

## APPENDIX D TO PART 141—COMMERCIAL PILOT CERTIFICATION COURSE

1. *Applicability.* This appendix prescribes the minimum curriculum for a commercial pilot certification course required under this part, for the following ratings:

- (a) Airplane single-engine.
- (b) Airplane multiengine.
- (c) Rotorcraft helicopter.
- (d) Rotorcraft gyroplane.
- (e) Powered-lift.
- (f) Glider.
- (g) Lighter-than-air airship.
- (h) Lighter-than-air balloon.

2. *Eligibility for enrollment.* A person must hold the following prior to enrolling in the flight portion of the commercial pilot certification course:

- (a) At least a private pilot certificate; and
- (b) If the course is for a rating in an airplane or a powered-lift category, then the person must:

- (1) Hold an instrument rating in the aircraft that is appropriate to the aircraft category rating for which the course applies; or
- (2) Be concurrently enrolled in an instrument rating course that is appropriate to the aircraft category rating for which the course applies, and pass the required instrument rating practical test prior to completing the commercial pilot certification course.

3. *Aeronautical knowledge training.* (a) Each approved course must include at least the following ground training on the aeronautical knowledge areas listed in paragraph (b) of this section, appropriate to the aircraft category and class rating for which the course applies:

- (1) 35 hours of training if the course is for an airplane category rating or a powered-lift category rating.
- (2) 65 hours of training if the course is for a lighter-than-air category with an airship class rating.
- (3) 30 hours of training if the course is for a rotorcraft category rating.
- (4) 20 hours of training if the course is for a glider category rating.
- (5) 20 hours of training if the course is for lighter-than-air category with a balloon class rating.

(b) Ground training must include the following aeronautical knowledge areas:

- (1) Federal Aviation Regulations that apply to commercial pilot privileges, limitations, and flight operations;
- (2) Accident reporting requirements of the National Transportation Safety Board;
- (3) Basic aerodynamics and the principles of flight;
- (4) Meteorology, to include recognition of critical weather situations, windshear recognition and avoidance, and the use of aeronautical weather reports and forecasts;
- (5) Safe and efficient operation of aircraft;
- (6) Weight and balance computations;

- (7) Use of performance charts;
- (8) Significance and effects of exceeding aircraft performance limitations;

- (9) Use of aeronautical charts and a magnetic compass for pilotage and dead reckoning;

- (10) Use of air navigation facilities;

- (11) Aeronautical decision making and judgment;

- (12) Principles and functions of aircraft systems;

- (13) Maneuvers, procedures, and emergency operations appropriate to the aircraft;

- (14) Night and high-altitude operations;

- (15) Descriptions of and procedures for operating within the National Airspace System; and

- (16) Procedures for flight and ground training for lighter-than-air ratings.

4. *Flight training.* (a) Each approved course must include at least the following flight training, as provided in this section and section No. 5 of this appendix, on the approved areas of operation listed in paragraph (d) of this section that are appropriate to the aircraft category and class rating for which the course applies:

- (1) 120 hours of training if the course is for an airplane or powered-lift rating.

- (2) 155 hours of training if the course is for an airship rating.

- (3) 115 hours of training if the course is for a rotorcraft rating.

- (4) 6 hours of training if the course is for a glider rating.

- (5) 10 hours of training and 8 training flights if the course is for a balloon rating.

(b) Each approved course must include at least the following flight training:

- (1) *For an airplane single-engine course:* 55 hours of flight training from a certificated flight instructor on the approved areas of operation listed in paragraph (d)(1) of this section that includes at least—

- (i) Ten hours of instrument training using a view-limiting device including attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. Five hours of the 10 hours required on instrument training must be in a single engine airplane;

- (ii) Ten hours of training in a complex airplane, a turbine-powered airplane, or a technically advanced airplane that meets the requirements of §61.129(j) of this chapter, or any combination thereof. The airplane must be appropriate to land or sea for the rating sought;

- (iii) One 2-hour cross country flight in daytime conditions in a single engine airplane that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure;

- (iv) One 2-hour cross country flight in nighttime conditions in a single engine airplane that consists of a total straight-line