

SECTION 2.4 INSTRUCTOR RATINGS

Unit 2.4.1 FIRC: Instructor rating – common

1. Reserved

2. Flight rules

2.1 Legislation

- 2.1.1 Describe the privileges and limitations of the instructor rating and associated training endorsements.
- 2.1.2 Describe the flight training that must be conducted under the authority of Part 141 or 142 of CASR 1998.

3. Principles and methods of instruction

3.1 Principles of learning

- 3.1.1 Describe the adult learning process.
- 3.1.2 Explain what is meant by perception.
- 3.1.3 Explain the relative importance of each of the physical senses in learning.
- 3.1.4 Explain how the defence mechanisms listed may hinder learning:
 - (a) rationalisation;
 - (b) flight;
 - (c) aggression;
 - (d) resignation.
- 3.1.5 Explain how the level of stress may affect learning.
- 3.1.6 Explain the relation between perception and understanding.
- 3.1.7 State how positive and negative motivation affects learning.
- 3.1.8 Explain the application of the levels of learning.
- 3.1.9 Explain how the rate of learning may vary with practice.
- 3.1.10 Explain the role of each of the memory systems in terms of the model of information processing:
 - (a) sensory register;
 - (b) short-term memory;
 - (c) long-term memory.

3.2 Principles of instruction

- 3.2.1 Explain how a flight instructor could assist the process of perception and understanding.
- 3.2.2 State examples of how rote learning, understanding of knowledge and correlation apply to flight training.
- 3.2.3 Identify the outcomes of aeronautical knowledge instruction associated with the 3 domains of learning:
 - (a) cognitive (knowledge);
 - (b) affective (attitudes, beliefs and values);
 - (c) psychomotor (physical skills).
- 3.2.4 State the factors that may hinder learning with respect to aeronautical knowledge training.
- 3.2.5 Explain the advantages and disadvantages of guided discussion in flight training and identify flight training activities for which this technique could be suitable.
- 3.2.6 Give examples of positive and negative transfer in aeronautical knowledge training.

- 3.2.7 Explain the role of each factor listed in the communication process:
- (a) source;
 - (b) symbols;
 - (c) receiver.
- 3.2.8 Recall how these common barriers affect communication:
- (a) lack of common experience;
 - (b) confusion;
 - (c) abstractions.
- 3.2.9 Explain how an instructor may monitor, whether communication has been achieved.
- 3.2.10 Identify adult learning issues applicable to aeronautical knowledge training.
- 3.2.11 Explain each of the basic steps of the teaching process:
- (a) preparation;
 - (b) presentation;
 - (c) application;
 - (d) review and evaluation.
- 3.2.12 State the purpose of behavioural (performance-based) outcomes in flight training.
- 3.2.13 Explain the following attributes of effective outcomes:
- (a) achievable;
 - (b) observable;
 - (c) measurable.
- 3.2.14 Explain how to develop the 3 essential elements of behavioural outcomes:
- (a) performance (what has to be done);
 - (b) performance criteria;
 - (c) conditions.
- 3.2.15 Explain the advantages and disadvantages of the teaching methods listed and give practical examples of situations best suited to each of these techniques in flight training:
- (a) lecture;
 - (b) theory or skill lesson;
 - (c) group learning;
 - (d) guided discussion;
 - (e) briefing.
- 3.2.16 Explain the role of the instructor in each of the 5 steps involved in providing skill practice to trainees:
- (a) explanation;
 - (b) demonstration;
 - (c) performance;
 - (d) supervision;
 - (e) evaluation.
- 3.2.17 Explain the difference between a training syllabus and competency-based standards.

3.3 Lesson planning and delivery

- 3.3.1 Explain the general purpose and content of each of the components of a typical aeronautical knowledge lesson plan:
- (a) aim/motivation/revision;
 - (b) outcomes;
 - (c) explanation of principles;
 - (d) explanation/demonstration of technique;

- (e) threat and error management;
- (f) practice;
- (g) review.

- 3.3.2 State the reasons for limiting the duration of lessons and indicate the desirable duration of a typical lesson.
- 3.3.3 Explain the purpose and content of a training syllabus (or curriculum).
- 3.3.4 Explain the purpose and use of training aids.
- 3.3.5 Give examples of training aids particularly suited to aeronautical knowledge training.
- 3.3.6 Explain the role of the instructor in each of the following phases of review and evaluation:
 - (a) fault analysis (diagnosis);
 - (b) competency assessment;
 - (c) trainee self-assessment;
 - (d) training effectiveness.

3.4 Principles of questioning

- 3.4.1 Explain the reasons for questioning trainees.
- 3.4.2 Explain the characteristics of an effective or open question.
- 3.4.3 Give examples of good and poor questions.
- 3.4.4 Explain how oral questions can promote mental activity.
- 3.4.5 Explain why oral questions maintain student interest during a lesson.
- 3.4.6 Explain why is it essential that the instructor always confirm answers to questions.
- 3.4.7 Explain the purposes of oral questions.
- 3.4.8 Describe the desired qualities of good oral questions.
- 3.4.9 Describe the procedure to follow when asking a question.
- 3.4.10 Explain the key points to observe in the handling of student answers.
- 3.4.11 Explain the key points to observe in the handling of student questions.