

SCIENCES, INGÉNIERIE ET TECHNOLOGIES

# ADVANCED MASTER SPACE APPLICATIONS & SERVICES (SPAPS)



Niveau d'étude  
visé  
BAC +6



Diplôme  
Mastère  
spécialisé



Domaine(s)  
d'étude  
Ingénierie  
aéronautique et  
spatiale



Accessible en  
Formation  
initiale,  
Formation  
continue



Établissements  
ISAE -  
SUPAERO

## Présentation



The advanced master Space Applications & Services gives students a broad understanding of space systems and how they are used in the fields of Earth's environment monitoring, communications and navigation.

## Objectifs

The first objective of this program is to give students a broad understanding of space systems and their environment, constraints and capacities in the fields of earth observation, communications and navigation.

The second objective of the program is to help students, using real-life examples and experimental work, to grasp the value of space systems for the creation of space applications and services. Students will propose and design tools and solutions in areas such as the environment, agriculture, transport or urban planning. They will be able to specify a complete

telecommunications system according to user needs: Internet access, Internet of Things, fixed or mobile terminals ...

Students will be able to both better understand the performance of space systems and identify user needs, as well as develop new services and applications. The know-how in the digital domain has a central place in the training with topics like big data, cloud computing, digital communications, software radio.

## Admission

### Conditions d'admission

The applicants must hold the following degrees:

- \* A **Master's Degree** or an equivalent degree
- \* Or a **Bachelor's Degree** with at least 3 years of professional experience
- \* International degree equivalent to the aforementioned degrees.

For candidates who do not meet these conditions but can justify 5 years of significant professional experience, these programs can be accessed via the Validation of Professional and Personal Acquisitions - VAPP

# Et après...

## Insertion professionnelle

### CAREER OPPORTUNITIES

This Advanced Master degree offers career opportunities in a wide range of fields:

- Jobs related to cross disciplinary use of space data (observation of the earth and its atmosphere, telecommunications, data positioning, data from scientific missions and exploration) in complex information systems,
- Consulting jobs to identify and define requirements, and implement application solutions using space data,
- New jobs related to new space challenges.

### CAREER OUTCOMES

- Project Leaders
- Business Engineers
- Business Development Managers
- Consulting Managers
- Research Engineers
- Expert in Space Applications

### Companies recruiting our students

Thales Alenia Space, Airbus, CNES, SES ASTRA, AKKODIS

You can find on this [page](#) the job survey concerning our last Advanced Masters graduates

## Contact(s)

### Autres contacts

For more information, please visit the SPAPS Advanced Master [webpage](#)

If you have any question:

- if you are a student, please contact [info-programmes@isae-supaeero.fr](mailto:info-programmes@isae-supaeero.fr)

- if you are a professional, please contact [info.exed@isae-supaeero.fr](mailto:info.exed@isae-supaeero.fr)

## Accessibilité des lieux et modalités d'enseignement aux étudiants en situation de handicap

The Advanced Master is accessible to persons with disabilities (PSH).

In the event that a learner is in a situation of disability, his or her needs (whatever they are educational, material, technical, human, etc.) are taken into account by the ISAE-SUPAERO's Disability Advisor. ISAE-SUPAERO provides the expertise, the tools, and the networks needed to facilitate the access to premises and resources, to prepare certifications and take examinations.

## Infos pratiques

### Lieu(x)

 Toulouse

### En savoir plus

ADVANCED MASTER SPACE APPLICATIONS & SERVICES - SPAPS

<https://www.isae-supaeero.fr/en/academics/advanced-masters/programs/advanced-master-space-applications-services-spaps/>

# Programme

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## Organisation

### **1st semester:**

6 months of full-time courses (lectures, case studies, learning by doing, company visits....) taught in ISAE-SUPAERO's campus in Toulouse

The course is composed of 7 parts:

- Part 1: Space systems
- Part 2: Digital techniques
- Part 3: Earth observation
- Part 4: Navigation and positioning
- Part 5: Space Communications
- Part 6: Space economics, regulations & services
- Part 7: Tutored Project

### **2nd semester:**

learners are required to conduct a 4 to 6 months

- professional mission (internship or contract):
- in an industry or in a laboratory,
- in France or abroad, supervised by a tutor from the host organization and from ISAE-SUPAERO

The thesis concludes with the submission of a professional thesis report and an oral dissertation in front of a jury.