

Aerospace Project Management (ISAE - École de l'Air - ENAC)

MS APM



Aims

Aeronautical, Space and Defense business is, by nature, complex, innovative with high added value. Placed at the heart of political, economic, environmental and technological issues, in France, in Europe and worldwide, it requires a prospective vision from decision makers. It is based on specific industrial processes, characterized by long, costly and risky cycles (R & D, production, maintenance & support).

Aerospace programs, either in civil or defence, are facing challenging concerns: competitiveness and high technologies development, global supply chain approaches, Government budget reduction, and internationalisation of resources. The development and industrialisation of new programs involves the collaboration of companies from many countries and cultures, several thousands engineers work in all regions around the world through IT platform and tools.

In this context, project management in aerospace environment requires mastering a wide scope of knowledge, know-how and expertise adapted to the specific needs and issues of this challenging worldwide business.

To answer to these concerns, ISAE, Ecole de l'Air and ENAC gather their expertises to develop the Aerospace Project Management (APM) specialized master.

The professionally-oriented APM Specialized Master provides students an overview on military or civil international Aerospace industry and gives up-to-date skills, cutting-edge knowledge, and necessary competences for successfully leading Project or Program teams in global aerospace and defence industry.

With an emphasis on operations, the program is intended to those beginning their career in management of projects or to professionals aiming at enhancing their competences for a

fast career evolution. The program of the MS APM is taught, by experts or lecturers with extensive aerospace project experience, with a combination of formal presentations, in-class exercises, or study cases. The objectives of this practical approach are to provide students with current techniques and tools in project management taking into account industrial, economical or legal specificities of the Aerospace business.

Organization

Heads of Program:

> **ISAE:** Prof Philippe Girard

E-mail: philippe.girard@isae.fr

> **Ecole de l'Air :** Commandant Yann Roberge

E-mail: yann.rbg@gmail.com

ENAC: Prof Nicolas Peteilh

> **E-mail:** nicolas.peteilh@enac.fr

Duration of studies: One year in full time or two years in part time

Beginning of classes: September

Location: ISAE campus SUPAERO Toulouse France and École de l'Air Salon de Provence and ENAC - France

Teaching language: English

Pedagogical approach

The comprehensive training program is organised into four teaching parts:

First part: Overall overview of aerospace industry (40 hours)

The first part provides the 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 stakes in the global civil and defence market.

Second part: methodology (170 hours)

This part leads to a good understanding of Project management tools (WBS, planning, needs specification, etc).

Models and Methods of Project management for Aerospace context with specificities for high stakes and long cycle programs.

Advanced Master in management

Accredited by the Conférence des Grandes Écoles

Third part: economic and financial (100 hours)

This part leads to a good understanding of economical stakes for nations or industries and the role of politics.

How to evaluate the cost of a long term program, the investment return hope, but also how to manage cost during development or manufacturing phase.

Fourth part: knowledge management in multicultural team project (60 hours)

This part underlines the necessity to integrate and federate competences around a common objective; how to motivate people for a long term project.

How to integrate intercultural management within international Program to avoid conflicts and change resistance.

In each of these parts the risks evaluation and control will be systematically underscored as well as Quality concepts and indicators dedicated to Aerospace context.

During semester 2, students have to conduct a professional thesis in aerospace industry or in laboratory, in France or abroad, supervised by a tutor from the host organisation and from ISAE or Ecole de l'Air. The thesis is concluded by the preparation of a report and an oral dissertation in front of jury.

Teaching staff

The teaching staff is composed of professors, lecturers and consultants for ISAE and Ecole de l'Air (CReA). Several consultants, experts into project management are invited to deliver their knowledge from their own experience.

On top of that many experts from industries, most of the time heads of aerospace programs will illustrate with parts of the courses.

Career opportunities

APM Specialized master Program leads students to integrate or to become Head of Aerospace program team. To conceive and pilot complex projects with permanent care of costs and risks control in Aerospace companies or in defense institutions.



Common ISAE's admission procedures

Advanced Masters in engineering

Academic requirements

Applicants must have a Master degree, or an equivalent degree in science or engineering, or a bachelor degree with 3 years of professional experience at least.

Possibility of studies funding by the Midi Pyrenees Regional Council for French and UE unemployed applicants

Tuition fees : 15000 €

French and European Students:

> 8000 € (students graduated in the year of enrolment or the year before and with no professional experience).

Selection and admission

Admission to ISAE's master at:

<http://AdmissionsMasters.isae.fr>

Selection and admission are made by an admission committee:

> possible interviews can be organized if necessary

Deadlines for application:

> several admission committees scheduled from March to July 2012, see schedule on our website: www.isae.fr

Application fees:

> 65 € (non-refundable)

Language qualification requested

- > TOEFL (Paper-based): 550,
- > TOEFL (IBT): 79,
- > TOEIC: 750,
- > IELTS: 6.0,
- > CAE Cambridge, ...

Your contacts at ISAE

- > **Laurence BALLARIN**, Senior Admission Advisor
laurence.ballarin@isae.fr
Phone : +33 (5) 61 33 80 22
- > **Marie JENTET**, Senior Admission Advisor
marie.jentet@isae.fr
Phone : +33 (5) 61 33 80 28
Web : www.isae.fr

ISAE in few words

The "Institut Supérieur de l'Aéronautique et de l'Espace" (ISAE) was created in 2007 from the merger of the two prestigious French postgraduate schools of engineering, SUPAERO and ENSICA. Today, ISAE, is a world-class higher institute for aerospace engineering education and research. Nowadays with a student corpus of over 1500, ISAE is one of Europe's largest Aerospace Institute offering graduates and postgraduates programs. Yearly, ISAE awards around 20% of master's degrees in Europe in aeronautics and space field. ISAE develops its worldwide reputation on the prestige of its master's programs, the fame of its teaching staff, or the excellence of its research but also on the high-value of its graduates, their skills in engineering or management, as well, their capacity to evolve within a very high-technology environment, their enterprising mind and international opening.

Key figures

- > 2 Graduate Engineering Programs: SUPAERO and ENSICA
- > 15 Specialized Masters including 11 in English
- > 3 Masters of Science
- > 6 Research Masters
- > 6 PhD Programs
- > 1500 students (1300 masters and 200 PhDs more or less)
- > 160 international cooperation opportunities
- > 50 academic and research partnerships

Identity card

Name: Institut Supérieur de l'Aéronautique et de l'Espace (ISAE)

Founded in 2007 - as the result of the merging of SUPAERO (1909) and ENSICA (1945)

Legal Status: A large public institution of scientific, cultural and vocational missions

Trustees: Délégation Générale pour l'Armement (DGA) [French Defence Procurement] - Ministry of Defense

Endorsements and awards: CTI agreement of the two Graduate Programs, Conference des 'Grandes Écoles', for postgraduate specialized masters Ministry of Higher Education and Research for Masters of Science

Staff: 420 permanent staff



Contacts ISAE

Email: communication@isae.fr

Address : ISAE - 10, avenue Édouard Belin - BP 54032 - 31055 Toulouse cedex 4 - France

Phone : 33 (0)5 61 33 80 80 - Fax : 33 (0)5 61 33 83 30

Web site: www.isae.fr