§ 61.185 Aeronautical knowledge.

(a) A person who is applying for a flight instructor certificate must receive and log ground training from an authorized instructor on:

(1) Except as provided in paragraph (b) of this section, the fundamentals of instructing, including:

(i) The learning process;
(ii) Elements of effective teaching;
(iii) Student evaluation and testing;
(iv) Course development;
(v) Lesson planning; and
(vi) Classroom training techniques.

(2) The aeronautical knowledge areas for a recreational, private, and commercial pilot certificate applicable to the aircraft category for which flight instructor privileges are sought; and

(3) The aeronautical knowledge areas for the instrument rating applicable to the aircraft category for which instrument flight instructor privileges are sought.

(ii) Except as provided in paragraph (b) of this section, the fundamentals of instructing includes:

(i) The learning process;
(ii) Elements of effective teaching;
(iii) Student evaluation and testing;
(iv) Course development;
(v) Lesson planning; and
(vi) Classroom training techniques.

(iii) The applicant must provide proof of satisfactory completion of the flight training, including:

(1) Aircraft that is representative of the category and class of aircraft for the rating sought; or
(2) Flight simulator or approved flight training device that is representative of the category and class of aircraft for the rating sought, and used in accordance with a course at a training center certificated under part 142 of this chapter.

(iv) The applicant must provide proof of satisfactory completion of the flight training, including:

(1) Aircraft that is representative of the category and class of aircraft for the rating sought; or
(2) Flight simulator or approved flight training device that is representative of the category and class of aircraft for the rating sought, and used in accordance with a course at a training center certificated under part 142 of this chapter.

(j) Log at least 15 hours as pilot in command in the category and class of aircraft that is appropriate to the flight instructor rating sought; and

(k) Comply with the appropriate sections of this part that apply to the flight instructor rating sought.

§ 61.187 Flight proficiency.

(a) General. A person who is applying for a flight instructor certificate must receive and log flight and ground training from an authorized instructor on the areas of operation listed in this section that apply to the flight instructor rating sought. The applicant's logbook must contain an endorsement from an authorized instructor certifying that the person is proficient to pass a practical test on those areas of operation.

(b) Areas of operation. (1) For an airplane category rating with a single-engine class rating:
   (i) Fundamentals of instructing;
   (ii) Technical subject areas;
   (iii) Preflight preparation;
   (iv) Preflight lesson on a maneuver to be performed in flight;
   (v) Preflight procedures;
   (vi) Airport and seaplane base operations;
   (vii) Takeoffs, landings, and go-arounds;
   (viii) Fundamentals of flight;
   (ix) Performance maneuvers;
   (x) Ground reference maneuvers;
   (xi) Slow flight and stalls;
   (xii) Basic instrument maneuvers;
   (xiii) Emergency operations; and
   (xiv) Multiengine operations; and
   (xv) Postflight procedures.

(2) For an airplane category rating with a multiengine class rating:
   (i) Fundamentals of instructing;
   (ii) Technical subject areas;
   (iii) Preflight preparation;
   (iv) Preflight lesson on a maneuver to be performed in flight;
   (v) Preflight procedures;
   (vi) Airport and seaplane base operations;
   (vii) Takeoffs, landings, and go-arounds;
   (viii) Fundamentals of flight;
   (ix) Performance maneuvers;
   (x) Ground reference maneuvers;
   (xi) Basic instrument maneuvers;
   (xii) Emergency operations; and
   (xiii) Multiengine operations; and
   (xiv) Postflight procedures.

(3) For a rotorcraft category rating with a helicopter class rating:
   (i) Fundamentals of instructing;
   (ii) Technical subject areas;
   (iii) Preflight preparation;
   (iv) Preflight lesson on a maneuver to be performed in flight;
   (v) Preflight procedures;
   (vi) Airport and heliport operations; and
   (vii) Hovering maneuvers;
   (viii) Takeoffs, landings, and go-arounds;
   (ix) Fundamentals of flight;
   (x) Performance maneuvers;
   (xi) Emergency operations; and
   (xii) Special operations; and
   (xiii) Postflight procedures.

(4) For a rotorcraft category rating with a gyroplane class rating:
   (i) Fundamentals of instructing;
   (ii) Technical subject areas;
   (iii) Preflight preparation;
   (iv) Preflight lesson on a maneuver to be performed in flight;
   (v) Preflight procedures;
   (vi) Airport operations;
   (vii) Takeoffs, landings, and go-arounds;
   (viii) Fundamentals of flight;
   (ix) Performance maneuvers;
   (x) Flight at slow airspeeds;
   (xi) Ground reference maneuvers;
   (xii) Emergency operations; and
   (xiii) Postflight procedures.

(5) For a powered-lift category rating:
   (i) Fundamentals of instructing;
   (ii) Technical subject areas;
   (iii) Preflight preparation;
   (iv) Preflight lesson on a maneuver to be performed in flight;
   (v) Preflight procedures;
   (vi) Airport and heliport operations;
   (vii) Hovering maneuvers;
   (viii) Takeoffs, landings, and go-arounds;
   (ix) Fundamentals of flight;
   (x) Performance maneuvers;
   (xi) Ground reference maneuvers;