APPENDIX 2. SAMPLE PILOT TRAINING COURSE OUTLINE (TCO)

This sample private pilot TCO is intended to serve as a general guide for the preparation of a TCO for which FAA approval is sought. Pilot schools may develop their own training syllabus or use a commercially prepared syllabus (see Order 8700.1, Chapter 142, Section 1, Paragraph 7). If a commercially prepared syllabus is used, it must meet the needs of their particular operation; i.e., physical layout of the operation, personnel, aircraft, kinds of training aids available, methods and procedures of operation, and the goals and standards of the school. The content of the training syllabus contained herein is not considered to be the optimum. The syllabus content should be arranged in a manner best suited to the individual school where training procedures are often dictated by weather, location or specific training needs. This sample contains a training syllabus for both private pilot ground and flight training and is designed to be taught concurrently.

1. A TCO is required by FAR § 141.55 to meet the minimum curriculum requirements of the course prescribed in the appropriate appendixes of FAR Part 141. If the school elects to submit a TCO, based on a special curriculum approved under FAR § 141.57, such a course will be approved upon a showing that the course, as outlined, will achieve a level of training prescribed in the approved special curriculum.

2. It is intended that the appendixes of FAR Part 141 include uniform curricula for approved training courses but would not prescribe maneuvers and other details included in the curricula contained in FAR Part 141. This was done to provide flexibility which is necessary and directed by the fact that students trained under FAR Part 141 must be tested under FAR Part 61.

3. From time to time, the FAA may highlight special emphasis items that have been determined to be beneficial to be included in a TCO. Review the TCO’s to determine if such special emphasis items are addressed; if not, consider the inclusion of these items and coordinate with the FAA prior to formal submission of an amended TCO.
TRAINING COURSE OUTLINE SAMPLE

1. Travis Aviation, located at Manassas Airport, Manassas, Virginia, holds Air Agency Certificate No. TELS210F, and is owned and operated as:

   TRAVIS E. LEE
   dba
   TRAVIS AVIATION
   1862 BULL RUN CIRCLE
   MANASSAS, VA 22030


3. This TCO meets all of the curriculum requirements for the Private Pilot Certification Course contained in appendix A of FAR Part 141 (describe the approved special curriculum if one is used as a basis for the TCO). These curriculum contents are intended to parallel FAA-S-8081-1A, the Private Pilot Airplane Single-Engine Land Practical Test Standards (PTS).

4. The training syllabus herein contains a separate ground training course and a flight training course which will be taught concurrently.

5. COURSE OBJECTIVE. The student will obtain the knowledge, skill and aeronautical experience necessary to meet the requirements for a private pilot certificate with an airplane category rating and a single-engine land class rating.

6. COMPLETION STANDARD. The student must demonstrate through written tests, practical tests, and through appropriate records that he/she meets the knowledge, skill and experience requirements necessary to obtain a private pilot certificate with an airplane category rating and a single-engine land class rating. Each individual must satisfactorily complete at least one stage of training within each training period of not more than 90 days.

7. GROUND INSTRUCTIONAL FACILITIES. Ground instructional facilities are located in Hanger No. 12 at the Manassas Airport. They consist of two 25 by 25-foot rooms equipped with tables and chairs and instruction booths, as shown in the following diagrams.

   A. Training Room No. 1 is equipped with eight 36 by 72-inch tables and chairs to accommodate 16 students. The room is also equipped with a 36 by 60-inch chalk board, a VHS videotape player and 48-inch monitor and an overhead projector and screen. The tables are equipped with a “four-answer” responder system with the master panel located on the instructor’s lectern.

   B. (Diagram - Training Room No. 1).
C. Training Room No. 2 is equipped with nine individual training booths. Eight booths are equipped with Apex Visual Screens and projectors. One booth is equipped with closed circuit television.

D. (Diagram - Training Room No. 2).

E. The training rooms are well lighted and the temperature is thermostatically controlled. Each room is well ventilated and conforms to the city of Manassas building, sanitation and health codes. The rooms are designed and located so that students will not be distracted by instruction conducted in the other rooms or by flight and maintenance operations at the airport.

8. AIRPORT. Manassas Airport is the main operations base for training in this course. Flight training operations, including the dispatching of flights, will also be conducted at Centreville Airport, Centreville, Virginia. Both airports have hard-surfaced runways and meet the requirements of FAR § 141.37 for day and night flight operations. Each airport has fuel and maintenance services available from 0600-2200.

9. AIRPORT FACILITIES. Each airport is equipped with a pilot briefing area. These are permanent structures located in Hangar 12 at Manassas Airport and in Hangar 1 at Centreville Airport. Both briefing areas are equipped with Direct User Access Terminals (DUATS) and a direct line telephone to the Leesburg Automated Flight Service Station (AFSS). The facilities are used exclusively by students, air taxi pilots, aircraft salesmen, itinerant pilots, and regular customers of Travis Aviation. The briefing areas are 20 by 25-feet and equipped with numerous tables for planning purposes. The briefing areas have a full set of aeronautical charts, including the current AIM. Large wall maps with a mileage indicator depict the entire United States. The local practice areas are shown and described on a detailed chart posted on the wall.

10. AIRCRAFT. Bendix 180 airplanes will be used for all flight training in this course. These aircraft will meet the requirements of FAR § 141.39. Radio equipment will consist of at least one 360 channel transceiver and at least one VOR and NDB navigational receiver and a 4096 code transponder with Mode C capability. Each airplane is equipped for day and night VFR and IFR flying as specified in FAR § 91.205.

11. CHIEF FLIGHT INSTRUCTOR. (The chief flight instructor for a course of training should be designated by name in the appropriate TCO. If the school’s qualifications for a chief flight instructor are higher than those listed in FAR § 141.35, those qualifications should be listed.)

12. ASSISTANT CHIEF FLIGHT INSTRUCTOR(S). (The assistant chief flight instructor(s) for a course of training should be designated by name in the appropriate TCO. If assigned duties at a satellite base, those duties and the specific bases should be listed.)

13. FLIGHT INSTRUCTORS. (The minimum qualifications and ratings for flight instructors should be listed in the TCO.) For example: Each flight instructor assigned to this course must be the holder of at least a commercial pilot certificate with an airplane category rating and a single-engine land class rating. The instructor must be the holder of a flight instructor certificate with an airplane category rating with a
single-engine class rating and an instrument airplane rating. The instructor must also have a total of 1,000 hours of flying time, including at least 200 hours of flight instruction.

14. CHIEF GROUND INSTRUCTOR. (If a chief ground instructor teaches a course of training, the instructor should be designated by name in the appropriate TCO. If the school’s qualifications are higher than those listed in FAR §141.35(e), they should be listed.)
1. GROUND TRAINING COURSE OBJECTIVES. The student will obtain the necessary aeronautical knowledge and meet the prerequisites specified in FAR Part 61 for a private pilot written test.

2. GROUND TRAINING COURSE COMPLETION STANDARDS. The student will demonstrate through practical tests, written tests, and records that he/she meets the prerequisites specified in FAR Part 61, and has the knowledge necessary to pass the private pilot written test.

STAGE ONE – FAR AND OTHER PUBLICATIONS: 7:00 HOURS

1. STAGE ONE OBJECTIVE. To develop the student’s knowledge of the FAR, the AIM (Official Guide to Basic Flight Information and Air Traffic Control (ATC) Procedures), the AC system, National Transportation Safety Board (NTSB) Part 830 and Airport Facility Directory, and the kind of flight operations authorized by the private pilot certificate.

2. STAGE ONE COMPLETION STANDARD. This stage will be completed successfully when the student passes the Stage One final written examination with a grade of 80 percent.

3. LESSON NO. 1 - 2:00 HOURS.

   A. Objective. During this lesson, the student will be introduced to the appropriate regulatory requirements of FAR Parts 61 and 91.

   CONTENT:

   (1) Airplane Registration and Airworthiness Certificate.

   (2) FAR Part 1, Definitions and Abbreviations, appropriate to the private pilot.

   (3) FAR Part 61.
   (a) Requirements for certificates and ratings, privileges, and limitations (student and private pilot).
   (b) Duration of pilot certificates.
   (c) Medical certificate requirements, classes and duration.
   (d) Written tests.
   (e) Practical tests.
   (f) Pilot logbooks and flight records, logging of pilot time.
   (g) Recency of experience requirements (including biennial flight review).
   (h) Private pilot privileges and limitations.
B. Completion Standards. The student will have successfully completed the lesson when, by oral examination, the student displays a working knowledge of the appropriate portions of FAR Parts 61 and 91 and demonstrates how to locate and use information in the rule.

4. LESSON NO. 2 - 2:00 HOURS.

A. Objective. During this lesson, Lesson No. 1 will be reviewed. The student will be instructed in the pertinent regulatory requirements of FAR Part 91 and the accident report rules of the NTSB as related to private pilot operations.

CONTENT:

(1) FAR Part 91.
   (a) General operating and flight rules.
   (b) VFR requirements.
   (c) IFR requirements (familiarization).
   (d) Maintenance, preventative maintenance and alterations, airworthiness and registration certificates.
   (e) Familiarization with Subpart D.

(2) NTSB Procedural Regulations, Part 830 - Notification and Reporting of Accidents.

B. Completion Standards. The lesson will be successfully completed when, by oral examination, the student can demonstrate how to locate and use information in the appropriate rule as related to private pilot operations and demonstrates an understanding of NTSB Part 830.

5. LESSON NO. 3 - 2:30 HOURS.

A. Objective. During this lesson, the student will be given instruction in the basic content of the AIM for VFR operations, the AC system, and airport facility directory.

CONTENT:

(1) AIM.
   (a) Air navigation radio aids.
   (b) Airport air navigation lighting and runway and taxiway marking.
   (c) Airspace, Airport Radar Service Area, Terminal Control Areas, Restricted Areas, Prohibited Areas, Warning Areas and Military Operational Areas.
   (d) Air traffic control.
   (e) Services available to pilots.
   (f) Airport operations to include high density airport operations.
   (g) Emergency procedures.
   (h) Good operating practices to include collision avoidance.
(2) Airport Facility Directory.

(3) FAA AC Series 00, 20, 60, 70, 90, 150 and 170 (familiarization).

B. Completion Standards. The student will have successfully completed the lesson when, by oral examination and demonstration, the student displays basic knowledge of the appropriate parts of the AIM for VFR operations, Airport Facility Directory and the AC system.

6. STAGE ONE FINAL WRITTEN EXAMINATION • 30 MINUTES. (A copy of the Stage One final written examination should be included with the training syllabus when submitted to the FAA FSDO for review. The examination should be comprehensive and contain questions on information covered during this stage.)

STAGE TWO • NAVIGATION: 9:00 HOURS

1. STAGE TWO OBJECTIVE. To develop the student’s ability to plan and plot a VFR cross-country flight using pilotage, dead reckoning and radio navigation.

2. STAGE TWO COMPLETION STANDARD. This stage will be completed successfully when the student passes the Stage Two final written examination with a grade of 80 percent.

3. LESSON NO. 1 • 2:00 HOURS.

   A. Objective. During this lesson, the student will be instructed in the operation of aircraft radios and the use of radio phraseology with respect to ATC facilities. The flight computer will be introduced along with the basic use of aeronautical charts.

   CONTENT:

   (1) Radio communications.

   (a) Operation of the communications radio equipment.

   (b) Ground control.

   (c) Tower.

   (d) Automatic Terminal Information Service.

   (e) Flight Service Station (FSS or AFSS).

   (f) UNICOM.

   (g) Common Traffic Advisory Frequency.

   (h) Technique and phraseology.

   (i) ATC light signals.

   (2) Flight computer/calculator face.

   (a) Time.

   (b) Speed.
(c) Distance.
(d) Fuel consumption.

(3) VFR navigation.
(a) Aeronautical charts.
(b) Measurement of courses.
(c) Pilotage.

B. Completion Standards. The student will have successfully completed the lesson when, by oral examination and demonstration, the student displays basic knowledge of radio communications, ATC facilities and aeronautical charts. The student will be able to solve elementary problems on the flight computer.

4. LESSON NO. 2 - 2:30 HOURS.

A. Objective. During this lesson, the student will be instructed in the fundamentals of navigation, the operation of navigational radio equipment, and advanced problems on the flight computer.

CONTENT:

(1) VFR navigation.
(a) Pilotage.
(b) Dead reckoning.

(2) Operation of the navigational radio equipment.
(a) VOR.
(b) ADF.
(c) Use of radio aids.

(3) Flight computer/calculator.
(a) Determination of wind correction angle and true heading.
(b) Determination of ground speed.
(c) Review, time, speed, distance, and fuel consumption problems.

B. Completion Standards. The student will have successfully completed the lesson when, by oral examination and demonstration, the student displays a basic knowledge of navigation and the use of radio aids. The student will be able to solve fundamental and advanced problems on the flight computer.
5. LESSON NO. 3 - 2:00 HOURS.

A. Objective. Lesson Two will be reviewed. Advanced radio navigational problems, emergency procedures with respect to cross-country flying and flight planning will be introduced.

**CONTENT:**

(1) Review Lesson Two.

(2) Use of ADF.

(3) Radar.

(4) Use of VOR.

(5) Emergency procedures.
   (a) Diversion to an alternate.
   (b) Lost procedures, including use of radar and DF instructions.
   (c) In-flight emergencies, including forced landings.

(6) Transponder and Mode C.

(7) Distance Measuring Equipment (DME).

(8) Review flight planning.

(9) Review flight computer.

B. Completion Standards. This lesson will be completed when, by oral examination and demonstration, the student displays a working knowledge of radio navigation procedures, emergency procedures and solving of flight computer/calculator problems.

6. LESSON NO. 4 - 2:00 HOURS.

A. Objective. During this lesson, the student will be instructed in advanced flight planning, review of flight computer problems, and will be introduced to aeromedical factors related to flight and general safety precautions. At this time, the school procedures for cross-country training flights will be introduced.

(1) Flight planning.

(2) Review flight computer.
(3) Aeromedical factors related to flight.
   (a) Fatigue.
   (b) Hypoxia.
   (c) Hyperventilation.
   (d) Alcohol.
   (e) Drugs.
   (f) Vertigo, spatial disorientation and motion sickness.
   (g) Carbon monoxide poisoning.
   (h) Middle ear and sinus problems.

(4) General safety.
   (a) Collision avoidance precautions.
   (b) Wake turbulence avoidance.
   (c) Fire - in the air and on the ground.
   (d) Use of fire extinguishers (halon).
   (e) Ground handling of aircraft.

(5) School procedures for redispaching flights after unscheduled stops.

(6) Obtaining maintenance away from the home base.

B. Completion Standards. This lesson will be completed when, by oral examination and demonstration, the student displays knowledge of medical factors related to flight, general safety procedures, and school policy and procedures for cross-country training flights.

7. STAGE TWO FINAL WRITTEN EXAMINATION - 30 MINUTES. (A copy of the Stage Two final written examination, along with its passing standards, should be included with the training syllabus when submitted to the FAA FSDO for review. The examination should be comprehensive and contain questions on information covered during this stage.)

   STAGE THREE • WEATHER: 7:00 HOURS

1. STAGE THREE OBJECTIVE. To develop the ability to recognize critical weather situations from the ground and in flight, and become familiar with procedures and use of appropriate aeronautical weather reports and forecasts.

2. STAGE THREE COMPLETION STANDARDS. The student will have successfully completed this stage when he/she passes the Stage Three final written examination with a grade of at least 80 percent.
3. LESSON NO. 1 - 2:00 HOURS.

A. Objective. During this lesson, the student will be instructed in the fundamentals of weather as associated with the operation of aircraft.

CONTENT:

(1) Aviation weather basics.
   (a) Atmospheric layers (inversions).
   (b) Pressure.
   (c) Circulation.
   (d) Temperature and moisture.
   (e) Stability and lapse rates.
   (f) Turbulence.
   (g) Clouds.

(2) Air masses.

(3) Fronts.

(4) Aircraft icing.

(5) Thunderstorms.

B. Completion Standards. This lesson will be completed when, by oral examination, the student demonstrates fundamental knowledge of aviation weather.

4. LESSON NO. 2 - 2:30 HOURS.

A. Objective. Lesson No. 1 will be reviewed. The interpretation and use of weather reports, forecasts, aviation broadcasts and the obtaining of weather briefings will be introduced.

CONTENT:

(1) Review Lesson No. 1.

(2) Aviation weather reports • procurement and use.
   (a) Hourly sequence reports.
   (b) Special surface reports.
   (c) Pilot reports.
   (d) Radar reports.

(3) Aviation weather broadcasts • procurement and use.
   (a) Transcribed weather broadcasts.
(b) In-flight weather advisories.

(4) Weather briefings.

(5) Review requirements of regulations for VFR flight.

(6) Aviation weather forecasts.
   (a) Area forecasts.
   (b) Terminal forecasts.
   (c) Wind-aloft forecasts and reports and windshear.
   (d) Weather charts.
   (e) Pilot weather reports.
   (f) SIGMET’s and AIRMET’s.

(7) Use of the DUAT
   (a) Location identifiers.
   (b) Filing flight plans.
   (c) Notices to Airmen (NOTAM’s).

B. Completion Standards. The lesson will be completed when, by oral examination and demonstration, the student displays the ability to interpret and use aviation weather reports and forecasts and can obtain a weather briefing directly from an AFSS or through the use of DUAT.

5. LESSON NO. 3 - 2:00 HOURS.

A. Objective. This lesson will consist of a review of the previous two lessons and instruction in the use of Coordinated Universal Time (UTC), in-flight weather advisories and weather recognition.

   CONTENT:

   (1) Review Lessons No. 1 and 2.

   (2) UTC.

   (3) In-flight weather advisories.

   (4) Weather recognition from the ground and inflight.

   B. Completion Standards. This lesson will be completed when, by oral examination, the student displays a working knowledge of UTC and in-flight aviation weather advisories.
6. **STAGE THREE FINAL WRITTEN EXAMINATION - 30 MINUTES.** (A copy of the Stage Three final written examination should be included with the training syllabus when submitted to the FAA FSDO for review. The examination should be comprehensive and contain questions on information covered during this stage.)

**STAGE FOUR – FLIGHT FUNDAMENTALS AND AIRPLANE SYSTEMS: 13:00 HOURS**

1. **STAGE FOUR OBJECTIVE.** To develop the student’s knowledge to operate an airplane safely in high density airport operations, using collision avoidance precautions and radio communication procedures.

2. **STAGE FOUR COMPLETION STANDARDS.** This stage will be successfully completed when the student passes the Stage Four final written examination with a grade of 80 percent.

3. **LESSON NO. 1 - 2:30 HOURS.**

   A. **Objective.** During this lesson, the student will be instructed in the fundamentals of flight basic aerodynamics, including load factors.

   **CONTENT:**

   (1) Forces action on an airplane in flight.
   (a) Lift.
   (b) Weight
   (c) Thrust.
   (d) Drag.

   (2) Airfoils.
   (a) Angle of incidence.
   (b) Angle of attack.
   (c) Bernoulli’s Principle.

   (3) Factors affecting lift and drag.
   (a) Wing area.
   (b) Airfoil shape.
   (c) Angle of attack.
   (d) Airspeed.
   (e) Air density.

   (4) Functions of the controls.
   (a) Axis of rotation - longitudinal, lateral and vertical.
   (b) Primary controls - ailerons, elevators and rudder.
(c) Secondary controls • trim tabs.
(d) Flaps and other high lift devices.

(5) Stability.
   (a) Static stability.
   (b) Dynamic stability.

(6) Loads and load factors.
   (a) Effect of bank angle on stall speed.
   (b) Effect of turbulence on load factor.
   (c) Effect of speed on load factor.
   (d) Effect of load factor on stall speed.

B. Completion Standards. This lesson will be successfully completed when, by oral examination, the student displays a basic understanding of the fundamentals of flight, basic aerodynamics, and load factors.

4. LESSON NO. 2 - 2:00 HOURS.

   A. Objective. During this lesson, Lesson No. 1 will be reviewed. The student will be instructed in the basic maneuvers of flight.

   CONTENT:

   (1) Straight and level flight.
      (a) Pitch, bank and yaw.
      (b) Trim.
      (c) Integrated use of outside reference and flight instruments.

   (2) Level turns.
      (a) Forces in a turn.
      (b) Aileron yaw.
      (c) speed of roll.
      (d) Slips and skids.
      (e) Integrated use of outside reference and flight instruments.

   (3) Climbs and climbing turns.
      (a) Gyroscopic action.
      (b) Asymmetrical loading of propeller ("P" factor).
      (c) Slipstream rotation.
      (d) Torque effect.
      (e) Best rate of climb airspeed.
(f) Best angle of climb airspeed.
(g) Trim.

(4) Glides and gliding turns.
(a) Effect of high lift devices.
(b) Most efficient glide speed.
(c) Coordination.
(d) Trim.

(5) Descents with power.
(a) Power settings and airspeeds.
(b) Trim.

B. Completion Standards. The student will have successfully completed the lesson when, by means of a practical test, the student displays a basic understanding of the fundamentals of flight presented in this lesson and in previous flight training.

5. LESSON NO. 3 • 2:00 HOURS.

A. Objective. During this lesson, the student will be instructed in the use of the pilot’s operating handbooks, flight manuals and weight and balance. Fundamental flight training maneuvers will be introduced.

CONTENT:

(1) Use of data in pilot’s operating handbook or FAA-approved AFM.
(a) Takeoff and landing distances.
(b) Fuel consumption and related charts.
(c) Maximum range power settings; maximum endurance power settings.
(d) Operating limitations, handbooks/manuals.

(2) Weight and balance.
(a) Terms and definitions.
(b) Effects of abnormal balance.
(c) Finding loaded weight.
(d) Finding center of gravity; when weight is shifted; when weight is added or removed. Aircraft equipment list.

(3) Flight at minimum controllable airspeed.

(4) stalls.
(a) Theory of stalls.
(b) Power-on stalls.
(c) Power-off stalls.
(d) Crossed-control stalls.
(e) Secondary stalls.
(f) Elevator trim stalls.
(g) Spin entry, inadvertent spins, and spin recovery techniques.

(5) Steep turns.

(6) Plight maneuvering by reference to ground objects.
   (a) S-turns across a road.
   (b) Rectangular course.
   (c) Tums around a point.

B. Completion Standards. This lesson will be completed successfully when, by demonstration, the student displays a basic knowledge of the owner’s handbook, AFM, weight and balance, and the fundamentals of basic flight training maneuvers.

6. LESSON NO. 4 - 2:00 HOURS.

A. Objective. The student will be instructed in flight training maneuvers, including an introduction to attitude instrument flying.

CONTENT:

(1) Review Lesson No. 3.

(2) Takeoffs and landings.
   (a) Normal and crosswind takeoffs and landings.
   (b) Soft field takeoffs and landings.
   (c) Short field takeoffs and landings.
   (d) Go-arounds or rejected landings.

(3) Introduction to attitude instrument flying. Maneuvering by reference to flight instruments - pitch, bank, power and trim control in the performance of basic instrument maneuvers.
   (a) Straight and level flight.
   (b) Constant altitude turns.
   (c) Climbs.
   (d) Descents.
   (e) Recovery from unusual attitudes.
B. Completion Standards. This lesson will be completed successfully when, by oral examination and demonstration, the student displays a basic knowledge of the fundamentals of flight training maneuvers and attitude instrument flying.

7. LESSON NO. 5 - 2:00 HOURS.

A. Objective. During this lesson the student will be instructed in systems and instruments.

CONTENT:

(1) Airplane structures.
    (a) Construction features.
    (b) Flight control systems.
    (c) Rigging.

(2) Propellers.
    (a) Fixed pitch.
    (b) Controllable.

(3) Reciprocating airplane engines.
    (a) Construction features.
    (b) Principle of operation - four stroke cycle.
    (d) Fuel system, including carburetors and fuel injectors.
    (e) Ignition system.
    (f) Engine instruments.
    (g) Operating limitations.
    (h) Anti-ice and deice systems.
    (i) Malfunctions and remedial actions.

(4) Airplane hydraulic system.
    (a) Principle of hydraulics.
    (b) Use of hydraulics in airplanes.
    (c) Construction features of simple airplane hydraulic systems.
    (d) Retractable landing gear and flaps.
    (e) Malfunctions and remedial actions.

(5) Airplane electrical systems.
    (a) Fundamentals of electricity.
    (b) Operation of airplane electrical power system units.
    (c) Electrically operated flight instruments.
    (d) Retractable landing gear.
    (e) Wing flaps, leading edge devices, and spoilers.
(f) Fuses and circuit breakers.
(g) Malfunctions and remedial actions.

(6) Pitot static system and instruments.
(a) Airspeed indicator, including markings.
(b) Altimeter and altitude encoder.
(c) Vertical speed indicator.

(7) Vacuum system and instruments.
(a) Altitude indicator.
(b) Heading indicator.
(c) Turn and slip indicator.

(8) Magnetic compass.
(a) Errors in the magnetic compass.
(b) Use of the magnetic compass.

(9) Maintenance requirements and appropriate records.

B. Completion Standards. This lesson will be successfully completed when, by oral examination, the student displays a basic understanding of the aircraft systems and instruments.

8. LESSON NO. 6 • 2:00 HOURS.

A. Objective. During this lesson the student will be instructed in the fundamentals of night flying. Previous lessons will be reviewed as necessary.

CONTENT:

(1) Review Lesson No. 1 through Lesson No. 5.

(2) Night flying.
(a) Requirements of regulations.
(b) Preparation.
(c) Equipment.
(d) Night vision.
(e) Airport lighting.
(f) Orientation.
(g) VFR navigation.
(h) Weather factors.
(3) FAR Partial and complete power failure.
   (a) Sample situations.
   (b) Recommended courses of action.

(4) Systems and equipment malfunctions.
   (a) Sample situations.
   (b) Recommended course of action.

B. Completion Standards. The lesson will be completed successfully when the student, by oral examination and demonstration, displays a working knowledge of the fundamentals of night flying.

9. STAGE FOUR FINAL WRITTEN EXAMINATION – 30 MINUTES. (A copy of the Stage Four examination to be given should be included with the training syllabus when submitted to the FAA FSDO for review. The examination should be comprehensive and contain questions on information covered during this stage.)

10. FINAL WRITTEN EXAMINATION – 1:00 HOUR. (A copy of the final examination to be given should be included in the training syllabus when submitted to the FAA FSDO for review. The examination should be comprehensive and contain questions on information covered during the entire course.)
Note: This is a sample TCO only and may not include all PTS items or be complete in relation to the FAR. This sample is not meant to be used as an “approval-ready” TCO.

TRANING COURSE OUTLINE—TRAINING SYLLABUS
PRIVATE PILOT CERTIFICATION COURSE AIRPLANE SINGLE-ENGINE LAND
FLIGHT TRAINING: 35 HOURS

1. ENROLLMENT PREREQUISITES. Students enrolling in this flight course must possess a valid student pilot certificate and hold at least a current third-class medical certificate.

2. FLIGHT TRAINING COURSE OBJECTIVES. The student will obtain the aeronautical skill and experience necessary to meet the requirements for a Private Pilot Certificate with an airplane category rating and single-engine land class rating.

3. FLIGHT TRAINING COURSE COMPLETION STANDARDS. The student will demonstrate through practical test and school records that he/she has the necessary aeronautical skill and experience to obtain a Private Pilot Certificate with an airplane category rating and single-engine land class rating.

STAGE ONE—SOLO FLIGHT 9 HOURS DUAL, 1 HOUR SOLO

1. STAGE ONE OBJECTIVES. The student will be instructed in the basic flying procedures and skills necessary for the first solo flight.

2. STAGE ONE COMPLETION STANDARDS. The stage will be completed when the student satisfactorily passes the Stage One check and is able to conduct solo flights safely.

3. FLIGHT LESSON No. 1 (1 HOUR DUAL).

A. Objective. The student will be familiarized with the training airplane, its operating characteristics, cabin controls, instruments, and systems, preflight procedures, use of checklists, and safety precautions to be followed. The student will be instructed in basic flight maneuvers.

CONTENT:

(1) Preflight discussion.
Appendix 2

(2) Introduction.
(a) Purpose of preflight checks and visual inspections.
(b) Line (preflight) inspection and aircraft servicing.
(c) Importance of using a checklist.
(d) Starting engine and runups.
(e) Basic radio procedures.
(f) Taxiing.
(g) Pre-takeoff checklist.
(h) Takeoff (normal or crosswind).
(i) Traffic pattern departure.
(j) Local flying area familiarization.
(k) Straight and level flight (VR and IR).*
(l) Shallow and medium bank turns (VR and IR) in both directions.
(m) Collision avoidance.
(n) Traffic pattern entry.
(o) Ground safety.
(p) Postflight procedures.
(q) Cockpit management.

* The notation “VR and IR” is used to indicate maneuvers to be performed by both visual and instrument references during the conduct of integrated flight instruction.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. At the completion of this lesson, the student should be able to, with assistance, conduct a preflight, use checklists, make engine runups, maintain altitude in straight and level and in turns within ±200 feet and control heading with ±20°, and display an understanding of ground safety.

4. FLIGHT LESSON No. 2 (1 HOUR DUAL).

A. Objective. The student will receive instruction and review on basic flight maneuvers. Instruction in climbs, climbing turns, descents, descending turns, and level-off procedures will be given.

CONTENT:

(1) Preflight discussion.

(2) Review.
(a) Normal or crosswind takeoff.
(b) Traffic pattern departure.
Appendix 2

(c) Shallow and medium bank turns (VR and IR) in both directions.
(d) Straight and level flight (VR and IR).

(3) Introduction.
   (a) Airplane servicing.
   (b) Climbs and climbing turns (VR and IR).
   (c) Glides and gliding turns (VR and IR).
   (d) Torque effect.
   (e) Level off from climbs and glides (VR and IR).

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student should be able to establish proper climbs and descents, and control airspeed, within ±10 knots with power and altitude adjustments, hold altitude within ±100 feet and headings within ±10°.

5. PLIGHT LESSON No. 3 (1 HOUR DUAL).

A. Objective. This flight period will be a review of maneuvers and procedures previously introduced. Plight at minimum controllable airspeed, steep turns, and power-off stalls will be given.

CONTENT:

(1) Preflight discussion.

(2) Review.
   (a) Use of checklist.
   (b) Basic radio communications procedure.
   (c) Engine starting.
   (d) Straight and level flight (VR and IR).
   (e) Constant altitude medium bank turns (VR and IR).
   (f) Climbs and climbing turns (VR and IR).
   (g) Glides and gliding turns (VR and IR).
   (h) Level-off procedures (VR and IR).

(3) Introduction.
   (a) Steep turns.
   (b) Descents and descending turns (VR and IR) using high and low drag configurations.
   (c) Approach to landing and preview of next lesson.
   (d) Plight at minimum controllable airspeed (VR and IR).
   (e) Power-off stalls (imminent and full).
B. Completion Standards. The student will be expected to display proficiency in maintaining airspeed within \( \pm 10 \) knots of appropriate airspeeds. Loss or gain of altitude should be restricted to within \( \pm 100 \) feet and heading control within \( \pm 10^\circ \) while in straight and level flight.

6. FLIGHT LESSON No. 4 (1 HOUR DUAL).

A. Objective. This lesson will consist of a review of all previous maneuvers. S-turns across a road, turns around a point, power-on stalls, and elementary emergency landings will be introduced.

**CONTENT:**

(1) Preflight discussion.

(2) Review.
   (a) Straight and level flight.
   (b) Constant altitude turns.
   (c) Flight at minimum controllable airspeed.
   (d) Takeoff and pattern departure.
   (e) Power-off stalls.
   (f) Steep turns.
   (g) Pattern entry.

(3) Introduction.
   (a) Power-on stalls (VR and IR): (imminent and full).
   (b) Rectangular course.
   (c) S-turns.
   (d) Turns around a point.
   (e) Forced landings procedures initiated at takeoff. During initial climb, cruise, descent, and in the landing pattern.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will have successfully completed the lesson when he/she is competent to perform, with minimum assistance, the procedures and maneuvers given during previous lessons. The student should achieve the ability to recognize stall indications and make safe prompt recoveries. Additionally, the student should maintain assigned airspeed within \( \pm 10 \) knots, assigned altitude within \( \pm 100 \) feet and assigned heading within \( \pm 10^\circ \), and display a basic knowledge of elementary emergency landings.
7. FLIGHT LESSON No. 5 (1 HOUR DUAL).

A. Objective. In addition to review items, the student will be introduced to emergency procedures, the procedures used to change airspeed and configuration of the airplane in various flight attitudes.

CONTENT:

(1) Preflight discussion.

(2) Review.
   (a) Flight at minimum controllable airspeed.
   (b) Steep turns.
   (c) Power-on and power-off stalls.

(3) Introduction.
   (a) Best rate of climb $V_x$ and climbing turns ($VR$ and IR).
   (b) Best angle of climb $V_x$ and climbing turns ($VR$ and IR).
   (c) Emergency procedures.
   (d) Change of airspeed and configuration.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will display, through performance and discussion, complete understanding of possible emergencies and procedures to use during flight. The student should maintain airspeed within $\pm 5$ knots of assigned airspeeds, where applicable.

8. FLIGHT LESSON No. 6 (1 HOUR DUAL).

A. Objective. This lesson will consist of a review of previous maneuvers and an introduction to go-around procedures. At least three takeoffs and landings to a full stop will be accomplished with instructor guidance.

CONTENT:

(1) Preflight discussion.

(2) Review.
   (a) Medium bank turns ($VR$ and IR).
   (b) Best rate of climb $V_x$ and climbing turns ($VR$ and IR).
   (c) Best angle of climb $V_x$ and climbing turns ($VR$ and IR).
   (d) Power-on stall.
Appendix 2

(e) Steep turns (VR and IR).
(f) Emergency procedures.
(g) Airspeed and configuration changes (VR and IR). Cruise to minimum controllable.
(h) Climbing and descending turns (VR and IR).
(i) Normal and crosswind takeoffs and landings.

(3) Introduction.
(a) Go-around.
(b) Wake turbulence avoidance.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student should perform with proficiency the basic flight maneuvers. He/she should demonstrate the ability to maintain altitude within ±100 feet and ability to control heading within ±10°, and control airspeed within ±10 knots of preselected airspeed, where applicable.

9. FLIGHT LESSON No. 7 (1 HOUR DUAL).

A. Objectives. This lesson will consist of a review of previous maneuvers and procedures. The student should perform those maneuvers and procedures for evaluation and practice in preparation for solo.

CONTENT:

(1) Preflight discussion.

(2) Review.
(a) Medium bank turns (VR and IR).
(b) Power-off stalls.
(c) Steep turns.
(d) Emergency procedures.
(e) Airspeed configuration changes (VR and IR).
(f) Climbing and descending turns.
(g) Normal and crosswind takeoffs and landings.
(h) Go-around procedures.
(i) Forward slips to a landing.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student should perform the basic flight maneuvers and demonstrate the ability to maintain altitude within ±100 feet and to control heading within ±10° of that assigned. In addition, the student should control airspeed within ±10 knots of the preselected airspeed.
10. PLIGHT LESSON No. 8 (1 HOUR DUAL).

A. Objective. This lesson will consist of a review of selected maneuvers and procedures. In addition, the student will continue takeoff and landing practice.

CONTENT:

(1) Preflight discussion.

(2) Review.
   (a) Straight and level flight (VR and IR).
   (b) Medium bank turns (VR and IR).
   (c) Takeoff and pattern departure.
   (d) Pattern entry and normal and/or crosswind landings.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student will display skill and understanding in the execution of selected maneuvers and procedures and show solo competence while executing takeoffs and landings.

11. PLIGHT LESSON No. 9 FIRST SOLO PLIGHT (1 HOUR DUAL).

A. Objective. During this lesson the student will accomplish the first supervised solo flight if he/she displays the required level of safety and competence.

CONTENT:

(1) Pre-solo written examination.

(2) Review.
   (a) Medium bank turns (VR and IR).
   (b) Best rate of climb $V_Y$ and climbing turns.
   (c) Best angle of climb $V_X$ and climbing turns.
   (d) Emergency procedures.
   (e) Normal and crosswind takeoffs and landings.
   (f) Balked landing and go-around procedures.

(3) Introduction.
   (a) Supervised solo in the traffic pattern (approximately 15 minutes, three takeoffs and landings).

(4) Postflight critique and preview of next lesson.
B. Completion Standards. The student will display the ability to successfully perform his/her first supervised solo flight.

12. STAGE CHECK: STAGE ONE, SOLO PLIGHT (1 HOUR).

A. Objective. During this flight, the chief flight instructor or assistant chief flight instructor will determine if the student can safely conduct solo flights and exercise the privileges associated with the solo operation of the airplane.

B. Completion Standards. The student will be evaluated on the basis of the following standards:

(1) Maintain altitude within ±100 feet.

(2) Control heading within ±10°.

(3) Control airspeed within ±25 knots (as applicable).

(4) Maintain coordinated control of the airplane.

(5) Display reasonable skill and understanding in the execution of all Stage One maneuvers and procedures.

STAGE TWO - CROSS COUNTRY 7 HOURS DUAL, 5 HOURS SOLO

1. STAGE TWO OBJECTIVES. The student will be instructed in the conduct of cross-country flights in an airplane using pilotage, dead reckoning, and radio navigation (VOR and NDB). The student will also be instructed in operations within the ATC environment under VFR conditions.

2. STAGE TWO COMPLETION STANDARDS. The stage will be completed when the student demonstrates through stage check, solo flight, and records that he/she can safely conduct solo cross-country flights in an airplane using pilotage, dead reckoning, and radio navigation under VFR conditions.

3. PLIGHT LESSON No. 1 (1 HOUR DUAL AND SOLO).

A. Objective. During this lesson the student will operate the airplane in the traffic pattern in solo flight after an appropriate checkout by a flight instructor.

CONTENT:

(1) Preflight discussion.
(2) Review.
   (a) Collision avoidance.
       (b) Traffic pattern.
       (c) Normal and crosswind landings and takeoffs.

(3) Solo flight in the traffic pattern.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will display the proficiency and competency required to act as PIC on subsequent solo flights. The student will display full understanding of proper radio procedures and ground traffic procedures.

4. PLIGHT LESSON No. 2 (1 HOUR DUAL).

A. Objective. The student will be able to demonstrate, recognize, and recover from accelerated stalls, obtain maximum performance during short and soft field takeoffs and landings, and determine position and track using VOR navigation.

CONTENT:

(1) Preflight discussion.

(2) Review.
   (a) Basic radio procedures.
   (b) Medium bank turns (VR and IR).
   (c) Climbs and descents (VR and IR).
   (d) Steep turns (VR and IR).

(3) Introduction.
   (a) Accelerated stalls.
       (b) Short and soft field takeoffs.
   (c) Short and soft field approaches and landings.
   (d) Basic radio navigation, VOR position finding and VOR tracking.
   (e) Solo flight within traffic pattern.
       (f) Dead reckoning with the aid of a magnetic compass.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will demonstrate that he/she is able to recognize and recover from accelerated stalls, obtain maximum performance during short and soft field takeoffs and landings, and determine position and track within 2 miles using VOR navigation.
5. PLIGHT LESSON No. 3 (1 HOUR SOLO).

A. Objective. During this solo period, the student will review and practice the basic and precision flight maneuvers learned previously, in addition to those maneuvers specified by the flight instructor.

**CONTENT:**

(1) Preflight discussion.

(2) Review.
   - (a) Plight at minimum controllable airspeed.
   - (b) Stalls, power-on and power-off.
   - (c) S-turns across a road.
   - (d) Normal and/or crosswind landings.
   - (e) Maneuvers specified by the flight instructor during the preflight discussion.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. This lesson will be completed when the student has accomplished the solo review and practice of basic and precision flight maneuvers in addition to those maneuvers specified by the flight instructor.

6. PLIGHT LESSON No. 4 (1 HOUR NIGHT DUAL).

A. Objective. During this lesson, the student’s ability should be developed to a level which will enable the student to make solo flights in the local practice area and airport traffic pattern. The student will be instructed in such aspects of night operations as: night vision, night orientation, judgment of distance, use of cockpit, position and landing lights, and night emergency procedures.

**CONTENT:**

(1) Preflight discussion.
   - (a) Night vision and vertigo.
   - (b) Orientation in local area.
   - (c) Judgment of distance.
   - (d) Aircraft lights.
   - (e) Airport lights.
   - (f) Taxi technique.
   - (g) Takeoff and landing techniques.
   - (h) Collision avoidance.
   - (i) Unusual altitude recovery.
   - (j) Emergencies.
(2) Demonstration and directed performance.
   (a) Night preflight inspection.
   (b) Use of cockpit lights.
   (c) Taxi technique.
   (d) Takeoff and traffic departure.
   (e) Area orientation.
   (f) Interpretation of aircraft and airport lights.
   (g) Recovery from unusual altitudes (VR and IR).
   (h) Radio communications.
   (i) Traffic pattern entry.
   (j) Power approaches and full stop landings.
   (k) Use of landing lights.
   (l) Simulated electrical failure to include at least one landing without aircraft powered lighting other than required position or anti-collision lighting.
   (m) Go-around.
   (n) VFR navigation.

(3) Student performance of five takeoffs and landings as sole manipulator of the flight controls.
   (a) Takeoff and traffic pattern departure.
   (b) Traffic pattern entry.
   (c) Full stop landings.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will have **successfully** completed the lesson when he/she displays the ability to maintain orientation in the local flying area and traffic pattern, can accurately interpret aircraft and runway lights, and can competently fly the traffic pattern and perform takeoffs and landings. The student will display, through oral examination and demonstrations, competence in performing night emergency procedures.

7. FLIGHT LESSON No. 5 (2 HOURS DUAL).

   A. Objective. The student will be able to navigate using pilotage, dead reckoning, and radio navigation. The student will be able to compute fuel consumption and estimated time of arrival (ETA) to checkpoints and destinations.

   **CONTENT:**

   (1) Preflight discussion and preparation.
      (a) Procurement and analysis of weather reports and forecasts and use of notices to airmen.
(b) Cross-country planning log and use of aeronautical charts.
(c) Airports (controlled and uncontrolled).
(d) Aircraft performance.
(e) FAA flight plan.
(f) Weight and balance determination.

(2) Introduction: Three-leg, round robin, day cross-country flight
   (a) **Pilotage** navigation • all three legs (one leg on Federal airway).
   (b) Dead reckoning navigation • all three legs.
   (c) VOR or NDB navigation on two legs (preferably last two).
   (d) Compute ETA and **fuel** consumption • all three legs.
   (e) Departure procedures (open flight plan).
   (f) En route procedures.
   (g) En route Flight Advisory Service and in-flight weather advisories.
   (h) Arrival procedures • (close flight plan, obtain airport advisories, etc.).
   (i) ATC light signals.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student will demonstrate that he/she can navigate using pilotage, dead reckoning, radio navigation, and make necessary radio communications. The student should demonstrate computation of ETA’s and fuel consumption for each leg of the flight.

8. FLIGHT LESSON No. 6 (2 HOURS DUAL).

   A. Objective. During this lesson, a dual cross-country flight will be planned. However, a diversion to an alternate will be made prior to arrival. The student will perform all required navigation procedures and display the ability to safely conduct solo cross-country flights.

   **CONTENT:**

   (1) Preflight discussion and preparation.
      (a) Weather analysis and **NOTAM’s**.
      (b) Cross-country planning log.
      (c) Airports.
      (d) Aircraft performance.
      (e) FAA flight plan.

   (2) Introduction: Diversion to alternate airport.
      (a) Emergency computation of a flight course.
      (b) Determining position by VOR or NDB.
      (c) Estimating in-flight visibility.
      (d) Recognition of critical weather situations.
(3) Review.
   (a) Pilotage, dead reckoning and VOR or NDB radio navigation.
   (b) Computing ETA and fuel consumption.
   (c) Emergency (including lost) procedures.
   (d) Departure procedures.
   (e) En route procedures.
   (f) Arrival procedures.
   (g) Crosswind takeoffs and landings.
   (h) Straight and level flight (VR and IR).
   (i) Climbs and climbing turns (VR and IR).
   (j) Glides and gliding turns (VR and IR).
   (k) Level off procedures (VR and IR).
   (l) Crosswind takeoffs and landings.
   (m) Simulated precautionary off airport approaches and landing procedures.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will be expected to demonstrate the ability to conduct cross-country flights using various means of navigation. The student will display a thorough knowledge of cross-country flight planning, weather analysis, and use of proper publications. The student will be able to compute ETA’s, fuel consumption, and other computer problems associated with cross-country planning. The student will be able to maintain altitude within ±100 feet. The student will be able to use the various means of navigation to maintain a planned course within 1 mile. In addition, the student will be able to identify his/her position at all times.

9. PLIGHT LESSON No. 7 (3 HOURS SOLO).

   A. Objective. During this lesson the student will conduct a three-leg, solo crosscountry flight using pilotage, dead reckoning, and radio navigation (VOR or NDB). (This cross-country flight should be over the same course as the first dual crosscountry.)

   CONTENT:

   (1) Preflight discussion.

   (2) Preparation

   (3) Flight.

   (4) Postflight critique and preview of next lesson.

   B. Completion Standards. The student will complete a solo cross-country flight, consisting of three legs, using pilotage, dead reckoning, and radio navigation.
10. STAGE CHECK: STAGE TWO, CROSS COUNTRY (1 HOUR).

A. Objective. To confirm that the student can plan and conduct a cross-country flight, including a diversion to an alternate airport, as necessary, to avoid adverse weather. This stage check will be conducted by the chief flight instructor or assistant chief flight instructor.

B. Completion Standards. The student will be expected to demonstrate the ability to safely conduct cross-country flight operations and will display a thorough knowledge of proper preflight action, flight planning, weather analysis, and publications available. The student will perform all duties of PIC with smoothness, accuracy, and competence. The student will be able to divert to an alternate airport and give a reasonable ETA and remaining fuel. Prior to arrival at the alternate airport, the student will be placed under the hood until lost. The student will be able to locate his/her position within 3 miles without aid from the instructor by using all of the means available. The student will:

(1) Establish and maintain headings required to stay on course,

(2) Correctly identify position at any time by various means,

(3) Provide reasonable estimates of ETA’s with an apparent error of not more than 10 minutes,

(4) Maintain altitude within \( \pm 200 \) feet, and

(5) Establish a course to an alternate and, within a reasonable estimate of the time and required fuel to the alternate.

STAGE THREE - PILOT OPERATIONS: 4 HOURS DUAL, 9 HOURS SOLO

1. STAGE THREE OBJECTIVES. The student will gain further experience in solo cross-country practice and receive instruction in preparation for the private pilot airplane practical test.

2. STAGE THREE COMPLETION STANDARDS. The stage will be completed when the student satisfactorily passes the final stage check for the course.

3. FLIGHT LESSON No. 1 (3 HOURS SOLO - 300 NM CROSS COUNTRY).

A. Objective. During this lesson the student will conduct a three-leg, solo cross-country with landings at two different airports, with stops at each airport.

CONTENT:

(1) Preflight discussion.
(2) Preparation

(3) **Flight.**

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will complete a solo cross-country flight to two airports (name airports) with stops at each airport. The instructor should determine how well the cross-country flight was conducted through an oral examination, and a check should be made to determine that all required flight log entries have been made.

4. FLIGHT LESSON No. 2 (4 HOURS SOLO CROSS-COUNTRY).

   A. Objective. During this lesson, the student will conduct a three-leg, solo cross-country with landings at two different airports.

   **CONTENT:**

   (1) Preflight discussion.

   (2) Preparation,

   (3) Solo cross-country flight.

   (4) Postflight critique and preview of next lesson.

   B. Completion Standards. The student will complete a solo cross-country flight to two airports (name airports), with stops at each airport. The instructor should determine how well the cross-country flight was conducted through an oral examination; and a check should be made to determine that all required flight log entries have been made.

5. FLIGHT LESSON No. 3 (1 HOUR DUAL).

   A. Objective. The student will be able to perform advanced maneuvers and recover from unusual attitudes solely by reference to the flight instruments, and conduct Airport Surveillance Radar (ASR) approaches.

   **CONTENT:**

   (1) Preflight discussion.
(2) Review.
(a) Short field takeoffs and landings.
(b) Soft field takeoffs and landings.
(c) Ground reference maneuvers as needed.
(d) Flight at minimum controllable airspeed.
(e) Stalls (power-on and power-off).
(f) Steep turns.
(g) Maneuvers by reference to flight instruments.
(h) Emergency operations.

(3) Introduction of ASR approaches.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will demonstrate proficiency in all required advanced maneuvers, recovery from unusual attitudes solely by reference to the flight instruments, and conduct ASR approaches.

6. FLIGHT LESSON No. 4 (1 HOUR SOLO).

A. Objective. The student will be able to perform specific solo flight maneuvers assigned by the flight instructor to increase proficiency.

CONTENT:

(1) Preflight discussion.
(2) Performance of assigned maneuvers.
(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student will complete the specific solo flight maneuvers assigned by the flight instructor.

7. FLIGHT LESSON No. 5 (1 HOUR DUAL).

A. Objective. During this lesson, the instructor will determine the student’s proficiency in all maneuvers and procedures necessary to conduct flight operations as a private pilot.

CONTENT:

(1) Preflight discussion.
(2) Review of previously covered procedures and maneuvers.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student will display the ability to meet the requirements as outlined in the private pilot ITS, **FAA-S-8081-1A**, for operations as a private pilot.

8. FLIGHT LESSON No. 6 (1 HOUR SOLO).

   A. Objective. During this lesson, the student will practice maneuvers specified by the flight instructor to increase proficiency.

   **CONTENT:**

   (1) Preflight discussion and orientation.

   (2) Performance of assigned maneuvers.

   (3) Postflight critique and preview of next lesson.

   B. Completion Standards. The student will complete the specific solo flight maneuvers assigned by the flight instructor.

9. FLIGHT LESSON No. 7 (1 HOUR DUAL).

   A. Objective. During this lesson the instructor will make a further determination of the student’s proficiency in all maneuvers and procedures necessary to conduct flight operations as a private pilot.

   **CONTENT:**

   (1) Preflight discussions.

   (2) Review of previously covered procedures and maneuvers.

   (3) Postflight critique and preview of next lesson.

   B. Completion Standards. The student’s performance of the procedures and maneuvers should be at the proficiency level of a private pilot.
10. FINAL STAGE CHECK (1 HOUR).

A. Objective. The student will be able to demonstrate the required proficiency in the practical test for a private pilot certificate using the **PTS, FAA-S-8081-1A**, as a guide. This stage check will be conducted by the chief flight instructor or assistant chief flight instructor.

**CONTENT:**

(1) Preflight discussion, including an oral examination.

(2) Review of the private pilot PTS.

(3) Postflight critique.

B. Completion Standards. The student will demonstrate the required proficiency in the practical test for a private pilot certificate. The standard of performance used may be presented by the school, but in no case less than that prescribed by the FAA. If additional instruction is necessary, the chief flight instructor or assistant chief flight instructor will assign the additional training. If the flight is satisfactory, the chief flight instructor will complete the student’s training records and issue a graduation certificate.