Type Rating Instructor Rating For Multi-Pilot (Airplane) (TRI) (MPA)) Course

Course Objective

1. The course should be designed to give adequate training to the applicant in theoretical knowledge instruction; flight instruction and synthetic flight instruction in order to instruct for any multi-pilot Airplane type rating for which the applicant is qualified (see JCAR-FCL 1.365).

PART I - Teaching and Learning

Item No.

1 **The Learning Process.**
- Motivation.
- Perception and understanding.
- Memory and its application.
- Habits and transfer.
- Obstacles to learning.
- Incentives to learning.
- Learning methods.
- Rates of learning.

2 **The Teaching Process**.
- Elements of effective teaching.
- Planning of instructional activity.
- Teaching method.
- Teaching from the known to the unknown.
- Use of lesson plans'.

3 **Training Philosophies**.
- Value of a structured (approved) course of training.
- Importance of a planned syllabus.
- Integration of theoretical knowledge and flight instruction.

4 Techniques Of Applied Instruction

a. Theoretical knowledge - Classroom instruction techniques.
- Use of training aids.
- Group lectures.
- Individual briefings.
- Student participation/discussion.

b. Flight - Airborne instruction techniques.
- The flight/cockpit environment.
- Techniques of applied instruction.
- Post flight and in flight judgment and decision making.

5 Student Evaluation and Testing

a. Assessment of student performance.
- The function of progress tests.
- Recall of knowledge.
- Translation of knowledge into understanding.
- Development of understanding into actions.
- The need to evaluate rate of progress.

b. Analysis of student errors.
- Establish the reason for errors.
- Tackle major faults first, minor faults second.
- Avoidance of over criticism.
- The need for clear concise communication.

6 **Training Program Development**.
- Lesson planning.
- Preparation.
- Explanation and demonstration.
- Student participation and practice.
- Evaluation.

7 Human Performance and Limitations Relevant to Flight Instruction.
- Physiological factors.
- Psychological factors.
- Human information processing.
- Behavioral attitudes.
- Development of judgment and decision making.

8 **Hazards Involved In Simulating Systems Failures and Malfunctions in the Airplane during Flight**.

- Selection of a safe altitude.
- Importance of touch drills'.
- Situational awareness.
- Adherence to correct procedures.

9 **Training Administration**.

- Flight theoretical knowledge instruction records.
- Pilot's personal flying log book.
- The flight/ground curriculum.
- Study material.
- Official forms.
- Aircraft Flight/Owner's Manuals/Pilot's Operating Handbooks.
- Flight authorization papers.
- Aircraft documents.
- The private pilot's license regulations.

PART 2

Technical Training

1. The course should be related to the type of Airplane on which the applicant wishes to instruct. A training program should give details of all theoretical knowledge instruction.

2. Identification and application of human factors (as set in the ATPL syllabus 040) related to multi - crew co-operation aspects of the training.

3. The content of the instruction programme should cover training exercises as applicable to the Airplane type.

4. The TRI rating applicant should be taught and made familiar with giving instruction from the seat normally occupied by the co-pilot.

Training Exercises

5. Flight Simulator.

Items with an * should be performed in an Airplane in case a flight simulator is not available.

a. Use of checklist, setting of radios/navigation aids;
b. Starting engines;
c. *Take-off checks;
d. *Instrument take-off, transition to instruments after liftoff;

e. Crosswind take-off;
f. Engine failure during take-off between V1 and V2;
g. Aborted take-off prior to reaching V1;
h. High mach buffeting, specific flight characteristics (if necessary);
i. *Steep turns;
j. *Recovery from approach to stall/take-off, clean, landing configuration;
k. Instrument approach to required minimum decision height or minimum descent height/altitude, manual one engine simulated inoperative during approach and landing or go around;
l. Rejected landing and go around; and
m. Crosswind landing.

Category II and III operations, if applicable

6 a. Precision approaches, automatic with auto-throttle and flight director go-around caused by aircraft or ground equipment deficiencies;
b. Go around caused by weather conditions;
c. Go around at DH caused by offset position from centerline; and
d. One of the CAT II/CAT III approaches must lead to a landing.

Airplane (not applicable for applicants for SFI (A) authorization or zero flight time training by a TRI (A)

7 a. Familiarization with controls during outside checks;
b. Use of checklist, setting of radios and navigation aids, starting engines;
c. Taxiing;
d. Take-off;
e. Engine failure during take-off shortly after V2, after reaching climb out attitude;
f. Other emergency procedures (if necessary);
g. One engine simulated inoperative go around from required minimum DH; and
h. One engine (critical) simulated inoperative landing.

8 Flight simulator qualified and approved for ZFTT (for restricted TRI (A)
a. Familiarization with controls during outside checks;
b. Use of checklist, setting of radios and navigation aids, starting engines;
c. Taxiing;
d. Take-off;
e. Simulated engine failure during take-off shortly after V2, after reaching climb out attitude;
f. Other emergency procedures (if necessary);
g. One engine inoperative go around from requirement minimum DH; and
h. One engine (critical) inoperative landing.