIO/14 MED/11 MED/22	<b>FROM IDEAS TO PATENTS</b> <ul style="list-style-type: none"> <li>• Health technology assessment</li> <li>• Health technology assessment on drug development</li> <li>• Clinical research and development</li> </ul>	6	42	0	-	<p>To provide a solid knowledge base and develop the ability to use knowledge:</p> <ul style="list-style-type: none"> <li>• In the methodology of research necessary for drug and medical device development.</li> <li>• In the patenting process, including legal</li> </ul>

N.	SSD	Denomination	CFU	n. hours		Propaedeutics	Educational objectives
				Classes	Other		
		<ul style="list-style-type: none"> <li>• Technology transfer and patents</li> </ul>					<p>requirements and eligibility criteria for medical inventions.</p> <ul style="list-style-type: none"> <li>• In identifying patentability opportunities within medical research and the commercial potential of inventions.</li> <li>• In drafting patent applications and representing one's interests during the patenting process, including negotiations and patent defense.</li> </ul>

**6. OFFICIAL STUDY PLAN**  
Curriculum of the 2024/2025 Cohort

Denomination	Educ. Act.	SSD	CF U	Hrs	Teach. Format	Cert, type	Lang.
<b>First year</b>							
<b>First semester</b>							
<b>PRINCIPLES OF THE HUMAN MATTER</b>					DF, ATP, AA	AP	ENG
Applied physics	A	FIS/07	4	54			
Chemistry and biochemistry propaedeutics	A	BIO/10	5	87			
<b>THE CELL: MOLECULES AND PROCESSES (annual course)</b>					DF, ATP, AA	AP	ENG
Molecular biology I	A	BIO/11	2	14			
Applied biology I	A	BIO/13	3	47			
Medical genetics I	A	MED/03	2	14			
<b>BODY ARCHITECTURE (annual course)</b>					DF, ATP, AA	AP	ENG
Histology, cytology, embryology and organogenesis	A	BIO/17	5	87			
<b>HEALTH INFORMATICS</b>	B	INF/01	3	47	DF, ATP, AA	AP	ENG
<b>Second semester</b>							
<b>THE CELL: FUNCTIONS AND REGULATIONS</b>					DF, ATP, AA	AP	ENG
Cellular physiology	B	BIO/09	4	54			
Biochemistry	A	BIO/10	5	87			
<b>THE CELL: MOLECULES AND PROCESSES (annual course)</b>					DF, ATP, AA	AP	ENG
Molecular biology II	A	BIO/11	1	7			
Applied biology II	A	BIO/13	4	54			
Medical genetics II	A	MED/03	2	14			
<b>BODY ARCHITECTURE (annual course)</b>					DF, ATP, AA	AP	ENG
Regional anatomy and gross neuroanatomy	A	BIO/16	7	101			
<b>HEALTH AND THE CLIMATE CHANGES</b>	B	MED/42	2	14	DF, ATP	AP	ENG
<b>ADDITIONAL LANGUAGE KNOWLEDGE</b>	F		3	47	DF, ATP, AA	I	ENG
<b>PROFESSIONALIZING ACTIVITIES</b>	F		2	50	TP	I	ENG
<b>Second year</b>							
<b>First semester</b>							
<b>BODY FUNCTIONS 1</b>					DF, ATP, AA	AP	ENG
Human physiology	A	BIO/09	6	94			
Biochemistry	A	BIO/10	2	14			
Organ structure	B	BIO/16	3	47			

Denomination	Educ. Act.	SSD	CF U	Hrs	Teach. Format	Cert, type	Lang.
<b>DISEASE ONSET 1</b>					DF, ATP, AA	AP	ENG
General pathology and immunology	B	MED/04	6	94			
Microbiology	B	MED/07	3	47			
Principles of anatomopathology	B	MED/08	3	47			
<b>BIO-ENGINEERING</b>					DF, ATP, AA	AP	ENG
Tissue engineering, bioprinting	A	BIO/17	3	47			
Scaffolding and organoids	C	MED/46	4	54			
<b>Second semester</b>							
<b>BODY FUNCTIONS 2</b>					DF, ATP, AA	AP	ENG
Human physiology	A	BIO/09	6	94			
Biochemistry	A	BIO/10	3	47			
Organ structure	B	BIO/16	3	47			
<b>DISEASE ONSET 2</b>					DF, ATP, AA	AP	ENG
General pathology and immunology	B	MED/04	5	87			
Microbiology	B	MED/07	3	47			
Principles of anatomopathology	B	MED/08	3	47			
<b>WATER, FOOD AND SUSTAINABLE DIETS</b>	C	MED/49	3	47	DF, ATP, AA	AP	ENG
<b>PROFESSIONALIZING ACTIVITIES</b>	F		3	75	TP	I	ENG
<b>Third year</b>							
<b>First semester</b>							
<b>BASICS OF DIAGNOSTICS AND PHARMACOLOGY</b>					DF, ATP, AA	AP	ENG
General pharmacology	B	BIO/14	3	47			
Introduction to diagnostic imaging	B	MED/36	3	47			
<b>DISEASES OF THE CARDIOVASCULAR AND ENDOCRINE SYSTEMS</b>					DF, ATP, AA	AP	ENG
Applied pharmacology	B	BIO/14	2	14			
Anatomopathology	B	MED/08	1	7			
Cardiovascular diseases	B	MED/11	4	54			
Endocrinology	B	MED/13	3	47			
Vascular surgery	B	MED/22	2	14			
Cardiac surgery	B	MED/23	1	7			

Denomination	Educ. Act.	SSD	CF U	Hrs	Teach. Format	Cert, type	Lang.
Applied diagnostics	B	MED/36	1	7			
<b>ARTIFICIAL INTELLIGENCE, MACHINE LEARNING AND BIG DATA</b>	C	INF/01	3	47	DF, ATP, AA	AP	ENG
<b>PROFESSIONALIZING ACTIVITIES</b>	F		6	150	TP	I	ENG
<b>Second semester</b>							
<b>DISEASES OF THE RESPIRATORY AND URO-NEPHROLOGICAL SYSTEMS</b>					DF, ATP, AA	AP	ENG
Applied pharmacology	B	BIO/14	1	7			
Respiratory diseases	B	MED/10	3	47			
Kidney diseases and transplantation	B	MED/14	2	14			
Thoracic surgery	B	MED/21	1	7			
Urology	B	MED/24	2	14			
Applied diagnostics	B	MED/36	1	7			
<b>DISEASES OF THE SKULL AND SENSE ORGANS</b>					DF, ATP	AP	ENG
Odontostomatological Diseases	B	MED/28	1	7			
Maxillofacial surgery	B	MED/29	1	7			
Ophthalmological diseases	B	MED/30	2	14			
Otorhinolaryngological diseases	B	MED/31	2	14			
<b>BEING A MEDICAL DOCTOR</b>					DF, ATP, AA	AP	ENG
Clinical psychology	B	M-PSI/08	2	14			
History of medicine and bioethics	B	MED/02	3	47			
Sociology and communication skills	C	SPS/07	1	7			
<b>TELEMONITORING AND PROXIMITY MEDICINE</b>	C	ING-INF/03	3	47	DF, ATP, AA	AP	ENG
<b>PROFESSIONALIZING ACTIVITIES</b>	F		6	150	TP	I	ENG
<b>Fourth year</b>							
<b>First semester</b>							
<b>DISEASES OF THE GASTROENTERIC SYSTEM</b>					DF, ATP, AA	AP	ENG
Applied pharmacology	B	BIO/14	2	14			
Anatomopathology	B	MED/08	1	7			
Gastroenterology	B	MED/12	3	47			
General surgery	B	MED/18	2	14			



Denomination	Educ. Act.	SSD	CF U	Hrs	Teach. Format	Cert, type	Lang.
Applied diagnostics	B	MED/3 6	1	7			
<b>DISEASES OF THE BONES AND JOINTS</b>					DF, ATP, AA	AP	ENG
Orthopedics	B	MED/3 3	3	47			
Radiology	B	MED/3 6	1	7			
<b>LAB WORKS</b>					DF, ATP	AP	ENG
Clinical biochemistry and clinical molecular biology	B	BIO/12	1	7			
Clinical pathology	B	MED/0 5	1	7			
Microbiology and clinical microbiology	B	MED/0 7	2	14			
Technical and laboratory medical sciences	B	MED/4 6	1	7			
<b>MEDICAL AND SURGICAL ROBOTICS</b>	C	ING- INF/06	3	47	DF, ATP, AA	AP	ENG
<b>PROFESSIONALIZING ACTIVITIES</b>	F		6	150	TP	I	ENG
<b>Second semester</b>							
<b>RHEUMATOLOGICAL, INFECTIOUS AND SKIN DISEASES</b>					DF, ATP, AA	AP	ENG
Applied pharmacology	B	BIO/14	1	7			
Rheumatology	B	MED/1 6	1	7			
Infectious diseases	B	MED/1 7	4	54			
Dermatology	B	MED/3 5	2	14			
<b>GLOBAL HEALTH, PUBLIC HEALTH AND COMMUNITY MEDICINE</b>					DF, ATP, AA	AP	ENG
General and applied hygiene	B	MED/4 2	4	54			
Wellness and exercise medicine	B	M- EDF/01	1	7			
Biostatistics	B	MED/0 1	3	47			
<b>VACCINE PREVENTABLE INFECTIOUS DISEASES AND EPIDEMICS</b>					DF	AP	ENG
Epidemic intelligence and outbreak response	C	MED/4 2	1	7			
Advanced medical therapy products (AMTPs) 1	C	BIO/14	1	7			
Advanced medical therapy products (AMTPs) 2	C	MED/0 7	1	7			
Advanced medical therapy products (AMTPs) 3	C	MED/4 6	1	7			
<b>PROFESSIONALIZING ACTIVITIES</b>	F		7	175	TP	I	ENG
<b>Fifth year</b>							
<b>First semester</b>							

Denomination	Educ. Act.	SSD	CF U	Hrs	Teach. Format	Cert, type	Lang.
<b>BRAIN AND NERVOUS SYSTEM DISEASES</b>					DF, ATP, AA	AP	ENG
Neuro-psycho-pharmacology	B	BIO/14	2	14			
Anatomopathology	B	MED/08	1	7			
Psychiatry	B	MED/25	4	54			
Neurology	B	MED/26	4	54			
Neurosurgery	B	MED/27	2	14			
Neuroradiology	B	MED/37	1	7			
<b>PATIENT MANAGEMENT 1</b>					DF, ATP, AA	AP	ENG
Internal medicine	B	MED/09	4	54			
General surgery	B	MED/18	4	54			
<b>DIGITAL HEALTH AND TECHNOLOGICAL INNOVATION</b>	C	ING-INF/05	3	47	DF, ATP, AA	AP	ENG
<b>PROFESSIONALIZING ACTIVITIES</b>	F		5	125	TP	I	ENG
<b>Second semester</b>							
<b>OBSTETRICS, GYNECOLOGY AND PEDIATRIC DISEASES</b>					DF, ATP, AA	AP	ENG
Anatomopathology	B	MED/08	1	7			
Pediatric and child surgery	B	MED/20	1	7			
Pediatrics	B	MED/38	4	54			
Infant neuropsychiatry	B	MED/39	1	7			
Applied diagnostics	B	MED/36	1	7			
Obstetrics and gynecology	B	MED/40	3	47			
<b>CLINICAL AND MOLECULAR PRINCIPLES OF CANCER MEDICINE</b>					DF, ATP, AA	AP	ENG
Applied pharmacology	B	BIO/14	2	14			
Molecular diagnostics	B	MED/05	2	14			
Medical oncology	B	MED/06	4	54			
Blood diseases	B	MED/15	4	54			
<b>HEALTH IN COUNTRIES WITH PROTRACTED CONFLICTS, REFUGEES AND MIGRANTS</b>					DF, ATP	AP	ENG
Health in countries with protracted conflicts	C	MED/07	2	14			

Denomination	Educ. Act.	SSD	CF U	Hrs	Teach. Format	Cert, type	Lang.
Refugees and migrants' health	C	MED/4 2	2	14			
<b>PROFESSIONALIZING ACTIVITIES</b>	F		5	125	TP	I	ENG
<b>Sixth year</b>							
<b>First semester</b>							
<b>EMERGENCIES</b>					DF, ATP, AA	AP	ENG
Emergency medicine	B	MED/0 9	3	47			
Emergency surgery	B	MED/1 8	3	47			
Plastic surgery	B	MED/1 9	1	7			
Anesthesiology and life support	B	MED/4 1	4	54			
<b>FORENSIC AND OCCUPATIONAL MEDICINE</b>					DF, ATP, AA	AP	ENG
Forensic medicine	B	MED/4 3	3	47			
Occupational medicine	B	MED/4 4	2	14			
<b>PATIENT MANAGEMENT 2</b>					DF, ATP, AA	AP	ENG
Internal Medicine	B	MED/0 9	3	47			
General surgery	B	MED/1 8	3	47			
<b>FROM IDEAS TO PATENTS</b>					DF, ATP	AP	ENG
Health technology assessment	C	MED/4 2	1	7			
Health technology assessment on drug development	C	BIO/14	1	7			
Clinical research and development	C	MED/1 1	2	14			
Technology transfer and patents	C	MED/2 2	2	14			
<b>PROFESSIONALIZING ACTIVITIES</b>	F		5	125	TP	I	ENG
<b>Second semester</b>							
<b>ELECTIVE ACTIVITIES</b>	D		8	120	ADE	I	ENG
<b>PROFESSIONALIZING ACTIVITIES - CLINICAL FIELD</b>	G		5	125	TPV	I	ENG
<b>PROFESSIONALIZING ACTIVITIES - SURGICAL FIELD</b>	G		5	125	TPV	I	ENG
<b>PROFESSIONALIZING ACTIVITIES - GENERAL MEDICINE</b>	G		5	125	TPV	I	ENG
<b>FINAL EXAM</b>	E		15	375	PF	I	ENG

## LEGEND

**Educ. Act.** (Educational Activity): **A** Basic Educational Activity - **B** Characterizing Educational Activity - **C** Related and Integrative Educational Activities - **D** Student's Choice Activities - **E** For the final exam (art.

Denomination	Educ. Act.	SSD	CF U	Hrs	Teach. Format	Cert. type	Lang.
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10, paragraph 5, letter c) - **F** Additional Educational Activities (art. 10, paragraph 5, letter d) - **G** Practical-Evaluative Internship

**Teach. Format** (Teaching Format): **DF** Frontal Teaching - **ATP** Theoretical-Practical Activities - **AA** Other Activities - **ADE** Elective Teaching Activities - **TP** Professionalizing Internship - **TPV** Practical-Evaluative Internship - **PF** Final Exam

**Cert. Type** (Certification Type): **AP** Achievement Certification - **AF** Attendance Certification - **I** Adequacy

## 7. FINAL PROVISIONS

7.1. For all matters not expressly provided for in this Regulation, the current statutory and regulatory provisions of the university apply.