

# Master in Computer science

## The programme offers the following course(s) :

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- › Master in Computer science standard 1st year
- › Master of Science in Informatics at Grenoble (MoSIG)
- › Computer engineering standard 2nd year
- › Computer engineering block-release 2nd year
- › Operations Research, Combinatorics and Optimisation (ORCO) 2nd year
- › Cybersecurity 2nd year
- › Supplementary computing skills (CCI) 2nd year
- › Cybersecurity and legal informatics 2nd year

## Presentation

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Co-accredited training between Grenoble University Alpes and Grenoble Polytechnic Institute. It offers the following courses :

- Computer engineering : standard and block-release format
- Master of science in informatics at Grenoble (MoSIG) : in English, open to international students
- Operations research, combinatorics and optimization (ORCO) : core with Mathematics and applications program
- Cybersecurity (CS) : in English, open to international students, core with Mathematics and applications program
- Supplementary computing skills : intended for students having completed a first year master's from a scientific discipline other than computing, dual competences
- [Corporate computer network](#) : alternatively accessible (apprenticeship) or in-service training: this course is offered by Grenoble INP

This training is part of the regional dynamic of research through the ARCs (Academic research communities) in the Rhône-Alpes region : master's students obtain funding to pursue their thesis studies. Only the Computer engineering course is also offered in the block-release format. The MoSIG (first and second year), CS, and ORCO courses are co-accredited with Grenoble Institute of Technology. Students are enrolled in one or the other of the institutions according to their origin. These courses are also offered to students of the National Higher

School for Computer Science and Applied Mathematics in the second or third year to validate their engineering school. The CS and ORCO courses are also offered in Mathematics and applications programs. Indeed, these courses are located at the interface Mathematics and informatics and the students can come from the first year master's of these two programs. The ORCO contains a course at the Industrial Engineering School of the Grenoble Institute of Technology. The first year master's Cryptography course is core to the Mathematics and applications and Computer science programs. A number of second-year teaching units are offered on half-days to facilitate pooling.

- Site of the master's degree: <https://master-informatique.univ-grenoble-alpes.fr>
- Site of the Cybersecurity course: <http://cybersecurity.imag.fr/>

## Objectives

The goal of the program is to provide high-level training in computer science for the fields of software and hardware engineering and computer science research. The training covers a broad spectrum ranging from software and hardware engineering to theoretical computer science, encompassing several domains, to the interface of mathematics and computer science such as computer security or optimization.

The training relies on a rich fabric (industry/experts/laboratories of the site and researchers) and responds to a strong and important demand of the socio-economic world. The main sectors of activity are computer service companies, software publishers, computer manufacturers, business R&D centres, corporate IT departments, and public or private research laboratories.

## Possible certifications

No

## Registration and scholarships

The first year master's is open to those who have obtained a national degree conferring the title of bachelor in a field compatible with that of the master's or a validation of studies or acquisition.

Admission to the second year master's is selective. It is open to candidates who completed a first year master's in the field. Summary of the proposed courses for the computer science program :

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|----------------------|--|
| Computer Science     | First year Master's                        |
| MoSIG                | First year Master's + second year Master's |
| Computer Engineering | First year Master's + second year Master's |
| Cybersecurity        | Second year Master's*                      |
| ORCO                 | Second year Master's*                      |

\* These courses can be chosen as early as the first year master's, depending on the options of the students

Public continuing education : You are in charge of continuing education :

- if you resume your studies after 2 years of interruption of studies
- or if you followed a formation under the regime formation continues one of the 2 preceding years
- or if you are an employee, job seeker, self-employed

If you do not have the diploma required to integrate the training, [you can undertake a validation of personal and professional achievements \(VAPP\)](#)

**You wish to apply for** master in Computer science

- Master MoSIG 1st year

- Master MoSIG 2nd year
- Cybersecurity 2nd year
- Operations Research, Combinatorics and Optimisation (ORCO)

#### THE APPLICATION FORM WITH FSA

- Computer science standard 1st year
- Computer engineering standard 2nd year
- Computer engineering block-release 2nd year

#### THE APPLICATION FORM WITH E-CANDIDAT

## Practicals informations :

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- > **School** : Grenoble INP, UFR IM2AG (informatique, mathématiques et mathématiques appliquées)
- > **level** : Baccalaureate +5
- > **Duration** : 2 years
- > **Credits** : 120
- > **Course type** : Initial and Continuing Education, Education in apprenticeship, Professionalisation contract
- > **Location(s)** : Grenoble - University campus
- > **Contacts** :

### **Programme director**

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### **Programme administration**

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