Admission requirements

Prospective students must hold a Bachelor (or equivalent) in Computer Science or related subjects.

In addition, an English proficiency of level at least B2 is required.

How to apply

All prospective students must request an evaluation of their credentials before starting the official enrolment procedure.

Students with an **Italian qualification** have to fill out an on-line self-certification requirements available from www.unive.it/cdl/cm90 > iscriversi

Info: mail to campus.scientifico@unive.it

Students with an **international qualification** can apply at http://www.unive.it/evaluation.

Info: mail to welcome@unive.it

Non-EU citizens residing abroad have to apply as early as possible in order to obtain the Italian Student Visa.

Fellowships

Fellowships are available to students with high level academic records.

Employment rate

According to Almalaurea, all of our students are employed and satisfied with the study program.

Direct access to the exam for accessing the Italian register of engineering profession.

Advanced topics and Research activities

Students have the chance to get involved the research activities conducted by the department members, and to gear their skills in the most advanced topics of computer science.
Research topics include: Reliability Of Software Systems, Mobile Agents,Accessibility, Cybersecurity, Quantitative Analysis Of Computer Systems, Computer Vision, Artificial Intelligence, Mobility Mining, Interactive Systems, Web Mining, Information Retrieval, High Performance Computing.

Università
Ca'Foscari
Venezia

Dipartimento di Scienze Ambientali, Informatica e Statistica

Campus Scientifico
MESTRE - VIA TORINO

Master of Science

COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

Department of Environmental Sciences, Informatics and Statistics
Scientific campus
Via Torino 155
30170 Mestre (Venezia)

www.unive.it/dais

Course Website
IT www.unive.it/cdl/cm90
EN www.unive.it/pag/44079

Scientific campus secretariat
T 041 234.8519 / 8518 / 8534 / 8664
campus.scientifico@unive.it

informaticafoscari
dais.cafoscari

MIUR
DIPARTIMENTO DI ECCELLENZA

COMPUTER SCIENCE AND INFORMATION TECHNOLOGY MASTER'S DEGREE

Laurea magistrale LM-18 (Informatica)

Language: English.

The course trains highly skilled computer scientists and IT professionals.

Program

The program unfolds into three semesters of full-time lectures and lab experience. During the fourth semester, students work on an individual project, supervised by a department member. It's organized around three curricula, which goals and target jobs are:

- **Artificial Intelligence and Data Engineering (AIDE):** Training a new generation of professionals specialized in artificial intelligence and machine learning techniques for large scale data analysis / AI expert, machine learning expert, data analyst, project manager and software engineer in AI.
- **Cybersecurity (CS):** Train security and privacy experts with skills in the analysis, design and development of secure computer systems and networks / Cybersecurity specialist and consultant, security analyst, secure software engineer, penetration tester, security officer.
- **Software Development and Engineering (SDE):** Train software engineering specialists with advanced skills in designing secure, performant, and usable large scale software systems, and in verifying the functional and non-functional requirements of software / Software developer, software engineer, software architect, project manager.

Final Project and Thesis

The students complete their studies by putting in practice their preparation in a final project that are required to write in a master thesis discussed during the final examination. The student choses a topic of her/ his choice, in the area of computer science or statistics, and works under the supervision of a department member. Regular meetings and frequent interactions with the supervisor help the student in planning her/his work and achieving high quality results. The project can consist in the development of innovative methods and software, or in the investigation and analysis of existing designs and solutions. During the project, students get in touch with the most recent and innovative research in the field, and they have the opportunity to provide their contribution to the international state of the art. Students receive the necessary preparation to start a PhD career.

STUDY PLAN

Artificial Intelligence and Data Engineering

Mandatory activities **78 ECTS**

Course / Activity	ECTS	Year
Advanced Data Management	6	1
Algorithms and Learning over Massive Data	12	1
Calculus and Optimization	6	1
Foundations of Artificial Intelligence and Machine Learning	12	1
Information Retrieval and Web Search	6	1
Statistical Inference and Learning	6	2
Internship	6	2
Thesis	24	2

Cybersecurity

Mandatory activities **84 ECTS**

Course / Activity	ECTS	Year
Applied Probability for Computer Science	6	1
Cryptography	6	1
Formal Methods for System Verification	6	1
Internet security	12	1
Software Correctness, Security, and Reliability	6	1
Software Performance and Scalability	6	1
System and Software Security	12	1
Internship	6	2
Thesis	24	2

Software Development and Engineering

Mandatory activities **84 ECTS**

Course / Activity	ECTS	Year
Advanced Programming Languages	6	1
Applied Probability for Computer Science	6	1
Formal Methods for System Verification	6	1
Software Architectures and Development Methodology	12	1
Software Correctness, Security, and Reliability	6	1
Software Performance and Scalability	6	1
System and Software Security	12	1
Internship	6	2
Thesis	24	2

Elective courses

36/42 ECTS among

Course / Activity	ECTS	Year
Bioinformatics	6	2
Cloud Computing and Distributed Systems	6	1
Deep Learning for Natural Language Processing	6	2
Geometric and 3D Computer Vision	6	2
Human Computer Interaction and Information Visualization	6	2
Image and Video Understanding	6	1
Quantum Computation	6	2
Time Series Analysis for Computer Science	6	2
the other curricula's courses		

HOW TO REACH US

Train: the nearest stops are "Venezia Mestre" and "Venezia Porto Marghera" at 20 and 10 minutes by walk.
Info: www.trenitalia.com

Bus: From Mestre – FS station: lines 43 and 31
From Venice – piazzale Roma: line 43
Info: www.actv.it