



UNIVERSITA' DEGLI STUDI DI MILANO
PROGRAMME DESCRIPTION - ACADEMIC YEAR 2019/20
BACHELOR
Mathematics (Classe L-35)
Enrolled until 2017/2018 a.y.

HEADING

Degree classification - Denomination and code:	L-35 Mathematics
Degree title:	Dottore
Curricula currently available:	
Length of course:	3 years
Total number of credits required to complete programme:	180
Years of course currently available:	3rd
Access procedures:	Open, subject to completion of self-assessment test prior to enrolment
Course code:	F7X

PERSONS/ROLES

Head of Study Programme

Prof. Lovadina Carlo

Degree Course Coordinator

Prof. Lovadina Carlo

Tutors - Faculty

ALZATI Alberto, BIANCHI Mariagrazia, BRESSAN Nicoletta, CALANCHI Marta, CAVATERRA Cecilia, FUHRMAN Marco, GARBAGNATI Alice, GORI Anna, LANTERI Antonio, MASTROLIA Paolo, MATESSI Diego, MOLTENI Giuseppe, MONTOLI Andrea, MORALE Daniela, PACIFICI Emanuele, PAINE Kevin, PENATI Tiziano, PIZZOCCHERO Livio, RIZZO Ottavio, SCACCHI Simone, STELLARI Paolo, TARSÌ Cristina, TERRANEO Elide, TORTORA Alfonso, TURRINI Cristina, UGOLINI Stefania, VEESER Andreas, VESELY Libor, VIGNATI Marco, ZAMPIERI Elena, ZANCO Clemente.

Degree Course website

<http://www.ccdmat.unimi.it>

via Cesare Saldini 50 Phone 0250316107 09.30-11.30 Email: segrccd.mat@unimi.it

<http://www.unimi.it/studenti/matricole/77572.htm>

Link to degree course regulations

<http://files.ccdmat.unimi.it/modulo/formati/formati901900.doc>

CHARACTERISTICS OF DEGREE PROGRAMME

General and specific learning objectives

The main objectives of the Degree Program in Mathematics are to furnish a solid foundation in the mathematical sciences, to introduce the modern formulation of the discipline, to encourage an active contact with various aspects of the field (including theoretical rigor and attention to applications), and to provide the preparation necessary to comprehend future developments in the field.

Professional profile and employment opportunities

The Degree in Mathematics enables employment in both the public and private sectors for positions which require capacity for abstract reasoning, formulation and/or modelling of concrete problems and their solution through the use of tools coming from the mathematical sciences.

Recipients of the Degree in Mathematics find careers in: banks, insurance companies, polling and survey institutes, consulting and accrediting firms, software development companies, medical, biomedical and pharmacological institutes and companies, in the green economy, and in research and development divisions of large corporations, and specific industries such as transportation, telecommunication, and aerospace.

A significant portion of degree recipients in Mathematics continue their studies by enrolling in a Masters Degree Program.

EXPERIENCE OF STUDY ABROAD AS PART OF THE TRAINING PROGRAM

The University of Milan supports the international mobility of its students, offering them the opportunity to spend periods of study and training abroad, a unique opportunity to enrich their curriculum in an international context.

Study and internships abroad

The Bachelor of Science in Mathematics has long been committed to characterize its educational activities in an international framework under the Erasmus program. We activated several agreements with other universities in Europe. In particular, we have exchange agreements within the disciplines of both curricula: with Spain, Portugal, France, Germany, Holland, Denmark, Sweden, Norway and Finland.

See the website <http://users.unimi.it/erasmusmat/> for collected information on locations and how to recognize the activities carried out abroad.

How to participate in Erasmus mobility programs

To gain access to mobility programs for study purposes, lasting 3-12 months, the enrolled students of the University of Milan must attend a public selection that starts usually around the month of February, each year, through the presentation of specific competition announcements, which contain information on available destinations, respective duration of the mobility, requirements and deadlines for submitting the online application.

The selection, aimed at evaluating the proposed study program of the candidate, knowledge of a foreign language, especially when this is a preferential requirement, and the motivations behind the request, is performed by specially constituted commissions.

Each year, before the expiry of the competition announcements, the University organises information sessions for the specific study course or groups of study courses, in order to illustrate to students the opportunities and participation rules.

To finance stays abroad under the Erasmus + program, the European Union assigns a scholarship to the selected students that - while not covering the full cost of living abroad - is a useful contribution for additional costs as travel costs or greater cost of living in the country of destination.

The monthly amount of the communitarian scholarship is established annually at national level; additional contributions may be provided to students with disabilities.

In order to enable students in economic disadvantaged conditions to participate in Erasmus+ program, the University of Milan assigns further additional contributions; amount of this contributions and criteria for assigning them are established from year to year.

The University of Milan promotes the linguistic preparation of students selected for mobility programs, organising every year intensive courses in the following languages: English, French, German and Spanish.

The University offers a specific support service, in order to facilitate the organisation of the stay abroad and to guide students in choosing their destination.

More information in Italian is available on www.unimi.it > Studenti > Studiare all'estero > Erasmus+

For assistance please contact:

Ufficio Accordi e relazioni internazionali

via Festa del Perdono 7 (ground floor)

Tel. 02 503 13501-12589-13495-13502

Fax 02 503 13503

E-mail: mobility.out@unimi.it

Desk opening hour: Monday-friday 9 - 12

1st COURSE YEAR (disactivated from academic year 2018/19) Core/compulsory courses/activities common to all curricula		
Learning activity	Ects	Sector
Algebra 1	9	MAT/02
Elements of Basic Mathematics	3	MAT/09, MAT/01, MAT/02, MAT/03, MAT/04, MAT/05, MAT/06, MAT/07, MAT/08
General Physics 1	9	FIS/08, FIS/07, FIS/06, FIS/05, FIS/04, FIS/03, FIS/02, FIS/01
Geometry 1	6	MAT/03

Geometry 2	9	MAT/03
Mathematical Analysis 1	9	MAT/05
Mathematical Analysis 2	6	MAT/05
Programming 1	6	INF/01
Total compulsory credits	57	

2nd COURSE YEAR (disactivated from academic year 2019/20) Core/compulsory courses/activities common to all curricula

Learning activity	Ects	Sector
Algebra 2	6	MAT/02
Geometry 3	6	MAT/03
Mathematical Analysis 3	9	MAT/05
Mathematical Physics 1	6	MAT/07
Numerical Analysis 1	9	MAT/08
Probability and Mathematical Statistics 1	9	MAT/06
Total compulsory credits	45	

3rd COURSE YEAR Core/compulsory courses/activities common to all curricula

Learning activity	Ects	Sector
General Physics 2	9	FIS/08, FIS/07, FIS/06, FIS/05, FIS/04, FIS/03, FIS/02, FIS/01
Mathematical Physics 2	6	MAT/07
Total compulsory credits	15	

Elective courses common to all curricula

Algebra 4	6	MAT/02
Geometry 5	6	MAT/03
Mathematical methods and models for applications	6	MAT/07
Numerical Linear Algebra	6	MAT/08
Programming 2	6	INF/01
Scientific Computing	6	MAT/08

COURSE YEAR UNDEFINED Core/compulsory courses/activities common to all curricula

Learning activity	Ects	Sector
English Language Exam	3	L-LIN/12
Total compulsory credits	3	

Further elective courses common to all curricula

Algorithms	9	INF/01
General Physics 3	9	FIS/08, FIS/07, FIS/06, FIS/05, FIS/04, FIS/03, FIS/02, FIS/01

End of course requirements common to all curricula

Final Exam	3	NA
Total compulsory credits	3	

ACTIVE CURRICULA LIST

General Course years currently available: 3°
Applications Course years currently available: 3°

CURRICULUM: [F7X-A] General

2nd COURSE YEAR (disactivated from academic year 2019/20) Core/compulsory courses/activities Curriculum-specific features General

Learning activity	Ects	Sector
Geometry 4	9	MAT/03
Mathematical Analysis 4	6	MAT/05
Total compulsory credits	15	

Elective courses Curriculum-specific elective courses for General

Algebra 3	9	MAT/02
Mathematical Physics 3	9	MAT/07

Further elective courses Curriculum-specific features General

Educational Training	6	NA
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Essay Written under the Direction of a Staff Member	6	ND
Internship at the Centre Matematita	6	NA
Internship in Industry	6	NA
Mathematical Methods and Models for the Applications	6	MAT/07
Topics in Scientific Computing	6	MAT/08

CURRICULUM: [F7X-B] Applications

2nd COURSE YEAR (disactivated from academic year 2019/20) Core/compulsory courses/activities Curriculum-specific features Applications

Learning activity	Ects	Sector
Numerical Analysis 2	9	MAT/08
Total compulsory credits	9	

Elective courses Curriculum-specific elective courses for Applications

Introduction to Image Processing	6	(3) MAT/03, (3) MAT/08
Mathematical Analysis 4	6	MAT/05

3rd COURSE YEAR Core/compulsory courses/activities Curriculum-specific features Applications

Learning activity	Ects	Sector
Probability and Mathematical statistics 2	9	MAT/06
Total compulsory credits	9	

Further elective courses Curriculum-specific features Applications

Educational Training	6	NA
Essay Written under the Direction of a Staff Member	6	ND
Internship at the Centre Matematita	6	NA
Internship in Industry	6	NA
Mathematical Methods and Models for the Applications	6	MAT/07
Topics in Scientific Computing	6	MAT/08