France is the world’s second-largest exporter of aeronautics (after the United States and ahead of Germany); in Europe, it plays a pivotal role in aeronautical assembly. Flagship programs have earned the nation’s aeronautics industry world-class status. These include the Ariane rocket (the generic designation for a family of European satellite launch vehicles), the Airbus A380 consortium, and the Rafale fighter aircraft.

A sector of excellence, the French aerospace industry comprises several subsectors: passenger aircraft, combat and special-purpose aircraft, helicopters, launchers, satellites, and missiles. The complementary supply chains for these subsectors embrace all of the know-how needed to mount and sustain a civil or military manufacturing program.

Based in Toulouse, France’s Aerospace Valley is Europe’s largest center of employment in the field of aeronautics and aerospace. The nation’s aeronautics and space industry is one of the few manufacturing sectors in which employment has grown and where high-quality jobs predominate—nearly 40% of the workforce consists of engineers and managers. Demand for skilled employees (technicians, welders, metalworkers) is so great that the sector has trouble meeting it.

The French postsecondary system provides training for aeronautics and aerospace occupations at all levels, from vocational certificates offered in secondary schools to post-Master programs. Programs are taught either in French or in English. 
AERONAUTICS – AEROSPACE

**AERONAUTICS – AEROSPACE**

**MENTION COMPLÉMENTAIRE (MC)**
(BACCALAURÉAT + 1 YEAR OF POSTSECONDARY STUDY) – L1
The MC in aeronautics is offered at education and training centers in a dozen French cities. Three options are available: avionics, turbine-engine airplanes, and turbine-engine helicopters.

**BREVET DE TECHNICIEN SUPÉRIEUR (BTS)**
(BACCALAURÉAT + 2 YEARS OF POSTSECONDARY STUDY) – L2
The BTS in aeronautics is offered in public and private high schools and training centers in a dozen French cities.

**INSTITUTION-SPECIFIC DIPLOMA**
(BACCALAURÉAT + 2 YEARS OF POSTSECONDARY STUDY) – L2
A diploma recognizing the recipient as a civil aviation technician is offered by ENAC, the National School of Civil Aviation. Recipients are future runway crew leaders, refueling managers, and air-traffic controllers, among other functions.

**LICENCE PROFESSIONNELLE**
(L2 + 1 YEAR OF POSTSECONDARY STUDY) – L3
A licence professionnelle is awarded in science and technology with majors and specializations in aeronautics (maintenance of multi-technical aeronautical systems). Students majoring in networks and telecommunications may elect a specialization in aeronautical and space electronics. The major in manufacturing offers a specialization in aeronautics (aeronautical design and production).

**BACHELOR**
(BACCALAURÉAT + 3 YEARS OF POSTSECONDARY STUDY) – L3
This bachelor’s degree from the Toulouse Business School is part of the aviation management track offered in partnership with ENAC.

**DIPLÔME INTERUNIVERSITAIRE (DIU)**
(BACCALAURÉAT + 5 YEARS OF POSTSECONDARY STUDY) – M1
Several relevant concentrations and specializations are possible in master’s programs in science, technology, and health:
• Concentration in aeronautical maintenance;
• Concentration in aeronautics and space structures);
• Concentration in mechanics, physics, and engineering (specialization in aeronautics and space);
• Concentration in physics and astrophysics (specialization in aeronautics and space).

**MASTER**
(BACCALAURÉAT + 5 YEARS OF POSTSECONDARY STUDY) – M2
The engineering school at the University of Bordeaux offers a master’s in engineering and maintenance of aeronautics and transportation systems. In schools of engineering, several pertinent specializations are possible in programs leading to a master, the national engineering diploma, or the equivalent:
• Engineering and maintenance of aeronautics and transportation systems;
• Engineering of electronic air safety systems;
• Air-traffic management and control;
• Aeronautics and space mechanics;
• Air and ground transportation.

Programs taught in English include:
• Master of Science in Aeronautics and Space: www.ec-lyon.fr/en/academics/master-programs/international-master-programs/masters-aeronautics-space
• Master of Science in Aeronautics and Space Systems: https://www.isae-supao.fr/en/academics/masters/isae-supao-master-s-program/
• Master of Science in Aeronautical Mechanics and Energetics: https://www.isae-supao.fr/fr/formations/masters/l-offre-de-masters/

**DIPLÔME/TITRE D’INGÉNIEUR – EQUIVALENT TO MASTER**
(BACCALAURÉAT + 5 YEARS OF POSTSECONDARY STUDY) – M2
France’s schools of engineering deliver diplomas accredited by CTI, the commission on engineering degrees:
• CNAM, the National Conservatory of Arts and Crafts, specialization in aeronautics and space, in partnership with ISAE-ENSMA and AEROTEAM.
• ENAC, the National School of Civil Aviation:
  www.enac.fr/fr/ingenieur-enac
• ISAE-ENSMA, the National School of Mechanics and Aerotechnics, focuses on air and ground transportation: www.isae-ensma.fr
• ESTACA, the Higher School of Aeronautics and Automobile Contraction, enables students to acquire multidisciplinary competence in engineering, with a focus on transportation: www.estaca.fr
• ISAE-SUPAERO, the Higher Institute of Aeronautics and Space: https://www.isae.fr

**POST-MASTER LEVEL**

**MASTER SPÉCIALISÉ**
(MASTER + 1 YEAR OF POSTSECONDARY STUDY)
About 20 Masteres Spécialisés—specialized post-master programs accredited by the Conférence des Grandes Écoles and offered in schools of engineering such as ENSAM, ENSEIRB-MATMECA, and ISAE—allow students to acquire new or complementary expertise in aeronautical and aerospace engineering.

A dozen such programs are taught in English:
• Aircraft and helicopter engineering; Air operations and maintenance; Aerospace project management; Embedded systems; Experimental flight; Maintenance and support; Processes for aeronautical structures; Safety aircraft; Space communication systems.
• Management of aeronautical industry projects; Aeronautics and space structures; Embedded lighting systems; Aerospace propulsion systems; Aeronautics and space communications and networks.

Information on the Mastère Spécialisé diploma:
www.campusfrance.org >Resources center>Educational and Research programs>Degree description>Masters specialists