Master Course in Computer Science
Orientation day
Info on the Department of Computer Science

Ranked first (in its area) in 5-year Research Assessment by Ministry of University and Research 2013 e 2017
Ranked first (full score) among top 180 Departments in Italy (all fields)
Departments of Computer Science with the highest number of researchers awarded with a ERC grant (>1mil euro): 5 Starting grant, 1 Consolidated grant
1 Shannon Award, 1 Sloan fellowship, 1 NSF career award, 5 Google research awards, 2 Google focused research awards, 3 IBM research awards, and counting
Master courses of the Department

Lectures and exams in English

Computer Science
curricula in:
Information Science and Applications
Multimedia Computing and Interaction
Networks and Security,
Software Engineering

Cybersecurity (inter-departments)
Data Science (inter-departments)
Our approach

To learn to express problems and solutions in computational terms
Identify the mathematical and logical bases
Learn to model problems and solutions
Learn to transform models into realisations
Lectures from Sept 23 to Dec 20
Exams from Jan 7 to Feb 21
Lectures from Feb 24 to May 29
Exams from June 8 to July 24
Exams from Sept 1 to Sept 20

Many courses require projects, some written exams and/or homework problems, most oral exams

Grades from 18 to 30 to pass the course (fail otherwise)
Exams can be repeated unless a passing grade has been officially recorded
Master Course in Computer Science

The offer is organized into Curricula

- Software Engineering
- Multimedia Computing and Interaction
- Networks and Security
- Information Science and Applications

Each curriculum consists of mandatory courses and other courses that can be chosen also from other curricula

- 9 characterizing courses
- 2 pertinent courses
- 2 chosen by the student

(To total 78 CFU)

- 6 CFU for complementary activity (= AFC )
- 36 CFU for the final thesis
List of courses I
Advanced Algorithms
Network Algorithms
Machine Learning
Elective in Networking and Systems
Big Data Computing
Intensive Computation
Foundations of Data Science *
Topics in Physics
Computational complexity
Cryptography
Natural Language Processing
Cloud Computing   *
Fundamentals of Computer Graphics
Advanced software engineering
Multimodal Interaction
Human Computer Interaction on the Web
List of courses II

Mathematical Logic for Computer Science
Automatic Software Verification
Formal methods in software development
Models of Computation
Computer Network Performance
Network Design and Management
Internet of Things
Data and Network Security *
Security in software applications
Biometric Systems *
Concurrent Systems
Information Systems
Graph Theory
Information Theory
Computer Vision
Web and Social Information Extraction
Deep Learning and Applied Artificial Intelligence
Two recent additions

Methods in computer science education: Analysis
Methods in computer science education: Design
Enable to follow a post-graduate track for teaching
Computer Science in high-school
Information Science and Applications

Students are required to select six courses from the following list:

- Advanced Algorithms
- Big Data Computing
- Computer Networks Performance
- Computer Vision
- Fundamentals of Computer Graphics
- Graph Theory
- Mathematical Logic for Computer Science
- Models of Computation
- Network Algorithms
- Security in Software Applications

and three courses from the following list:

- Computational Complexity
- Cryptography
- Elective in Networking and Systems
Multimedia Computing and Interaction

Students are required to select five courses from the following list:

- Biometric Systems
- Computer Vision
- Deep Learning and Applied Artificial Intelligence
- Fundamentals of Computer Graphics
- Human Computer Interaction on the Web
- Machine Learning
- Multimodal Interaction
- Natural Language Processing
- Web and Social Information Extraction

and four courses from the following list:

- Advanced Software Engineering
- Big Data Computing
- Cloud Computing
- Computer Networks Performance
- Concurrent Systems
- Distributed Systems
- Formal Methods in Software Development
Students are required to select five courses from the following list:
- Computer Networks Performance
- Cryptography
- Elective in Networking Systems
- Internet of Things
- Data and Network Security

and four courses from the following list:
- Advanced Software Engineering
- Automatic Software Verification Methods
- Cloud Computing
- Concurrent Systems
- Deep Learning and Applied Artificial Intelligence
- Human Computer Interaction on the Web
- Intensive Computation
- Machine Learning
- Multimodal Interaction
- Network Algorithms
- Security in Software Applications
- Social and Behavioural Networks
Software Engineering

Students are required to select four courses from the following list:

- Advanced Software Engineering
- Automatic Software Verification Methods
- Concurrent Systems
- Formal Methods for Software Development
- Security of Software Applications

and five courses from the following list:

- Big Data Computing
- Cloud Computing
- Deep Learning and Applied Artificial Intelligence
- Human Computer Interaction on the Web
- Machine Learning
- Mathematical Logic for Computer Science
- Models of Computation
Study plans MOST IMPORTANT

Students of the Master Programme in Computer Science can submit or update their study plans ("percorsi formativi") once per year, from September 1 to December 31.

The online study plan submission system (reachable from within InfoStud) prevents submission of most (but not all) study plans violating the rules.

Plans successfully submitted via the system are evaluated and approved either automatically (in real time) or manually by the study plan evaluation committee.

Please check carefully the info at:
https://www.studiareinformatica.uniroma1.it/master-course-computer-science/study-plans

NO EXAM CAN BE TAKEN IF NOT INCLUDED IN THE STUDY PLAN