AVIATION SAFETY: AIRCRAFT AIRWORTHINESS

ADVANCED MASTER

WITH ÉCOLE DE L'AIR & DE L'ESPACE SALON-DE-PROVENCE, ENAC ÉCOLE NATIONALE DE L'AVIATION CIVILE

ONE YEAR FULL TIME

- 6 months of courses
- 6 months of professional thesis or internship.

TEACHING LANGUAGE

- English

START OF CLASSES

- End of september

LOCATION

- ISAE-SUPAERO, Toulouse, France
- ENAC, Toulouse, France
- École de l'Air et de l'Espace, Salon de Provence, France

KEY POINTS

- Unique in Europe since 1991.
- Open to non-aeronautical profiles.

HEADS OF PROGRAM

- ISAE-SUPAERO: Prof. Joël JEZEGOU
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- ENAC: Prof. Jean-François PETIT
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More information

OBJECTIVES

Airworthiness plays a pivotal role in aviation safety and development, guaranteeing that design, manufacture, operation and maintenance of aircraft, engines and systems are suitable for safe flight. It is supported by an overall process for which solid regulatory and technical knowledge is necessary.

WHAT? The ASAA Advanced Master provides the required high-level skills and competencies in the fields of airworthiness regulations, aircraft and systems design and certification, continued airworthiness and operation. It has been designed to meet demand from industry and governmental authorities for specific profiles of airworthiness or certification engineers.

HOW? To further improve safety within a growing aviation industry, and to efficiently and safely introduce new technologies and innovative aircraft architectures, this program delivers relevant methodologies and keys to enhance certification approaches for civil and military aircraft.

LEARNING APPROACH

1st semester:

Academic session of courses from October to March.
A well-structured progressive approach through:

- lecture, projects, tutorials,
- visits to aeronautical industries,
- an Integrated Team Project to apply learnings on job-based situations.

2nd semester:

Students are required to conduct a 4 to 6 months professional thesis or internship.

- with an aerospace company or in a laboratory,
- in France or Abroad,

supervised by a tutor from the host organization and from ISAE-SUPAERO or ENAC or Ecole de l'Air.

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

CAREER OPPORTUNITIES

The program fully matches job market expectations for certification or airworthiness engineer positions. It offers a wide range of job opportunities within civil or military aircraft – engines – systems manufacturers, suppliers, airlines and aviation safety authorities.

JOBS OUTCOMES

- certification engineers
- continuing airworthiness engineer
- technical certification support engineer
- airworthiness engineers

Companies recruiting our students

EASA, Transport Canada, ANAC, DGAC and other National Aviation Authorities, OSAC, Airbus, ATR Aircraft, Dassault Aviation, Daher, Aura Aero, Pilatus (Switzerland), Embraer (Brazil), Flying Whales, COMAC (China), AVIC (China), Lilium GmbH (Germany), Pipistrel (Slovenia), Hal (India), French Ministry of Defence, Brasilian Air Force, Greek Air Force, Expleo, AKKODIS, ALTEN, SII Group.

SYLLABUS

Part 1: *Certification Procedures*

- *Certification Procedures*
- *Change to Type Certificate*

Part 2: *Transverse Certification Items*

- *Environmental Certification*
- *Human Factors*
- *Normal-Category Aircraft and Unconventional Products Certification;*
- *Safety and Design Requirements for Systems*

Part 3: *Aircraft Certification*

- *Flight*
- *Structure*
- *Avionics*
- *General Systems & Cabin*
- *Engine and powerplant*

Part 4: *Integrated Team Project (ITP)*

- *Certification Plan ITP*
- *Safety and Regulatory Intelligence ITP*

Part 5: *Continuing Airworthiness and Operations*

- *In-Service Occurence Management*
- *Continuing Airworthiness*
- *Operations & Operational Certification*

Part 6: *Airworthiness of State Aircraft*

- *Airworthiness of State Aircraft*

TESTIMONIES

EDOUARDO DE MORAIS

Class of 2020-2021

I have always been an aeronautics fan, which guided my studies and career. I graduated in Aeronautical Engineering and obtained a Master in Aerospace Engineering, which led me to work as an aviation specialist with the civil aviation authority. Aviation is a dynamic and exciting environment to work in. It applies the most modern technologies and regulations in order to deliver the safe and sustainable flight transportation that the public need. I was excited to have the opportunity to study at ISAE-SUPAERO, which is renowned for its quality of education and research. I applied for the Advanced Master - Aviation Safety Aircraft Airworthiness attracted by its competent training environment where I would better develop the professional skills required for my field. My objectives were to develop **a deeper understanding of airworthiness and to learn from seeing the different perspectives of the university, industry and the authorities.**

The Advanced Master provides students with the opportunity to learn the best practices from professionals in the industry. Tutors are experts in their fields, whose experience enriches the pedagogical aspects of their training. The course is well prepared and structured to develop a good understanding of the related topics. **The fundamentals of each subject are presented along with the state-of-the-art new technologies, tendencies and regulations.** The program is closely conducted by the course directors who continuously support the students and the class. The presence of colleagues from all over the world also provides an interesting multicultural international environment where students can develop or expand their professional network and make friends.

NIRAJ WADHER

Class of 2020-2021

Having completed a year working with the Chief Engineering department at Airbus, I was drawn to the topics of safety and airworthiness and knew I wanted to pursue this field. I researched available courses at universities throughout Europe and the course at ISAE-SUPAERO stood out to me. I was already aware of **the high quality of teaching and resources available to students at SUPAERO and was specifically drawn to the varied curriculum offered by the MS ASAA course which included both technical and operational aspects.** In addition to this, a large proportion of the course was to be taught by industry experts giving a good insight into the applications of regulations to real problems. This course was unique as it combined teaching with practical application of the skills learned in the end of studies internship, all of which could be completed in one year.
The partnership with ENAC and Ecole de l'Air also gave access to different points of view.

The Advanced Master is **perfectly designed to target the needs of aerospace companies** today and is taught by the people best placed to provide this guidance.