



**UNIVERSITA' DEGLI STUDI DI MILANO**  
**PROGRAMME DESCRIPTION - ACADEMIC YEAR 2023/24**  
**SINGLE-CYCLE DEGREE**

**Medicine and Surgery - Policlinico Hospital Location (Classe LM-41)**  
**Enrolled from 2019/20 to 2020/21 Academic Year**

### **HEADING**

|  |  |
|--|--|
| <b>Degree classification - Denomination and code:</b>          | LM-41 Medicine and surgery                               |
| <b>Degree title:</b>   | Dottore Magistrale                                       |
| <b>Length of course:</b>                                       | 6 years  |
| <b>Total number of credits required to complete programme:</b> | 360  |
| <b>Years of course currently available:</b>                    | 4th , 5th  |
| <b>Access procedures:</b>                                      | Cap on student, student selection based on entrance test |
| <b>Course code:</b>  | D51  |

### **PERSONS/ROLES**

#### **Head of Interdepartmental Study Programme**

Prof.ssa Maria Lorella Gianni

#### **Tutors - Faculty**

Per l'orientamento:

prof. Marco Frolidi

prof.ssa Maria Grazia Rumi

Per la mobilità internazionale e l'Erasmus:

prof.ssa Cinzia Bressi

Per stage e tirocini:

prof. Giorgio Costantino

prof. Andrea Guarneri

Per laboratori ed altre attività:

prof.ssa Giovanna Mantovani

#### **Degree Course website**

<https://medicina-centrale.cdl.unimi.it/it>

Via della Commenda, 19 Phone 02/503.20835 - 20838 - 20826 dal lunedì al venerdì, dalle ore 9.30 alle ore 12.00 e dalle ore 14.00 alle ore 16.00 Email: [polodidatticocentrale@unimi.it](mailto:polodidatticocentrale@unimi.it)

### **CHARACTERISTICS OF DEGREE PROGRAMME**

#### **General and specific learning objectives**

The Master's degree programme in Medicine contemplates 360 CFU overall, spread out over six years, of which 60 must be earned as part of coursework aimed at developing specific professional acumen. The programme is intended to provide the scientific bases, and the necessary practical skills and theory required under Directive 75/363/EEC to practice medicine, as well as the methodology and experience to engage in continuing medical education after graduation; it also instils professional, decision-making, and operational autonomy thanks to an educational programme that takes a holistic approach to the health of all persons, sick and well, and includes training in assessing the chemical-physical, biological, and social environment of the patient.

The specific objectives for the pre-clinical and clinical coursework are set, on a priority basis, based on the following criteria:

- relevance of each objective within the framework of human biology,
- the preparation provided by each objective in terms of specific clinical issues.

The specific objectives for the clinical coursework are set, on a priority basis, based on the following criteria:

- epidemiological prevalence, urgency of the care needed, possibility of providing care, severity, educational value;
- promoting clinical work through healthcare facilities, at least for the hospital wards;
- improving patient interactions, including the physician's bedside manner;

- assessing adverse events and any other issue relating to the use of medicine (Pharmacovigilance) to ensure a favourable risk/benefit ratio for the community;
- assessing gender-based differences (Gender Medicine), with the ultimate goal of ensuring all persons, whether male or female, receive the best possible care.

These objectives fulfil the five Dublin descriptors (European Descriptors) with the suggestions provided by the Institute for International Medical Education (IIME) and “The TUNING Project (Medicine) – Learning Outcomes/Competences for Undergraduate Medical Education in Europe”. Furthermore, these align perfectly with the guidelines of the “core curriculum” for the Master’s degree in Medicine proposed at a national level by the Conference of the Italian Master-Degree Programme Presidents.

### **Professional profile and employment opportunities**

The degree in Medicine allows the graduate to sit for the State Exam to be licensed to practice medicine. Once the graduate has passed the exam, they can enrol in the professional association as a licensed, non-specialised physician. Licensed, non-specialised physicians are eligible for the Post-Graduate Programmes in Medicine and Medical Services (4-to-5-year programme) and the Internal Medicine Programme (3-year programme).

Licensed physicians can practice medicine in a variety of professional roles, whether through clinical practice, healthcare policy and management, or the biomedical sciences. Potential avenues for employment include:

- a) becoming a National Health Service doctor, or working with a public or state agency (post-graduate degree in medicine required);
- b) research in clinical or pre-clinical practice, as part of a university career, or through work with a research entity (a PhD is recommended);
- c) working as a freelance professional (post-graduate degree required to practice as a specialist, as well as completion of a training programme in Internal Medicine to practice as a licensed, non-specialty physician).

The practice of medicine is regulated by Italian law.

## **EXPERIENCE OF STUDY ABROAD AS PART OF THE TRAINING PROGRAM**

The University of Milan supports international mobility by providing its students with the opportunity to spend study and internship periods abroad. It is a unique chance to enrich your educational path in a new exciting environment

The agreements entered into by the University with over 300 universities from 30 different countries under the European Erasmus+ programme allow regularly enrolled students to carry out part of their studies at one of the partner universities or to undertake internships at companies, training and research centres and other organizations.

Similar international mobility opportunities are provided outside Europe, through agreements with a number of prestigious institutions.

### **How to participate in Erasmus mobility programs**

The students of the University of Milan can participate in mobility programmes, which last 3 to 12 months, through a public selection procedure.

Ad hoc commissions will evaluate:

- the candidate's proposed study programme abroad;
- his/her foreign language proficiency;
- the reasons behind his/her application.

Call for applications and informative meetings:

The public selection generally begins around February each year with the publication of a call for applications specifying the destinations, with the respective programme duration, requirements and online application deadline.

Every year, before the deadline for the call, the University organizes informative meetings to illustrate opportunities and rules for participation to students.

Erasmus+ scholarship:

The European Union grants the winners of the Erasmus+ programme selection a scholarship to contribute to their mobility costs, which is supplemented by the University funding for disadvantaged students.

Language courses:

Students who pass the selections for mobility programmes can benefit from intensive foreign language courses offered each year by the University.

Learn more at <https://www.unimi.it/it/internazionale/studiare-allestero/partire-con-erasmus>.

For assistance, please contact:

International Mobility Office  
Via Santa Sofia, 9 (second floor)  
Tel. 02 503 13501-12589-13495-13502  
E-mail: mobility.out@unimi.it  
Desk opening hours: Monday to Friday 9 am - 12 noon

| <b>1st COURSE YEAR (disactivated from academic year 2021/22) Core/compulsory courses/activities common</b> |             |  |
|--|-------------|--|
| <b>Learning activity</b>   | <b>Ects</b> | <b>Sector</b>  |
| An Introduction to Medicine  | 4           | (1) MED/01, (1) MED/02, (1) MED/43, (1) MED/42                                     |
| Applied Physics  | 6           | FIS/07   |
| Biology and genetics   | 6           | (4) BIO/11, (2) BIO/13   |
| Chemistry and introductory biochemistry  | 7           | BIO/10   |
| Histology  | 7           | BIO/17   |
| Human Anatomy  | 18          | BIO/16   |
| Total compulsory credits   |             | 48   |
| <b>2nd COURSE YEAR (disactivated from academic year 2022/23) Core/compulsory courses/activities common</b> |             |  |
| <b>Learning activity</b>   | <b>Ects</b> | <b>Sector</b>  |
| Biochemistry   | 12          | BIO/10   |
| Biology and genetics   | 6           | (2) MED/03, (4) BIO/13   |
| General Pathology and Physiopathology  | 4           | MED/04   |
| Human Physiology   | 18          | BIO/09   |
| Immunology and Immunopathology   | 6           | MED/04   |
| Medical and Surgical Emergency - Clinical skills   | 1           | MED/41   |
| Medical English  | 3           | L-LIN/12   |
| Microbiology   | 6           | MED/07   |
| Total compulsory credits   |             | 56   |
| <b>3rd COURSE YEAR (disactivated from academic year 2023/24) Core/compulsory courses/activities common</b> |             |  |
| <b>Learning activity</b>   | <b>Ects</b> | <b>Sector</b>  |
| Clinical Pathology - Clinical Chemistry  | 4           | (1) MED/07, (1) MED/05, (2) BIO/12   |
| Clinical Pathology - Clinical skills   | 1           | BIO/12   |
| General Pathology and Physiopathology  | 7           | MED/04   |
| Head and Neck  | 3           | (2) MED/31, (1) MED/32   |
| Psychology, Healt and Medicine   | 8           | (1) MED/02, (3) M-PSI/01, (3) M-PSI/08, (1) MED/18                                 |
| Radiology, Nuclear Medicine, and Radiation Therapy   | 1           | MED/36   |
| Statistics for Evidence Based Medicine   | 6           | MED/01   |
| Statistics for Evidence Based Medicine - Clinical skills   | 1           | MED/01   |
| Systems and Diseases I   | 18          | (4) MED/14, (4) MED/10, (5) MED/11, (1) MED/09, (2) MED/08, (1) MED/24, (1) MED/18 |
| Systems and Diseases I - Clinical skills   | 6           | (1) MED/14, (1) MED/10, (1) MED/11, (2) MED/09, (1) MED/18                         |
| Total compulsory credits   |             | 55   |
| <b>4th COURSE YEAR Core/compulsory courses/activities common</b>   |             |  |
| <b>Learning activity</b>   | <b>Ects</b> | <b>Sector</b>  |
| Head and Neck  | 4           | (1) MED/29, (1) MED/28, (2) MED/30   |
| Head and Neck - Clinical skills  | 2           | (1) MED/31, (1) MED/30   |
| Infectious Diseases  | 5           | MED/17   |
| Infectious Diseases - Clinical skills  | 1           | MED/17   |
| Occupational Medicine  | 5           | MED/44   |
| Pharmacology   | 10          | BIO/14   |
| Radiology, Nuclear Medicine, and Radiation Therapy   | 4           | MED/36   |
| Radiology, Nuclear Medicine, and Radiation Therapy - Clinical Skills                                       | 2           | MED/36   |
| Systems and Diseases II  | 21          | (4) MED/12, (2) MED/03, (4)  |

|   |                          |  |
|---|--------------------------|--|
|   |                          | MED/13, (4)<br>MED/15, (1)<br>MED/09, (3)<br>MED/16, (2)<br>MED/08, (1) MED/18     |
| Systems and Diseases II - Clinical skills | 7                        | (1) MED/12, (1)<br>MED/13, (1)<br>MED/15, (2)<br>MED/09, (1)<br>MED/16, (1) MED/18 |
|   | Total compulsory credits | 61   |

### **5th COURSE YEAR Core/compulsory courses/activities common**

| Learning activity   | Ects                     | Sector                                |
|---|--------------------------|---------------------------------------|
| Anatomic Pathology  | 6                        | MED/08                                |
| Clinical Psychiatry and Clinical Psychology                   | 5                        | (1) M-PSI/08, (4)<br>MED/25           |
| Clinical Psychiatry and Clinical Psychology - Clinical skills | 1                        | MED/25                                |
| Clinical training - Medicine                                  | 5                        | ND                                    |
| Clinical training - Surgery                                   | 5                        | ND                                    |
| Dermatology   | 3                        | MED/35                                |
| Dermatology - Clinical skills                                 | 1                        | MED/35                                |
| General Surgery   | 6                        | (1) MED/24, (5)<br>MED/18             |
| General Surgery - Clinical skills                             | 3                        | (1) MED/24, (2)<br>MED/18             |
| Internal Medicine   | 8                        | (1) MED/01, (5)<br>MED/09, (2) MED/06 |
| Internal Medicine - Clinical skills                           | 6                        | (1) MED/10, (1)<br>MED/11, (4) MED/09 |
| Neurology   | 7                        | (1) MED/27, (5)<br>MED/26, (1) MED/34 |
| Neurology - Clinical skills                                   | 2                        | MED/26                                |
| Obstetrics and Gynecology                                     | 5                        | MED/40                                |
| Obstetrics and Gynecology - Clinical skills                   | 1                        | MED/40                                |
| Preventive and Public Health Medicine                         | 7                        | (1) SECS-P/06, (6)<br>MED/42          |
| Trauma and Orthopedic Surgery                                 | 5                        | (4) MED/33, (1)<br>MED/34             |
| Trauma and Orthopedic Surgery - Clinical skills               | 1                        | MED/33                                |
|   | Total compulsory credits | 77                                    |

### **6th COURSE YEAR (available as of academic year 2024/25) Core/compulsory courses/activities common**

| Learning activity                                | Ects                     | Sector                                |
|--|--------------------------|---------------------------------------|
| Clinical training - Internal Medicine            | 5                        | ND                                    |
| General Surgery                                  | 3                        | (1) MED/21, (2)<br>MED/18             |
| General Surgery - Clinical skills                | 3                        | MED/18                                |
| Internal Medicine                                | 5                        | MED/09                                |
| Legal Medicine                                   | 5                        | MED/43                                |
| Medical and Surgical Emergency                   | 4                        | (1) MED/09, (1)<br>MED/18, (2) MED/41 |
| Medical and Surgical Emergency - Clinical skills | 4                        | (1) MED/09, (1)<br>MED/18, (2) MED/41 |
| Pediatrics                                       | 6                        | (1) MED/39, (5)<br>MED/38             |
| Pediatrics - Clinical skills                     | 2                        | MED/38                                |
|  | Total compulsory credits | 37                                    |

### **Elective courses**

### **End of course requirements**

|            |                          |    |
|------------|--------------------------|----|
| Final Exam | 18                       | NA |
|            | Total compulsory credits | 18 |

## **COURSE PROGRESSION REQUIREMENTS**

*The course contains the following obligatory or advised prerequisites*

| Learning activity                     | Prescribed foundation courses         | O/S             |
|---------------------------------------|---------------------------------------|-----------------|
| General Pathology and Physiopathology | Biology and genetics                  | Core/compulsory |
|                                       | Biochemistry                          | Core/compulsory |
| Immunology and Immunopathology        | Biology and genetics                  | Core/compulsory |
|                                       | Biochemistry                          | Core/compulsory |
| Systems and Diseases II               | General Pathology and Physiopathology | Core/compulsory |
|                                       | Human Physiology                      | Core/compulsory |
| Systems and Diseases I                | General Pathology and Physiopathology | Core/compulsory |

|   |  |                 |
|---|--|-----------------|
|   | Human Physiology                                   | Core/compulsory |
| Anatomic Pathology                          | General Pathology and Physiopathology              | Core/compulsory |
|   | Human Physiology                                   | Core/compulsory |
| Human Anatomy                               | Histology  | Core/compulsory |
| Medical and Surgical Emergency              | General Pathology and Physiopathology              | Core/compulsory |
|   | Human Physiology                                   | Core/compulsory |
| Pediatrics                                  | General Pathology and Physiopathology              | Core/compulsory |
|   | Human Physiology                                   | Core/compulsory |
| General Surgery                             | Systems and Diseases II                            | Core/compulsory |
|   | Systems and Diseases I                             | Core/compulsory |
|   | Anatomic Pathology                                 | Core/compulsory |
|   | Pharmacology                                       | Core/compulsory |
|   | Radiology, Nuclear Medicine, and Radiation Therapy | Core/compulsory |
| Internal Medicine                           | Systems and Diseases II                            | Core/compulsory |
|   | Systems and Diseases I                             | Core/compulsory |
|   | Anatomic Pathology                                 | Core/compulsory |
|   | Pharmacology                                       | Core/compulsory |
|   | Radiology, Nuclear Medicine, and Radiation Therapy | Core/compulsory |
| Clinical Psychiatry and Clinical Psychology | General Pathology and Physiopathology              | Core/compulsory |
|   | Human Physiology                                   | Core/compulsory |
| Neurology                                   | General Pathology and Physiopathology              | Core/compulsory |
|   | Human Physiology                                   | Core/compulsory |
| Biochemistry                                | Chemistry and introductory biochemistry            | Core/compulsory |
| Trauma and Orthopedic Surgery               | General Pathology and Physiopathology              | Core/compulsory |
|   | Human Physiology                                   | Core/compulsory |
| Obstetrics and Gynecology                   | General Pathology and Physiopathology              | Core/compulsory |
|   | Human Physiology                                   | Core/compulsory |
| Infectious Diseases                         | General Pathology and Physiopathology              | Core/compulsory |
|   | Microbiology                                       | Core/compulsory |
|   | Human Physiology                                   | Core/compulsory |
| Dermatology                                 | General Pathology and Physiopathology              | Core/compulsory |
|   | Human Physiology                                   | Core/compulsory |
| Human Physiology                            | Human Anatomy                                      | Core/compulsory |
| Head and Neck                               | General Pathology and Physiopathology              | Core/compulsory |
|   | Human Physiology                                   | Core/compulsory |