|  |  |  |  |
| --- | --- | --- | --- |
| **Organisation´s Name:** |  | | |
| **Approval Number:** | **UK.147.** | | |
| **Course Title:** |  | | |
| **Course Reference:** |  | | |
| **Date of creation / revision:** |  | | |
| **MTOE Amendment / revision number:** |  | | |
| **Category (i.e. 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 | 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 |  |  |  |
| Data conversion |  |  |  |
| Data buses |  |  |  |
| Logic circuits |  |  |  |
| Basic computer structure |  |  |  |
| Microprocessors |  |  |  |
| Integrated circuits |  |  |  |
| Multiplexing |  |  |  |
| Fibre optics | 1 |  |  |
| Electronic displays | 1 |  |  |
| Electrostatic sensitive devices | 2 |  |  |
| Software management control | 1 |  |  |
| 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 |  |  |
| 7. 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 |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 9. 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 |  |  |
| Hazard 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 |  |  |
| 12. Helicopter Aerodynamics, Structures and Systems | Theory of flight-rotary wings aerodynamics | 2 |  |  |
| Flight control systems | 3 |  |  |
| Blade tracking and vibration analysis | 3 |  |  |
| Transmissions | 3 |  |  |
| Airframe structures | 2 |  |  |
| Air conditioning (ATA21) | 3 |  |  |
| Instruments/ avionics systems | 2 |  |  |
| Electrical power (ATA 24) | 3 |  |  |
| Equipment and furnishings (ATA 25) | 2 |  |  |
| Fire protection (ATA26) | 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 |  |  |
| Pneumatics/vacuum (ATA 36) | 3 |  |  |
| Integrated Modular Avionics (ATA42) | 2 |  |  |
| On board maintenance systems (ATA 45) | 2 |  |  |
| Information Systems (ATA46) | 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 |  |  |

\* 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**