



**UNIVERSITA' DEGLI STUDI DI MILANO**  
**PROGRAMME DESCRIPTION - ACADEMIC YEAR 2017/18**  
**SINGLE-CYCLE DEGREE IN**  
**MEDICINA E CHIRURGIA - (Classe LM-41) International Medical**  
**School**  
**Immatricolati fino all'aa 2012/2013**

### **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>Course years currently available:</b>	6°
<b>Access procedures:</b>	Cap on student numbers, student selection based on entrance test
<b>Course code:</b>	D56

### **PERSONS/ROLES**

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

Prof. Raffaello Furlan

**1. Referees of the course: Prof. Alberto Mantovani, Prof. Marco Montorsi, Prof. Massimo Roncalli, Prof. Massimo Locati**

**2. Office of Medical Education: Prof. Guido Coggi, Dr. ssa Licia Montagna, Dr. ssa Silvia Oldani, Dr. ssa Ketti Mazzocco**

#### **Secretary: Micaela Filiberti, Cinzia Celeste**

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### **CHARACTERISTICS OF DEGREE PROGRAMME**

#### **Introduction**

These regulations apply to the teaching activities and management of the single cycle degree course in Medicine and Surgery known as 'University of Milan International Medical School' set up at the Istituto Clinico Humanitas (CLM) as part of class LM-41 in the Faculty of Medicine and Surgery at the University of Milan.

The course lasts six years.

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

The degree course consists of 360 credits overall, spread over a six-year programme, of which at least 60 must be acquired in training aimed at the acquisition of specific professional abilities.

Graduates in the degree courses in Medicine and Surgery must have: scientific bases and the necessary theoretical-practical preparation pursuant to Directive 75/363/CEE on the practice of the medical profession, and the necessary methodology and culture for the practice of continuing training. They also must show a level of professional, decisional and operative autonomy arising from a training path featuring a holistic approach to health problems of healthy and ill people, also in relation to the chemical-physical, biological and social environments surrounding them. Graduates are also required to master essential theoretical knowledge arising from basic sciences and apply it in the perspective of subsequent professional application, to show the ability to note and critically assess data relating to the state of health and illness of an individual, to know the physiopathology and organ and apparatus pathologies, interpreting them in the light of basic scientific knowledge from a clinical point of view and, globally, also extended to the sociocultural dimension and type. Also, the capability and experience, joined with self-assessment ability, of facing and solving the priority health problems responsibly from the preventive, diagnostic, prognostic, therapeutic and rehabilitative points of view are required. The knowledge of historic, epistemological and ethical dimensions of medicine, the ability to communicate with the patient and his/her relatives clearly and with humanity, the ability to co-operate with the different professional figures in the various group health activities, the ability to apply the principles of health economics in medical decisions and the ability to recognise health problems in the community and intervene in a competent manner are essential part of the student learning path.

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

The professional profile of graduates is characterized by a sound scientific knowledge of diseases and diagnostic procedures, by a strong ethical structure, accountability, consciousness of own's limitations, understanding of cultural diversity, capability to solve urgent health problems, and respect for each individual, regardless of his/her religion, values, race, sex, or any other peculiarities. They have matured a strongly integrated approach to the patient, critically assessing not only the clinical aspects but also paying special attention to the relational, educational, social and ethical aspects involved in the prevention, diagnosis and treatment of illness, as well as the rehabilitation and recovery of the highest level of psychophysical well-being possible.

Graduates in the Medicine and Surgery degree courses will carry out medical-surgical work in the different professional clinical, health and bio-medical roles and spheres.

The degree in Medicine and Surgery gives access to the State Examination for authorisation to practise as a M.D. Once the examination has been passed, access is given to registration in the relative professional order. In addition, the degree in Medicine and Surgery is a requirement for entry to the Postgraduate Medical Schools or the postgraduate courses for general practitioner.

### **Programme structure**

The planned length of the single cycle degree course in Medicine and Surgery is six years, divided into 12 semesters, during which a total of 274 credits (CFU, University Formative Credits) will be distributed during traditional lessons, training work in small groups, classroom exercises, laboratories, and seminars, and distance training; 60 credits will be obtained from professionalising activities and 8 credits from individually selected activities. Also 18 CFU are accredited for the preparation of the final thesis.

### **PASSAGE TO THE FOLLOWING YEARS**

Only those students who have successfully taken the examinations set out in the table below by the end of the session in September will be permitted to move from one year of the course to the next:

To enroll the III year the following exams must have been taken:

- Human body
- From Atoms to cells
- Functions

To enroll the IV year the following exams must have been taken:

- Mechanisms of diseases

### **Conscientious objection policy**

In compliance with Act No. 413 of October 12, 1993 "Regulations on conscientious objection to animal experimentation" the Faculty of Medicine recognizes the undisputed right to conscientious objection by students. Students may be exonerated from the attendance of laboratory exercises in which testing is scheduled on live or dead animals. The achievement of the scientific and practical knowledge for passing the exams will be granted, in accordance with the educational objectives of the specific degree programs, through substitutive methods suggested by the teachers.

### **Subjects organisation**

#### **a) Lectures and seminars**

A lecture is the presentation by the teacher of the course content regarded as fundamental for the acquisition of the basic knowledge in a given discipline. As the learning also takes place through other interactive teaching methods, the number of hours in lectures and other formal lessons is lower than in traditional medical degree courses.

A seminar is similar to a lecture but is conducted by a number of teachers with different skills, and annotated as such in the register of the lessons taught by each of them.

#### **b) Interactive teaching**

Interactive teaching activities geared towards a small group of students and co-ordinated by a tutor, with a view to facilitating the students in acquiring knowledge, abilities and behavioural models. Learning mainly takes place through the stimuli from the analysis of problems finalized to their solution through adequate decisions

Also, interactive teaching takes place in the clinical wards and laboratories, with the assistance of qualified university or hospital professionals.

#### **c) Distance Learning**

The Faculty may make use of audio-visual technologies, installed in specially equipped rooms, for some courses. The special rooms enable students to follow the lecturer 'live' even though he may be in another centre. The audio-visual equipment allows the lecturer and students to interact during the lesson.

#### **d) The international Medical School curriculum also includes a variety of learning /teaching on the field**

### **ELECTIVE TRAINING CHOSEN BY THE STUDENTS**

The course provides for training work chosen by the student, distributed throughout the entire course of study.

These selected activities offer the student the opportunity to analyse specific or innovative subjects, choosing from a range of suggestions offered each year by the Faculty. Selected activities may be of different types and must be attended. The three types of selected activity are configured:

1. seminar type courses;
2. internships;
3. participation in conferences and congresses.

Similarly, a fourth type of selected activity can be configured:

4. 'summer internships', whose regulation is covered by Art. 8 of the Faculty Regulations on Selected Activities.

The student will mature 1 credit for every three conferences/congresses attended during the chosen course of study for Type 3 activities (attendance at conferences and congresses). The student can acquire a maximum of 1 credit for attending Type 3 activities (attendance at conferences and congresses) during the period of the chosen studies.

At the end of the attendance of the Selected Activity (elective) students who have at least 75% of attendance will receive a certificate and the credits.

The specific regulation of selected activities can be found in the Faculty Regulations on Selected Activities.

### **Compulsory attendance**

The student is required to attend all the teaching activities, with a tolerance of no more than 1/3 of the hours, according to the Regolamento. Students are required to sign their attendance at each learning activities. Should the number of absences be higher than 1/3, the Teaching Committee will take the necessary measures.

### **Testing and assessment procedures**

Each course has a single exam, which is always individual, and the mark will be expressed in thirtieths.

Ongoing tests (prove in itinere) are also performed, exclusively with a view to confirming the effectiveness of the learning and teaching processes in relation to the course content in question.

These tests have no official certifying value.

### **Degree programme final exam**

The final test enables 18 training credits to be acquired and focuses on the discussion of an original thesis written by the student under the guidance of a controlling member of staff (supervisor).

### **Criteria for admission to degree course final exam**

The degree examination focuses on the discussion of an original thesis written in English by the student under the guidance of a controlling member of staff; an assistant supervisor may also be involved.

The student has to have taken all the examinations set out in the study plan and obtained a total of 342 teaching credits to be admitted to the degree examination. The final marks, out of a total of 110, are decided by:

- a. the mark for the presentation in the degree session (average out of 110),
- b. the marks allocated by the degree commission.

The marks allocated to each candidate by the members of the commission are secret. The maximum number of marks that may be allocated by the degree commission is 10, in addition to the average presentation marks. Only candidates whose presentation mark is at least 102 can obtain the maximum total marks (110), and this is subject to confirmation of the results he has achieved and the unanimous approval of the commission.

### **Study and internships abroad**

Students who take advantage of the European Union mobility programmes are permitted to attend a foreign university for a maximum of two semesters, from the second year of the course onwards. In accordance with the procedures in force, students who intend to take advantage of this opportunity are required to present an application to the course commission which describes the work they wish to do at the foreign university (learning agreement). The procedures and criteria set out by the Faculty and University will apply for the assessment and approval of applications.

Training carried out abroad as part of the European Union mobility programmes for students and the credits applicable to them are fully or partially acknowledged for the award of the degree, as set out in the European Credit Transfer System (ECTS).

Students can apply for the recognition of the period of study abroad as a selected activity, as set out by the Faculty Regulations. Students are exonerated from the requirement to attend the teaching activities of the degree course during the periods abroad, duly authorised in accordance with this article.

## **ADMISSION CRITERIA: 1ST YEAR CAP ON STUDENT, STUDENT SELECTION BASED ON ENTRANCE TEST**

### **Practical instructions**

All the degree courses in Medicine and Surgery of the Faculty of Medicine and Surgery of the University of Milan have programmed access and require an admission test. Pursuant to Law 264 dated 2.8.1999, the test is the same for all Italian public universities and takes place on the same day and at the same time; however, the classification is drawn up for each university. To enter medical school in Italy all citizens have to pass an admission test. The access procedures to the international course are the same as those for the other degree courses. The admission will also be subject to a check on the

knowledge of English; non-EU citizens must also pass an Italian test .The International Medical School is making available 20 places for EU students and 20 places for non-EU students who do not fall within the provisions of Legislative Decree 286 of 25.7.1998, amended by Law 189 dated 30.7.2002.

The four courses activated for the academic years 2010/2011are:

- Single cycle degree course in Medicine and Surgery, Central unit (Class LM-41, code D51);
- Single cycle degree course in Medicine and Surgery, Vialba unit (Class LM-41, code D52);
- Single cycle degree course in Medicine and Surgery, San Paolo unit (Class LM-41, code D53);
- Single cycle degree course in Medicine and Surgery, San Paolo unit (Class LM-41, code D56).

The number of students who can be admitted is defined annually by a Decree of the Ministry of Education and Research (MIUR), taking account of the training potential declared by the university on the basis of the teaching and clinical resources and structures available, and also the requirements shown by the Lombardy Region and the competent Ministry referring to the requirement for medical staff with the reference professional profile. Candidates who have a High School Diploma or alternative qualification achieved abroad and recognised as suitable can be admitted to the single cycle degree courses in Medicine and Surgery.

There is only one admission test to the three degree courses in Medicine and Surgery.

Candidates will be asked to indicate the order of preference concerning the three degree courses at the time of registering for the admission test; assignment will be made according to admission classification, respecting the preferences indicated (first choice for the first in the list and then graduated until all the posts available are filled; subsequently there will be the second and third choices). Candidates in an appropriate position in the classification of the admission test must complete registration through the on-line SIFA terminal and lodge the relative application for enrolment within the terms set out by the Notice of Competition, at the Secretary for Faculty of Medicine and Surgery Students, Via Santa Sofia 9/1, Milan.

All the degree courses in Medicine and Surgery of the Faculty of Medicine and Surgery of the University of Milan have programmed access and set out an admission test. Pursuant to Law 264 dated 2.8.1999

The admission test shall be in English and shall include 80 questions on topics such as biology, chemistry, physics, and reasoning.

The International Medical School is making available 30 places for EU students and 20 places for non-EU students who do not fall within the provisions of Legislative Decree 286 of 25.7.1998, amended by Law 189 dated 30.7.2002.

#### Entry test method

The admission test consists of a written test based on multiple-choice questions, according to a special program provided by the MIUR. The test will take place on a national level in September on a date to be established by the MIUR.

<b>1° COURSE YEAR (Cancelled since academic year2013/14)Core/compulsory courses/activities</b>				
<b>Scheduling</b>	<b>Learning activity</b>	<b>Module/teaching unit</b>	<b>Ects</b>	<b>Sector</b>
	From Atoms to cells (Total number of ect:25)	Biochemistry	12	BIO/10
		Biology	5	BIO/13
		Genetics	2	MED/03
		Molecular Biology	3	BIO/11
		Medical Physics	3	FIS/07
	Human Body (Total number of ect:20)	Histology and embryology	7	BIO/17
		Anatomy	13	BIO/16
	Introduction to Medical Profession (Total number of ect:4)	Internal Medicine	1	MED/09
		General pedagogy	1	M-PED/01
		Occupational Medicine	1	MED/44
		Hystory of medicine	1	MED/02
		Total number of compulsory credits/ects	49	
<b>2° COURSE YEAR (Cancelled since academic year2014/15)Core/compulsory courses/activities</b>				
<b>Scheduling</b>	<b>Learning activity</b>	<b>Module/teaching unit</b>	<b>Ects</b>	<b>Sector</b>
	Functions (Total number of ect:28)	Physiology	16	BIO/09
		Biochemistry	6	BIO/10
		Anatomy	3	BIO/16
		Medical physics	3	FIS/07
	Mechanisms of diseases (Total number of ect:22)	General pathology and immunology	14	MED/04
		Microbiology	6	MED/07
		Biochemistry	1	BIO/10
		Molecular Biology	1	BIO/11
		Total number of compulsory credits/ects	50	
<b>3° COURSE YEAR (Cancelled since academic year2015/16)Core/compulsory courses/activities</b>				
<b>Scheduling</b>	<b>Learning activity</b>	<b>Module/teaching unit</b>	<b>Ects</b>	<b>Sector</b>
	Communication Skills (Total number of ect:7)	Clinical psychology	4	M-PSI/08
		General Psychology	2	M-PSI/01
		Internal medicine	1	MED/09
	Biostatistic (clerkship)		2	MED/01
	Biostatistics		5	MED/01
	Laboratory Medicine (Total number of ect:4)	Clinical Biochemistry	2	BIO/12
		Microbiology	1	MED/07

		Clinical Pathology	1	MED/05
	Laboratory Medicine (clerkship)		1	BIO/12
	System Diseases 1 (Total number of ects:17)	cardiovascular diseases	5	MED/11
		Nephrology	4	MED/14
		Pharmacology	2	BIO/14
		Pathology	1	MED/08
		Internal medicine	1	MED/09
		General surgery	1	MED/18
		Radiology	1	MED/36
		General pathology	1	MED/04
		Human genetics	1	MED/03
	System diseases 1 (clerkship) (Total number of ects:9)	Nephrology	3	MED/14
		cardiovascular diseases	3	MED/11
		Urology	1	MED/24
		vascular surgery	1	MED/22
		cardiac surgery	1	MED/23
	ICT for Medicine (Total number of ects:3)	Statistic	1	MED/01
		informatics	2	INF/01
	System Diseases 2 (Total number of ects:16)	Pharmacology	1	BIO/14
		Radiology	1	MED/36
		Blood diseases	4	MED/15
		Reumathology	1	MED/16
		Pathology	1	MED/08
		Internal medicine	1	MED/09
		General surgery	1	MED/18
		respiratory diseases	4	MED/10
		General pathology	1	MED/04
		biology	1	BIO/13
	System diseases 2 (clerkship) (Total number of ects:7)	respiratory diseases	3	MED/10
		Blood diseases	3	MED/15
		thoracic surgery	1	MED/21
		Total number of compulsory credits/ects	71	

#### 4° COURSE YEAR (Cancelled since academic year2016/17)Core/compulsory courses/activities

Scheduling	Learning activity	Module/teaching unit	Ects	Sector
	Dermatology		3	MED/35
	Dermatology (clerkship)		1	MED/35
	Head and Neck (Total number of ects:8)	Functions	1	BIO/09
		Anatomy	1	BIO/16
		Dental medicine	2	MED/28
		Ophthalmology	2	MED/30
		Otorhinolaryngology	2	MED/31
	Head and Neck (clerkship)		1	MED/31
	System Diseases 3 (Total number of ects:19)	Pharmacology	1	BIO/14
		Radiology	1	MED/36
		Gastroenterology	5	MED/12
		endocrinology	4	MED/13
		Pathology	2	MED/08
		Internal medicine	2	MED/09
		General surgery	2	MED/18
		General pathology	1	MED/04
		Human genetics	1	MED/03
	System diseases 3 (clerkship) (Total number of ects:6)	Gastroenterology	4	MED/12
		endocrinology	2	MED/13
	Infectious Diseases		5	MED/17
	Pathology		6	MED/08
	Pharmacology		6	BIO/14
	Radiology and radiotherapeutic		3	MED/36
	Radiology and radiotherapeutic (clerkship)		2	MED/36
		Total number of compulsory credits/ects	60	

#### 5° COURSE YEAR (Cancelled since academic year2017/18)Core/compulsory courses/activities

Scheduling	Learning activity	Module/teaching unit	Ects	Sector
	Patient Management 5th year (Total number of ects:14)	Internal medicine	6	MED/09
		General surgery	4	MED/18
		Plastic surgery	1	MED/19
		Statistics	1	MED/01
		Rehabilitation Medicine	1	MED/34
		Nursing	1	MED/45
	Patient management 5th year (clerkship) (Total number of ects:8)	Internal medicine	5	MED/09
		General surgery	3	MED/18
	Bone and Joint Diseases (Total number of ects:7)	Reumathology	2	MED/16
		orthopedics	4	MED/33
		Rehabilitation Medicine	1	MED/34
	Bone and Joint Diseases (clerkship) (Total number of ects:4)	orthopedics	2	MED/33
		Rheumatology	2	MED/16
	Mental Health (Total number of ects:5)	Psychiatry	4	MED/25
		Clinical Psychology	1	M-PSI/08
	Mental health (clerkship)		1	MED/25
	Neurology (Total number of ects:8)	Neurology	5	MED/26
		Anatomy	1	BIO/16
		Human Physiology	1	BIO/09

		Neurosurgery	1	MED/27
	Neurology (clerkship)		2	MED/26
	Obstetrics and Gynecology		5	MED/40
	Obstetrics and gynecology (clerkship)		2	MED/40
	Pediatrics (Total number of ects:6)	Pediatrics	5	MED/38
		Infant Neuropsychiatry	1	MED/39
	Pediatrics (clerkship)		3	MED/38
	Public Health and environmental medicine (Total number of ects:12)	Occupational Medicine	5	MED/44
		Hygiene	6	MED/42
		applied economics	1	SECS-P/06
	Public health and environmental medicine (clerkship)		1	MED/44
		Total number of compulsory credits/ects	78	

### 6° COURSE YEAR Core/compulsory courses/activities

Scheduling	Learning activity	Module/teaching unit	Ects	Sector
annuale	Patient management 6th year (clerkship) (Total number of ects:4)	Internal medicine	2	MED/09
		General surgery	2	MED/18
1 semestre	Emergencies (Total number of ects:4)	General Surgery	1	MED/18
		Internal Medicine	1	MED/09
		Anesthesiology	2	MED/41
1 semestre	Emergencies (clerkship) (Total number of ects:6)	Neurology	1	MED/26
		Neurosurgery	1	MED/27
		Anesthesiology	2	MED/41
		Cardiovascular diseases	1	MED/11
		orthopedics	1	MED/33
1 semestre	Forensic Medicine		3	MED/43
1 semestre	Patient Management 6th year (Total number of ects:9)	Internal Medicine	5	MED/09
		General Surgery	4	MED/18
		Total number of compulsory credits/ects	26	

### Electives

By the end of 6 years students should acquire 8 credits in elective activities.

### End of course requirements

	Final examination		18	
		Total number of compulsory credits/ects	18	

## COURSE PROGRESSION REQUIREMENTS

Degree programme course progression is subject to the following compulsory or recommended pre-requisites

Learning activity / course	Prescribed foundation courses	
Emergencies	Pharmacology	Core /compulsory
	Pathology	Core /compulsory
	System Diseases 3	Core /compulsory
	System Diseases 2	Core /compulsory
	Neurology	Core /compulsory
	System Diseases 1	Core /compulsory
	Radiology and radiotherapeutic	Core /compulsory
Functions	From Atoms to cells	Core /compulsory
	Human Body	Core /compulsory
Mechanisms of diseases	Functions	Core /compulsory
Patient Management 6th year	Pharmacology	Core /compulsory
	Pathology	Core /compulsory
	System Diseases 3	Core /compulsory
	System Diseases 2	Core /compulsory
	Neurology	Core /compulsory
	System Diseases 1	Core /compulsory
	Radiology and radiotherapeutic	Core /compulsory
System Diseases 1	Mechanisms of diseases	Core /compulsory
System Diseases 2	Mechanisms of diseases	Core /compulsory
System Diseases 3	Mechanisms of diseases	Core /compulsory

## VALIDATION OF ECTS ACQUIRED IN OTHER/PREVIOUS DEGREE PROGRAMMES/ THROUGH PROFESSIONAL EXPERIENCE

### Validation

The studies carried out at other courses in the university and other universities, and the credits awarded as their result, will be acknowledged by the Faculty on the proposal of the Teaching Co-ordination Committee (TCC) for Medicine and Surgery, which may set up an ad hoc commission. If the criteria for progress from one year to another have been satisfied, the

commission will indicate the examinations confirmed and the course year to which the student may be admitted. Enrolment in a specific year of the course is, in any case, subject to the availability of places, on the basis of the maximum number of students scheduled for admission by the Faculty.

**Time limits for credit validation**

Following each exam successfully passed, the Student shall be credited of the pertinent CFU.

The validity of the CFU is submitted to a confirmation and validation 10 years after its acquisition