



UNIVERSITA' DEGLI STUDI DI MILANO
PROGRAMME DESCRIPTION - ACADEMIC YEAR 2025/26
BACHELOR
SOUND AND MUSIC COMPUTING (Classe L-31 R)
Enrolled in 2025/26

HEADING

Degree classification - Denomination and code:	L-31 R
Degree title:	Dottore
Length of course:	3 years
Total number of credits required to complete programme:	180
Years of course currently available:	1st
Access procedures:	Cap on student, student selection based on entrance test
Course code:	FAB

PERSONS/ROLES

Head of Study Programme

Prof.ssa Sabrina Gaito

Degree Course Coordinator

Prof. Federico Avanzini

Tutors - Faculty

TUTOR PER L'ORIENTAMENTO:

Federico Avanzini

Luca Andrea Ludovico

Marco Mesiti

Stavros Ntalampiras

Elena Pagani

Degree Course website

<https://informaticamusicale.cdl.unimi.it>

Via Celoria 18 - 20133 Milano <https://di.unimi.it/it/dipartimento/organizzazione/commissioni> Email: orientamento.uscita@di.unimi.it

Via Celoria 18 - 20133 Milano <https://di.unimi.it/it/dipartimento/organizzazione/commissioni> Email: orientamento@di.unimi.it

Via Celoria 18 - 20133 Milano <https://di.unimi.it/it/dipartimento/organizzazione/commissioni> Email: erasmus@di.unimi.it

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Email: rappresentanti.studenti@di.unimi.it

Via Celoria 18 - 20133 Milano Phone 0250316250/252 Sportello in presenza: mercoledì dalle 14.00 alle 16.00 / Sportello

telefonico: giovedì dalle 9.30 alle 12.30 <https://di.unimi.it/it/dipartimento/segreterie-e-servizi/ufficio-la-didattica>

<https://informastudenti.unimi.it/saw/ess?AUTH=SAML>

CHARACTERISTICS OF DEGREE PROGRAMME

Initial knowledge required

Requirements and knowledge required for admission

To be admitted to the Degree Course, candidates must have a secondary school diploma or another qualification obtained abroad, recognized as suitable, as well as having adequate initial preparation. In particular, knowledge of basic scientific disciplines and understanding of elementary logic with a level of depth equal to that deriving from secondary school preparation are required.

Methods of verification of knowledge and personal preparation

The methods of access are established by the Admission Notice published on the page:

<https://informatica.cdl.unimi.it/it/iscriversi>.

The course has a limited number of places in order to guarantee the quality of the educational offer in relation to the available resources and requires a TOLC (CISIA Online Test) as a test for admission. For enrollment in the first year, 150 places are available, of which 5 are reserved for non-EU students not residing in Italy. The TOLC can be taken at the University of Milan or any other university belonging to CISIA (Interuniversity Consortium for Integrated Access Systems). Registration for the TOLC must be done on the CISIA website (<https://www.cisiaonline.it/>).

The TOLC valid for registration is the TOLC-S, composed of the following sections: Basic mathematics (20 questions - 50 minutes), Reasoning, problems and text comprehension (15 questions - 30 minutes). Score: +1 for each correct answer, -0.25 for each incorrect answer, 0 for each unanswered question. The TOLC contains some additional sections (Biology, Chemistry, Physics, Geology, English). The results of these sections do not contribute to the test score.

After taking the TOLC-S, students must register for the selection for admission to the Degree Course, as indicated in the announcement. They will then be included in the merit ranking that will be formulated on the basis of the score obtained in the test, weighted, for each section, according to the criteria indicated in the announcement. The winners will be able to enroll within the established deadlines.

The selection is divided into distinct periods starting in February and ending in the first days of September.

Enrolled students who have not achieved a score greater than or equal to 10 in the Basic Mathematics module of the TOLC will be assigned Additional Training Obligations (OFA).

Additional training obligations and OFA recovery methods

For students with OFA, support activities will be organized in the period October-December, followed by a recovery test with which the student will have to demonstrate that he/she has improved his/her preparation. In the absence of this evidence, the student will not be able to take any second-year exams before passing the Mathematics I exam. Information: <https://informaticamusicale.cdl.unimi.it/studiare/le-matricole>

Transfers and second degrees

Students already enrolled in a degree course at the University of Milan, at another University or already graduated, can be exempted from the test only if they meet the following requirements to be verified during the pre-evaluation of their career:

- if the student, during the pre-evaluation phase, is recognized at least 30 credits, he/she is admitted to the second year or third year with exemption from the test;
- if the student is recognized less than 30 credits, he/she must register for the test and selection as indicated above.

To access the pre-evaluation, a specific request for preventive evaluation of the career must be submitted by accessing the online service indicated in the admission notice. Those interested must declare all the exams taken with the relative sectors, credits and grades and attach the course programs. For further details on the procedure, please refer to the announcement. The request for career evaluation must be submitted without fail by the date indicated in the announcement. The outcome of the evaluation will be communicated via email by the date indicated in the announcement.

Students admitted to years subsequent to the first must enroll by the deadlines and in the manner specified in the announcement.

Part-time enrollment

Part-time enrollment is also possible. The relevant Regulations can be found at the following link <https://www.unimi.it/it/ateneo/normative/regolamenti/regolamento-le-iscrizioni-tempo-parziale>

Compulsory attendance

Attendance is strongly recommended for both courses and laboratories.

Internship criteria

An integral and mandatory part of the training is the internship (at an external company or institution, or in one of the University laboratories) and the preparation of a final report. The activity is carried out under the supervision of a teacher and, in the case of activities carried out at an external company or institution, also of an external supervisor. During these activities, the student must demonstrate knowledge of the topics covered and the tools used. In particular, the internship activity offers an opportunity to develop the ability to analyze problems and develop IT systems for their solution, experiment with interaction in an interdisciplinary work group and represent an opportunity to allow the student to reflect on the economic, legal, ethical, social and environmental implications of digital transformation. The student presents the results of the internship activity in a final report. Independent writing of the final report under the guidance of the supervisor (or supervisors) allows the student to perfect and put into practice the skills and abilities of written communication. The presentation of the final report and participation in seminar activities enhance written and oral communication skills.

The Internship Regulations, containing all the information relating to the requirements to be met for the opening of the internship, the assignment procedures, the minimum duration, the closing procedures, can be accessed from the page: <https://informaticamusicale.cdl.unimi.it/studiare/stage-e-tirocini>

Degree programme final exams

The degree is obtained by passing a final exam, which consists of the presentation of a final report prepared by the student and related to the internship activity carried out. It must concern a theoretical or experimental activity carried out by the

student, independently although under the guidance of one or more supervisors, at research laboratories, institutions or companies.

Campus

IT course venues: via Celoria 18 - Milan.

Other course venues: Teaching sector, via Celoria 20; Teaching sector, via Golgi 19; Teaching sector, via Venezian 15.

Laboratories

Computer laboratory (Silab) at the Department of Computer Science, via Celoria 18, Milan.

Notes

In order to obtain their degree, students must be proficient in English at a B1 level under the Common European Framework of Reference for Languages (CEFR). This proficiency level may be certified as follows:

- By submitting a language certificate attesting B1 or higher level in English and issued no more than three years before the date of submission. You will find the list of language certificates recognized by the University at: <https://www.unimi.it/en/node/39322>. The certificate must be uploaded during the enrolment procedure, or subsequently to the portal <http://studente.unimi.it/uploadCertificazioniLingue>;

- By taking a placement test offered by the University Language Centre (SLAM) between October and December of the first year. Students who fail the test will be required to take a SLAM course.

The placement test is mandatory for all those who do not hold a valid certificate.

Those who have not taken the placement test by the end of December or fail the end-of-course exam six times must obtain the necessary certification privately before graduating.

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 organisations.

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

The University of Milan is a member of the 4EU+ European University Alliance that brings together eight public multidisciplinary universities: University of Milan, Charles University of Prague, Heidelberg University, Paris-Panthéon-Assas University, Sorbonne University of Paris, University of Copenhagen, University of Geneva, and University of Warsaw. The 4EU+ Alliance offers integrated educational pathways and programmes to promote the international mobility of students (physical, blended and virtual).

Study and internships abroad

The education program can be enriched by educational activities abroad both to deepen some topics and as socialization experience in international environments. Within the Erasmus+ program study periods can be taken in over 50 universities in Belgium, Czech Republic, Finland, France, Germany, Greece, Hungary, Lithuania, Norway, Netherlands, Poland, Portugal, Romania, Slovenia, Spain, Switzerland, Turkey. Courses will be recognized in the personalized study plan. These periods abroad are typically 5-month long and include courses for about 30 CFU, in the area of information and communication technology and related applications. Recognition of these educational activities will be based on the Learning Agreement, to be defined in advance by the student and the Erasmus coordinator at the Computer Science Department before starting the period abroad: course in the learning agreement with passed exams will replace the educational activities of the study plan ("manifesto"), either by covering the same topics or complementing the acquired basic competences. The Erasmus Committee at the Computer Science Department will perform the recognition of CFU obtained abroad and the definition of the personalized study plan. Similarly, stages to prepare the final dissertation are allowed in the same foreign universities. Recognition will be performed by the Department Erasmus Committee.

Erasmus: the coordinator for the Department of Informatics is Prof. Fabio Scotti.

International Programs: the coordinator for the Department of Informatics is Prof. Davide Rocchesso.

More information are available at the following link: <https://di.unimi.it/it/rapporti-internazionali/mobilita-internazionale/opportunita-internazionali>

How to participate in Erasmus mobility programs

How to participate in Erasmus+ mobility programmes

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 organises 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 Language Centre (SLAM).

<https://www.unimi.it/en/node/8/>

1st COURSE YEAR Core/compulsory courses/activities common		
Learning activity	Ects	Sector
ACOUSTICS AND PSYCHOACOUSTICS	12	(6) M-PSI/01, (6) FIS/01
COMPUTER ARCHITECTURE	6	INF/01
COMPUTER PROGRAMMING I	12	INF/01
ELEMENTS OF MUSICAL GOODS ECONOMICS	6	SECS-P/07
English assessment B1 (3 ECTS)	3	ND
MATHEMATICS I	9	(4) MAT/03, (5) MAT/05
MATHEMATICS II	6	(3) MAT/03, (3) MAT/05
MUSIC SEMIOTICS	6	M-FIL/05
	Total compulsory credits	60
2nd COURSE YEAR (available as of academic year 2026/27) Core/compulsory courses/activities common		
Learning activity	Ects	Sector
ALGORITHMS AND DATA STRUCTURES	6	INF/01
ARTIFICIAL INTELLIGENCE FOR MUSIC	6	INF/01
AUDIO AND SIGNAL PROCESSING	12	INF/01
COMPUTER NETWORKS	6	INF/01
COMPUTER PROGRAMMING II	6	INF/01
FUNDAMENTALS OF SOUND AND DIGITAL MUSIC	12	INF/01
OPERATING SYSTEMS	6	INF/01
STATISTICS AND DATA ANALYSIS	6	INF/01
	Total compulsory credits	60
3rd COURSE YEAR (available as of academic year 2027/28) Core/compulsory courses/activities common		
Learning activity	Ects	Sector
DATABASES AND WEB	12	INF/01
ELEMENTS OF MUSICAL INFORMATION LAW	6	IUS/01
METHODS AND TECHNOLOGIES OF MUSIC PUBLISHING	6	SPS/08
	Total compulsory credits	24
Further elective courses		
DEVELOPMENT OF MUSIC PRODUCTION TECHNOLOGIES <i>Available from 2026/27</i>	6	INF/01
HUMAN-COMPUTER INTERACTION <i>Available from 2026/27</i>	6	INF/01
MULTIMEDIA PUBLISHING <i>Available from 2026/27</i>	6	INF/01
End of course requirements		
FINAL EXAM	3	NA
TRAINING	15	NA
	Total compulsory credits	18

COURSE PROGRESSION REQUIREMENTS

The course contains the following obligatory or advised prerequisites

Learning activity	Prescribed foundation courses	O/S
AUDIO AND SIGNAL PROCESSING	MATHEMATICS I	Core/compulsory
ALGORITHMS AND DATA STRUCTURES	COMPUTER PROGRAMMING I	Core/compulsory
STATISTICS AND DATA ANALYSIS	MATHEMATICS I	Core/compulsory
COMPUTER PROGRAMMING II	COMPUTER PROGRAMMING I	Core/compulsory