

SCIENCES, TECHNOLOGIES AND HEALTH

# Communications engineering and data science (CODAS)

Master in Computer science



**Target level**  
Baccalaureate  
+5



**ECTS**  
120 credits



**Duration**  
2 years



**Component**  
UFR IM2AG  
(informatique,  
mathématiques  
et  
mathématiques  
appliquées),  
Grenoble INP  
- Ensimag  
(Informatique,  
mathématiques  
appliquées et  
télécommunications),  
UGA



**Language(s) of instruction**  
English, French

## Presentation

New international training course co-habilitated with ENSIMAG, open since the beginning of the academic year 2021.

More information on the [ENSIMAG website](#).

## Skills

The teaching units of semester 8 (first year of master's) are for the most part introductions to the different specialties of the second year of the master's. In this sense, they constitute training for research. The second year master's allows students to acquire organizational skills and skills related to researcher work

- Formulate a research problem and propose a solution
- Locate a research problem in the scientific literature
- Evaluate and validate a solution to a research problem
- Write a scientific publication

- Communicating the results of research work
- Develop and use mathematical and computer tools
- Communicate in English and French
- Become a specialist in a field of computer science related to computer research on the site: information systems and advanced software engineering - human-centred computer science - foundations of Computer science : design and validation - artificial intelligence and web - graphics, vision and robotics - interactive and ubiquitous systems - embedded, parallel and distributed systems

**International education** : Internationally-oriented programmes

## Organisation

**Abroad internship** : In France or abroad

# Admission


## Access conditions

The first year of master's degree is accessible on file (and / or interview) to candidates with a national diploma conferring the degree of license in a field compatible with that of the master or via a validation of studies or acquired according to the conditions determined by the university or training. The second year master's is accessible to candidates according to their transcripts (and/or interview) :

- Having validated the first year of a compatible course
- Or by validating studies or acquired experience according to the conditions determined by the university or the training.

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)

## Candidature / Application

Do you want to apply and register? Note that the procedure differs depending on the degree considered, the degree obtained, or the place of residence for foreign students.

 Find out which procedure applies to me and apply

## And after

## Further studies

Ph.D.

## Sector(s)

Research and higher education, research and development

## Useful info

### Contacts

#### Program director

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## Course location(s) - City

 Grenoble

## Campus

 Grenoble - University campus

# Program

## Master 1st year

### Semester 7

	Nature	CM	TD	TP	Crédits
UE Elective course	Teaching Unit (UE)		24h		4 credits
UE Algorithms Problem Solving	Teaching Unit (UE)		9h	6h	3 credits
UE Technical writing and speaking	Teaching Unit (UE)		33h		3 credits
UE Introduction to Cybersecurity	Teaching Unit (UE)			17,5h	10 credits
UE Principle of Internet	Teaching Unit (UE)				8 credits
UE French as a foreign language	Teaching Unit (UE)		24h		3 credits

### Semester 8

	Nature	CM	TD	TP	Crédits
UE Project	Teaching Unit (UE)		12h		6 credits
UE Statistical analysis and document mining	Teaching Unit (UE)				6 credits
Statistical analysis and document mining	OTHER	16,5h		25,5h	
Statistical analysis and document mining Complementary	EPREUVE		7,5h	9h	3 credits
UE Research methodology	Teaching Unit (UE)	3h	4,5h		3 credits
UE Data base foundations	Teaching Unit (UE)				3 credits
UE Digital Transmission from Técnico Lisboa	Teaching Unit (UE)		50h		5 credits
UE Foundations of Data Science	Teaching Unit (UE)			12h	3 credits
UE Database foundations 2	Teaching Unit (UE)				3 credits

Master 2nd year

Semester 9

Semester 10