

# UNIVERSITA' DEGLI STUDI DI MILANO PROGRAMME DESCRIPTION - ACADEMIC YEAR 2019/20 BACHELOR

Computer Science for New Media Comunications (Classe L-31) enrolled until 2017/2018 academic year

HEADING	
Degree classification - Denomination	L-31 Computer science
and code:	
Degree title:	Dottore
Length of course:	3 years
Total number of credits required to	180
complete programme:	
Years of course currently available:	3rd
Access procedures:	Cap on student, student selection based on entrance test
Course code:	F9X

## **PERSONS/ROLES**

Head of Study Programme

Prof. Giovanni Pighizzini

## **Degree Course Coordinator**

Prof. Roberto Sassi

#### **Tutors - Faculty**

Alberto Borghese, Claudio Bettini, Raffaella Lanzarotti, Dario Maggiorini, Sabrina Tiziana Gaito, Sergio Mascetti, Giuseppe Boccignone, Giorgio Valentini, Elena Casiraghi.

# **Degree Course website**

https://icd.cdl.unimi.it/

via Celoria 18, Milano Phone 0250316250/252 https://icd.cdl.unimi.it/ Email: segreteria.didattica@di.unimi.it

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

via Celoria 18, Milano http://www.di.unimi.it/ecm/home/organizzazione/organi-di-governo/altre-commissioni/content/piani-di-studio.0000.UNIMIDIR Email: Federico.Pedersini@unimi.it

## international.students@unimi.it

via Celoria 18, Milano Phone 199 188 128 https://www.unimi.it/it/studiare/servizi-gli-studenti/segreterie-infostudenti/sedi-e-orari-segreterie-studenti https://www.unimi.it/it/studiare/servizi-gli-studenti/segreterie-infostudenti

# **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, Czeck 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 (disactivated from academic year 2018/19) Core/compulsory courses/activities							
common							
		<b>T</b>	1				
Learning activity		Ects	Sector				
COMPUTER ARCHITECTURE		6	INF/01				
COMPUTER PROGRAMMING		12	INF/01				
CONTINUUM MATHEMATICS DIGITAL MARKETING		6	MAT/09, MAT/01, MAT/02, MAT/03, MAT/04, MAT/05, MAT/06, MAT/07, MAT/08 SECS-P/08				
English assessment B1 (3 ECTS)		_	L-LIN/12				
HUMAN-COMPUTER INTERACTION		-	INF/01				
INFORMATION TECHNOLOGY LAW MATHEMATICAL METHODS FOR DIGITAL COMMUNICATION			IUS/20 MAT/09, MAT/01, MAT/02, MAT/03, MAT/04, MAT/05, MAT/06, MAT/07, MAT/08				
VISUAL COMMUNICATION		6	ICAR/13				
	Total compulsory credits	63					
			1				
2nd COURSE YEAR (disactivated from academic year 2019/20) Core/compulsory courses/activities common							
Learning activity		Ects	Sector				
ALGORITHMS AND DATA STRUCTURES		6	INF/01				
COMPUTER GRAPHICS AND DIGITAL IMAGING		9	INF/01				
DATABASES AND WEB		12	INF/01				

STATISTICS AND DATA ANALYSIS       6       INF/01         NEB AND CLOUD APPLICATIONS       6       INF/01         Total compulsory credits       51       51         Elective courses         DN LINE SOCIAL INTERACTION       6       INF/01         GINF/01         STATISTICS AND DATA ANALYSIS         Total compulsory credits       51         Elective courses         STATISTICS AND DATA ANALYSIS         State courses         DN LINE SOCIAL INTERACTION         GINF/01         State courses         State courses         Sector         Somputer NETWORKS         Courses         GINPUTER NETWORKS         Courses         MOBILE COMPUTING         Flective courses         MOBILE COMPUTING         MOBILE COMPUTING         MOBILE COMPUTING         MOBILE COMPUTING         MULTIMEDIA INFORMATION         MULTIMEDIA INFORMATION         MULTIMEDIA INFORMATION <td colspa<="" th=""><th>OPERATING SYSTEMS</th><th></th><th>6</th><th>INF/01</th></td>	<th>OPERATING SYSTEMS</th> <th></th> <th>6</th> <th>INF/01</th>	OPERATING SYSTEMS		6	INF/01
WEB AND CLOUD APPLICATIONS       6       INF/01         Total compulsory credits       51         Elective courses       6       INF/01         SIGNAL PROCESSING       6       INF/01         Brd COURSE YEAR Core/compulsory courses/activities common       6       INF/01         Brd COURSE YEAR Core/compulsory courses/activities common       6       INF/01         Computer Networks       6       INF/01       6         Computer Networks       12       INF/01       12         Computer Networks       12       INF/01       12         Computer Networks       9       INF/01       12         Computer Networks       9       INF/01       12         Computer Networks       12       INF/01       12         MULTIMEDIA INFORMATION       12       INF/01       12         Wet Media Sociology       6       SPS/08       6	PRINCIPLES AND MODELS OF PERCEPTION				
Total compulsory credits     51       Elective courses       IN LINE SOCIAL INTERACTION     6       SIGNAL PROCESSING     6       IN LINE SOCIAL INTERACTION       Get Interaction       Signal PROCESSING       Get Interaction       Get Interaction       Sector       COMPUTER NETWORKS       Compulsory courses/activities common       Learning activity       Ects       Sector       COMPUTER NETWORKS       Total compulsory credits       6       INF/01       Total compulsory credits       6       Elective courses       MOBILE COMPUTING       9       INF/01       HIEORY AND PRACTICE OF SOCIAL NETWORKS       12       MULTIMEDIA INFORMATION       12       INF/01       HIEORY AND PRACTICE OF SOCIAL NETWORKS       12       INF/01       HUTIMEDIA INFORMATION       12       INF/01       HUTIME IA SOCIOLO	STATISTICS AND DATA ANALYSIS				
Elective courses         IN LINE SOCIAL INTERACTION         6 INF/01         SIG 6 INF/01         SIG 6 INF/01         Sard COURSE YEAR Core/compulsory courses/activities common         Learning activity         Ects         Sector         COMPUTER NETWORKS         Total compulsory credits         6 INF/01         Total compulsory credits         BElective courses         MOBILE COMPUTING	WEB AND CLOUD APPLICATIONS		6	INF/01	
DN LINE SOCIAL INTERACTION       6       INF/01         SIGNAL PROCESSING       6       INF/01 <b>3rd COURSE YEAR Core/compulsory courses/activities common</b> Ects       Sector         COMPUTER NETWORKS       6       INF/01         COMPUTER NETWORKS       9       INF/01         COMPUTER NETWORKS       9       INF/01         COMPUTER NETWORKS       12       INF/01         MOBILE COMPUTING       9       INF/01         HEEORY AND PRACTICE OF SOCIAL NETWORKS       12       INF/01         MULTIMEDIA INFORMATION       12       INF/01         MULTIMEDIA PROJECT       9       INF/01         Further elective courses         NEW MEDIA SOCIOLOGY       6       SPS/08         FINAL EXAM       3         PROFESSIONAL STAGES       18       NA		Total compulsory credits	51		
SIGNAL PROCESSING 6 INF/01  3rd COURSE YEAR Core/compulsory courses/activities common  Learning activity COMPUTER NETWORKS 6 INF/01  COMPUTER NETWORKS 6 INF/01  Total compulsory credits 6  Elective courses  MOBILE COMPUTING 9 INF/01  Elective courses  MOBILE COMPUTING 9 INF/01  Elective courses  MULTIMEDIA INFORMATION 12 INF/01  Elective courses  Further elective courses  VEW MEDIA SOCIOLOGY 6 SPS/08  End of course requirements  TNAL EXAM 7 ROFESSIONAL STAGES 18 NA	Elective courses				
Strict Courses/activities common         Ects       Sector         COMPUTER NETWORKS       6       INF/01         COMPUTING       9       INF/01         COMPUTING       9       INF/01         MOBILE COMPUTING       9       INF/01         MOBILE COMPUTING       9       INF/01         MULTIMEDIA INFORMATION       12       INF/01         MULTIMEDIA PROJECT       9       INF/01         Further elective courses         VEW MEDIA SOCIOLOGY       6       SPS/08       INA EXAM       3       NA         PROFESSIONAL STAGES       18       NA       PROFESSIONAL STAGES       18 </td <td>ON LINE SOCIAL INTERACTION</td> <td></td> <td>6</td> <td>INF/01</td>	ON LINE SOCIAL INTERACTION		6	INF/01	
Learning activity     Ects     Sector       COMPUTER NETWORKS     6     INF/01       Total compulsory credits     6       Elective courses     9     INF/01       MOBILE COMPUTING     9     INF/01       CHEORY AND PRACTICE OF SOCIAL NETWORKS     12     INF/01       MULTIMEDIA INFORMATION     12     INF/01       MULTIMEDIA PROJECT     9     INF/01	SIGNAL PROCESSING		6	INF/01	
COMPUTER NETWORKS       6         Intervention       Intervention         Intervention       9         Intervention       9         Intervention       9         Intervention       12         Intervent       12	1 7	ses/activities common		[	
Total compulsory credits       6         Elective courses         MOBILE COMPUTING       9         INF/01       12         INF/01       12         INF/01       12         MULTIMEDIA INFORMATION       12         MULTIMEDIA PROJECT       9         INF/01       12         INF/01       12         INF/01       12         MULTIMEDIA PROJECT       9         INF/01       9         INF/01       12         INF/01         Further elective courses         NEW MEDIA SOCIOLOGY         6         SPS/08         End of course requirements         TINAL EXAM         PROFESSIONAL STAGES       18         INA	Learning activity		Ects	Sector	
Elective courses         MOBILE COMPUTING       9         INF/01       12         INF/01       12         MULTIMEDIA INFORMATION       12         MULTIMEDIA PROJECT       9         Further elective courses       9         NEW MEDIA SOCIOLOGY       6         SPS/08       6         SPS/08       18	COMPUTER NETWORKS		6	INF/01	
MOBILE COMPUTING 9 INF/01 THEORY AND PRACTICE OF SOCIAL NETWORKS 12 INF/01 MULTIMEDIA INFORMATION 12 INF/01 MULTIMEDIA PROJECT 9 INF/01 Further elective courses NEW MEDIA SOCIOLOGY 6 SPS/08 End of course requirements FINAL EXAM 3 NA PROFESSIONAL STAGES 18 NA		Total compulsory credits	6		
THEORY AND PRACTICE OF SOCIAL NETWORKS       12       INF/01         MULTIMEDIA INFORMATION       12       INF/01         MULTIMEDIA PROJECT       9       INF/01         Further elective courses         NEW MEDIA SOCIOLOGY       6       SPS/08         End of course requirements         FINAL EXAM       3       NA         PROFESSIONAL STAGES       18       NA	Elective courses				
MULTIMEDIA INFORMATION       12       INF/01         MULTIMEDIA PROJECT       9       INF/01         Further elective courses         NEW MEDIA SOCIOLOGY       6       SPS/08         End of course requirements         FINAL EXAM       3       NA         PROFESSIONAL STAGES       18       NA	MOBILE COMPUTING		9	INF/01	
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Further elective courses         NEW MEDIA SOCIOLOGY         6         SPS/08         End of course requirements         FINAL EXAM         PROFESSIONAL STAGES         18         NA					
NEW MEDIA SOCIOLOGY       6       SPS/08         End of course requirements       5         FINAL EXAM       3       NA         PROFESSIONAL STAGES       18       NA	MULTIMEDIA PROJECT		9	INF/01	
NEW MEDIA SOCIOLOGY       6       SPS/08         End of course requirements       5         FINAL EXAM       3       NA         PROFESSIONAL STAGES       18       NA					
End of course requirements FINAL EXAM PROFESSIONAL STAGES 3 NA 18 NA	Further elective courses				
FINAL EXAM 3 NA PROFESSIONAL STAGES 18 NA	NEW MEDIA SOCIOLOGY		6	SPS/08	
FINAL EXAM 3 NA PROFESSIONAL STAGES 18 NA					
PROFESSIONAL STAGES 18 NA	End of course requirements				
	FINAL EXAM		_		
Total compulsory credits 21	PROFESSIONAL STAGES		18	NA	
		Total compulsory credits	21		

# **COURSE PROGRESSION REQUIREMENTS**

# The course contains the following obligatory or advised prerequisites

Learning activity	Prescribed foundation courses	O/S
MULTIMEDIA PROJECT	VISUAL COMMUNICATION	Recommended
	COMPUTER GRAPHICS AND DIGITAL IMAGING	Recommended
SIGNAL PROCESSING	MATHEMATICAL METHODS FOR DIGITAL COMMUNICATION	Core/compulsory
	CONTINUUM MATHEMATICS	Core/compulsory
STATISTICS AND DATA ANALYSIS	MATHEMATICAL METHODS FOR DIGITAL COMMUNICATION	Recommended
	CONTINUUM MATHEMATICS	Core/compulsory
COMPUTER GRAPHICS AND DIGITAL IMAGING	COMPUTER PROGRAMMING	Core/compulsory
	MATHEMATICAL METHODS FOR DIGITAL COMMUNICATION	Core/compulsory
	CONTINUUM MATHEMATICS	Recommended
ALGORITHMS AND DATA STRUCTURES	COMPUTER PROGRAMMING	Core/compulsory
	MATHEMATICAL METHODS FOR DIGITAL COMMUNICATION	Recommended
	CONTINUUM MATHEMATICS	Recommended
DATABASES AND WEB	COMPUTER PROGRAMMING	Core/compulsory
COMPUTER NETWORKS	OPERATING SYSTEMS	Recommended
OPERATING SYSTEMS	COMPUTER ARCHITECTURE	Recommended
	COMPUTER PROGRAMMING	Recommended