|  |  |  |  |
| --- | --- | --- | --- |
| **Company Name:** |  | | |
| **Approval Number:** | **UK.147.** | | |
| **Course Title:** |  | | |
| **Course Reference** |  | | |
| **Date of creation/ revision** |  | | |
| **Category (i.e. 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 | 1 |  |  |
| 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 |  |  |
| DC sources of  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 | 2 |  |  |
| 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 | 2 |  |  |
| 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 |  |  |
| 7A. Maintenance  Practices | Safety precautions-aircraft and workshop | 3 |  |  |
| Workshop practices | 3 |  |  |
| Tools | 3 |  |  |
| Avionic general test equipment | 2 |  |  |
| 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 |  |  |
| Welding, brazing, soldering and bonding | 2 |  |  |
| Aircraft weight and balance | 2 |  |  |
| Aircraft handling and storage | 2 |  |  |
| Disassembly, inspection, repair and assembly techniques | 3 |  |  |
| Abnormal events | 2 |  |  |
| Maintenance procedures | 2 |  |  |
| 8. Basic Aerodynamics | Physics of the  atmosphere | 2 |  |  |
| Aerodynamics | 2 |  |  |
| Theory of flight | 2 |  |  |
| Flight stability and  dynamics | 2 |  |  |
| 9A. Human Factors | General | 2 |  |  |
| Human performance and limitations | 2 |  |  |
| Social psychology | 1 |  |  |
| Factors affecting performance | 2 |  |  |
| Physical environment | 1 |  |  |
| Tasks | 1 |  |  |
| Communication | 2 |  |  |
| Human error | 2 |  |  |
| Hazards in the workplace | 2 |  |  |
| 10. Aviation  Legislation | Regulatory  framework | 1 |  |  |
| Certifying staff-  maintenance | 2 |  |  |
| Approved  maintenance  organisations | 2 |  |  |
| Air operations | 1 |  |  |
| Certification of  aircraft, parts and  appliances | 2 |  |  |
| Continuing  airworthiness | 2 |  |  |
| Applicable National  and International  requirements | 2 |  |  |
| 11A. Turbine  Aeroplane  Aerodynamics,  Structures and  Systems | Theory of flight | 2 |  |  |
| Airframe structures-general concepts | 2 |  |  |
| Airframe structures-aeroplanes | 2 |  |  |
| Air conditioning and cabin pressurisation (ATA 21) | 3 |  |  |
| Instruments/ avionics systems | 2 |  |  |
| Electrical power (ATA 24) | 3 |  |  |
| Equipment and furnishings (ATA 25) | 2 |  |  |
| Fire protection (ATA 26) | 3 |  |  |
| Flight controls (ATA 27) | 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 |  |  |
| Oxygen (ATA 35) | 3 |  |  |
| Pneumatics/vacuum (ATA 36) | 3 |  |  |
| Water/ waste (ATA 38) | 3 |  |  |
| On board maintenance systems (ATA 45) | 2 |  |  |
| Integrated Modular Avionics (ATA42) | 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 |  |  |
| Power augmentation systems | 1 |  |  |
| Turbo-prop engines | 2 |  |  |
| Turbo-shaft 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”

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

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

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

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.

|  |  |  |
| --- | --- | --- |
| **CAA** | **Date** |  |
| **Application:** |  | **Surveyor´s name & signature** |
| **Syllabus checked by:** |  |  |
| **MTOE Reference and Amendment Status:** |  |  |

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