Competence training

The knowledge that lets your career take off
Qualification is the key for success

The design, production and maintenance of aircraft and other aeronautical products and parts are defined by a growing regulatory density, by quality requirements and by process complexity. Each operative task requires particular capabilities to meet these demands according to the time frame scheduled and with the right amount of quality. The qualification of the employees is a decisive factor in order to support smooth business processes. However, newly employed aviation personnel do not necessarily have the capabilities that are needed for the fulfillment of these tasks. Furthermore, aviation legislation, labor law and economic requirements demand that employees be extensively qualified.

One source for the whole range of courses

The performance spectrum of Lufthansa Technical Training covers the most important training requirements of companies in the aviation industry. Lufthansa Technical Training’s spectrum meets the growing technical and operative demands of an industry that is subject to high innovation standards. The scope of training extends from basic technical aviation training courses and type training to competence training for professionals and management.

The courses are offered as open or customer-specified courses. Details on the open courses, the product specification and course dates are available online: www.ltt.aero/competence-en
The management of an aircraft’s initial and continuing airworthiness is one of the most challenging tasks facing the aviation industry today. If handled correctly, major cost savings can be achieved. As soon as aircraft, aeronautical products, components and appliances are released for operation, their airworthy condition has to be ensured at all times during operation. For this purpose, aircraft and their components are regularly checked and maintained.

Aviation regulations

National regulations and international agreements form the basis of almost all activities in civil aviation. Know-how of the requirements regarding the design, production and continuous airworthiness of aircraft and aeronautical products, parts and appliances is an important prerequisite for understanding the structure, organization and procedures of companies in the aviation industry.

Lufthansa Technical Training offers, among others, the training courses listed below in order to provide the target groups with an appropriate understanding of the applicable legal requirements regarding operational structures as well as design, production and continuous airworthiness.

### Aviation regulation introduction (WBT – Web-based training)
Safety and reliability have the highest priority in civil aviation. Internationally applicable requirements are the basis of almost all activities – from development to the operation and maintenance of aircraft and other aeronautical products. The overall legal framework for civil aviation is determined in the International Civil Aviation Organization (ICAO) convention. The Member States of ICAO have integrated the contents of this convention in their national legislation.

After completing the learning program, participants benefit from possessing fundamental knowledge of international aviation regulations.

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<thead>
<tr>
<th>Course ID</th>
<th>Subject</th>
<th>Duration</th>
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<tbody>
<tr>
<td>L0092-01</td>
<td>Aviation Legislation</td>
<td>5 days</td>
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<tr>
<td>WBT0008-02</td>
<td>Aviation regulation introduction (WBT)</td>
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<tr>
<td>FW608-03</td>
<td>EASA-Aviation Legislation</td>
<td>4 days</td>
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<tr>
<td>FW501-01</td>
<td>EASA Part-21 design organization approval</td>
<td>2 days</td>
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<td>FW606-02</td>
<td>EASA Part-21G/Part-145</td>
<td>2 days</td>
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<tr>
<td>FW604-02</td>
<td>EASA Part-M</td>
<td>2 days</td>
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<td>FW605-02</td>
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<tr>
<td>FW607-02</td>
<td>EASA Part-M/Part-145</td>
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Engineering competencies

Continuing airworthiness and maintenance

As soon as aircraft, aeronautical products, components and appliances are released, their airworthy condition must be ensured. For this purpose, aircraft and their components are regularly checked and maintained at all times during operation.

Based on its broad experience with Lufthansa Technik and others, Lufthansa Technical Training offers a series of training courses to provide participants with the knowledge and ability to maintain the airworthiness of an aircraft.
Managing continuing airworthiness organizations

EASA Annex 1 (Part-M) defines the measures for managing the continuing airworthiness of aircraft. Nowadays, compliance with regulatory requirements for airworthiness is a basic service. Economic aspects must also be considered in the competitive environment of international aviation. The objective is no longer just to prevent system or component failures, but rather to minimize operating costs.

This training will explain how to manage a continuing airworthiness organization while meeting contradicting stakeholder requirements.

Maintenance program development & reliability analysis

To maintain the airworthiness of aircraft and their components, a maintenance program is required. This serves to detect or prevent fatigue damages, wear and tear damages and accidental damages well in advance. The extent and frequency of these maintenance events are determined in a specific program. This program should reflect the respective aircraft configuration and specific operating profile of the type of aircraft.

This training will explain how to continuously improve and certify the maintenance program.

Maintenance planning and capacity management

Maintenance and material planning in an approved maintenance organization is essential for economical and efficient maintenance. The planning of maintenance and material includes the systematic collection of information on the work to be carried out and must anticipate the sequence of necessary actions.

Participants will learn how layovers and turnaround times are planned and how the provisioning of spare parts and consumables works.

Managing aviation maintenance & repair organizations

The maintenance, repair and overhaul of aircraft and their components in the specified configuration are carried out by an approved maintenance organization. The work ranges from short-term, unplanned repairs on the ramp to planned complete disassembly and subsequent reassembly. Furthermore, modifications due to regulatory or economic requirements are part of aircraft maintenance activities.

This training will explain how to properly plan aircraft layovers in order to carry out the necessary work packages.

Aviation regulations for material supply

The purchasing and logistics of aviation-related spare parts and material are characterized by stringent regulations, tight lead times, small numbers and expensive parts. Purchasing staff and logistics personnel play a very important role in the success of any company. Without being familiar with the regulations, there is a high risk for any organization to become a less viable competitor in this business.

This training familiarizes participants with applicable aviation regulations for procurement and logistics so that they can use them in their everyday work.

Aircraft component & material certificates

Aircraft component and material certificates must conform to authority-defined standards in layout, wording and presented data. Correct certification is a clear indication that components/material have been produced or maintained in accordance with the authority requirements. The correctness of component and material certificates and their interpretation is a basic factor for the airworthiness of aircraft and other aeronautical products.

Participants in this training will be familiarized with applicable aviation regulations regarding component and material certificates so that they can use them in their everyday work.

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<tr>
<th>Course ID</th>
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<tr>
<td>X8E2021-02</td>
<td>Managing continuing airworthiness organizations</td>
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<tr>
<td>X8E2023-02</td>
<td>Maintenance program development &amp; reliability analysis</td>
<td>3 days</td>
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<tr>
<td>X8E2022-02</td>
<td>Maintenance planning and capacity management</td>
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<td>X8E2011-02</td>
<td>Managing aviation maintenance &amp; repair organizations</td>
<td>3 days</td>
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<tr>
<td>FW640-02</td>
<td>Aviation regulations for material supply</td>
<td>2 days</td>
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<tr>
<td>FW641-02</td>
<td>Aircraft component &amp; material certificates</td>
<td>2 days</td>
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Safety management

For staff and management in aeronautical maintenance facilities, aviation legislation currently demands knowledge of human factors. In the human factors seminars offered by Lufthansa Technical Training, participants are acquainted with a special perspective on this topic. They raise awareness for the real reasons why a human being can be a triggering factor for an accident. Furthermore, the participants learn to simply and practically apply strategies and methods.

Human factors – Basic knowledge (WBT)

There are many challenges associated with human factors in the airline and maintenance, repair and overhaul (MRO) industry today. Inevitably, all humans make errors; it is one of the most important elements in the chain of events. Personnel involved in maintenance, management and/or quality audits must have an understanding of the application of human factors and human performance capabilities, in addition to the necessary expertise related to their own scope of work.

With this self-paced learning program, participants acquire fundamental knowledge of human factors.

Human factors – Basic knowledge (blended training)

Besides the above-mentioned WBT, the blended training includes an additional workshop that consolidates the knowledge gained from the WBT. This enables the participants to better internalize the knowledge.

This training goes beyond the fundamental knowledge offered by the WBT, providing a better understanding especially of topics like communication, teamwork, human errors and error analysis.

EASA Part-145 human factors (GM 145.A.30 Chapter 10 excluded)

According to EASA Part-145.A.30, all personnel dealing with maintenance must receive initial training with regard to understanding human factors and human performance issues appropriate to that person’s function in the organization. The human factors training course deals with all topics determined in the curriculum GM 145.A.30 (e).

By participating in this training, participants and maintenance organizations will be able to fulfill the requirements according to EASA – with the exception of the specific requirements of the individual Part-145 organization.

### Course ID | Subject | Duration
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WBT0006-02 | Human factors - Basic knowledge (WBT) | ~ 0.5 days
FH012-02 | Human factors - Basic knowledge (blended training) | 2 days
FH202-02 | EASA Part 145 human factors - Initial training (GM 145.A.30 Chapter 10 excluded) | 2 days
Continuation training

To meet the very high demands with a view to safety and reliability, continuation training is required for professionals in the aviation industry. The objective is to learn about changes and innovations regarding legal provisions, operational structures, products and technologies as well as the “human factors”.

Lufthansa Technical Training offers training for the topics “human factors” and “aviation regulation”. The continuation training courses are continuously updated and can be used by approved organizations for compliance with the legal provisions.

Continuation training human factors
This training is aimed in particular at certifying and support staff in facilities for the maintenance of aircraft and aeronautical products, components and appliances.

This training enables participants to analyze and discuss in-house work errors and incidents that are attributed to human factors.

Continuation training EASA Part 21G/145
This training is offered especially for component production and maintenance organizations.

Participation in this training allows attendants to update their knowledge and competence with a view to aviation regulations that are essential for the company’s approval and successful business.

Please contact us for your customized continuation training.

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<tr>
<td>FW901-02</td>
<td>Continuation training human factors</td>
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<tr>
<td>FK606-01</td>
<td>Continuation Training EASA Part-21G/145</td>
<td>1 day</td>
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Technical Aviation English

Technical Aviation English – Elementary level (A)

This course is designed to provide the learner with basic knowledge of aviation-related English. As all documentation used in aviation has to be produced in English, specific language skills are becoming more and more important to ensure the correct understanding and interpretation of technical documents.

This elementary-level English course will lay the foundation for your linguistic skills and thus be very valuable to you in terms your future prospects in the aviation industry.

Technical Aviation English – Intermediate level (B)

This English course builds on the English-language aviation knowledge gained in the elementary course. Since all aviation-related documentation must be produced in English, this intermediate-level course will be helpful in your future career as it will further improve your levels of both spoken and written aviation English. It establishes fundamentals that will provide practical support related to the use of technical aviation English at your place of work.

Course participants will learn to understand the descriptive and procedural writing of the working instructions in their field of work.

Technical Aviation English – Advanced level (C) for mechanics/electricians

It is an imperative for all aviation staff involved in the maintenance, repair and overhaul of aircraft to understand the specific aviation English to a high degree. After having taken the Elementary (A) and Intermediate (B) Technical Aviation English courses, this advanced course will introduce the participants to the tools required to greatly enhance their levels of understanding.

After completing this course, participants will fully understand the specific vocabulary and terminology used at workplaces related to mechanical and electrical systems.

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<tr>
<td>L7150-01</td>
<td>Technical Aviation English – Elementary level (A)</td>
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<tr>
<td>L7151-01</td>
<td>Technical Aviation English – Intermediate level (B)</td>
<td>10 days</td>
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<tr>
<td>L7152-01</td>
<td>Technical Aviation English – Advanced level (C)</td>
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Online consolidation and refresher courses

Technical Aviation English – Elementary level (WBT)
Active use of English terms and phraseology is an essential prerequisite for employees of a modern company that operates worldwide. Working in the technical field of aviation requires specific knowledge of English that enables you to understand technical contexts.

After working through the learning program, participants will be able to use basic English grammar and fundamental terms of a technical vocabulary in their everyday work.

Technical Aviation English – Intermediate level (WBT)
The complexity and particular linguistic character of the maintenance manuals of aircraft and their systems and components are very challenging for those who work with them. Therefore, very specific knowledge of the English language is required to understand the contexts of the technical manuals and to follow the instructions correctly.

After working through the learning program, participants will be able to use advanced English grammar and specific aircraft-relevant terms.

Technical Aviation English – Advanced level (WBT)
Verbal and written communication plays a decisive role wherever people cooperate in the fields of development, production and maintenance of aircraft, their systems and components. Misinterpretation resulting from poor communication may cause enormous economic loss and harm the reputation of a company.

Working through the learning program will enable participants to professionalize their knowledge of verbal and written English and to handle hurdles while applying that knowledge.

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<td>WBT0002-02</td>
<td>Technical Aviation English – Intermediate level (WBT)</td>
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<tr>
<td>WBT0003-02</td>
<td>Technical Aviation English – Advanced level (WBT)</td>
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