|  |  |
| --- | --- |
| **Company Name:** |  |
| **Approval Number:** |  |
| **Course Title:** |  |
| **Course Reference** |  |
| **Date of creation/ revision** |  |
| **Category (ie B1.1):** |  |
| **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 |  |  |
| 11. Turbine Aeroplane Aerodynamics, Structures and Systems | Theory of flight | 2 |  |  |
| Airframe structures (ATA 51) | 2 |  |  |
| Airframe structures-aeroplanes (ATA 52/53/56/57/55/54) | 2 |  |  |
| Air conditioning and cabin pressurisation (ATA 21) | 3 |  |  |
| Instruments/ avionics systems (ATA 31/22/23/34) | 2 |  |  |
| Electrical power (ATA 24) | 3 |  |  |
| Equipment and furnishings (ATA 25) | 2 |  |  |
| Fire protection (ATA 26) | 1 |  |  |
| Flight controls (ATA 27) | 3 |  |  |
| Fuel systems (ATA 28/47) | 3 |  |  |
| Hydraulic power (ATA 29) | 3 |  |  |
| Ice and Rain protection (ATA 30) | 3 |  |  |
| Landing gear (ATA 32) | 3 |  |  |
| Lights (ATA 33) | 3 |  |  |
| Oxygen (ATA 35) | 3 |  |  |
| Pneumatics/vacuum (ATA 36) | 3 |  |  |
| Water/ waste (ATA 38) | 3 |  |  |
| On board maintenance systems (ATA 45) | 2 |  |  |
| Integrated Modular Avionics (ATA 42) | 2 |  |  |
| Cabin Systems (ATA 44) | 2 |  |  |
| Information Systems (ATA 46) | 2 |  |  |
| 15. Gas Turbine Engine | Fundamentals | 2 |  |  |
| Engine performance | 2 |  |  |
| Inlet | 2 |  |  |
| Compressors | 2 |  |  |
| Combustion section | 2 |  |  |
| Turbine section | 2 |  |  |
| Exhaust | 2 |  |  |
| Bearings and seals | 2 |  |  |
| Lubricants and fuels | 2 |  |  |
| Lubrication systems | 2 |  |  |
| Fuel systems | 2 |  |  |
| Air systems | 2 |  |  |
| Starting and ignition systems | 2 |  |  |
| Engine indication systems | 2 |  |  |
| Alternate turbine construction | 1 |  |  |
| Turboprop engines | 2 |  |  |
| Turboshaft engines | 2 |  |  |
| Auxiliary power units (APUs) | 2 |  |  |
| Power plant installation | 2 |  |  |
| Fire protection systems | 2 |  |  |
| Engine monitoring and ground operation | 3 |  |  |
| Engine storage and preservation | 2 |  |  |
| 17A. Propeller | Fundamentals | 2 |  |  |
| Propeller construction | 2 |  |  |
| Propeller pitch control | 2 |  |  |
| Propeller synchronising | 2 |  |  |
| Propeller ice protection | 2 |  |  |
| Propeller maintenance | 3 |  |  |
| Propeller storage and Preservation | 2 |  |  |

\* 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**