

# University of Milano-Bicocca

#### **DEPARTMENT OF MATERIAL SCIENCE**

## Master's Degree Programme in Optometry and Vision Science

## **Annual Study Manifesto**

#### Academic Year 2024-2025

## 1. Educational programme

In the A.Y. 2024-2025 the first year of the Master's Degree Programme in Optometry and Vision Science (Class LM-17) is activated.

This Master's Degree Programme features an advanced education both in the field of instrumentation, devices, technologies and aids used in the optometry area (nowadays in fast evolution) and in the field of measurement and optical compensation of visual functionality. The educational programme is divided into educational activities which can be grouped into the following four learning areas: (1) technologies and instrumentation, (2) optometry and mechanisms of vision, (3) materials, (4) data analysis and scientific method.

Teachings and educational activities activated respectively for the A.Y. 2024-2025 are listed below.

#### **FIRST YEAR**

(students enrolling in the A.Y. 2024-2025 - Didactic Regulations A.Y. 2024-2025)

CODE	TEACHING ACTIVITY	CFUs	ACADEMIC DISCIPLINE	MODULE	CFUs	SEM.
F1702Q001	Optometric Investigative Techniques – I	6	FIS/07	Optometric Investigative Techniques – I	6	1
F1702Q002	History and Techniques of Contemporary Optometry	6	FIS/08	History and Techniques of Contemporary Optometry	6	1
F1702Q003	Visual Ergonomics	6	FIS/01	Visual Ergonomics	6	1
F1702Q004	Physics of Vision	6	FIS/03	Physics of Vision	6	1
F1702Q005	Foundations of Probability and Statistics	6	SECS-S/01	Foundations of Probability and Statistics	6	1
F1702Q006	Mathematical and Computational Methods for Optics	6	FIS/02	Mathematical and Computational Methods for Optics	6	2
Two Multipl	e-choice teaching activities bet	ween	the followi	ng ones (12 CFUs)	•	
F1702Q007	Optometric Investigative Techniques – II	6	FIS/07	Optometric Investigative Techniques – II	6	2
F1702Q008	Optometry and Low vision	6	FIS/07	Optometry and Low vision	6	2
F1702Q009	Specialty Contact Lenses	6	FIS/07	Specialty Contact Lenses	6	2
F1702Q010	Adaptive Optics	6	FIS/07	Adaptive Optics	6	2
F1702Q011	Materials Spectroscopy and Microscopy	6	FIS/01	Materials Spectroscopy and Microscopy	6	2
One langua	ge teaching activity between th	e one	s of "Furth	er Linguistic Knowledge" (3CFL	Js)	
F1702Q017	Further Linguistic Knowledge - English - C1 Level (Or Higher)	3	NN	Further Linguistic Knowledge - English - C1 Level (Or Higher)	3	
F1702Q019	Further Linguistic Knowledge - French - B2 Level (or Higher)	3	NN	Further Linguistic Knowledge - French - B2 Level (Or Higher)	3	

F1702Q020	Further Linguistic Knowledge - German - B2 Level (or Higher)	3	NN	Further Linguistic Knowledge - German - B2 Level (Or Higher)	3				
F1702Q021	Further Linguistic Knowledge - Spanish - B2 Level (or Higher)	3	NN	Further Linguistic Knowledge - Spanish - B2 Level (Or Higher)	3				
F1702Q022	Further Linguistic Knowledge - Italian - A2 Level (or Higher) <b>Only for foreign students</b>	3	NN	Further Linguistic Knowledge - Italian - A2 Level (Or Higher) <b>Only for foreign students</b>	3				
Free-choice teaching activities (12 CFUs)									
TAF tipo D	Free-choice teaching activities	12	NN	Free-choice teaching activities	12				

For syllabi, professors and other information on the Didactic Regulations of this Master's Degree Programme see <a href="https://elearning.unimib.it/course/index.php?categoryid=10900">https://elearning.unimib.it/course/index.php?categoryid=10900</a>.

#### 2. Enrolment

#### Rules for access

In order to be eligible for admission to the Master's Degree Programme in Optometry and Vision Science, candidates must hold a Bachelor's Degree in Class L-30 Physical Sciences and Technologies (ex M.D. 270/04) or in Class 25 Physical Sciences and Technologies (ex M.D. 509/99) or a foreign academic title acknowledged as suitable. Candidates holding a Bachelor's Degree in a different Class must have at least 30 CFUs in the following scientific-disciplinary sectors: FIS/01 - Experimental Physics, FIS/03 - Physics of matter and FIS/07 - Applied Physics (to cultural heritage, environment, Biology and Medicine).

### Admission procedure

The Master's Degree Programme in Optometry and Vision Science is limited with entry requirements examination.

For the academic year 2024-2025 a total of 50 places are open, 6 of them reserved for non-EU citizens (visa applicants).

In order to be eligible for admission to this Master's Degree Programme, candidates must:

- hold specific curricular requirements;
- hold an English language proficiency equal to or higher than B2 level;
- prove they have an appropriate personal preparation, which will be evaluated through an interview;
- be in a useful position in the ranking list.

Curricular requirements required for the access are respectively:

- Bachelor's Degree in Class L-30 Physical Sciences and Technologies (ex M.D. 270/04) or in Class 25 Physical Sciences and Technologies (ex M.D. 509/99);
- at least 30 CFUs in the following scientific-disciplinary sectors: FIS/01, FIS/03 e FIS/07 (for candidates holding a Bachelor's Degree in a different Class).

For admission to the personal preparation assessment interview, a specific Committee will verify in advance the possession of the minimum curricular requirements and the English language proficiency on the basis of the documentation uploaded by the candidate.

The requirement of English language proficiency is considered satisfied if the candidate:

- a) holds a certification, recognized by the University of Milano-Bicocca and issued by an accredited body, corresponding to English language at B2 level or higher;
- b) has obtained the Bbetween English B2 Open Badge from the University of Milano-Bicocca;
- c) has achieved B2 level in English by taking the language test at the University of Milano-Bicocca;
- d) has completed a Degree Programme entirely or predominantly taught in English.

The personal preparation assessment interview, which will only admit candidates who meet the

required curricular prerequisites and the English language proficiency, will be conducted in English and will cover topics from the following areas:

- arithmetic and algebra, trigonometry, exponentials and logarithms, complex numbers, functions of one and two real variables, derivatives and integrals, first and second order differential equations;
- physical quantities and their measurement, classical kinematics and dynamics;
- classical electromagnetism, electromagnetic waves, interference and diffraction;
- geometric optics in paraxial approximation and basic elements of geometric models of ocular optics;
- anatomy and physiology of the visual system;
- ophthalmic optics: lens measurement tools and spectacle lens centration;
- basic concepts of optometry: elements of refractive examination, tools for measuring and evaluating ocular structures, basic concepts for the application of soft and rigid contact lenses.

A detailed description of the interview topics' syllabus will be published on the e-learning page of the Programme's website.

The interviews will be evaluated using a parameter (A) ranging from 0 to 30 based on the candidate's competences and knowledge on the topics covered in the interview. The outcome of the personal preparation assessment will be considered positive if A≥18.

Information regarding admission procedure will be available on the Call for Application published on the Programme's page of the University website.

## 3. Contemporary pre-enrolment

According to the legislation in force, the student can pre-enrol simultaneously in two different high education programmes, in order to obtain two different academic titles (see art. 20 of <u>University Didactic Regulations</u>).

Information on application procedures and payments can be found in the following page of the University website: <a href="https://www.unimib.it/servizi/studenti-e-laureati/segreterie/contemporanea-iscrizione-due-corsi-studio.">https://www.unimib.it/servizi/studenti-e-laureati/segreterie/contemporanea-iscrizione-due-corsi-studio.</a>

### 4. Pre-enrolment for years subsequent to the first one

For the A.Y. 2024-2025 it is **NOT** possible to pre-enrol for years subsequent to the first one.

## 5. Recognition of credits (CFUs) and transfer procedures

### Recognition of credits (CFUs) from professional activities

Pursuant to Ministerial Decree 270/2004 and Law 240/2010, Universities may recognize as credits (CFUs) individually certified knowledge and professional skills, in accordance with the regulations in force, as well as other knowledge and skills acquired in post-secondary education activities in which the University participated, for a total amount of 12 CFUs between Bachelor's and Master's Degrees. If some activities have been already recognized as credits in Bachelor's Degree Programmes, they cannot be further considered as CFUs in Master's Degree Programmes.

### Transfer from other University

Students who:

- have transferred from other Master's Degrees Programmes
- have taken a leave of absence
- have previously withdrawn from the University
- hold another Master's Degree

have to apply for the evaluation of their previous academic career in view of the verification of the adequacy of their personal preparation and the possession of curricular requirements. The Didactic Coordination Council will approve the total or partial recognition of the passed educational activities. In the event of student's transfer from another Master's Degree Programme belonging to Class LM-17, the amount of CFUs relative to the same scientific-disciplinary area, directly recognized to the student, cannot be lower than 50% of the already held credits. (M.D. 16 March 2007).

### In the A.Y. 2024-2025 transfer to second year is not allowed.

Information on transfer's application procedures are published on the following web page: <a href="https://www.unimib.it/servizi/segreterie-studenti/passaggi-trasferimenti-e-rinunce.">https://www.unimib.it/servizi/segreterie-studenti/passaggi-trasferimenti-e-rinunce.</a>

## 6. Class schedule and reception office hours

Classes of the **first semester** will take place from September 23, 2024 to January 31, 2025. Classes of the **second semester** will take place from March 3, 2025 to June 27, 2025. Didactic break: April 23 - April 30 2025.

Class schedule will be published on the University class schedule portal, available on the following web page: <a href="http://gestioneorari.didattica.unimib.it/PortaleStudentiUnimib/">http://gestioneorari.didattica.unimib.it/PortaleStudentiUnimib/</a>.

Class schedule can also be consulted by downloading the Official University App <u>BicoccAPP</u>, where it is also possible to:

- register to exams;
- check the status of University fee payments;
- see the campus' maps.

Teaching activities' syllabi, examination methods, didactic material, reception office hours and other information are available on <a href="https://elearning.unimib.it/course/index.php?categoryid=10900">https://elearning.unimib.it/course/index.php?categoryid=10900</a> portal, in "Teaching" part, "Syllabus" section.

Each professor has his/her personal web page on the University website where the CV and the contacts are uploaded: <a href="https://www.unimib.it/rubrica">https://www.unimib.it/rubrica</a>.

### 7. Further linguistic knowledge (art.10, paragraph 5, letter d DM 270/2004)

The acquisition of 3 CFUs relating to "Further linguistic knowledge" takes place as described below:

### ITALIAN students:

- by passing a University test of foreign language proficiency at B2 level. In this case the foreign language cannot be English, therefore the student has to choose between French, Spanish or German; or:
- by passing a University test of English language proficiency at C1 level.

Italian students who already hold the University of Milano-Bicocca's Open Badge or certifications issued by accredited bodies, attesting French/Spanish/German language proficiency at B2 level or higher or attesting English language proficiency at C1 level or higher, will be entitled to exemption from the language test and recognition of the expected CFUs.

#### FOREIGN students:

- by passing a University test aimed at verifying the Italian language proficiency at A2 level.

Foreign students who already hold the University of Milano-Bicocca's Open Badge or certifications issued by accredited bodies, attesting Italian language proficiency at A2 level or higher, will be entitled to exemption from the language test and recognition of the expected CFUs.

Information on tests' procedures and CFUs' acquisition are defined by the University and will be available on the University website at the following address:

https://www.unimib.it/didattica/opportunita/lingue-unimib/idoneita-ateneo-e-accertamento-linguistico

## 8. Submission of the study plan

When enrolling, the student is automatically assigned a study plan called statutory, which includes all mandatory educational activities.

Subsequently, the student will be required to submit a personal study plan indicating mandatory multiple-choice activities and free-choice activities. The periods for submitting the study plan are illustrated in the following web page:

https://www.unimib.it/servizi/studenti-e-laureati/segreterie/piani-degli-studi/area-scienze.

The study plan is approved by the Didactic Coordination Council.

The student can exclusively take the exams included in his/her current personal study plan.

The study plan has to observe the number of CFUs to be acquired and the constraints and the rules of propaedeuticity set up by the Programme's Didactic Regulations.

The student has the possibility to create his/her personal study plan including other educational activities, which are different to the ones planned by the Didactic Regulations, as long as they are coherent with the Degree's Programme Didactic System of the academic year of enrolment and as long as they are approved by the Didactic Coordination Council as congruous with the Degree Programme's educational objectives.

For further information, please see the Student Regulations: <a href="https://www.unimib.it/ateneo/organizzazione/statuto-regolamenti-e-codici/regolamenti">https://www.unimib.it/ateneo/organizzazione/statuto-regolamenti-e-codici/regolamenti</a>.

## 9. Free-choice teaching activities

The student can choose the 12 CFUs of *free-choice activities* (DM 270/2004, art.10, paragraph 5, letter a) among the teachings activated in the Master's Degree Programmes of the University of Milano-Bicocca or the unselected teachings included in the Master's Degree Programme in Optometry and Vision Science. Free-choice activities are integral part of the study plan, therefore they must be approved by the Didactic Coordination Council, which verifies their coherence with the educational project.

According to the legislation in force, for calculating the total number of exams, free-choice activities chosen by the student are considered as a single examination.

#### 10. Extra credits

According to art. 22, paragraph 4, of the <u>University Didactic Regulations</u> in force, students enrolled in a Bachelor's Degree Programme may include in their personal study plan - also in order to pursue the adequacy of their personal preparation - one or more additional teaching activities than those required for the academic title's achievement, **up to a maximum of 16 CFUs**.

CFUs and marks obtained through additional teaching activities will not be counted in the final average exam grade, but they will be reported in the student's career.

For what is not provided for by this article, please refer to the <u>Student Regulations</u>.

Further information on the Diploma Supplement can be found on the University website at the following link: <a href="https://www.unimib.it/servizi/segreterie-studenti/certificati-e-autocertificazioni">https://www.unimib.it/servizi/segreterie-studenti/certificati-e-autocertificazioni</a>.

#### 11. Exams

The exams involve the attribution of a mark expressed in thirtieths and they can be oral exams, written exams or written exams with compulsory oral exam, according to the <u>University Didactic Regulations</u> and the <u>Student Regulations</u>.

In the event of a written exam only, it has to consist of open questions.

Details on the assessment method and the evaluation of each teaching activity included in the educational programme can be found in the respective syllabus. Syllabi are published on the Programme's page at the following link:

https://elearning.unimib.it/course/index.php?categoryid=2670, under "Teachings" heading.

For the internship and for further linguistic knowledge activities, the evaluation is expressed through judgment.

Exam sessions are available on the website:

https://gestioneorari.didattica.unimib.it/PortaleStudentiUnimib/

or on "Bacheca Appelli": <a href="https://s3w.si.unimib.it/ListaAppelliOfferta.do?.">https://s3w.si.unimib.it/ListaAppelliOfferta.do?.</a>

Registrations must be performed through Segreterie Online: https://s3w.si.unimib.it/Home.do.

#### 12. Contacts

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For information not included in this document, see the Didactic Regulations of the year of enrolment, available on <a href="https://elearning.unimib.it/course/index.php?categoryid=10901">https://elearning.unimib.it/course/index.php?categoryid=10901</a> website, in the Regulations' section.