



Facoltà di Scienze e Tecnologie

UNIVERSITA' DEGLI STUDI DI MILANO PROGRAMME DESCRIPTION - ACADEMIC YEAR 2016/17 MASTER DEGREE Computer Science (Classe LM-18) enrolled from 2014/2015 academic year

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: 1st , 2nd

Access procedures: Open, subject to completion of self-assessment test prior to enrolment

Course code: F94

PERSONS/ROLES

Head of Study Programme

Prof. Alessandro Rizzi

Degree Course Coordinator

Prof. Giuseppe Boccignone

Tutors - Faculty

Carlo Bellettini, Claudio Bettini, Sabrina De Capitani Di Vimercati, Roberto Sassi, Stefano Valtolina, Sebastiano Vigna.

Degree Course website

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

<http://www.unimi.it/studenti/matricole/77516.htm>

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 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 Spain, Portugal, France, Belgium, Switzerland, Germany, Finland, Norway, Sweden, Latvia, Poland, Hungary, Czech Republic, Slovenia, Greece, Romania, 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.

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

More information in Italian are 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 Core/compulsory courses/activities common				
Distribution	Learning activity	Teaching units/modules	Ects	Sector
2 semestre	ENGLISH LANGUAGE 2		3	L-LIN/12
				Total compulsory credits
Other learning activities chosen by the student				
1 semestre	ADVANCED COMPUTER PROGRAMMING		6	INF/01
1 semestre	PROGRAMMAZIONE AVANZATA		6	INF/01
1 semestre	INFORMATION MANAGEMENT		6	INF/01
1 semestre	SISTEMI INTELLIGENTI		6	INF/01
1 semestre	INTELLIGENT SYSTEMS		6	INF/01
1 semestre	INTERAZIONE NATURALE		6	INF/01
1 semestre	SVILUPPO SOFTWARE IN GRUPPI DI LAVORO COMPLESSI		6	INF/01
2 semestre	SISTEMI DISTRIBUITI E Pervasivi		6	INF/01
2 semestre	DISTRIBUTED SYSTEMS		6	INF/01
2 semestre	GESTIONE DELL'INFORMAZIONE		6	INF/01
2 semestre	ARCHITETTURE MULTIMEDIALI		6	INF/01
2 semestre	SVILUPPO SOFTWARE IN GRUPPI DI LAVORO COMPLESSI		6	INF/01
2 semestre	INFORMATICA TEORICA		6	INF/01
2 semestre	RETI WIRELESS E MOBILI		6	INF/01
2 semestre	WIRELESS AND MOBILE NETWORKS		6	INF/01
1 semestre	ADVANCED COMPUTER PROGRAMMING		6	INF/01
1 semestre	MODelli DEI DATI E DBMS DI NUOVA GENERAZIONE		6	INF/01
1 semestre	PROGRAMMAZIONE AVANZATA		6	INF/01
1 semestre	TECNICHE SPECIALI DI PROGRAMMAZIONE		6	INF/01
1 semestre	ALGORITMI E COMPLESSITA'		6	INF/01
1 semestre	ANALISI DI DATI SU LARGA SCALA		6	INF/01
1 semestre	BUSINESS INFORMATION SYSTEMS		6	INF/01
1 semestre	SVILUPPO DI APPLICAZIONI PER DISPOSITIVI MOBILI		6	INF/01
1 semestre	GAME AND LEVEL DESIGN		6	INF/01
1 semestre	HEURISTIC ALGORITHMS		6	INF/01
1 semestre	ALGORITMI EURISTICI		6	INF/01
1 semestre	INFORMATION MANAGEMENT		6	INF/01
1 semestre	SISTEMI INTELLIGENTI		6	INF/01
1 semestre	INTELLIGENT SYSTEMS		6	INF/01
1 semestre	METHODS FOR IMAGE PROCESSING		6	INF/01
1 semestre	METODI PER L'ELABORAZIONE DEI SEGNALI		6	INF/01
1 semestre	PROGRAMMAZIONE MIDI		6	INF/01
1 semestre	BASI DI DATI MULTIMEDIALI		6	INF/01
1 semestre	INTERAZIONE NATURALE		6	INF/01
1 semestre	PRIVATEZZA E PROTEZIONE DEI DATI		6	INF/01
1 semestre	PROGRAMMAZIONE PER LA MUSICA		6	INF/01
1 semestre	PROGETTO DI SISTEMI A SENSORE		6	INF/01
1 semestre	ANALISI E GESTIONE DEL RISCHIO		6	INF/01
1 semestre	SICUREZZA INFORMATICA		6	INF/01
1 semestre	SVILUPPO SOFTWARE IN GRUPPI DI LAVORO COMPLESSI		6	INF/01
1 semestre	VERIFICA E CONVALIDA DEL SOFTWARE		6	INF/01
1 semestre	PROGRAMMAZIONE TIMBRICA		6	INF/01
1 semestre	ALGORITMICA PER IL WEB		6	INF/01
2 semestre	ARTIFICIAL INTELLIGENCE FOR VIDEO GAMES		6	INF/01
2 semestre	VISIONE ARTIFICIALE		6	INF/01
2 semestre	BUSINESS PROCESS ENGINEERING		6	INF/01
2 semestre	PROTOCOLLI PER RETI AD HOC E DI SENSORI		6	INF/01
2 semestre	CRITTOGRAFIA AVANZATA		6	INF/01
2 semestre	SISTEMI DISTRIBUITI E Pervasivi		6	INF/01
2 semestre	DISTRIBUTED SYSTEMS		6	INF/01
2 semestre	TEORIA DEI LINGUAGGI		6	INF/01
2 semestre	INFORMATICS FOR INDUSTRIAL APPLICATIONS AND ROBOTICS		6	INF/01
2 semestre	GESTIONE DELL'INFORMAZIONE		6	INF/01
2 semestre	METHODS FOR SIGNAL PROCESSING		6	INF/01
2 semestre	ARCHITETTURE MULTIMEDIALI		6	INF/01
2 semestre	ONLINE GAME DESIGN		6	INF/01
2 semestre	ALGORITMI PARALLELI E DISTRIBUITI		6	INF/01
2 semestre	METODI PROBABILISTICI PER L'INFORMATICA		6	INF/01
2 semestre	PROGRAMMAZIONE GRAFICA PER IL TEMPO REALE		6	INF/01
2 semestre	SICUREZZA DELLE ARCHITETTURE ORIENTATE AI SERVIZI		6	INF/01
2 semestre	SIMULAZIONE		6	INF/01
2 semestre	SOFTWARE ARCHITECTURES FOR SERVICES		6	INF/01
2 semestre	SVILUPPO SOFTWARE IN GRUPPI DI LAVORO COMPLESSI		6	INF/01
2 semestre	METODI STATISTICI PER L'APPRENDIMENTO		6	INF/01
2 semestre	MODELLOZAZIONE E ANALISI DI SISTEMI		6	INF/01
2 semestre	INFORMATICA TEORICA		6	INF/01
2 semestre	REALTA' VIRTUALE		6	INF/01
2 semestre	VISION IN INDUSTRIAL APPLICATIONS AND ROBOTICS		6	INF/01

2 semestre	RETI WIRELESS E MOBILI	6	INF/01
2 semestre	WIRELESS AND MOBILE NETWORKS	6	INF/01
1 semestre	BIOINFORMATICS	6	INF/01
1 semestre	COMPLEMENTI DI RICERCA OPERATIVA	6	MAT/09
1 semestre	GEOMETRIA COMPUTAZIONALE	6	MAT/03
1 semestre	MODelli DI COMPUTAZIONE AFFETTIVA	6	ING-INF/05
1 semestre	CITTADINANZA DIGITALE E TECNOCIVISMO	6	INF/01
1 semestre	ARCHITETTURE E PROGRAMMAZIONE DSP	6	INF/01
1 semestre	METODI FORMALI	6	INF/01
1 semestre	GESTIONE DELL'INFORMAZIONE GEOSPAZIALE	6	ING-INF/05
1 semestre	TEORIA DEI GRAFI	12	INF/01
1 semestre	LOGICA MATEMATICA	6	MAT/01
1 semestre	METODI E MODELLI PER LE DECISIONI	6	MAT/09
1 semestre	ORGANIZZAZIONE E DIGITALIZZAZIONE DI TECHE MULTIMEDIALI	6	INF/01
1 semestre	OPERATIONAL RESEARCH COMPLEMENTS	6	MAT/09
2 semestre	BIOENGINEERING INFORMATICS	6	ING-INF/06
2 semestre	BIOINFORMATICA	6	INF/01
2 semestre	COMBINATORIAL OPTIMIZATION	6	MAT/09
2 semestre	OTTIMIZZAZIONE COMBINATORIA	6	MAT/09
2 semestre	DIDATTICA DELL'INFORMATICA	6	INF/01
2 semestre	GPU COMPUTING	6	INF/01
2 semestre	INFORMATION RETRIEVAL	6	INF/01
2 semestre	INTELLIGENT SYSTEMS FOR INDUSTRY AND ENVIRONMENT	6	ING-INF/05
2 semestre	LOGISTICS	6	MAT/09
2 semestre	MATHEMATICAL LOGIC	6	MAT/01
2 semestre	CALCOLO NUMERICO	6	MAT/08
2 semestre	ORGANIZZAZIONE AZIENDALE	6	SECS-P/10

Final learning activities

PROVA FINALE	39
Total compulsory credits	39