|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Company Name:** |  | | | | | | |
| **Approval Number:** |  | | | | | | |
| **Course Title:** |  | | | | | | |
| **Course Reference** |  | | | | | | |
| **Date of creation/ revision** |  | | | | | | |
| **Category (ie B1.4):** |  | | | | | | |
| **Total duration Theoretical Basic Training** | **hours** | | | | | | |
| **Total duration Practical Basic Training** | **Hours** | | | | | | |
| **Theoretical ratio training** | **%** | | | | | | |
| **30 % practical training performed in actual maintenance environment:** | Delivered by the Part 147 organisation:  € | | **or** | | Received at following Maintenance Organisation  (Name, location, approval number): | | |
| **Module** | |  | | **Level\*** | | **Tuition hours\*\*** | **Training Provider**  **(ATO or S/C)? \*\*\*** |
| 1. Mathematics | | Arithmetic | | 2 | |  |  |
| Algebra | | 2 | |  |  |
| Geometry | | 2 | |  |  |
| 2. Physics | | Matter | | 2 | |  |  |
| Mechanics | | 2 | |  |  |
| Thermodynamics | | 2 | |  |  |
| Optics (light) | | 2 | |  |  |
| Wave motion and sound | | 2 | |  |  |
| 3. Electrical Fundamentals | | Electron theory | | 1 | |  |  |
| Static electricity and conduction | | 2 | |  |  |
| Electrical terminology | | 2 | |  |  |
| Generation of electricity | | 1 | |  |  |
| Source of DC electricity | | 2 | |  |  |
| DC circuits | | 2 | |  |  |
| Resistance/ resistor | | 2 | |  |  |
| Power | | 2 | |  |  |
| Capacitance/ capacitor | | 2 | |  |  |
| Magnetism | | 2 | |  |  |
| Inductance/ inductor | | 2 | |  |  |
| DC motor/ generator theory | | 2 | |  |  |
| AC theory | | 2 | |  |  |
| Resistive ( R ), Capacitive ( C ) and Inductive ( L ) circuits | | 2 | |  |  |
| Transformers | | 2 | |  |  |
| Filters | | 1 | |  |  |
| AC generators | | 2 | |  |  |
| AC motors | | 2 | |  |  |
| 4. Electronic Fundamentals | | Semiconductors | | 2 | |  |  |
| Printed circuit boards | | 1 | |  |  |
| Servomechanisms | | 1 | |  |  |
| 5. Digital Techniques Electronic Instrument Systems | | Electronic instrument systems | | 1 | |  |  |
| Numbering systems | | 1 | |  |  |
| Data conversion | | 1 | |  |  |
| Data buses | | 2 | |  |  |
| Logic circuits | | 2 | |  |  |
| Basic computer structure | | 2 | |  |  |
| Microprocessors | |  | |  |  |
| Integrated circuits | |  | |  |  |
| Multiplexing | |  | |  |  |
| Fibre optics | | 1 | |  |  |
| Electronic displays | | 2 | |  |  |
| Electrostatic sensitive devices | | 2 | |  |  |
| Software management control | | 2 | |  |  |
| Electromagnetic environment | | 2 | |  |  |
| Typical electronic/ digital aircraft systems | | 1 | |  |  |
| 6. Materials and Hardware | | Aircraft materials-ferrous | | 2 | |  |  |
| Aircraft materials-non ferrous | | 2 | |  |  |
| Aircraft materials-composite and non-metallic | | 2 | |  |  |
| Corrosion | | 3 | |  |  |
| Fasteners | | 2 | |  |  |
| Pipes and unions | | 2 | |  |  |
| Springs | | 2 | |  |  |
| Bearings | | 2 | |  |  |
| Transmissions | | 2 | |  |  |
| Control cables | | 2 | |  |  |
| Electrical cables and connectors | | 2 | |  |  |
| 7. Maintenance Practices | | Safety precautions-aircraft and workshop | | 3 | |  |  |
| Workshop practices | | 3 | |  |  |
| Tools | | 3 | |  |  |
| Engineering drawings, diagrams and standards | | 2 | |  |  |
| Fits and clearances | | 2 | |  |  |
| Electrical Wiring Interconnection System (EWIS) | | 3 | |  |  |
| Riveting | | 2 | |  |  |
| Pipes and hoses | | 2 | |  |  |
| Springs | | 2 | |  |  |
| bearings | | 2 | |  |  |
| Transmissions | | 2 | |  |  |
| Control cables | | 2 | |  |  |
| Material handling | | 2 | |  |  |
| Aircraft weight and balance | | 2 | |  |  |
| Aircraft handling and storage | | 2 | |  |  |
| Disassembly, inspection, repair and assembly techniques | | 3 | |  |  |
| Abnormal events | | 2 | |  |  |
| Maintenance procedures | | 2 | |  |  |
| Documentation and communication | | 2 | |  |  |
| 8. Basic Aerodynamics | | Physics of the atmosphere | | 2 | |  |  |
| Aerodynamics | | 2 | |  |  |
| Theory of flight | | 2 | |  |  |
| High speed airflow | | 2 | |  |  |
| Flight stability and dynamics | | 2 | |  |  |
| 9. Human Factors. | | General | | 2 | |  |  |
| Human performance and limitations | | 2 | |  |  |
| Social psychology | | 1 | |  |  |
| Factors that affect performance | | 2 | |  |  |
| Physical environment | | 1 | |  |  |
| Tasks | | 1 | |  |  |
| Communication | | 2 | |  |  |
| Human error | | 2 | |  |  |
| Safety Management | | 2 | |  |  |
| The ‘Dirty Dozen’ and risk mitigation | | 2 | |  |  |
| 10. Aviation Legislation | | Regulatory framework | | 1 | |  |  |
| Certifying staff-maintenance | | 2 | |  |  |
| Approved maintenance organisations | | 2 | |  |  |
| Independent certifying staff | | 3 | |  |  |
| Air operations | | 1 | |  |  |
| Certification of aircraft, parts and appliances | | 2 | |  |  |
| Continuing airworthiness | | 2 | |  |  |
| Oversight principles in continuing airworthiness | | 1 | |  |  |
| Maintenance and certification beyond the current EU regulations (if not superseded by EU requirements) | | 1 | |  |  |
| Cybersecurity in Aviation Maintenance | | 1 | |  |  |
| 12. Helicopter Aerodynamics, Structures and Systems | | Theory of flight – rotary wing aerodynamics | | 2 | |  |  |
| Flight control systems (ATA 67) | | 3 | |  |  |
| Blade tracking and vibration analysis (ATA 18) | | 3 | |  |  |
| Transmission | | 3 | |  |  |
| Airframe structures (ATA 51) | | 2 | |  |  |
| Air conditioning (ATA 21) | | 3 | |  |  |
| Instruments / avionics systems (ATA 31/22/23/34) | | 2 | |  |  |
| Electrical Power (ATA 24) | | 3 | |  |  |
| Equipment and Furnishing (ATA 25) | | 2 | |  |  |
| Fire Protection (ATA 26) | | 3 | |  |  |
| Fuel Systems (ATA 28) | | 3 | |  |  |
| Hydraulic Power (ATA 29) | | 3 | |  |  |
| Ice and Rain Protection (ATA 30) | | 3 | |  |  |
| Landing Gear (ATA 32) | | 3 | |  |  |
| Lights (ATA 33) | | 3 | |  |  |
| Integrated Modular Avionics (ATA 42) | | 2 | |  |  |
| On board maintenance systems (ATA 45) | | 2 | |  |  |
| Information Systems (ATA 46) | | 2 | |  |  |
| 16. piston engine | | Fundamentals | | 2 | |  |  |
| Engine performance | | 2 | |  |  |
| Engine construction | | 2 | |  |  |
| Engine fuel systems | | 2 | |  |  |
| Starting and Ignition systems | | 2 | |  |  |
| Inductions, exhaust and cooling systems | | 2 | |  |  |
| Supercharging/ turbo charging | | 2 | |  |  |
| Lubricants and fuels | | 2 | |  |  |
| Lubrication systems | | 2 | |  |  |
| Engine indication systems | | 2 | |  |  |
| Powerplant installation | | 2 | |  |  |
| Engine monitoring and ground operation | | 3 | |  |  |
| Engine storage and preservation | | 2 | |  |  |
| Alternative piston engine construction | | 1 | |  |  |

\* For category “B” – For category A refer to Part 66 Appendix I

\*\* These hours exclude ‘self-study’ and examination hours

\*\*\* please indicate when the training is sub-contracted as per 147.A.145 (d)

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| --- | --- | --- |
|  | date | signature |
| Form filled by: |  |  |
| Quality Assurance review: |  |  |

**! ONCE accepted by your surveyor, please insert a copy of this form in your MTOE, Part 4**

Note: the reference block in the header can be used by the applicant to create an individual course approval form reference and to track the successive amendments of this form. In effect changes such as durations or info provided in front page etc… may not induce a change of the “course reference” itself but will require the course approval form to be amended to reflect the changes.