



POST-MASTER DEGREE AERONAUTICAL OPERATIONS AND MAINTENANCE

STUDY IN ENGLISH, LIVE IN PARIS



EXPANDING HORIZONS OF MOBILITY

Groupe **Isae**

AN INNOVATIVE PROGRAM CLOSELY ALIGNED WITH INDUSTRIAL REQUIREMENTS



The modern air transport industry needs engineers who have more than the traditional technical skills. The airlines has to ensure global security at an affordable cost. Their engineers need a global view of the legal and economic environment as well as an in-depth understanding of operations and maintenance processes in order to cope with a growing international competition and a complex regulatory framework.

PROGRAM IN BRIEF

Aim

Acquire the skills to understand the organization and the economy of the air transport industry.

Program benefits

- Teaching faculty heavily involved in the industrial sector;
- Global overview of the air transport industry.

Skills acquired

- Implementation and execution of aircraft maintenance and airline operations from the perspective of a manufacturer, maintenance operator and airline;
- Ability to work within the constraints of aeronautics regulations;
- Understanding of European (EASA) and US (FAA) regulations;
- Understanding of relationships between airworthiness authorities, manufacturers, airlines, airports and MRO operators.

400 hours of academic coursework: (October to mid-February)

- Regulatory environment (in Europe and the United States);
- Airline operations;
- MRO operations;
- Engineering skills.

6 months minimum of in-company operational training followed by a professional thesis defense (February - August).

Assessment

- Teaching modules assessed via exams and case studies;
- Academic project & Professional thesis assessed via dissertation.

Job prospects

- Aeronautical supply chain for manufacturer and equipment providers or/and airlines.
- Maintenance department manager, project manager for aircraft maintenance operations, project manager for an aircraft interior redesign operation, etc.
- Maintenance and support departments for aircraft manufacturers, aircraft maintenance operators, airlines and airport operators.
- Flight safety manager, quality manager in an airline or an airport operator.

Industrial partners

Air France (Airline & MRO) , Airbus Group , ADP (Aéroports de Paris), Zodiac Aerospace.

Course breakdown: Lectures, case studies, team work project and management,

Language: English

Number of credits: 75 ECTS

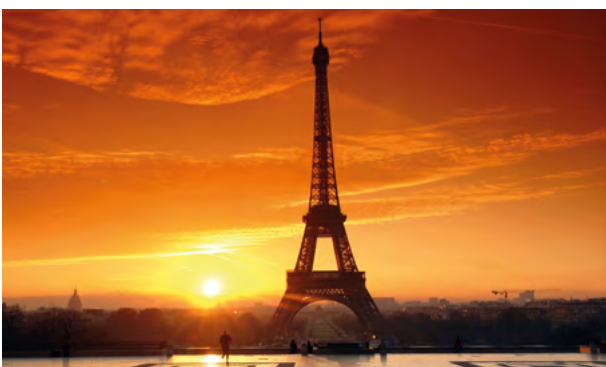


ESTACA offers a new Post-Master degree in aeronautical operations and maintenance that applies to Airline, MRO operators, Airport operators, Aeronautical logistic and air manufacturing companies.

The aim of this one-year program is to offer students the means to understand the organization and the economy of the air transport industry. They will be in close contact with our partners (Aircraft manufacturers, Airlines, MRO operators, Airport operators) so they will be able to apply their theoretical knowledge directly to real cases.

The Air Rules are the cornerstone of this course and are studied with different approaches.

Marc WEBER, Program Director





MODULES & SUPPORTING COMPANIES

AIR RULES - AIR FRANCE - ESTACA

ICAO, FAA and EAA regulations presentation

28 Student Hours - 3 ECTS credits

AIR SAFETY & SECURITY - IASA - AMBASSADAIR

Risk management

Current regulations and possible evolutions

The lessons learned process

Airline security and safety

CRM

Crew Management & Cockpit Ergonomy

22 Student Hours - 2 ECTS credits

CERTIFICATION & AIRWORTHINESS - DGAC

Initial Certification process (4EASA 1 FAA)

Modifications management

Airworthiness management

STATE OWNED AIRCRAFT AIRWORTHINESS - DGA

30 Student Hours - 4 ECTS credits

THE AIR TRANSPORT MARKET - ESTACA

The Air Transport Business

Air Manufacturing Business

ECONOMY & STRATEGY - ESTACA

Understand the future of aviation in tomorrows world

AIR ECONOMICS - ESTACA

Economy & Management applied to the aeronautical world

MANUFACTURER - AIRLINES RELATIONSHIP - AIRBUS

Airline services

The Airline/Manufacturer relationship

39 Student Hours - 4 ECTS credits

AIRLINE OPERATIONS - AIR FRANCE

Reminder of the main legal texts

Introduction to a FCOM (public transport)

Ground operations

Airline general organization

Flights management

24 Student Hours - 3 ECTS credits

AIRPORT OPERATIONS - ADP

ATM / Airport operation links

Airport operations

Slots regulation

12 Student Hours - 1 ECTS credits

MAINTENANCE PROGRAM

DESCRIPTION - AIR FRANCE INDUSTRIES

Applicable regulations

The MRBB process

Maintenance documentation

Maintenance program Design

Cost management

Introduction to ILS

27 Student Hours - 4 ECTS credits

CAMO - AD SOFTWARE

Introduction to CAMO

Applicable Rules

Team Work (application of Aircraft maintenance and Systems maintenance notion to a real CAMO)

18 Student Hours - 3 ECTS credits

MAINTENANCE PROCESSES - MRO ADVISORS

Maintenance processes and regulation evolutions

STATE OWNED AIRCRAFT - DGA

27 Student Hours - 4 ECTS credits

PROJECT MANAGEMENT - ZODIAC & ESTACA

Project management tools

Functional Analysis

Serious game

40 Student Hours - 4 ECTS credits

PURCHASING

Buying economics for aeronautics

10 Student Hours - 1 ECTS credits

**DEPENDABILITY MANAGEMENT
SUPPLY CHAIN**

18 Student Hours - 2 ECTS credits

REACH REGULATION - ESTACA

Introduction to REACH

4 Student Hours

NDI (NON DESTRUCTIVE INVESTIGATIONS) - ESTACA

Introduction to NDI

4 Student Hours

TECHNICAL ENGLISH

Vocabulary, Syntax and architecture of different technical texts (SB, OMM, TMM, JAR, FAR...)

20 Student Hours - 2 ECTS credits

VISITS

35 Student Hours

FORUM ESTACA

Meeting with companies

15 Student Hours

PROJECT

Work on a technical or managerial issue given by our industrial partners

The teams will be monitored by an industry tutor

A written and oral report will be required

12 Hours with tutor - 120 Student Hours - 2 ECTS credits

MAINTENANCE DESIGN - LGM

LEAN MANAGEMENT

Under construction

**IN-COMPANY OPERATIONAL TRAINING FOLLOWED BY
A PROFESSIONAL THESIS**

24 weeks minimum - 30 ECTS credits

TOTAL: 505 student hours - 45 ECTS credits
TOTAL WITH TRAINING: 75 ECTS credits

Note: the above program might be subject to minor changes.



**A QUALITY EDUCATION
COMBINING AERONAUTICAL
MAINTENANCE AND OPERATIONS**

I joined the Advanced Master Aeronautical Operations & Maintenance in October. Following general engineer training at INSA (telecommunications option) and a job as a consultant in corporate digital transformation I decided to go back to school. I chose ESTACA because they deal with aeronautical maintenance and operations together, not the case for other programmes which offer one or other of these topics. For me, this was a springboard to a profession and especially a sector I have been interested in and passionate about since secondary school.

The course completely lived up to my expectations. I very much enjoyed the classes, especially as they were given by professionals. They have an interesting viewpoint and know exactly what we will need subsequently in companies. Some modules are taught by ESTACA graduate engineers. Their experience and their networks are a great help in finding internships. The various high-level jobs they occupy in a wide range of companies in the sector are proof of the high quality education at ESTACA.

There is a great atmosphere between the students from different programmes and cultures (6 nationalities represented). It is highly enriching. In February, I will be starting a 6-month internship with Air France Industrie as a study engineer on the maintenance programme. Then, I would like to work in a company on aerial operations."

Tien-Dat NGUYEN, student in 2017-2018



**A MASTER WHICH PROVIDES YOU WITH THE
KNOWLEDGE AND SKILLS REQUIRED TO BE
DIRECTLY OPERATIONAL!**

I decided to join the «Operations and Maintenance» program to get an overall view of the air transportation field, in the respect of international regulations and maintenance issues.

During the year, we did several group projects with the support of experts working in a specific domain. My main project was to estimate the

cost of an aircraft dismantling operation, supervised by an MRO (Maintenance, Repair, and Overhaul) organization. I could study the regulations, standards and process in depth, also taking into consideration the economic point of view. That was really interesting. I warmly encourage people who want to work in the air operations and aircrafts maintenance to apply for this master.

Prabal COUNTCHAM, alumni 2015, Projects Engineer at ADP

ESTACA GRADUATE ENGINEERING SCHOOL

Founded in 1925, ESTACA is a member of ISAE group, 1st world cluster in aerospace training and research. ESTACA is highly specialized in the fields of aeronautics, automotive, space and railway industries.

The training courses constantly evolve to meet the requirements of companies and adapt to the emergence of new technologies or disciplines. ESTACA's graduates undertake the design, development and production of transport systems and components. The industry has ranked ESTACA among the best engineering schools for its expertise in the transportation fields.

ESTACA IN FIGURES

2

campuses: ESTACA-Paris Saclay and ESTACA Campus-Ouest in Laval, Mayenne

340

graduates per year

2050

students

8000

alumni

2

research teams

ISAE IN FIGURES

Group of the 4 most prestigious French engineering programs in Aerospace: SUP'AERO, ENSMA, EOAA, SUPMECA, ESTACA

4500

students at a high scientific level in aerospace

380

doctoral students

41500

alumni

650

faculty, researchers and engineers



ESTACA PARIS-SACLAY CAMPUS IN SAINT-QUENTIN-EN-YVELINES

Located west of Paris, 10 min. from « the Château de Versailles » and 30 min. from the Eiffel Tower, the ESTACA-Paris Saclay engineering school offers a wonderful environment for students on international programs. Opened in 2015, this new campus is 5 min. from the station Saint-Quentin-en-Yvelines, a town with ideal facilities for students in terms of accommodation, university restaurant, sports, culture, etc.

Saint-Quentin-en-Yvelines, located in the Paris-Saclay cluster, is the second economic hub west of Paris, and houses a great deal of industries in the transport sector and academic and scientific partners in phase with issues in the transport and mobility sectors. Many French «Grandes Écoles» and universities have set up here and together make up the Université Paris-Saclay, of international reputation, forming the training and research pole of the Paris-Saclay technological cluster, a sort of Silicon Valley «à la française».

PRACTICAL INFORMATION

Eligibility

This program is open to all foreign and French students holding a Master Degree (preferably in scientific fields, business master may also apply). Applicants proving 3 years of professional experience should have completed four years of studies in an engineering or business program (Master Level or Bachelor Degree).

Applicants should have English language proficiency (TOEFL iBT: 91, TOEIC: 850 or IELTS: 6.5)

Location

ESTACA Paris-Saclay campus in Saint-Quentin-en-Yvelines

Tuition fees

13 000 € (reduced fees for students graduating in the year of enrollment and ESTACA Alumni: 10 000 €)

Admission process

Admission upon application, possibly with an interview.

- Application Form available on the website:
www.admissions-estaca.fr
- Application period: application is to be sent before one of the 3 meeting dates of the selection board: March 30th, May 30th and June 30th

Degree accredited by the Conférence des Grandes Ecoles

www.cge.asso.fr

Keywords

Aircraft maintenance, aeronautics project management, airworthiness, fleet management, Aeronautics regulations, Airline operation, CAMO, FAA, EASA, ICAO



ESTACA - Paris Saclay

12 avenue Paul Delouvrier - RD 10
78180 Montigny-le-Bretonneux - France
Tél. : +33 (0)1 75 64 50 41

www.estaca.fr

Informations

international@estaca.fr