



UNIVERSITA' DEGLI STUDI DI MILANO
PROGRAMME DESCRIPTION - ACADEMIC YEAR 2022/23
SINGLE-CYCLE DEGREE
Medicine and Surgery - Sacco Hospital Location (Classe LM-41)
Enrolled since 2019/20 Academic Year

HEADING

Degree classification - Denomination and code:	LM-41 Medicine and surgery
Degree title:	Dottore Magistrale
Length of course:	6 years
Total number of credits required to complete programme:	360
Years of course currently available:	1st , 2nd , 3rd , 4th
Access procedures:	Cap on student, student selection based on entrance test
Course code:	D52

PERSONS/ROLES

Head of Study Programme

Prof. Manuela Nebuloni

Tutors - Faculty

Per l'orientamento:

Prof.ssa Marta Bassi

Per la mobilità internazionale e l'Erasmus:

dott. Pietro Zerbi

Degree Course website

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

Academic Office for the Degree Programme

Settore didattico Vialba (Lita 1) - Via G.B. Grassi, 74 - 20157 Milano Phone 02/503.19605 Dal lunedì al venerdì dalle 9.00 alle 15.30 Email: segredid.vialba@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 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 integrate the five Dublin descriptors (European descriptors) with those proposed by the International Medical Education (IIME) and the "The TUNING Project (Medicine) – Learning Outcomes/Competences for Undergraduate

Medical Education in Europe". Furthermore, they align perfectly with the requirements of the "core curriculum" for the Master's degree in Medicine as proposed on a national level by the Conference of Italian Master's 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.

Initial knowledge required

Admission into the programme is capped, at a national level, pursuant to Law no. 264 of 2 August 1999. Admission into the Master's degree programme in Medicine will be based on a written entrance exam (60-question, multiple-choice, "select one answer" exam), which will be given on the same day for all public universities in Italy.

The subject areas, and therefore the acumen, needed to be considered for the programme include: general knowledge, biology, chemistry, physics, genetics, and maths. Students must also demonstrate critical-thinking skills. For further details and/or information, please visit the website for the Ministry of Education and Research (MUR).

Candidates who score at or above twenty (20) points will have a place on the national ranking, subject to the enrolment cap. To be permitted to sit for the entrance exam and, provided the student appears on the ranking, to be allowed to enrol in the Medicine, a candidate must have an upper-level secondary-school diploma, or similar diploma earned overseas and deemed equivalent.

Those who place (following the admission test) high enough in the ranking must enrol in the programme.

Additional learning requirements (OFA):

Students admitted with a total point score under 45/90 and with a score of less than 13.5/27 on those questions assessing a student's understanding of biology, will be assigned additional learning requirements (OFA). These prerequisites may be met through specifically assigned remedial work. Any failure to pass the OFA will make it impossible for the student to sit for the Biology and Genetics exam. Timely notice of the various courses will be posted to: <https://medicina-vialba.cdl.unimi.it/it>

Additional Learning Requirements (OFA): English language, B2 level:

To pass the English-language exam contemplated under the study plan, English-language proficiency at a B2 level under the Common European Framework of Reference for Languages (CFER) is required. Such proficiency may be demonstrated as follows:

- by sending a language certificate, earned within three years prior to the date of submission, at a B2 level or higher (for the list of language certificates recognised by the University, please review: <https://www.unimi.it/it/studiare/competenze-linguistiche/placement-test-test-di-ingresso-e-corsi-di-inglese>). Certificates must be uploaded at enrolment, or sometime thereafter, to: <http://studente.unimi.it/uploadCertificazioniLingue>;
- through a Placement Test, administered by SLAM during Year I, from October to December. Should a student fail the test, he/she must take the course provided by SLAM.

The Placement Test is mandatory for all students who fail to submit a valid certificate.

Those who do not take the Placement Test by December, or who fail to pass the final exam for the course within six (6) attempts, must obtain an outside (paid) certification by the programme year contemplated for their exam in English.

Compulsory attendance

Attendance is mandatory.

Degree programme final exams

18 credits will be allocated to the Master's degree programme thesis. To be allowed to take the final exam, students must have completed all coursework, passed their exams, and finished all required professional experiences, including the supervised clinical training needed to be admitted into the practice of medicine.

The final exam contemplates the student's defence of an original thesis, written under the tutelage of a tutor, and a co-tutor if desired.

The student's final grade will be based on the average of all marks received during their coursework, the assessment of their thesis at the defence, and the assessment of other educational activities as established by the Academic Coordination Board.

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 the 27 EU member 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.

Study and internships abroad

The single-cycle Master's Degree Programme in Medicine at the Vialba teaching centre encourages periods of training overseas and offers assistance to those who qualify. The number of applications for the Erasmus and Erasmus Mundus programme continues to grow. Before submitting the Learning Agreement to the Erasmus Coordinator, each applicant will have the possibility of discussing his or her study plan with the President of the Degree Programme. This practice allows students to reap the most advantage from their experience at an international university. Marks earned at a Spanish university are transferred using a conversion table published in the Regulation for the Degree Programme. To secure transfer credit for academic work completed in any other European Union countries, please refer to the ECTS conversion table. The Erasmus+ programme offers a wide range of options in Europe. Most students choose rotations in European countries, Spain and Portugal in particular. That said, some choose to study abroad at universities in the U.S., enjoying fulfilling experiences in clinical and research activities. Based on these positive findings, the single-cycle Master's Degree Programme in Medicine at the Vialba teaching centre has recently joined the AAMC-GHLO programme, expanding opportunities for international exchanges. GHLO facilitates collaborations between medical schools in the U.S., and in the rest of the world. Transfer credit is guaranteed thanks to bilateral agreements.

Clinical rotations and research activities are the areas where students on an international rotation get the most benefit. Therefore, the best years for study abroad are Year III through Year VI. Sixth-year rotations are generally intended for writing one's thesis.

Each year, our teaching centre also welcomes international students, mainly from Germany and countries in Eastern Europe. They appreciate the long-standing tradition of academic study in our programmes, and the hospitality typical of their Italian colleagues. The greatest obstacle to attracting more international students is the difficulty of securing accommodations at reasonable rates. We are working hard to find solutions to this problem.

How to participate in Erasmus mobility programs

The students of the University of Milan can participate in mobility programmes, through a public selection procedure.

Ad hoc commissions will evaluate:

- Academic career
- 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 for Erasmus+ mobility for study generally begins around February each year with the publication of a call for applications specifying destinations and requirements. Regarding the Erasmus+ Mobility for Traineeship, the University of Milan usually publishes two calls a year enabling students to choose a destination defined by an inter-institutional agreement or to find a traineeship position on their own.

The University organizes informative meetings to illustrate mobility opportunities and rules for participation.

Erasmus+ scholarship

The European Union grants the winners of the Erasmus+ programme selection a scholarship to contribute to their mobility costs, which may be 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/en/international/study-abroad/studying-abroad-erasmus>

For assistance, please contact:

International Mobility Office

Via Santa Sofia 9 (second floor)

Tel. 02 503 13501-12589-13495-13502

1st COURSE YEAR Core/compulsory courses/activities common		
Learning activity	Ects	Sector
An Introduction to Medicine	4	(1) MED/01, (1) MED/02, (1) MED/45, (1) MED/42
Biology and genetics	12	(4) BIO/11, (2) MED/01, (6) BIO/13
Chemistry and introductory biochemistry	7	BIO/10
Histology	7	BIO/17
Human anatomy	13	BIO/16
Medical physics	7	(6) FIS/07, (1) MED/36
Trauma and Orthopedic surgery	2	MED/33
Total compulsory credits		52
2nd COURSE YEAR Core/compulsory courses/activities common		
Learning activity	Ects	Sector
Biochemistry	12	BIO/10
Human anatomy	5	BIO/16
Human physiology	20	(18) BIO/09, (2) MED/26
Immunology and Immunopathology	5	MED/04
Microbiology	6	MED/07
Public health	3	MED/42
Total compulsory credits		51
3rd COURSE YEAR Core/compulsory courses/activities common		
Learning activity	Ects	Sector
Biostatistics and Clinical epidemiology	3	MED/01
Laboratory medicine	4	(1) MED/05, (3) BIO/12
Medical English	3	L-LIN/12
Molecular and cellular basis of diseases	16	(3) MED/03, (12) MED/04, (1) MED/06
Patient-physician communication	8	(5) M-PSI/01, (1) MED/09, (2) M-PSI/08
Systems and diseases 1	18	(4) MED/14, (4) MED/15, (5) MED/11, (3) MED/09, (1) MED/18, (1) MED/24
Systems and diseases 1 - Clinical skills	9	(2) MED/14, (4) MED/09, (2) MED/24, (1) MED/18
Trauma and Orthopedic surgery	3	(2) MED/33, (1) MED/34
Trauma and Orthopedic surgery - Clinical skills	2	MED/33
Total compulsory credits		66
4th COURSE YEAR Core/compulsory courses/activities common		
Learning activity	Ects	Sector
Dermatology	3	MED/35
General surgery - Clinical skills	2	MED/26
Infectious diseases	5	MED/17
Infectious diseases (clinical skills)	2	MED/26
Neurology	5	(1) MED/27, (3) MED/26, (1) MED/34
Occupational medicine	6	MED/44
Pharmacology	10	BIO/14
Public health	4	(1) SECS-P/06, (3) MED/42
Systems and diseases 2	16	(4) MED/12, (4) MED/13, (3) MED/10, (1) MED/21, (3) MED/16, (1) MED/18
Systems and diseases 2 - Clinical skills	6	(2) MED/10, (4) MED/11
Total compulsory credits		59
5th COURSE YEAR (available as of academic year 2023/24) Core/compulsory courses/activities common		
Learning activity	Ects	Sector

Evaluation internship - Medical sciences	5	ND
Evaluation internship - surgical sciences	5	ND
Forensic medicine	5	MED/43
General surgery	4	MED/18
Head and Neck	7	(1) MED/29, (1) MED/28, (2) MED/31, (2) MED/30, (1) MED/32
Internal medicine	9	(2) MED/01, (4) MED/09, (1) M-EDF/01, (1) MED/17, (1) MED/06
Internal medicine - Clinical skills	3	(1) MED/09, (2) MED/06
Obstetrics and Gynecology	5	MED/40
Obstetrics and Gynecology - Clinical skills	2	MED/40
Pathology	10	MED/08
Pediatrics	6	(1) MED/39, (5) MED/38
Psychiatry and Clinical Psychology	5	(1) M-PSI/08, (4) MED/25
Radiology and Radiotherapy	4	MED/36
Radiology and Radiotherapy - Clinical skills	2	MED/36
Trauma and Orthopedic surgery - Clinical skills	3	MED/38
Total compulsory credits		75

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

Learning activity	Ects	Sector
Emergency medicine	4	(1) MED/09, (1) MED/18, (2) MED/41
Emergency medicine - Clinical skills	4	(2) MED/18, (2) MED/41
General surgery	4	MED/18
Internal medicine	4	MED/09
Practical evaluation training - General medicine	5	ND
Total compulsory credits		21

Elective courses

Clinical pharmacology (clinical skills)	3	BIO/14
Dermatology - Clinical skills	3	MED/35
Infectious diseases (clinical skills)	3	MED/17
Labor medicine (clinical skills)	3	MED/43
Laboratory medicine - Clinical skills	1	BIO/12
Medical clinic (clinical skills) - Blood diseases	3	MED/15
Medical clinic (clinical skills) - Cardiovascular system diseases	3	MED/11
Medical clinic (clinical skills) - Endocrinology	3	MED/13
Medical clinic (clinical skills) - Gastroenterology	3	MED/12
Medical clinic (clinical skills) - Infectious diseases	3	MED/17
Medical clinic (clinical skills) - Internal medicine 1	3	MED/09
Medical clinic (clinical skills) - Medical oncology 1	3	MED/06
Medical clinic (clinical skills) - Rheumatology	3	MED/16
Medical surgical specialties (clinical skills) - Audiology	3	MED/32
Medical surgical specialties (clinical skills) - Maxillo-facial surgery	3	MED/29
Medical surgical specialties (clinical skills) - Odontostomatological diseases	3	MED/28
Medical surgical specialties (clinical skills) - Ophtalmological diseases	3	MED/30
Medical surgical specialties (clinical skills) - Otolaryngology	3	MED/31
Microbiology (clinical skills)	1	MED/07
Nervous system diseases (clinical skills) - Neurology	3	MED/26
Nervous system diseases (clinical skills) - Neuroradiology	3	MED/37
Nervous system diseases (clinical skills) - Physical and Rehabilitation medicine	3	MED/34
Obstetrics and Gynecology - Clinical skills	3	MED/40
Occupational medicine - Clinical skills	3	MED/44
Orthopedic clinic (clinical skills)	3	MED/33
Pathological anatomy (clinical skills)	1	MED/08
Pediatrics (clinical skills) - Child neuropsychiatry	3	MED/39
Pediatrics (clinical skills) - General and specialist pediatrics	3	MED/38
Psychiatry and Clinical Psychology - Clinical skills	3	MED/25
Radiology and Radiotherapy 2 - Clinical skills	1	MED/36
Semeiotics and systems pathology 1 (clinical skills) - Blood diseases	3	MED/15
Semeiotics and systems pathology 1 (clinical skills) - Cardiovascular system diseases	3	MED/11
Semeiotics and systems pathology 1 (clinical skills) - Urology	3	MED/24
Semeiotics and systems pathology 1 (clinical skills) -Nephrology	3	MED/14
Semeiotics and systems pathology 2 (clinical skills) - Cardiac surgery	3	MED/23
Semeiotics and Systems pathology 2 (clinical skills) - Endocrinology	3	MED/13
Semeiotics and systems pathology 2 (clinical skills) - Gastroenterology	3	MED/12
Semeiotics and systems pathology 2 (clinical skills) - General surgery	1	MED/18
Semeiotics and Systems pathology 2 (clinical skills) - Internal medicine	3	MED/09
Semeiotics and systems pathology 2 (clinical skills) - Respiratory system diseases	3	MED/10
Semeiotics and systems pathology 2 (clinical skills) - Rheumatology	3	MED/16
Statistics and evaluation of evidence in medicine (clinical skills)	1	MED/01
Surgical clinic and surgical therapy (clinical skills) - Anesthesiology	3	MED/41
Surgical clinic and surgical therapy (clinical skills) - Cardiac and vascular surgery	3	MED/22, MED/23
Surgical clinic and Surgical therapy (clinical skills) - Gastroenterology	3	MED/12
Surgical clinic and surgical therapy (clinical skills) - General surgery	3	MED/18
Surgical clinic and Surgical therapy (clinical skills) - Neurosurgery	3	MED/27

Surgical clinic and surgical therapy (clinical skills) - Pediatric and infant surgery	3	MED/20
Surgical clinic and surgical therapy (clinical skills) - Plastic surgery	3	MED/19
Surgical clinic and surgical therapy (clinical skills) - Thoracic surgery	3	MED/21
<i>End of course requirements</i>		
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
Systems and diseases 2	Human physiology	Core/compulsory
	Immunology and Immunopathology	Core/compulsory
	Molecular and cellular basis of diseases	Core/compulsory
Neurology	Molecular and cellular basis of diseases	Core/compulsory
Human physiology	Human anatomy	Core/compulsory
Biochemistry	Chemistry and introductory biochemistry	Core/compulsory
Immunology and Immunopathology	Biochemistry	Core/compulsory
	Biology and genetics	Core/compulsory
Infectious diseases	Molecular and cellular basis of diseases	Core/compulsory
Pediatrics	Molecular and cellular basis of diseases	Core/compulsory
Psychiatry and Clinical Psychology	Molecular and cellular basis of diseases	Core/compulsory
General surgery	Systems and diseases 2	Core/compulsory
	Radiology and Radiotherapy	Core/compulsory
	Pharmacology	Core/compulsory
	Systems and diseases 1	Core/compulsory
	Pathology	Core/compulsory
Obstetrics and Gynecology	Molecular and cellular basis of diseases	Core/compulsory
Emergency medicine	Molecular and cellular basis of diseases	Core/compulsory
Dermatology	Molecular and cellular basis of diseases	Core/compulsory
Head and Neck	Molecular and cellular basis of diseases	Core/compulsory
Human anatomy	Histology	Core/compulsory
Molecular and cellular basis of diseases	Biochemistry	Core/compulsory
	Biology and genetics	Core/compulsory
Systems and diseases 1	Human physiology	Core/compulsory
	Immunology and Immunopathology	Core/compulsory
	Molecular and cellular basis of diseases	Core/compulsory
Trauma and Orthopedic surgery	Molecular and cellular basis of diseases	Core/compulsory
Pathology	Molecular and cellular basis of diseases	Core/compulsory
Internal medicine	Systems and diseases 2	Core/compulsory
	Radiology and Radiotherapy	Core/compulsory
	Pharmacology	Core/compulsory
	Systems and diseases 1	Core/compulsory
	Pathology	Core/compulsory