

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.