AMS1 - Airworthiness & Human Factors for maintenance
From the Advanced Master AMS: E&M (Aeronautical Maintenance and Support: Engineering & Management)

Highlights

• EASA regulations in practice
• Industrial expertise
• Safety culture in maintenance
• Risk management tools

This certificate provides a thorough examination of requirements of EASA Part-21, -M, -145, -147, -66 for initial, continued and continuing airworthiness, and the associated obligations of stakeholders. It will also provide participants with a deep understanding of the concepts of human factors and Safety Management System in relation to aircraft maintenance.

Prerequisites

• Familiarization with air laws and airworthiness;
• Aircraft architecture knowledge;
• Aeronautical engineering background;
• Knowledge of aviation safety.

Learning objectives

After completing this course, participants will be able to:

• Describe the applicable EASA regulations for initial, continued and continuing airworthiness;
• Describe the EASA Part-21 maintenance requirements, and EASA Part-M/145/147/66 obligations applicable to involved stakeholders;
• Understand the scope of human factors related to human performance and limitations involved in management of safety;
• Describe a Safety Management System within an MRO environment;
• Understand and apply risk management techniques, risks models and safety investigation means.

Key elements

Dates: 31 Jan. - 10 Mar. 2022
Exam: 14 Feb. & 28 Mar. 2022
Duration: 44 hours
For whom: recent graduates, jobseekers and experienced employees
Location: ISAE-SUPAERO, Toulouse
Course fees: 4000 €
Language: English

Practical information and registration
Natalia Perthuis - 05 61 33 80 47 – info.exed@isae-supaero.fr
Course content

**AMS 500 – Continuing & continued airworthiness (24h):**

- **Continued airworthiness:** In-service occurrence reporting – Investigation process – Airworthiness review meeting – Airworthiness directive – Practical cases

- **Continuing airworthiness:** Context and applicable regulations – EASA Part-M (continuing airworthiness management) – EASA Part-145 (maintenance organizations) – EASA Part-147 (training organizations) – EASA Part-66 (certifying staff)

- **ETOPS/EDTO operations:** Concept, background and experience – Regulation – ETOPS approval (type design and reliability, operational) – ETOPS maintenance requirements and practices (policies, procedures, reliability program)

- **Aircraft transfer**

**AMS600 – Human factors and safety management system in aeronautical maintenance (20h):**


- **Safety Management System (SMS):** Objectives - Regulatory framework - Main concepts - Methodology - Organization and responsibilities – MRO experience

- **Risk management techniques:** Strategies for aircraft maintenance environment – Models (bowtie, Reason, PEAR) – Techniques (investigation, Maintenance Error Decision Air, safety studies, MLOSA)

- **Safety culture promotion**

- **Case study:** evaluation of an aircraft maintenance situation
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## Teaching methods

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<thead>
<tr>
<th>Teaching methods</th>
<th>Yes</th>
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<tbody>
<tr>
<td>Lectures / tutorial</td>
<td>X</td>
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<tr>
<td>Collaborative learning</td>
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<td>Flipped classroom</td>
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<td>Blended learning (online and face to face)</td>
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<td>Learning by doing</td>
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<td>Project-based</td>
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<td>Simulation</td>
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<tr>
<td>Case study</td>
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## Assessment

**AMS500**
Written examination (50%) + Case studies report evaluation (50%)

**AMS600**
Written examination (100%)