

EASA License AML Cat. B1.1 | Aircraft Engineer

Aircraft Engineer

EASA AML Cat. B licenses are regulated at European level and are therefore accepted across borders.

They automatically cover the scope and privileges of the corresponding AML Cat. A license. An AML Cat. B license is obtained for a specific aircraft type, which is entered in the license.

AML Cat. B license categories

Aircraft Engineers obtain a different license depending on the field of application:

Cat. B1.1

Aeroplanes with turbine engines

Cat. B1.2

Aeroplanes with piston engines

Cat. B1.3

Helicopters with turbine engines

Cat. B1.4

Helicopters with piston engines

Main activities

AML Cat. B1 license holders **may perform and certify** maintenance work on the apron or in the hangar, **including complex repairs and in-depth troubleshooting. They are authorized to issue a Certificate of Release to Service for the entire aircraft within their licensed category.**

The following are typical maintenance tasks for category B1:

Release via CRS

Authorised to release an aircraft

Inspections

Visual inspections of the structure, components, etc.

Testing

Use of external and built-in test equipment/diagnostic tools

Troubleshooting

In-depth troubleshooting and rectification if necessary

Repairs

Carrying out complex repairs

Modifications

Assistance in carrying out modifications to the aircraft

Component replacement

Replacement of faulty components



Swiss Aircraft Maintenance Association

Schweizerischer Verband Flugtechnischer Betriebe
Association Suisse des Entreprises Aérotechniques
Associazione Svizzera Manutenzioni Aeronautiche



Education

Training as a lateral entry after completing a technical apprenticeship is possible at any time, as well as a conversion of an existing license.

Lateral entry graduates have the following three training options:

Experience

Proof of five (5) years of aircraft maintenance experience and EASA module examinations.

Skilled workers

Proof of three (3) years of aircraft maintenance experience and recognised professional training ([Link](#)) as well as EASA module examinations.

Official training course

2'400-hour training course (theory and practice) and proof of two (2) years of aircraft maintenance experience.

Theoretical knowledge

Besides the 2'400-hour programme, you can acquire the necessary skills as follows:

Self-study

Get training materials, study, study some more, pass the exams.

Classroom training

Traditional classroom teaching. You can find the SAMA's courses at the following [Link](#).

Hybrid training

A combination of web-based training (WBT) and classroom teaching. You can find the SAMA's courses at the following [Link](#).

Important:

The training expires after 10 years if no license application is submitted during this period.

The theoretical knowledge is provided by means of the following **EASA modules** (see next page).

- All modules for the respective licence category are shown, as well as the number of examination questions per module.
- The essays mentioned in Module 7 «Maintenance Practices» are additional text tasks on a related question.
- All other examination questions are «multiple choice» tasks.



| Module | Aeroplane | | Helicopter | | No of exam questions |
|--|----------------------------|---------------------------|----------------------------|---------------------------|----------------------|
| | Cat B1.1 Turbine engine | Cat B1.2 Piston engine | Cat B1.3 Turbine engine | Cat B1.4 Piston engine | |
| 1 Mathematics | ✓ | ✓ | ✓ | ✓ | 32 |
| 2 Physics | ✓ | ✓ | ✓ | ✓ | 52 |
| 3 Electrical Fundamentals | ✓ | ✓ | ✓ | ✓ | 52 |
| 4 Electronic Fundamentals | ✓ | ✓ | ✓ | ✓ | 20 |
| 5 Digital Techniques / Electronic Instrument Systems | ✓ | ✓ | ✓ | ✓ | 40 |
| 6 Material & Hardware | ✓ | ✓ | ✓ | ✓ | 80 |
| 7 Maintenance Practices | ✓ | ✓ | ✓ | ✓ | 80 2 Essays |
| 8 Basic Aerodynamics | ✓ | ✓ | ✓ | ✓ | 24 |
| 9 Human Factors | ✓ | ✓ | ✓ | ✓ | 28 |
| 10 Aviation Legislation | ✓ | ✓ | ✓ | ✓ | 44 |
| 11 Aeroplane Aerodynamics, Structures and Systems | ✓ | ✓ | -- | -- | 140 |
| 12 Helicopter Aerodynamics, Structures and Systems | -- | -- | ✓ | ✓ | -- |
| 13 Aircraft Aerodynamics, Structures and Systems | -- | -- | -- | -- | -- |
| 14 Propulsion | -- | -- | -- | -- | -- |
| 15 Gas Turbine Engine | ✓ | -- | ✓ | -- | 92 |
| 16 Piston Engine | -- | ✓ | -- | ✓ | -- |
| 17 Propeller | ✓ | ✓ | -- | -- | 32 |

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Practical knowledge

Aircraft Engineers work in certified maintenance companies to get the practical experience they need.

Language skills

Generally, it is required that the language of the official aircraft documentation can be spoken and written. This is usually **English** and at a level comparable to the «Cambridge First Certificate» (B2).

Financial support

Aircraft maintenance staff, such as Cat. B1 license-holders, have the opportunity to receive subsidies. The corresponding application must be submitted to the Federal Office of Civil Aviation **before the start of training.** [Link](#)

Obtaining a license

The license can be applied for at the responsible Federal Aviation Office after the theoretical training and proof of the practical experience gained. In Switzerland, this is the **FOCA.** [Link](#)

- The minimum age for a Cat. B1 license is 18 years. The license application is made using FOCA **Form 19.**
- The minimum age for a release authorisation for self-performed maintenance work is 21 years and is the responsibility of the maintenance organisation.
- An extension of the license is possible but requires additional training.

Important:

A Cat. B1 license is valid for 5 years and must be renewed at the responsible Federal Office of Civil Aviation.

Further education

Aircraft Engineers are specialists who are eligible for the following further education programmes:

- Swiss Federal Diploma (Aircraft technician in mechanics / avionics)
- Diploma in Mechanical Engineering Technician HF, specialising in aircraft technology
- ZHAW Bachelor's and Master's degree programmes in Aviation and Engineering

[Link](#)
[Link](#)
[Link](#)