In Paris

IPSA
AERONAUTICS & SPACE ENGINEERING SCHOOL

100% ENGLISH

1 OR 2 YEARS

FULL-TIME

MASTER OF SCIENCE IN AEROSPACE PROPULSION

BECOME A KEY PLAYER IN AEROSPACE INNOVATION!

IPSA prepares you to be a bold, creative, and innovative graduate ready to make a difference in the aerospace propulsion sector.
Our MSc program immerses you in the most exciting technical challenges, equipping you with the tools to tackle them head-on. Join us to transform your ideas into real-world solutions in an increasingly competitive and climate-conscious landscape.

- Aerospace propulsion Expert
- Aerospace propulsion Project manager
- Aerospace propulsion Design Offices
- Aerospace propulsion Testing
- In start-ups, labs or major groups (SAFRAN, etc.)

PROCESS

Submission of application, Validation of the candidacy, Online interview, Admission results

REQUIREMENTS

In M1 : 3-year Bachelor of Engineering
In M2: 4-year Bachelor of Engineering or higher

FEES

Application fees: 60€
Tuition fees: 12 595€ per year

DEADLINE

June 30

More information : ipsa.fr/en/master-of-science-aerospace-propulsion

- **Application by email to HYPERLINK freemover@ipsa.fr**
- **Transcripts of the full bachelor's degree**
- **Copy of Highest diploma or certificate of enrollment**
- **2 letters of recommendation**
- **TOEFL (80 IBT), TOEIC (785), or IELTS (6.0)**
- **Motivation letter**

	TEACHING UNIT	MODULE	
SEMESTER 1 **20 ECTS** **Courses**	Human Sciences and languages	• Intensive French language for Engineers • Cultural Integration Workshop • For foreign students, English for French-speaking students	
	Engineering sciences	• Systems Engineering – Innovation • Introduction to 3D printing • Numerical techniques for resolving PDEs • Introduction to Mechanical vibrations and Structural Dynamics	
	Specialization	• Fluid-Structures interactions • Climatic Engineering • Fluid Dynamics	
SEMESTER 2 **40 ECTS** **Courses +** **4-month of** **internship**	Languages	• French language for Engineers	
	Engineering sciences	• Quality – Regulation – Standards – Lean *optional* • Multiphysical systems graphical representation • Basic principle of aircraft design and eco-design • Flight mechanics : flying qualities	
	Specialization	• Fluid dynamics • Power generation and hydrogen • Theory pf plates and shells • Numerical calculations in structural mechanics (FEM)	
	Aeronautics and space	• Design of turbomachinery • Thermal engine for UAV • Nuclear energy and propulsion • Aeroacoustics initiation	
	Professional integration	• Internship information • Internship report • Industrial Evaluation	
SEMESTER 3 **40 ECTS** **Courses**	Human Sciences, languages and Professional integration	• French language for engineers *optional* • Human Factor and HMI – Risk analysis and safety • Knowledge & integration in industrial environment • Cybersecurity initiation • Reliability: AMDEC methodology • Project	
	Specialization	• Hypersonic aerodynamics introduction • Vibration dynamics of plates and shells • Reliability & fatigue of structures • Airborn and ground payload • Computational Fluid Dynamics (CFD)	
	Aeronautics and space	• Turbomachinery and design project for a turbojet reactor • Combustion • Space propulsion systems • Numerical calculations in heat transfer • Aeroacoustics • Turbulence	• Electric and nuclear propulsion in spacecraft • Launchers and Satellite design • Conception of a space mission
SEMESTER 4 **20 ECTS** **4 to 6 months** **of internship**		• Thesis report • Oral presentation • Industrial evaluation	