

UNIVERSITY OF MILANO-BICOCCA
DEPARTMENT OF PHYSICS GIUSEPPE OCCHIALINI
Interuniversity Bachelor's Degree Program in
Physical Sciences for Innovative Technologies (Class L-30)
Annual Study Manifesto – Academic Year 2026/2027

1. EDUCATIONAL PROGRAM

In the Academic Year 2026/2027, both the **first** and the **second** year of the Interuniversity Bachelor's Degree program in Physical Sciences for Innovative Technologies (Class L-30) are active.

The following table shows the teaching and educational activities available during the first and the second year of the Program in the Academic Year 2026/2027.

FIRST YEAR

(For students enrolling in the A.Y. 2026/2027 – [Course Regulations A.Y. 2026/2027](#))

Mandatory Courses	ECTS	SSD	Semester
Calculus - E3004Q001, whose modules are: Calculus I - E3004Q00101 - (9 ECTS) - MATH-03/A Calculus II - E3004Q00102 - (6 ECTS) - MATH-03/A	15 ECTS	MATH-03/A	Annual
Chemistry - E3004Q006	6 ECTS	CHEM-03/A	Second Semester
Fundamentals of Physics - E3004Q003, whose modules are: Mechanics - E3004Q00301 - (6 ECTS) - PHYS-01/A Thermal Physics - E3004Q00302 - (6 ECTS) - PHYS-03/A	12 ECTS	PHYS-01/A, PHYS-03/A	Annual
Linear Algebra - E3004Q002	6 ECTS	MATH-02/B	First Semester
Physical Methods for Innovative Technologies - E3004Q005, whose modules are: Probability and Statistics - E3004Q00501 - (6 ECTS) - PHYS-01/A Physics Laboratory - E3004Q00502 - (6 ECTS) - PHYS-01/A	12 ECTS	PHYS-01/A	Second Semester
Physical Modelling and Simulations - E3004Q004	6 ECTS	IINF-05/A	First Semester
Further educational activities*: Further linguistic knowledge or Further skills for job placement	3 ECTS	NN	
*For Italian students (3 ECTS): Further skills for job placement or Further linguistic knowledge: one foreign language among the following ones			

Further linguistic knowledge - English - C1 level (or higher) - E3004Q036	3 ECTS	NN	
Further linguistic knowledge - French - B2 level (or higher) - E3004Q037	3 ECTS	NN	
Further linguistic knowledge - German - B2 level (or higher) - E3004Q038	3 ECTS	NN	
Further linguistic knowledge - Spanish - B2 level (or higher) - E3004Q039	3 ECTS	NN	
*For foreign students (3 ECTS):			
Further linguistic knowledge - Italian - A2 level (or higher) - E3004Q035	3 ECTS	NN	

SECOND YEAR

(for students enrolled in the A.Y. 2025/2026 – [Course Regulations A.Y. 2025/2026](#))

Mandatory Courses	ECTS	SSD	Semester
Electricity and Magnetism – E3004Q007	9 ECTS	FIS/01	First Semester
Mathematical Methods for Applied Physics – E3004Q008	6 ECTS	FIS/02	First Semester
Quantum Physics for Technological Applications – E3004Q009	12 ECTS	FIS/02	First Semester
Laboratory for Computational and Applied Physics – E3004Q010, whose modules are: Computational Physics – E3004Q01001 – (6 ECTS) – FIS/01 Applied Physics Laboratory – E3004Q01002 – (9 ECTS) – FIS/01	15 ECTS	FIS/01	Second Semester
Innovation and Sustainability – E3004Q011	6 ECTS	FIS/01	Second Semester
Structure of Matter – E3004Q012	6 ECTS	FIS/03	Second Semester

Mandatory multiple-choice courses Students must choose one of the following three courses, for a total of 6 ECTS.	ECTS	SSD	Semester
Microelectronics for physics technologies – E3004Q013	6 ECTS	FIS/01	Second Semester
Modern Optics – E3004Q014	6 ECTS	FIS/01	Second Semester
Advanced Statistical Analysis – E3004Q015	6 ECTS	FIS/01	Second Semester

2. ENROLMENT

Detailed information on the application procedure is available in the **Call for Application A.Y. 2026/2027** published on the [Bachelor's Degree program's webpage](#).

Admission requirements

To be eligible for admission to the Bachelor's Degree program in Physical Sciences for Innovative Technologies, candidates must hold:

- a secondary school diploma or other school qualification obtained abroad, considered valid.
- the English language proficiency equal to or higher than B2 level.

Basic knowledge of Algebra, Euclidean and Analytic Geometry and Trigonometry is also essential to be admitted to the Program.

Admission procedure

The access to the Bachelor's Degree program in Physical Sciences for Innovative Technologies is by selection.

120 candidates can enroll in the academic year 2026/2027, out of which 20 places are reserved for Extra-EU candidates and 3 places for candidates who are citizens of the People's Republic of China and are members of the Marco Polo Program. Therefore, there are 97 places allocated for EU students. For the academic year 2026/2027, 97 places are available for admission to the second year, reserved for applicants who have at least 30 recognised credits, with no requirement to sit the admission test; if there are more applications than places, selection will be based on recognized credits and the grade point average.

Admission is based on one of the following tests, which are considered as alternatives: CEnT-S, TOLC-S or TOLC-I, taken from January 1, 2024 onwards by the deadlines set out in the annual call for applications.

- a) CEnT-S: minimum pass mark of 27 points on the standardised total score; the Mathematics, Reasoning on texts and data, and Physics sections count towards the total; Biology and Chemistry are excluded.
- b) TOLC-S 2024: minimum pass mark of 13/40; the sections Basic Mathematics, Reasoning and Problems, and Text Comprehension count towards the total; Basic Sciences and English are excluded.
- c) TOLC-S 2025: minimum pass mark of 13/40; the sections Basic Mathematics, Reasoning, Problems and Text Comprehension, and Physics count towards the total; Biology, Chemistry, Earth Sciences and English are excluded.
- d) English TOLC-I: minimum pass mark of 13/40; the sections Logic, Reading Comprehension and Mathematics count towards the total; Sciences is excluded.

If a candidate has taken the test more than once, only the test with the highest score will be considered. When the same value of the score occurs, the youngest candidate will be given priority (Article 2, paragraph 9 of Law no. 191/1998).

Additional training obligations (i.e. Obblighi Formativi Aggiuntivi – OFA)

Additional training obligations are assigned as follows:

- CEnT-S: OFA if the standardised score is below 12 in the Mathematics section;
- TOLC-S (2024 and 2025): OFA if the score is below 10 in the Basic Mathematics section.
- English TOLC-I: OFA if the score is below 10 in the Mathematics section.

OFA requirements are fulfilled by passing the final exam of the Richiami di Matematica-OFA organized by the School of Science. If these requirements are not met by the end of the first year, the student will not be permitted to sit exams in years following the first until they have passed the 'Calculus' exam scheduled for the first year.

Detailed information is available on the following pages: [School of Science](#) and [Open.Bicocca](#).

3. PRE-COURSES AND TEACHING SUPPORTING ACTIVITIES FOR INCOMING STUDENTS 2026

The School of Science organizes pre-courses and teaching supporting activities specifically dedicated to Basic Mathematics. These activities are recommended for all incoming students to the Science Degree programs who have not reached the minimum score required in the initial preparation assessment test (Italian VPI or *Valutazione della Preparazione Iniziale*) or who feel the need to consolidate their knowledge in Basic Mathematics, regardless of the outcome of the test.

All useful information (schedule, course registration procedures, teaching materials) will be available on the [School of Science website](#).

4. ORGANIZATION OF THE BACHELOR'S DEGREE PROGRAM

4.1. Credits recognition and transfer procedures

A. Transfer from another University or another Program

Students who are currently enrolled at this or other universities, as well as graduates, those whose enrolment has lapsed, or those who have withdrawn, may transfer into the first year of the Program only if they have taken one of the required admission tests, have applied for the selection process, and have been placed in a qualifying position on the ranking list.

For the 2026/2027 academic year, it is also possible to apply for enrolment in the second year, with exemption from the admission test, provided that at least 30 credits recognised for the purposes of the degree Program have been acquired during the previous university studies.

For the 2026/2027 academic year, 97 places are available for admission to the second year.

In the 2026/2027 academic year, enrolment in the third year is not permitted.

If the number of applications exceeds the number of places available, a ranking list will be drawn up based on the number of transferable credits and, in the event of a tie, on the weighted average of marks; in the event of a further tie, the younger candidate will be given priority. It is understood that the recognition of credits is subject to the approval of the Teaching Coordination Council (CCD), upon the recommendation of a specific Commission.

Information on how to submit transfer applications is published on the [Transfers, Changes of Program and Withdrawals](#) webpage.

B. Credits recognition of professional activities

According to the Italian law, specifically the DM 931/2024, Universities may recognize as credits (ECTS) for the Bachelor's Degree programs the extracurricular activities, up to a maximum of 48 ECTS. The activities that have been already recognized as credits at the Bachelor's Degree programs cannot be further considered as ECTS of Master's Degree programs. Recognition is made solely based on the competencies demonstrated by each student. Collectively awarded forms of recognition are excluded. Recognition of ECTS is subject to the approval of the Teaching Coordination Council (CCD) of the Program, upon recommendation of a specific Commission.

4.2. Simultaneous pre-enrolment

According to the legislation currently in force, the student can pre-enroll simultaneously on two different high education programs to obtain two different academic titles (see Art. 20 of the [Didactic Regulations of the University](#)).

Information on application procedures and fees can be found on the University website, at the [Simultaneous enrolment on two different Programs](#) webpage.

4.3. Enrolment in years after the first

For the 2026/2027 academic year, students in the 2026/2027 cohort will not be able to enrol in years after the first.

Students in the 2025/2026 cohort, instead, may renew their enrolment for the second year by following the procedure published on the [Renew your enrolment](#) webpage.

4.4. Schedule of the lectures

Lectures will take place during the following academic periods:

First semester – University of Pavia: September 28, 2026 - January 22, 2027.

Second semester – University of Milano-Bicocca: March 1, 2027 – July 9, 2027.

Annual courses: September 28, 2026 – July 9, 2027;

The laboratory activities will take place in the period between June 7 and July 9, 2027.

The schedule of the lectures will be published on the University website at the [Agenda WEB](#).

It is possible to download the Official University App too: [BicoccaAPP](#).

4.5. Teaching programs and professor's meeting hours

Teaching programs (Syllabus) as well as information on the organization of the lectures and professors' meeting hours are available on the [Bachelor's Degree program's e-learning](#) webpage.

4.6. Submission of the study plan

The study plan is the specific educational pathway, structured in educational activities, that the student must present and follow to graduate.

At the enrollment, the student is automatically assigned a study plan called 'statutory plan', which includes all the compulsory educational activities.

Subsequently, the student will be required to submit a personal study plan, indicating his/her choices in terms of multiple-choice activities and free-choice activities.

The study plan is approved by the Teaching Coordination Council, upon proposal of the Study Plan Commission.

The student can take only the exams that are included in his/her own study plan.

The study plan must respect the number of credits to be acquired, the constraints and the propaedeutic rules established by the Course Regulations of the Program.

The student is allowed to create his/her personal study plan including additional educational activities that are different with respect to the ones required by the Course Regulations, as long as they are coherent with the Degree's Program Educational System of the academic year of enrolment and they are approved by the Teaching Coordination Council as adequate to the educational objectives of the Bachelor's Degree program.

The deadlines and the procedures related to the submission of the study plan are defined by the University.

The periods reserved for the submission of the study plan are specified in the [Study Plan – Science Area](#) and in the [Program's e-learning](#) platform.

Information that is otherwise not presented here can be found at the [Student Regulations](#).

4.7. Further educational activities (DM 270/2004, Art.10, paragraph 5, letter d): "Further linguistic knowledge" and "Further skills for job placement"

The acquisition of 3 ECTS of "Further Educational Activities" can be done as follows:

ITALIAN students:

- 3 ECTS of “Further Skills for Job Placement”, by attending the activities described in the [Program’s e-learning](#) webpage.

OR

- 3 ECTS of “Further linguistic knowledge”, by passing the University test of foreign language proficiency at B2 level. In this case, the foreign language can be chosen between French, Spanish and German. Alternatively, the student can choose to obtain the English language proficiency at C1 level via the University test.

Italian students will be entitled to the exemption from the test and the recognition of the expected ECTS if they already held 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.

FOREIGN students: they must obtain 3 ECTS of “Further linguistic knowledge” by passing the University test of Italian language proficiency at A2 level.

Foreign students will be entitled to the exemption from the test and the recognition of the expected ECTS if they already held certifications issued by the University or by accredited bodies attesting Italian language proficiency at A2 level or higher.

Information on language test procedures and the acquisition of the corresponding ECTS is defined at the University level and it will be available on the University website at [Language@Unimib](#) webpage.

4.8. Exams

Details on the assessment methods of every single teaching activity included in the educational program can be found in the respective Syllabus. Syllabi are published on the [Bachelor’s Degree program’s e-learning](#) webpage.

The schedule of the exam session is available on the University website at [Agenda WEB](#) or at the [Exam Session Board](#).

Registration for exams is mandatory, and takes place via [Segreteria OnLine](#).

The number of examinations is not less than the number defined by the current [Didactic Regulations of the University](#).

4.9 Attendance

Attendance at laboratory activities is compulsory for at least 75% of the laboratory hours scheduled for each course. Exceptions may be granted in exceptional circumstances, at the discretion of the course lecturer. For all other teaching activities, attendance is not compulsory, even if it is strongly recommended.

5. CONTACTS

Administrative headquarters: Department of Physics “Giuseppe Occhialini”, Building U2-Quantum - Piazza della Scienza, 3 - 20125 Milano.

Didactic Secretariat - Science: didattica.PS4IT@unimib.it

Bachelor’s Degree program’s e-learning webpage:

<https://elearning.unimib.it/course/index.php?categoryid=11559>.

For what is not covered by this document, please see the Course Regulations of the Program of the academic year of enrolment, available on the [Program's e-learning](#) website.