

MASI

THE MASTER

The Master of Engineering in Aircraft Systems Integration (MASI), sponsored by Airbus-Spain, has been specifically designed for recent graduate engineers, and working professionals, who want to develop and lead projects of Systems Integration.

Our courses are given in English by internationally recognized experts in their fields coming from the key players in the aeronautical business, including industry, academia, government and regulators.

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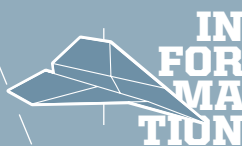
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MASI

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MASI

Master in Aircraft
Systems Integration





THE CHALLENGE

The increasing complexity in highly technological sectors such as aviation, defence, nuclear, energy... requires both a solid background on several engineering disciplines, and a broad systemic view for understanding the interrelationships and interdependencies between its components, processes, and agents (technical, human, organizational and management). As an example, the engineering of modern aircrafts, helicopters or unmanned aerial vehicles, requires to master many extremely complex systems (propulsion, navigation, communications...), highly interconnected, involving different technologies (mechanical, hydraulics, electrical, electronic, software...), functions (flight control, refuelling, surveillance...), human interfaces, safety regulations, etc.

In addition, competitive pressures of global economy have a big impact on the associated engineering, with much of its processes (design, development, manufacturing, assembling) being outsourced. In this global context, the traditional role of engineers as technical specialists is no longer valid, and it needs to be broadened to include the integration of systems as a key competence in order to ensure innovation and technological leadership.

THE MASTER

There is no single degree that provides the solid technical background and the global vision of processes through all stages of an aircraft system's lifecycle required to become an engineer in systems integration. In fact, it usually takes many years of professional experience to achieve the required know-how, and for this reason there is not enough systems integration engineers to meet the demand of the leading high-tech aerospace companies.

To respond to the increasing demand for these professionals, Carlos III University of Madrid and Airbus Spain have jointly designed the Master in Aircraft Systems Integration (MASI), a 1-year postgraduate program specifically aimed at recent graduate engineers, and working professionals, who want to develop and lead projects of Systems Integration.

THE PROGRAM

The MASI's curriculum is organized into five modules:

M1. Introductory Level.

Courses in the Introductory Level provide the technical knowledge necessary to understand how the different aircraft's systems work. In order to harmonize the different entry backgrounds, each student follows a personalized path of courses.

M2. Core Level.

The Core level is aimed at providing the global systemic vision required to manage the large and complex aeronautic projects. The focus is on the procedures, methodologies, tools and agents common in all systems integration projects. It includes general courses like Systems Engineering or Project Management, and others more specific for the aeronautical context, but transversal in the integration processes.

M3. Advanced Level.

In this level, the students apply the general knowledge gained in "core level" to the integration of specific systems, such as the navigation systems, communications, surveillance, powerplant, electric, fuel, etc.

M4. Industrial Placement.

The MASI program requires a part-time internship at an aerospace company. During the internship period (above 720 hours), the students will solve real integration problems under the supervision of a Company Mentor. In addition to the real-work experience, the industrial placement helps MASI students to create a network of contacts very useful for finding permanent employment in the company.

M5. Final Project.

The Final Project consists of the development of a complete system's integration project under the supervision of an industry or academic advisor. The project will make use of methods and tools learned in the MASI curriculum. The Final Project culminates in a written project report and an oral presentation.

WHO IS MASI FOR?

The Master program is designed for a wide range of profiles, such as:

- Professionals of the aviation industry, with experience in aircraft systems.
- Graduates in Aeronautical Engineering.
- Graduates in related technical fields:
 - Mechanical, Industrial, Electrical, Computer & Telecommunication Engineering.



ADMISSION

A complete application consists of the following:

- Resume, including details on:

- Your educational record in reverse chronological order, indicating dates of attendance and degree(s) earned.
- Employment history, with titles, dates, and whether you worked part-time or full-time.
- Foreign Language Proficiency
- All participants should have a good level of English
- International Experience
- Erasmus Exchanges, ...
- Any other relevant information.

- Cover Letter

• Prepare a cover letter (up to 500 words) seeking a place in the MASI Program. Describe your accomplishments and include an example of how you would be useful to an aerospace engineering organization.

- Academic Records (Transcripts)

- It must include the academic average grade.
- Please scan and upload copies of your academic records.
- Applicants invited to interview will be required to provide an official transcript from each school attended.

- Photocopy of Passport or Identity Document

- Application Form

- Available at masi.edu.es

SELECTION

A Selection Committee, consisting of representatives from UC3M and Airbus Spain, will rank the candidates according to academic and professional criteria.

LIMITED PLACEMENT

The course enrollment is limited to 25 students.

INFORMATION

Duration: 1 year (90 ECTS)

CLASS SCHEDULE

The classes are offered from Monday to Thursday during the afternoon.

TUITION FEES

The tuition fee for the MASI Program is EUR 10.000.

For updated payment conditions (discounts, installments, etc) go to the MASI's website <http://masi.edu.es>

DEGREE

The title of Master is issued as a private degree by the Rector of the Universidad Carlos III de Madrid.

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MADRID IS UNIVERSITY:



Madrid is becoming a reference point for foreign students because of the prestige of its universities, and the socio-educational environment with high expectations of employment. The UC3M is among the best education establishments in Spain and the European Union in terms of the quality of teaching and research.

The UC3M was one of five Spanish universities selected as a Campus of International Excellence, a four-year project backed by Spanish Government.

more info: www.uc3m.es

MADRID IS AEROSPACE:



Madrid is one of the largest aerospace clusters in Europe, with a total turnover of 4,2 Billion Euros, and more than 22,000 experts. Madrid is home to some of the largest international companies in the aerospace sector, such as Airbus Group-Spain, as well as the most representative Spanish companies: ITP, Aeroconseil, Aernnova, Indra. There is also an extensive presence of recognized R&D centres such as INTA, FIDAMC, ESA, and NASA.

more info: www.madridnetwork.org

MADRID IS SPAIN:



Well known for its hospitality and openness, it's easy to feel at home in Madrid.

Its impressive cultural heritage combines the historic with the modern, and is evident in its streets, monuments and museums. Madrid is one of the top-ten livable cities in the world, and for fledgling entrepreneurs, Madrid was named best business city.

And of course, Madrid is the center of political and economic life of Spain as well as the venue of important sporting events.

more info: www.esmadrid.com