

MAINTENANCE TYPE TRAINING
Training Outline

TS 147 TT.1 General

- (a) An applicant shall submit a training outline that meets the standard specified in this subdivision. The type course must contain elements that enable a graduating student to be knowledgeable in all aspects of aircraft maintenance including all major systems of the aircraft type, powerplant, avionics system or equipment being addressed. A type training ATO may be limited in scope, or include coverage of the full aircraft and its systems.

Information Note:

Following successful completion of the TC approved course, the technician will be fully knowledgeable regarding the characteristics of the applicable topic area, particular aircraft type or series.

- (b) The type training shall provide system description and details of operation, component location, servicing, removal and installation, and test procedures to support a typical maintenance schedule for the aircraft type or series.
- (c) Upon graduation the student will be able to:
- (1) Apply:
 - (i) applicable reference manuals.
 - (2) Explain:
 - (i) safety precautions to be observed when working on or near the aircraft and its systems.
 - (ii) locations of principal components.
 - (iii) normal functions of each major system, including terminology and nomenclature.
 - (iv) applicable system operations and maintenance practices.
 - (v) procedures for carrying out significant tasks associated with the routine servicing of the aircraft and its systems.
 - (3) Carry out functional checks applicable to system, engine, component as specified in the instructions for continuing airworthiness applicable to the aircraft, engine and related systems.
 - (4) Utilize the MEL/CDL in order to interpret reports provided by crew members and/or on-board reporting systems.
 - (5) Interpret readings and indications provided by BITE and other information systems.
 - (6) Analyze information for the purpose of making decisions in respect to fault diagnosis and rectification contained in the instructions for continuing airworthiness.
- (d) The training organization shall have available for audit, detailed supporting documents, including:
- (1) The allotted number of hours per subject;
 - (2) The course objectives indicating level of knowledge, competency and skill to be achieved by the student;
 - (3) Practical projects to be completed; and
 - (4) A schedule of the examinations or tests to be given.
- (e) A TC approved course shall have a system in place to ensure "hands-on" training is provided to support the training objectives. There shall be no less than 5 percent "hands-on" training in relation to the course duration.
- (f) Support for practical training requirements must include a list of instructional aids and training material. This can be achieved with any combination of the following:
- (1) A simulator or procedures trainer of a type compatible with or similar to the aircraft;
 - (2) An aircraft of the type; and/or
 - (3) Training aid mock-ups, or computer simulation systems, or any other aids which support the intent, and are of equivalent training value when used as a substitute for actual aircraft or systems.

Information Note:

The purpose of the instructional aids is to ensure that students can identify and locate all aircraft systems and components, and are able to effectively

carry out inspections and functional tests of live or simulated aircraft systems.

- (g) Training material and instructional aids, which must be available to the student, include student handout material and instructional guides that are to be included in the course curriculum or training standard.

Information Notes:

- (1) Type courses delivered by approved maintenance organizations (AMOs), to support the issuance of aircraft maintenance certification authority (ACA) privileges to their own employees, are approved as part of the AMO approval process and do not require a separate ATO approval. However, if the AMO intends to provide aircraft type training to technicians/AMEs of other organizations, then an ATO approval is required.
- (2) Before AMEs can exercise aircraft certification privileges within an Aircraft AMO, they must be granted ACA privileges. This authority will be dependent upon completion of training specified in the policy and procedures section of the AMO's policy manual.
- (h) An applicant may under special circumstances request authorization for a one-time delivery of a type course (per aircraft type). For this one-off course delivery, a formal PM may not be required, however, supporting documentation must be submitted indicating the methods of compliance specified in this subsection prior to obtaining TC approval. Subsequent courses must conform to all the applicable requirements specified in this Division.
- (i) Where an organization is engaged in the delivery of aircraft type differences training, the difference type course prerequisites must be such that only individuals who have successfully completed an initial type course in the particular aircraft series can be considered as acceptable candidates for differences training. All subject matter of the initial aircraft type course(s), must be considered, when evaluating differences subject matter for the applicable comparative or derivative type aircraft.
- (j) The procedure for the validation of foreign type training is as follows:
- (1) Foreign applicants who hold a valid license from a Contracting State and who seek recognition for type training received outside the Arab Republic of Egypt ATO process, must request TC validation for this training.
- (2) The applicant shall submit a graduation certificate and a transcript of the training or curriculum for evaluation. If the training is found acceptable TC will confirm the validation in writing.
- (3) Where TC has identified training deficiencies in the submission, the individual will be advised of the subject matter and topic areas where additional approved training is required.

TS 147 TT.3 Small aircraft

Upon graduation the student will be able to:

- (a) Explain:
- (1) The system logic and processes used to determine develop and maintain the appropriate maintenance schedule.
- (2) The procedures used to inspect and test the operation of avionics and auto-flight systems representative of those installed in small aircraft.
- (3) Types of non-destructive inspection procedures.
- (b) Perform:
- (1) Servicing procedures on fixed and rotary wing aircraft.
- (2) Tasks utilizing minimum equipment lists, configuration deviation lists, and built-in test equipment programs.
- (3) Scheduled and unscheduled inspections.
- (c) Test, troubleshoot, repair, adjust, remove and replace:
- (1) Power plants and related systems.
- (2) Propeller and rotor systems.
- (3) Airframe and related systems.
- (4) Electrical systems.
- (5) Airframe structures.
- (6) Dynamic components.

TS 147 TT.5 Large aircraft airframe and engine

Upon graduation the student will be able to:

- (a) Explain:
- (1) The procedures used to inspect and test the operation of avionics and auto-flight systems representative of those installed in large aircraft.
 - (2) The system logic and processes used to determine develop and maintain the appropriate maintenance schedule.
 - (3) Types of non-destructive inspection procedures.
 - (4) Fault diagnostic systems typical of those installed on large aircraft.
 - (5) Mechanical and electronic systems including electrical/mechanical and digital control systems.
- (b) Perform:
- (1) Servicing procedures on fixed and rotary wing aircraft.
 - (2) Tasks utilizing minimum equipment lists; configuration deviation lists; and built in test equipment programs.
 - (3) Scheduled and unscheduled inspections.
- (c) Test, troubleshoot, repair, adjust, remove and replace:
- (1) Power plants and related systems.
 - (2) Propeller and rotor systems.
 - (3) Airframe and related systems.
 - (4) Electrical systems.
 - (5) Airframe structures.
 - (6) Dynamic components.

TS 147 TT.7 Electronics

Upon graduation the student will be able to:

- (a) **Explain:**
- (i) the system logic and processes used to determine develop and maintain the appropriate maintenance schedule.
 - (ii) fault diagnostic systems typical of those installed on aircraft.
 - (iii) the procedures used in the repair and servicing of auto-flight systems.
 - (iv) mechanical and electronic systems including electrical/mechanical and digital control systems.
- (b) **Perform:**
- (i) tasks utilizing minimum equipment lists; configuration deviation lists; and built in test equipment programs.
 - (ii) installation of a navigation and communication system.
- (c) **Test, troubleshoot, repair, adjust, remove and replace:**
- (i) communication systems.
 - (ii) navigation systems.
 - (iii) electrical and lighting systems.
 - (iv) instrumentation systems.
 - (v) aircraft electrical and electronic integrated systems.