

HE2 – Helicopter Engineering 2

From the MS HADA (Helicopter, Aircraft and Drone Architecture)



Highlights

- Helicopter Avionics Systems
- Helicopter flight control systems
- Certification of helicopters and prototyping
- Helicopter maintenance

This certificate provides a comprehensive knowledge of helicopter avionics systems and flight control systems. It also tackles to key topic of certification, through the analysis of prototypes, tests and production that are implemented by all manufacturers who aim to achieving quality standards.

Prerequisites

- Basic knowledge in flight mechanics

Key elements

Dates: 9 - 20 March 2020

Duration: 60 hours

For whom: recent graduates, jobseekers and experienced employees

Location: AIRBUS HELICOPTERS, Marignane

Course fees: 4 000 €

Language: English

Learning objectives

After completing this course, participants will be able to:

- describe and explain the design methodology for avionic systems and the cockpit cognitive ergonomics.
- describe and discuss the manufacturing of a helicopter from prototype adjustment to large-scale production.

Practical information and registration

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Course content

THE4 – Helicopter avionic systems (30 h):

- Helicopter systems
- Evolution of systems on helicopter
- Definition of an architecture
- System tools and methodology
- Presentation of various helicopter systems
- Operating safety
- Maintainability/testability
- Flight control
- Civil missions and associated systems
- Automatic pilot
- Fly-by-wire control
- Generalized active control
- Cockpit ergonomics
- Display resources
- Dialog resources
- Compatibility with the use of light-intensifier tubes
- Piloted simulation / training-test simulation
- Navigation - Air control
- Navigation and guidance for helicopters
- Radio communication
- Radio navigation and identification
- System tests
- Helicopter environment
- Equipment / Qualification
- System integration testing

THE5 – Helicopter: Prototypes, tests, production, quality (30 h):

- Certification of helicopters
- Role of prototype manufactures in the development and industrialization process.
- Ground tests
- In-flight tests
- Cost analysis and methods
- Quality insurance
- Computer-aided production management
- Helicopter maintenance
- Site visit
- Purchasing and subcontracting
- Inspection