

## Organization

- **Institution:** School of Engineering – U. of Seville
- **Director of Studies:** Dr. Carpóforo Vallellano

The target audience is engineers with high professional potential and passion for aeronautics.

## Requirements

### ■ For Admission

**Engineering Master** degrees in Aeronautical, Industrial, Industrial Management, Telecommunications, Marine, Civil, etc. Additionally, **Graduates/Bachelors** with a relevant experience or internationalization might be admitted. High level of English and Medium-high level of Spanish is required.

### ■ For the Master degree

To have one of the above-mentioned degrees and to have successfully completed the Master program and the Final Master Thesis.

## Number of Credits: 80 ECTS

- **Teaching method:** Lectures and practice

## Dates and fees

- Pre-selection: October - November 2021
- Enrolment: 1-20 December 2021
- Course: 27 January 2022 – 31 December 2022
- Price: 6091 € (incl. tax)

(Half-grants available for 20% of enrolled students)

**Information:** e.mail [gsciao@us.es](mailto:gsciao@us.es).

More info at: [www.gsc-aio.com](http://www.gsc-aio.com) or [cfp.us.es/cursos](http://cfp.us.es/cursos)

## Application:

Send a CV and photocopy of academics records, ID or Passport, and other merits in vacancy **JR10083652** at <https://www.airbus.com/careers.html>



# Master in Global Supply Chain and AERONAUTICAL INDUSTRY OPERATIONS

13<sup>th</sup> Edition. 2021-2022

(Paid Practice)



**AIRBUS**

Subject Area:

Engineering & New Technologies

Master in

GSC and AERONAUTICAL INDUSTRY OPERATIONS

**AIRBUS**



## Objectives

■ To train the participants in specific skills in aeronautical and aerospace industry operations, covering, among others, materials, manufacturing, engineering operations, aerostructure assembly, production, quality and supply chain management, and giving a characteristic vision about management and operational techniques of the leader company AIRBUS D&S.

## Competencies

■ To give the participants a general knowledge of related fields within the aeronautical industry organisation, business model and supply chain. To train the participants in general knowledge of the production systems, materials and components for aircraft, manufacturing processes, assembly processes and testing involved in aeronautical and aerospace production.

## Assessment Procedure

■ Examinations, homework, group work, training practice at Airbus and a Master Thesis

## Academic Committee

**Dr. José David Canca Ortiz**

University of Seville – Ind. Eng. & Manag. Science.

**Mr. Rubén Carvajal Vázquez**

Airbus DS - Head of Industrial Innovation.

**Ms. Beatriz García Fernández**

Eurofighter Business Excellence.

**Dr. Andrés J. Martínez Donaire**

University of Seville – Mech. & Manufacturing Eng.

**D. Luis Marmolejo Vidal**

Airbus DS - HO LTA FAL, Flight Line & Delivery Centre

**D. Juan Silva Campos**

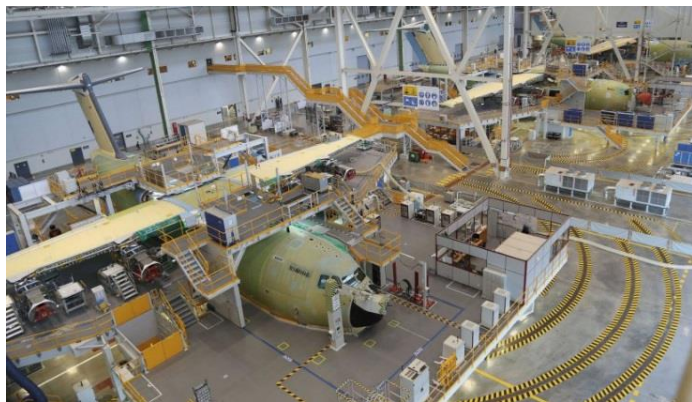
Airbus DS - Vice President HO Pre-FAL Tablada

**Dr. Federico París Carballo**

University of Seville – Cont. Mech. & Th. Structures.

**Dr. Carpóforo Vallengano Martín**

University of Seville – Mech. & Manufacturing Eng.



## Contents

### ■Module 1. INTRODUCTION. OVERVIEW OF AERONAUTICAL INDUSTRY (1 ECTS)

Master Introduction/ Aeronautical environment / Business Model / Legal affairs and Human Resources in the Aerospace Industry.

### ■Module 2. MATERIALS, AIRCRAFT COMPONENTS AND AIRCRAFT SYSTEMS (3 ECTS)

Composite Materials in Aircraft Manufacturing / Metal Materials in Aircraft Manufacturing / Aircraft Systems' Integration / Aircraft Structures.

### ■Module 3. PRODUCTION MANAGEMENT AND PLANNING (3 ECTS)

Introduction / Planning / Facilities Management / Logistics / Production Planning and Controlling / FAL Planning and Controlling.

### ■Module 4. MANUFACTURING PROCESSES AND OPERATIONS (3 ECTS)

Material Removal Processes / Metal Forming Processes / Manufacturing of Composite Parts / Wire Harness Manufacturing and Assembly / Manufacturing Technologies I & II.

### ■Module 5. QUALITY (2 ECTS)

Quality management / Regulations and Certification / Company Quality Systems / Quality in Final Assembly Line (FAL) / Quality in Aero Structures Assembly / Quality in Supply Chain Management.

### ■Module 6. PERFORMANCE AND IMPROVEMENT (LEAN) (2 ECTS)

Introduction to Lean Production / Lean in Parts Manufacturing / Lean in Aero Structures Assembly / Lean in Final Assembly Line (FAL).

### ■Module 7. ASSEMBLY OF AEROSTRUCTURES (3 ECTS)

Joining Processes / Aero structures Assembly Engineering / Aero Structures Assembly Production: Planning and Controlling / Aero Structures Assembly Production: Production Organization / Maintenance.

### ■Module 8. INDUSTRY 4.0 AND MANUFACTURING ENGINEERING (3 ECTS)

Product Lifecycle Management (PLM) / Product Structure / Industrialization / PLM Tools / Industry 4.0 Technologies / Industrial Innovation.

### ■Module 9. SKILLS (3 ECTS)

Effective Communication / Presentations & Meetings / Team Building / Negotiation.

### ■Module 10. SUPPLY CHAIN, PROCUREMENT AND LOGISTICS (3 ECTS)

Introduction to the Global Supply Chain / Global Supply Chain I / Global Supply Chain II / Practical Overview.

### ■Module 11. FINAL ASSEMBLY LINES AND MRO (2 ECTS)

Manufacturing and Production / Manufacturing Engineering and Industrialization / FAL Logistics / Facilities / Tooling Facilities / Ground Test System.

### ■Module 12: TRAINING PRACTICE (44 ECTS)

Training practice at AIRBUS MILITARY facilities (paid practice).

### ■Module 13: MASTER THESIS (8 ECTS)