SCIENCES, INGÉNIERIE ET TECHNOLOGIES

# ADVANCED MASTER SPACE SYSTEMS ENGINEERING (TAS ASTRO)

**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 Systems Engineeering" provides high level inter-disciplinary training in space systems engineering and space project management.

The programme allows students to acquire and develop technical skills specific to space systems Design and to understand the international, economic and legal aspects of space programs.

## Objectifs

The TAS Astro - Space Systems Engineering Advanced Master program is a one-year professional course of study. The TAS Astro Advanced Master enables students to develop a high level of multidisciplinary skills in space science, space systems engineering and space project management. It provides students with access to work opportunities and numerous career openings in aerospace projects, in space agencies, research agencies, or industrial companies in an international
environment.
The program is designed for students who wish to start immediately after they complete their graduate degree and for employees who have enrolled through their companies continuing education programs. The TAS Astro curriculum includes a broad spectrum of subjects with the following objectives:
• develop specific skills applied to the space sector: Space systems engineering and management of space projects
• acquire a high level of interdisciplinary knowledge related to the technical, economic and legal issues involved in space projects.
• acquire a high level of interdisciplinary knowledge related to the technical, legal and economic aspects of international space programs

## 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**

The TAS Astro Advanced Master program leads students to technical employment either in international industries or in research centers
in the aerospace world. Current positions are: Space program project managers, Space Systems engineers, Experts in industry or public research laboratories, in Consulting or services companies.

**Companies recruiting our students**

Altran, Airbus Defense & Space, Aéroconseil, Astek, Atos Origin, Bertin, Eutelsat, Nexeya, Safran, Sopra Group, Thales Alenia Space, CNES, ESA, DLR (Germany), Instituto Mexicano de Comunicaciones (Mexico). GTD International (Spain)...

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 TAS ASTRO Advanced Master webpage

If you have any question:

- if you are a student, please contact info-programmes@isae-supaero.fr

- if you are a professional, please contact info.exed@isae-supaero.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

TAS ASTRO "SPACE SYSTEMS ENGINEERING" ADVANCED MASTER

https://www.isae-supaero.fr/en/academics/advanced-masters/programs/tas-astro-space-systems-engineeering-advanced-master/

# Programme

## Organisation

**1st semester**:

academic session provided by ISAE-SUPAERO's tenured professors and various experts from research centers (ONERA), space agencies (CNES, ESA), or European aerospace companies (Thales lenia Space, Airbus Defense & Space, ArianeGroup).

This semester includes lectures and exercises, engineering and design study seminars, laboratory sessions, written reports and oral presentations, practical sessions, team work and industrial visits.

The course is composed of 3 parts:

- Part 1: Missions and Systems

- Part 2: Space Programs

- Part 3: Sub-systems: Satellites & Launchers

**2nd semester**:

students are required to conduct a 4 to 6 months professional thesis or internship:

- 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 report and an oral dissertation in front of a jury.

The SEEDS (Space Exploration and Development Systems) international placement is a 6-month optional extra project. The students will work in multidisciplinary teams on space exploration research projects, designed in collaboration with advisors from the space industry within ISAE-SUPAERO, Politecnico di Torino in Italy and the University of Leicester in UK. The program is supported and endorsed by the Italian (ASI), French (CNES) and UK Space Agencies, as well as Thales Alenia Space, ALTEC and numerous other companies and institutions, ESA (European Space Agency).