MSc&T SBS Master of Science & Technology

Space Business Strategy
As countries across the world work to remain at the forefront of the global Space Tech wave, numerous Aerospace companies, business units, startups and programs emerge and thrive each year. These entities also strive to meet sustainability goals, which have become increasingly essential in all sectors of society and the economy.

Space Systems and the economy are inextricably linked to our planet’s ecosystem which demands our constant and devoted attention.

Business trends throughout the Space sector have reached all-time highs, with each new year passing previous records for Launch services, in orbit operations, constellation and communication services, and space data analytics.

This Program aims to match transversal technical know-how with business acumen, client behavioral comprehension and entrepreneurial boldness, all of which are key to the current and future development of Space organizations.

I am sure that this program will exceed your expectations and will have an incredibly positive impact on your professional career.

Thomas Garnier
Academic Director of the MSc&T
Space Business Strategy
Work experience

Opportunity for part-time professional experience throughout the year (oct-may)

Experienced professionals holding part-time positions with employers

Internships
Main modules include

<table>
<thead>
<tr>
<th>SPACES PROJECT, PRODUCT, PROGRAM AND ECOSYSTEM</th>
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<tbody>
<tr>
<td>• Discover Space technologies and space environment.</td>
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<tr>
<td>• Gain insights on old &amp; new ways to structure and manage products and global programs for commercial and exploration uses.</td>
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<tr>
<td>• OldSpace, NewSpace, Client and partner typologies.</td>
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<thead>
<tr>
<th>SUSTAINABLE SPACE</th>
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<tr>
<td>• How to act both from earth and on orbit against debris and other space pollutions.</td>
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<tr>
<td>• Eco-design and sustainability of future space products, from R&amp;D phases to End of Life (Life Cycle assessment).</td>
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<td>• Carbon footprint of the Space Industry.</td>
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<td>• Sustainable Space Design.</td>
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<td>• Use of Space Data for Earth Sustainability.</td>
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<tr>
<th>SPACE VENTURE, FINANCES, AND ECONOMY</th>
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<tr>
<td>• Fundraising and company/program financing options (dilutive or not).</td>
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<td>• Fundraising specifics in the Space sector.</td>
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<td>• Data Room and how to prepare the company for a fundraiser.</td>
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<tr>
<th>NEXTSPACE AND DATA APPLICATIONS IN BUSINESS</th>
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<tr>
<td>• Future tech, future of exploration.</td>
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<tr>
<td>• Technological breakthroughs (current and future).</td>
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<tr>
<td>• AI and Cybersecurity in Space.</td>
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<td>• Space Data products and commercial applications.</td>
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<tr>
<th>SPACE LAW, POLICY, ETHICS, GEOPOLITICS, AND CONTRACTS</th>
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<tr>
<td>• Legal and technical challenges raised by new space activities.</td>
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<tr>
<td>• Space laws.</td>
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<tr>
<td>• Administrative challenges and requirements.</td>
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<tr>
<td>• International law (UN, COPUOS, etc.).</td>
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<tr>
<td>• Laws, Policies and Space Advocacy at various operating levels (US, CN, EUR, RUS, BRICS, ESA, UN).</td>
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<tr>
<td>• Space Insurance. Space Geopolitics.</td>
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<tr>
<td>• Mediation in case of contract litigations/enfringement. Moot court simulation.</td>
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<tr>
<td>• Specifics of Space Data law.</td>
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<tr>
<th>PROFESSIONAL PROJECT AND INDIVIDUAL RESEARCH THESIS</th>
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<tr>
<td>• Space networks and lobbies.</td>
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<td>• Innovative personal branding and recruitment process.</td>
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<td>• Professional communication.</td>
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<tr>
<td>• How to build up a Research Thesis.</td>
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Program Calendar

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<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>T5</th>
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<tr>
<td></td>
<td>October</td>
<td>December</td>
<td>March</td>
<td>June</td>
<td>September</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>December</td>
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- Taught modules + Part-time work experience + Academic projects
- Fulltime Internship + Master Thesis

15-16 months

- The Program starts early October and ends late May the next year.
- The taught modules and part-time work experience are intertwined on a 1 week taught / 1 week work basis.
- A clear agenda will be provided at the beginning of the year thus allowing students to plan for work-weeks and any logistics.

Team projects & relevant case studies

**Sustainable Space Growth project**
Design a Sustainable product (hardware, software, data-based, service) adapted to customer requirements, plan, prototype and prepare industrialisation.

2 SEMESTERS

**Space Startup Bootcamp**
Immersive 1 week bootcamp: create your very own Space Startup

1 WEEK

**Pre-fundraising Dataroom ramp-up**

2 DAYS

**Immersive Serious Game**
A transverse Emergency Team reacts to a Cataclysmic Climatic event

1 WEEK

**Moot court for contract terms infringement**
Simulate a court process based upon contract infringement, thrive and win the case!

2 DAYS

**International business contract negotiation**
Dive into the depths and intricacies of negotiating a complex business contract

1 DAY
About Us

Paris-Saclay University is ranked 15th worldwide and N°1 European Institution in the 2023 Shanghai World Ranking.

CentraleSupélec, which is part of the renowned Paris-Saclay research university, occupies an important position within the Engineering and Systems Sciences Graduate School. Artificial Intelligence is central to academic courses at the Graduate School, as well as in the research labs.

Today, CentraleSupélec has all the assets to meet the needs of 21st century companies and businesses:

- Training multidisciplinary entrepreneurial engineers and experts in complex systems;
- Developing innovative responses to major technological, economic, social and environmental challenges through research;
- Enabling working professionals to acquire the skills they need to adapt to change and make their companies more competitive. CentraleSupélec develops its academic excellence and research through robust and fruitful cooperation with major national organizations such as CNRS, CEA, INRIA, INSERM and ONERA.

The School is a founding member of the University of Paris-Saclay, the T.I.M.E. network, the Alliance 4Tech, a strategic partner of the ESSEC Business School and president of the Écoles Centrale Group.
The University of Versailles Saint-Quentin-en-Yvelines

The University of Versailles Saint-Quentin-en-Yvelines (UVSQ) has 20,000 students enrolled in over 200 programs. UVSQ's main focus is on innovative teaching methods, preparing students for the job market, and making its courses more international. The university also has a strong emphasis on conducting high-quality research.

UVSQ boasts 1,000 professors and researchers, along with 480 PhD students, who collaborate in 37 research organizations. In 2020, the Shanghai ranking recognized UVSQ as the top university in France for atmospheric sciences, particularly in the field of space research.

The university actively participates in around twenty investment programs, contributing to projects that have significant value and technology transfer potential. These projects involve partnerships with industries in sectors that are strategically important for the French economy.

In June 2023, the global regional consortium «L’académie spatiale SPACE IDF» was honored with the «Compétences et métiers d’avenir» award and received a grant of €21 million in order to develop and bolster Space-related, market-adapted Space degrees (Bachelor, Master, Doctorate, Summer schools, etc). This Academy notably relies on UVSQ’s expertise in space research, noticeably the LATMOS Research Lab (Laboratoire Atmosphères, Milieux, Observations Spatiales, UVSQ, Sorbonne, CNRS, CNES), which recently launched two nanosatellites to study climate. The academy also utilizes specific training programs related to space, such as the «Enjeux du spatial et nouvelles applications - NEWSPACE» MEng degree, introduced in 2021 by OVSQ, UVSQ’s Observatory for Universe Sciences.
The Faculté Jean Monnet at Université Paris-Saclay offers various courses in law, economics, and management, from bachelor’s to doctorate degrees. In 2000, they established the first teaching and research center dedicated to space law in France at the request of the CNES, the European Space Agency, and the European space industry.

This center focuses on four pillars: the Institut Droit, ESpaces et Technologie (IDEST) research laboratory, the Master’s degree (M2 DAST) specializing in space and telecommunications law, the Technology and Progress Chair, and the Scientific Interest Group with CNES on space law and innovative sectors.

IDEST is recognized by the UN as one of the most active research teams in this field. They work closely with professional circles to train PhDs, organize international symposia, and publish articles and books on innovative subjects related to outer space, airspace/atmosphere, and cyberspace. They approach research from legal, policy, and application perspectives.

The DAST Master’s degree was created in 2002 with support from the professional world to meet the demand for highly qualified graduates in rapidly expanding sectors. It was the world’s first degree to combine the study of space and telecommunications law and later expanded to include the aeronautics sector. The M2 DAST provides a professional, interdisciplinary, and international training program for students interested in strategic technologies such as space, aeronautics, digital, and defense. The program emphasizes close contact with the job market, including lectures by professionals, courses held at prestigious companies and institutions, professional visits, projects with Master’s partners, and an international alumni network. Since 2017, the Master’s program has been delivered on an apprenticeship course basis. Considering their expertise, Idiest and its teaching team decided to take part in creating the MSc&T Space Business Strategy.

Faculté Jean Monnet

The Faculté Jean Monnet at Université Paris-Saclay offers various courses in law, economics, and management, from bachelor’s to doctorate degrees. In 2000, they established the first teaching and research center dedicated to space law in France at the request of the CNES, the European Space Agency, and the European space industry.
Space Business Strategy

Professors and lecturers

Thomas Garnier
Academic Director of the MSc&T Space Business Strategy

We want to enable our students to be cornerstones of growth and sustainable development during their professional life in the Space Sector. Ideating a product prototype, making a program go international, opening up business units, reducing corporations carbon footprints, signing a complex business contract abroad, creating drastically innovative solutions to clean space of debris and pollution, creating future Space Unicorns. Anything, but with pace, wisdom and wit.

Rodolphe Rosier
Deputy Director of Entrepreneurship @ CentraleSupélec

Space: the final frontier. Throughout this MSc&T, it’s a one-year mission: to explore new agile methods; to seek out new applications and new business models; to boldly go where no man has gone before.

Philippe Achilleas
Full Professor of Law, University Paris-Saclay, Director of IDEST Institute

Law is an essential component for the success of any space endeavor.

Benjamin Pavie
Associate VC @ Expansion Fund

Thanks to this new MSc, you will master the intricacies of the space sector and embark in this exciting and booming industry.

Philippe Keckhut
Space Physicist, Vice President for Research & Innovation, University of Versailles St Quentin

The disruption experienced by the space sector today is leading to the emergence of a multitude of a new professions that require cross-expertise.

Marie Gallart
Strategic Product Manager @ ASTREOS

The SpaceTech scene is a fantastic and versatile playground. Positionning market needs and pains at the heart of the company’s Product and Business Strategy is key to success.
Experts’ take

“Great Program, looks like a hands-on Business & Corporate Strategy degree for junior and senior professionals alike. Just what the Space Industry needs!”
Clémence Cambourian, COO @ Astreos

“The essential training for anyone who wants to get into the space industry, whatever their dreams, ambitions, or skills might be.”
Christelle Astorg, Managing Director @ Starburst France & Blast Accelerator

“This Program is well in line with market needs and should equip its students with a strong understanding of the Space market and environment as well as its current and future challenges.”
Maxime Valençon, Bid Manager @ Astroscale UK

“This Degree covers all themes necessary to a good understanding of the current space market. Lectures and application cases cover the entire value chain, from historical players to emerging ones. It displays key modules for capturing ambitious projects and new customers.”
Jean-Emmanuel Roty, Space Systems Engineer (Satellite Constellation Scale-Up)

Where the degree can take you

These fields of expertise are complimentary, intrinsically linked and key to understanding the opportunities

Science or Engineering
- Engineering Team Manager
- Pre Sales expert
- Bid Manager
- Strategic Product Manager
- Program Manager

Law
- General Counsel in a Space startup / company
- Lawyer specialized in Space contracts
- Lobbyist / Space Advocate alongside political bodies (UN, EU, ESA, etc)

Business/marketing/Management
- Key Account Manager
- Business Developer
- Strategist
- Head of Sales
ADMISSIONS
APPLICATION FILES SHOULD BE A SINGLE PDF FILE INCLUDING:
• A resume
• A motivational letter
• A portfolio of past projects and experiences
• 2 letters of reference
Applications will be reviewed fairly, and interviews will be conducted with pre-selected applicants.

WHO CAN APPLY?

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<thead>
<tr>
<th>PROGRAM</th>
<th>REQUIREMENTS</th>
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<tr>
<td>BACHELOR</td>
<td>work experience or strong maturity and professional project</td>
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<tr>
<td>MASTER</td>
<td>through an academic partnership</td>
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<tr>
<td>MASTER-1</td>
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<tr>
<td>EXECUTIVE</td>
<td>any degree and academic file</td>
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<tr>
<td>CANDIDATE</td>
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FINANCING
Tuition fees: € 18,000 including a €1,800 deposit. The deposit is payable upon acceptance into the program and before registration. This amount is later deducted from your tuition fees.

MORE INFORMATION
For any further information, contact us at:
admissions@centralesupelec.fr

FOLLOW US
www.centralesupelec.fr