

# **AEROSPACE PROJECT MANAGEMENT (APM) ADVANCED MASTER**

## **Organization**

- ISAE-SUPAERO • Prof Philippe GIRARD [philippe.girard@isae-supaeero.fr](mailto:philippe.girard@isae-supaeero.fr)
- École de l' Air • Prof Pierre BARBAROUX [pierre.barbaroux@ecole-air.fr](mailto:pierre.barbaroux@ecole-air.fr)
- ENAC • Prof Nicolas PETEILH [nicolas.peteilh@enac.fr](mailto:nicolas.peteilh@enac.fr)

## **Course duration**

One year in full time – Start date: September

## **Location**

- ENAC (Toulouse - October & December to February)
- École de l' Air (Salon de Provence - October & November).
- ISAE-SUPAERO (Toulouse - December to February)

## **Teaching language**

English

## **Objectives**

Aerospace and Defence business is, by nature, complex and innovative, with high technical value added and strong political stakes. As a global business, it relies on specific industrial processes, characterized by long, costly and risky cycles (R & D, production, maintenance & support). In this particular context, project management activities require mastering a wide range of knowledge, know-how and expertise as well as strategic thinking and decision-making abilities which must be aligned with the specific needs and issues attached to aerospace & defence environments. To address these challenges and issues, ISAE-SUPAERO, Ecole de l' Air and ENAC join together to develop the Aerospace Project Management (APM) Advanced Master. This professionally-oriented Advanced Master provides students with an overview on military and civilian international Aerospace industry and delivers up-to-date skills, cutting-edge knowledge, and professional competences for successfully leading project teams in aerospace and defence industry.

## **Learning approach**

With an emphasis on operations, the program is designed to those beginning their career in project management or to professionals aiming at enhancing their competences for a fast career evolution. The program of the APM Advanced Master is taught by experts and lecturers with extensive aerospace project experience and background, thanks to the combination of formal presentations, in-class exercises and case studies, and professional conferences. The objective is to provide students with state-of the art knowledge, techniques and expertise in project management applied to Aerospace & Defence businesses.

## **Admission procedures**

*Academic requirements:* Candidates must hold a master's degree or an equivalent degree in science or engineering (or in management for advanced masters in management), or bachelor degree completed by 3 years of professional experience.

## SYLLABUS

The comprehensive training program is organized into four teaching parts:

### **First part: Global overview of aerospace & defence industry (60 hours)**

The first part provides students with an in-depth overview of world-wide aeronautics and space industries enabling them to have an overall understanding of technologies, products, innovation and strategy in the global, civilian and defence markets.

### **Second part: Methodology (207 hours)**

This part leads to a deep understanding of Project management tools and techniques (WBS, planning, needs specification, etc). Project management Models and Methods applied to Aerospace & Defence contexts are discussed, with a strong emphasis on the specificities of large-scale programs.

### **Third part: Economic and financial aspects (166 hours)**

This part leads to a good understanding of economic and industrial stakes for Nations, industries and firms, including evaluation of programs' costs and investment returns, but also technology and risk management during the various phases of a program's life-cycle.

### **Fourth part: knowledge management in multicultural team project (73 hours)**

This part underlines the necessity to integrate and federate competences around a common objective. Students will learn how to motivate people for a long term project, how to integrate intercultural management within international Program, avoid conflicts, and manage resistance to change.

*For each part, Risk evaluation and control will be systematically underscored as well as Quality concepts and indicators.*

### **Professional thesis**

During semester 2, students will conduct a professional thesis thanks to a 4 to 6 months' internship within an aerospace company, public agency or research lab, in France or abroad. The thesis will be concluded by the preparation of a report and an oral presentation in front of a jury made up with academics (professors from ISAE-SUPAERO, Ecole de l'Air and ENAC) and professionals (company's tutor).