UNIVERSITA' DEGLI STUDI DI MILANO
PROGRAMME DESCRIPTION - ACADEMIC YEAR 2026/27
MASTER DEGREE
COMPUTER SCIENCE (Classe LM-18)
Enrolled in 2025/26

HEADING

Degree classification - Denomination and code:	LM-18 Computer science
Degree title:	Dottore Magistrale
Length of course:	2 years
Credits required for admission:	180
Total number of credits required to complete programme:	120
Years of course currently available:	2nd
Access procedures:	Open, subject to entry requirements
Course code:	FBA

PERSONS/ROLES

Head of Study Programme
Prof.ssa Sabrina Gaito

Degree Course Coordinator
Prof. Marco Tarini

Tutors - Faculty
TUTOR PER L'ORIENTAMENTO
Carlo Bellettini
Roberto Cordone
Mattia Monga
Beatrice Palano
Laura Ripamonti
Giorgio Valentini

Degree Course website
https://informatica-lm.cdl.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: ammissioni.magistrali@di.unimi.it
Via Celoria 18 - 20133 Milano https://di.unimi.it/it/dipartimento/organizzazione/commissioni Email: piani.studio@di.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: tesi.magistrali@di.unimi.it
Via Celoria 18 - 20133 Milano https://di.unimi.it/it/dipartimento/organizzazione/commissioni Email: erasmus@di.unimi.it
Email: rappresentanti.studenti@di.unimi.it
Via Celoria 18 - 20133 Milano https://di.unimi.it/it/dipartimento/organizzazione/commissioni Email: trasferimenti@di.unimi.it
Via Celoria 18 - 20133 Milano Phone 0250316250/252 Sportello su appuntamento (ufficio.didattica@di.unimi.it)
https://di.unimi.it/it/dipartimento/segreterie-e-servizi/ufficio-la-didattica https://informastudenti.unimi.it/saw/ess?AUTH=SAML
Via Celoria 18 - 20133 Milano Phone 0250325032 https://www.unimi.it/it/node/360 https://www.unimi.it/it/node/359/

CHARACTERISTICS OF DEGREE PROGRAMME

General and specific learning objectives

The Master's Degree in Computer Science aims to provide advanced training in both the theoretical and methodological aspects as well as the experimental and applied areas of fundamental computer science topics. The master will provide up-to-date computer science knowledge, minimizing specific technological details and instead emphasizing the broad principles and methods behind established and emerging technologies.

The course prepares professionals ready for engaging in research, design, and coordination in various fields of computer science, facilitating entry into multidisciplinary work environments, with a particular focus on commercial, industrial, and

scientific sectors.

Graduates will gain advanced knowledge and skills in key areas that define computer science, including:
- Artificial intelligence and machine learning
- Data analysis and big data management
- Information systems for industrial, market, and biomedical applications
- Human-computer interaction and multimedia systems
- Distributed systems, cloud computing, and the Internet of Things (IoT)
- Foundational and theoretical aspects of computer science, such as algorithms, programming languages, software verification, and analysis

The program seeks to develop highly skilled professionals with strong analytical and operational abilities, a critical and open perspective on the adoption and use of computing technologies, and the capacity to understand, develop, and improve innovations that continuously shape the field.

Expected learning outcomes

Knowledge and Understanding

Graduates will:

Have advanced knowledge of the foundational and contextual aspects of designing and developing computing systems, including:
- Mathematical foundations underpinning key applications of computer science
- Advanced programming for developing complex, scalable algorithms, including distributed and parallel computing
- Architectures, systems, languages, and tools relevant to various applications
- Scientific investigation methods, including their practical and ethical implications

Possess in-depth expertise in specific computer science domains, such as:
- The development and complexity analysis of complex and distributed algorithms
- Mathematical modeling of complex problems
- Formalization, development, and verification of software reliability for complex systems
- Machine learning techniques, including supervised, semi-supervised, and unsupervised approaches
- Big data collection, analysis, and management
- Development of industrial-scale systems
- Cybersecurity theories, principles, and models
- Multimedia data analysis and processing, including interactive systems

These skills will be acquired through lectures, hands-on exercises, laboratory activities, group projects, and a final thesis project, with assessments through oral and written exams.

Applying Knowledge and Understanding

Graduates will be able to:
- Analyze, model, implement, and verify computing systems in various application domains
- Design, develop, and validate software solutions for industry and scientific research
- Implement, analyze, and optimize complex algorithms
- Develop artificial intelligence applications for solving complex problems
- Design and manage big data analysis systems
- Model problems using foundational and applied computing principles, particularly for industrial and biomedical applications
- Apply system modeling techniques at different scales
- Develop advanced multimedia systems

These abilities will be evaluated through exams, project evaluations, and thesis work.

Making Judgments

Graduates will develop:
- The ability to independently analyze theoretical and practical problems and identify key factors for modeling and resolution
- A systematic and critical approach to organizing ideas and designing research or study plans
- The capability to critically evaluate results from experiments and scientific literature
- Autonomy in designing and developing software systems

- Awareness of the economic, ethical, legal, social, and environmental implications of digital transformation

Judgment skills will be assessed through exams, project evaluations, and the final thesis defense.

Communication Skills

Graduates will develop:
- The ability to communicate effectively with specialists in different application domains
- Proficiency in presenting and discussing complex problems both in written and oral forms, using appropriate technical language
- The ability to explain computing methods and solutions, including in scientific outreach and interdisciplinary collaborations
- Teamwork skills, including participation in interdisciplinary groups
- Leadership and decision-making skills for managing scientific and organizational responsibilities in projects

Communication skills will be developed through written and oral exams, project presentations, thesis writing, and the final thesis defense.

Learning Skills

The program aims to prepare students for cutting-edge research, fostering skills that enable independent learning and scientific investigation, supporting further education at the PhD level or professional research in academia and industry.

Graduates will develop:
- A critical and systematic approach to organizing knowledge
- Autonomous learning strategies for continuous professional development
- The ability to search, analyze, and interpret scientific information from databases, libraries, and research repositories
- The skills to identify and address open research problems and conduct independent investigations
- The ability to stay up to date with ongoing advancements in computer science

These skills will be reinforced through lectures, laboratory work, independent study, and the final thesis project, with assessments based on exams, project work, and thesis evaluation.

Professional profile and employment opportunities

Computer Science and Technology Expert

Roles in the Workplace

Computer science professionals work in public and private sectors, including academic research groups, public and private laboratories, high-tech companies, and software development firms. They design, develop, and manage complex computing systems, leading technological innovation and process optimization. They may also take on leadership and management roles in large-scale IT projects.

Core Competencies

Graduates will have expertise in:
- Mathematical, logical, and statistical foundations of computing
- Algorithm design and analysis
- Formal languages and program verification
- Signal processing, stochastic models, and cryptographic methods
- Big data management and analysis
redictive modeling and machine learning
- Process planning, optimization, and control systems
- Web architectures, mobile networks, and sensor systems
- Distributed systems, semantic databases, ontologies, and social computing
- Software engineering methodologies, including formal verification
- Digital transformation strategies
- Networking, telecommunications, and cybersecurity
- Game development, graphics, and animation
- Artificial Intelligence and Machine Learning

Graduates will also develop problem-solving, leadership, and communication skills, along with a strong command of technical and scientific English.

Career Opportunities

Graduates can find employment in:
- Public and private research institutions (subject to competitive examinations)
- High-tech companies developing innovative computing methodologies
- Software and network development firms
- Businesses leveraging IT solutions in sectors like finance, banking, insurance, environmental protection, media, entertainment
- Organizations managing complex IT infrastructures, including healthcare, public administration, and logistics
- Companies in digital communications, marketing, and data-driven industries
- Further academic studies, including PhD programs in Computer Science and related fields

The degree qualifies graduates for the regulated profession of Information Engineer in Italy.

Initial knowledge required

The following may access the master's degree course:
- graduates of the degree class in Computer Science and Technology (L-31) and of the corresponding class relating to Ministerial Decree 509/99.
- graduates of other classes provided that they have acquired at least the following in their previous studies:
48 credits in the INF/01 or ING-INF/05 sector
12 credits in the MAT/01- 09 sectors

Those in possession of another qualification obtained abroad and recognized as suitable on the basis of equivalence and who have acquired skills and knowledge equivalent to those of the above-mentioned requirements may also access the degree course.
Verification of possession of the requirements will consist of an evaluation of the previous university career, carried out on the basis of the following qualifications: degree certificate with grade, list of exams passed with grade and number of credits, programs of individual courses where not available on the website of the University of Milan.

The assessment of the adequacy of personal preparation will be based on the results reported in the exams of the scientific-disciplinary sectors indicated among the access requirements. When this does not demonstrate the full adequacy of personal preparation, the candidate will also be required to pass an individual interview.

Any curricular integrations in terms of university training credits must be acquired, before the assessment referred to in the previous point, by attending and completing exams for courses taught in the degree courses in Computer Science, Computer Science for Media Communications, Sound and Music Computing, Computer Systems and Network Security.

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.

Degree programme final exams

Once the necessary training credits have been acquired in compliance with the regulations, the student is admitted to take the final exam to obtain the degree. In compliance with the general criteria expressed in the University Teaching Regulations, the final exam consists of the presentation and discussion of a degree thesis (in English or Italian) developed in an original form by the student under the guidance of a supervisor, which involves an organic and complete work, capable of demonstrating research, elaboration and synthesis skills.

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

The thematic research laboratories active in the department (via Celoria 18, Milan) also serve as a venue for individual or group work by students enrolled in the course, for activities such as the development of projects related to individual exams or the final thesis work, in the manner defined by each research group. For further information, please refer to the laboratory pages: https://di.unimi.it/it/ricerca/risorse-e-luoghi-della-ricerca/laboratori-di-ricerca
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 B2 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 B2 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 January 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

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/

Learn more at https://www.unimi.it/en/node/274/

For assistance, please contact:
International Mobility Office
Via Santa Sofia 9 (second floor)
Tel. 02 503 13501-12589-13495-13502
Contacts: InformaStudenti;
Student Desk booking through InformaStudenti

1st COURSE YEAR (disactivated from academic year 2026/27) Core/compulsory courses/activities common

Learning activity	Ects	Sector
English proficiency B2 (3 ECTS)	3	NN
Total compulsory credits	3	

Further elective courses

Core courses.
Students must choose 54 credits from the courses listed in the following table:

3D VIDEO GAMES	6	INF/01
ADVANCED INTELLIGENT SYSTEMS	6	INF/01
ADVANCED PROGRAMMING *Alternate year course, available in a.y. 2026/2027*	6	INF/01
ADVANCED PROGRAMMING TECHNIQUES *Alternate year course, not available in a.y. 2026/27*	6	INF/01
AFFECTIVE COMPUTING	6	ING-INF/05
ALGORITHMS AND COMPLEXITY	6	INF/01
ALGORITHMS FOR MASSIVE DATASETS	6	INF/01
ARTIFICIAL INTELLIGENCE	6	INF/01
ARTIFICIAL INTELLIGENCE FOR TIME SERIES ANALYSIS	6	INF/01
ARTIFICIAL INTELLIGENCE FOR VIDEO GAMES	6	INF/01
ARTIFICIAL VISION	6	INF/01
AUDIO PATTERN RECOGNITION	6	INF/01
AUTONOMOUS ROBOTS AND AGENTS	6	INF/01
BIOINFORMATICS	6	INF/01
BIOMETRIC TECHNIQUES AND APPLICATIONS	6	INF/01
BUSINESS INFORMATION SYSTEMS	6	INF/01
CLOUD COMPUTING TECHNOLOGIES	6	INF/01
COMPUTING EDUCATION	6	INF/01
DEVELOPMENT OF APPLICATIONS FOR MOBILE DEVICES	6	INF/01
DIGITAL CITIZENSHIP AND CIVIC ACTIVISM *Alternate year course, not available in a.y. 2026/2027*	6	INF/01
DISTRIBUTED AND PERVASIVE SYSTEMS	6	INF/01
FORMAL LANGUAGE THEORY	6	INF/01
FORMAL METHODS	6	INF/01
GAMIFICATION AND SERIOUS GAMES	6	INF/01
GEOSPATIAL DATA MANAGEMENT	6	ING-INF/05
GPU COMPUTING	6	INF/01
GRAPH THEORY	6	INF/01
HEURISTICS ALGORITHMS	6	INF/01
INFORMATION MANAGEMENT	6	INF/01
INTELLIGENT SYSTEMS FOR INDUSTRY, SUPPLY CHAIN AND ENVIRONMENT	6	INF/01
KNOWLEDGE REPRESENTATION AND REASONING	6	INF/01
LOGISTICS	6	INF/01
MACHINE LEARNING ON GRAPHS	6	INF/01
METHODS FOR IMAGE PROCESSING	6	INF/01
MULTIMEDIA SYSTEMS AND INTERACTION DESIGN	6	INF/01
NATURAL LANGUAGE PROCESSING	6	INF/01
NETWORK SCIENCE *Availble from a.y. 2027/28*	6	INF/01
NEW GENERATION DATA MODELS AND DBMSS	6	INF/01
ONLINE GAME DESIGN	6	INF/01
PARALLEL AND DISTRIBUTED ALGORITHMS	6	INF/01
PRIVACY AND DATA PROTECTION	6	INF/01
PRIVACY AND DATA PROTECTION	6	INF/01
PROBABILISTIC METHODS FOR INFORMATICS	6	INF/01
PROCEDURAL AND SPATIAL SOUND	6	INF/01
REAL-TIME GRAPHICS PROGRAMMING	6	INF/01
REINFORCEMENT LEARNING	6	INF/01

RISK ANALYSIS AND MANAGEMENT	6	INF/01
SCIENTIFIC VISUALIZATION	6	INF/01
SECURITY OF DATA-INTENSIVE ARCHITECTURES	6	INF/01
SENSOR SYSTEM DESIGN	6	INF/01
SIMULATION	6	INF/01
SOFTWARE DEVELOPMENT IN COMPLEX TEAMS *Alternate year course, available in a.y. 2026/2027*	6	INF/01
SOFTWARE VERIFICATION AND VALIDATION *Alternate year course, available in a.y. 2025/26*	6	INF/01
SONIC INTERACTION DESIGN	6	INF/01
SPECIFICATION AND VERIFICATION OF CRITICAL SYSTEMS	6	INF/01
STATISTICAL METHODS FOR MACHINE LEARNING	6	INF/01
THEORETICAL COMPUTER SCIENCE	6	INF/01
VIRTUAL REALITY *Alternate year course, not available in a.y. 2026/27*	6	INF/01
WEB ALGORITHMICS	6	INF/01
WEB PROGRAMMING FOR SOUND AND MUSIC	6	INF/01
WIRELESS AND MOBILE NETWORKS	6	INF/01

Other courses.

The student must choose 12 credits from the related courses listed in the following table:

ADVANCED MULTIVARIATE STATISTICS	6	SECS-S/01
BIOMEDICAL SIGNAL PROCESSING	6	ING-INF/06
COMPUTATIONAL GEOMETRY	6	MAT/03
CYBERSECURITY MANAGEMENT IN BUSINESSES	6	SECS-P/08
DECISION METHODS AND MODELS	6	MAT/09
DISCRETE OPTIMIZATION	6	MAT/09
GRAPH OPTIMIZATION	6	MAT/09
MATHEMATICAL LOGIC	6	MAT/01
NUMERICAL ANALYSIS	6	MAT/08

Guidelines for preparing an individual study plan. To guide students in their choices, the courses offered by the Master's Degree program are divided into the following macro-thematic areas, called pillars. Within each pillar, the courses are divided into sub-areas related to applied or theoretical domains. Acquiring at least 36 credits (6 courses) from a single pillar ensures thematic focus of the study program; at the same time, choosing at least 18 credits (3 courses) from pillars other than this one ensures that the study program is not excessively vertical.

The division of courses into pillars and areas is as follows:

Pillar: ARTIFICIAL INTELLIGENCE, DATA ANALYTICS AND BIG DATA

Area Artificial Intelligence:

-Artificial intelligence
-Sistemi intelligenti avanzati
-Natural language processing
-Machine learning on graphs
-Artificial intelligence for time series analysis
-Autonomous robots and agents
-Statistical methods for machine learning
-Reinforcement learning

Area Data Analytics:

-Algoritmica per il web
-Network science
-Algorithms for massive datasets
-Scientific visualization
-Decision methods and models
-Ottimizzazione su grafo
-Ottimizzazione discreta
-Advanced multivariate statistics

Area Data Management and Protection:

-New generation data models and DBMSs
-Geospatial data management
-Information management
-Privacy and data protection

Pillar: COMPUTING SYSTEMS IN INDUSTRY, BUSINESS AND MEDICINE

Area Bio-medical computing:

-Biomedical signal processing
-Bioinformatics

Area Industry and Business:

-Analisi e gestione del rischio
-Logistica
-Business information systems
-Intelligent systems for industry, supply chain and environment
-Simulation

Area Distributed and Mobile Computing:

-Progetto di sistemi a sensore
-Cloud computing technologies
-Distributed and pervasive systems
-Progettazione di sistemi operativi sicuri (attivo a partire dall'a.a. 2028/29)
-Reti wireless e mobili
-Sviluppo di applicazioni per dispositivi mobili

Area Security:

-Tecniche e applicazioni biometriche
-Sicurezza delle architetture data intensive
-Gestione della Sicurezza nelle imprese
-Privatezza e protezione dei dati

Pillar: INTERACTION AND MULTIMEDIA

Area Audio and Music:

-Audio pattern recognition
-Procedural and spatial sound
-Sonic interaction design
-Web programming for sound and music

Area Videogames:

-Artificial intelligence for video games
-3D video games
-Gamification and serious games
-Online game design
-Real-time graphics programming
-Videogame design and programming

Area Multimedia:

-Sistemi multimediali e Interaction design

Area Imaging and Video:

-Affective computing
-Natural interaction (attivo a partire dall'a.a. 2028/29)
-Realtà virtuale
-Methods for image processing
-Visione artificiale

Pillar: ALGORITHMS, SOFTWARE AND THEORY

Area Algorithms:

-Algoritmi e complessità
-Heuristics algorithms
-Algoritmi paralleli e distribuiti

Area Software:

-Programmazione avanzata
-Tecniche speciali di programmazione
-GPU computing

-Sviluppo software in gruppi di lavoro complessi
-Verifica e convalida del software

Area Theory:

-Geometria computazionale
-Mathematical logic
-Metodi formali
-Calcolo numerico
-Informatica teorica
-Metodi probabilistici per l'informatica
-Specifica e verifica di sistemi critici
-Knowledge representation and reasoning
-Teoria dei linguaggi
-Teoria dei grafi

Area Computational Education and Ethics:

-Cittadinanza digitale e tecnocivismo
-Didattica dell'informatica

Free-choice credits.

Students must earn the 12 credits by freely choosing from all courses offered by the University, including those listed in the previous tables, according to the criteria set out in the relevant section of this document, provided they are compatible with their academic program.

Students may also request credit recognition for training activities at external institutions by submitting the relevant certification. Each certification can yield a maximum of 3 credits, and up to 2 certifications can be recognized. Students wishing to request certification recognition must complete the "application" form available at https://www.unimi.it/it/studiare/servizi-gli-studenti/segreterie-infostudenti/modulistica-generale and submit it to their program secretary's office along with a copy of the certifications obtained.

The evaluation will be conducted by the relevant commission based on the following parameters:
· Timeframe: the certification must have been obtained no more than 5 years ago.
· Specificity: The certification must cover skills related to those covered by the relevant degree program.
· Specialization: The certification must cover specialized and/or professionalizing skills.
· Level: The certification must demonstrate intermediate or advanced skills. Basic and entry-level certifications are excluded.

Additionally, the following elective courses are offered at the Milan Conservatory:
· First semester, Music Informatics and Digital Music, 3 credits (sector COME/05)
· Second semester, Music Informatics, 3 credits (sector COME/05)
· Second semester, Sampling, Synthesis, and Digital Sound Processing, 3 credits (sector COME/05)
· Second semester, Systems and Programming Languages for Audio and Music Applications 1, 3 credits (sector COME/05)
· First semester, Systems and Programming Languages for Audio and Music Applications 2, 3 credits (sector COME/05)

End of course requirements			
FINAL EXAM		39	NN
	Total compulsory credits	39	