I. INTRODUCTION

A. This training course outline consists of three stages used to meet or exceed the curriculum requirements for the Private Pilot Certification Course contained in Appendix B of FAR 141.

B. The flight training syllabus contains only flight training which will be conducted at Killeen Municipal Airport, Building number 1315.

C. The flight training will consist of the following:

   1. 30 hours of dual instruction with at least the following:
      a. 3.0 hours dual cross-country
      b. 3.0 hours instrument training in airplanes
      c. 3.0 hours of night training which will include 10 take-offs and landings accomplished at night with the student as sole manipulator of the controls, and at least one night cross country flight with a total distance of more than 100 nautical miles
      d. 3.0 hours of preparation within 60 days of the final stage check

   2. 2 hours of dual instruction in an approved ground trainer

   3. 15.5 hours of solo flight time in the following break-down
      a. 10 hours of solo cross-country
      b. 5.5 hours of local solo

D. The associated ground school (AIRP 1417) will be taught at Central Texas College campus or other college operated property.

E. For aircraft, training aids, facilities and instructor qualifications, see Appendix II of this syllabus.

F. This course or it’s equivalent, is a required course for the Associate of Applied Science Degree which will enhance employment in the aviation field.

II. ENROLLMENT PREREQUISITES

A. Students enrolling in this course must hold a valid Student Pilot Certificate and at least a current Class Two Medical Certificate.
B. Students must have satisfactorily completed or be concurrently enrolled in the AIRP 1417 (Private Pilot ground school course.)
C. The student must be issued a certificate of enrollment.

III. OVERALL OR GENERAL OBJECTIVES OF THE COURSE

Upon completion of this course - AIRP 1315 Private Pilot Airplane (Examining Authority - Flight Only) - the student will have obtained the aeronautical skill and experience necessary to successfully demonstrate the tasks required for the issuance of the Federal Aviation Administration’s Private Pilot Certificate with an Airplane category and Single-engine class rating.(C1,C3, C5-C8, C18-C20; F1-F5;F7 - F12; F13, F14, F16, F17)

IV. INSTRUCTIONAL MATERIALS
The instructional materials identified for this course are viewable through www.ctcd.edu/books

V. COMPLETION STANDARDS

A. Students are required to attend scheduled flight lessons. Lessons that are cancelled due to bad weather or other circumstances are required to be made up on a special schedule
B. Students are required to perform any outside study and research as may be required by their instructor
C. All stage checks will consist of both a written and flight check with the course grade being calculated by the results of these checks and a daily grade supplied by the individual flight instructor

VI. COMPLETION STANDARDS AND COURSE REQUIREMENTS

The student must demonstrate through testing and school records, that the necessary knowledge, experience and skill required for the issuance of the FAA Private Pilot Airplane has been acquired and the student successfully passes the final stage check.
APPENDIX I

STAGE ONE AND FIRST SOLO

STAGE ONE OBJECTIVES: The student will receive instruction in the basic flying procedures and obtain the skills necessary to conduct the first solo flight safely.

FLIGHT LESSON 1: DUAL

I. OBJECTIVES: This lesson will be used to familiarize the student with the training airplane, ground maneuvering and run-up, normal take-offs and landings, straight and level climbs, turns, descents, safety precautions including collision and wake turbulence avoidance, the use of radio will be introduced in this lesson.

B. CONTENT

1. Preflight discussion
2. Introduction
   a. Aircraft documents
   b. Aircraft preflight and systems
   c. Use of checklists
   d. Powerplant operation, ground maneuvering and run-up
   e. Normal take-offs
   f. Climbs, Straight and level, turns to both directions, shallow, medium and steep bank
   g. Descents, high and low drag profiles
   h. Collision avoidance
   i. Traffic pattern operations to include wake turbulence avoidance
   j. Landings both with power-on and power off
   k. Use of two-way radio
3. Postflight critique and preview of the next lesson

C. COMPLETION STANDARDS: This lesson will be complete when the student is able to conduct a preflight inspection, use aircraft checklists, safely conduct ground operations, maintain desired altitudes within 100 feet, maintain desired headings within 10 degrees, and display an understanding of traffic pattern operations to include collision and wake turbulence avoidance.

FLIGHT LESSON 2: DUAL

A. OBJECTIVES: This lesson will be used to continue the student’s training toward the solo with a review of the items covered in lesson 1 and to introduce the student to minimum controllable airspeed, stalls, both power on and power off, steep turns, in-flight emergencies to include forced landings and equipment malfunctions, slips to landings, and crosswind takeoffs and landings.
B. CONTENT:
1. Preflight discussion
2. Review all procedures
   a. Preflight
   b. Ground operations and engine operations
   c. Normal take-offs and landings
   d. Traffic patterns
   e. Straight and level, turns, climbs, descents
   f. Use of two-way radio for communications
3. Introduction
   a. High and low drag profile descents with and without turns
   b. Flight at various airspeeds from cruise to minimum controllable airspeed
   c. Stalls, power on, power off, first Indication and full
   d. Steep turns
   e. Forced landings from take-off, during initial climb, cruise, and in the landing pattern
   f. Slips to a landing, Crosswind takeoffs and landings with the powerplant at idle and partial power
4. Postflight discussion and preview of the next lesson

C. COMPLETION STANDARDS: This lesson will be complete when the student is able to make take-offs unassisted, can operate within the traffic pattern with little assistance can enter and recover from minimum controllable airspeed while maintaining headings within 10 degrees, altitudes within 100 feet, can recognize and recover from stalls with minimum loss of altitude, and can make normal landings with little assistance.

FLIGHT LESSON 3: Dual

A. OBJECTIVES: This lesson will be used to review those maneuvers previously introduced and to introduce the student to ground reference maneuvers, emergency procedures to include equipment malfunctions and go-around. The pre-solo written test will be administered as part of this lesson.

B. CONTENT:
1. Preflight discussion
2. Review
   a. All ground operations
   b. Normal and crosswind takeoffs and landings
   c. Minimum controllable airspeed
   d. Stalls, power on and off, first indication and full stall
   e. Forced landings
3. Introduction
   a. Rectangular patterns
   b. Turns about a point
   c. S-turns across a road
   d. Go-arounds from the approach and landing flare in various flight configurations including turns
   e. Emergency procedures and equipment malfunctions
f. Administration of Pre-solo written exam and logbook endorsement made.
4. Post-flight discussion and preview of the next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student can perform all air work without assistance, demonstrates an understanding of ground reference maneuvers, maintains desired airspeeds within 10 KTS, altitudes within 100 feet, desired headings within 10 degrees, and has passed the pre-solo written and a logbook endorsement has been made.

FLIGHT LESSON 4: Dual and First Solo

A. OBJECTIVES: This lesson will be used to bring the student up to the level of competency that would allow a safe first solo.

B. CONTENT:
1. Preflight discussion
2. Review
   a. Maneuvers as determined necessary by the Instructor after a review of late training records.
   b. Take-offs and landings
3. Introduction - First Solo
4. Post-flight discussion and preview of the next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student accomplishes the first supervised solo flight.

FLIGHT LESSON 5 Dual (STAGE CHECK)

A. OBJECTIVES: This lesson will be used to accomplish the solo stage check conducted by the chief instructor or designated check pilot.

B. CONTENT:
1. Preflight discussion
2. Stage Check
   a. Ground operations and engine run-up
   b. Normal take-offs and landings
   c. Climbs, turns descents, straight and level
   d. Flight at minimum controllable airspeed
   e. Stalls power on and off, first indication and full
   f. Forced landings
   g. Go-arounds
   h. Slips to a landing
   i. Cross wind landings
3. Post flight discussion and review of the stage

STAGE II - DUAL, SOLO, AND FIRST SOLO CROSS COUNTRY

STAGE TWO OBJECTIVES: The student will receive the training and practice necessary to safely complete the first solo cross country. In addition, this stage will be used to complete the training required for night operations.
STAGE ONE COMPLETION STANDARDS: This stage will be complete when the student has satisfactorily completed the Stage II written exam, Stage II flight check, and is able to conduct solo cross-country flights safely.

FLIGHT LESSON 6: Dual and solo

A. OBJECTIVES: This lesson will be used by the instructor to review upper air maneuvers to include minimum controllable airspeed, stalls - power on and power-off, and Steep Turns. In addition, the instructor will introduce basic attitude instrument flight (at least .3 hours), accelerated stalls, and allow the student to conduct a second supervised solo flight.

B. CONTENT
   1. Preflight Discussion
   2. Review
      a. Ground Operations
      b. Normal Take-offs
      c. Traffic pattern operations
      d. Climbs, turns, descents
      e. Minimum controllable airspeed
      f. Stalls power on and off
      g. Steep turns
      h. Forced landings
      i. Normal landings
      j. Solo flight in traffic pattern
   3. Introduction
      a. Basic attitude instrument flying
         (1) Straight and level
         (2) Climbs and descents
         (3) Turns
         (4) Unusual attitudes
      b. Accelerated stalls
      c. Flight at slow airspeeds
         with realistic distractions, recognition
         of and recovery from stalls in straight flights and turns
   4. Post-flight discussion and preview of the next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student demonstrates the necessary skills to safely solo the airplane, and can fly the aircraft by reference to the instruments maintaining headings within 20 degrees, the desired altitude within 200 feet, and desired airspeed within 20 knots.

FLIGHT LESSON 7: Dual and Solo

A. OBJECTIVES: This lesson will be used to review ground reference maneuvers, basic instrument flight, and to allow the student to conduct a third supervised solo.

B. CONTENT
   1. Preflight discussion
   2. Review
      a. Ground operations
      b. Normal take-off
      c. Instrument climbs, turns
         descents, unusual attitudes
      d. Rectangular patterns
      e. Turns about a point
      f. S-turns across a road
      g. Solo in local area
   3. Post-flight discussion and preview of next lesson

C. COMPLETION STANDARDS: This lesson is complete when all the pre-solo maneuvers have been reviewed and the student successfully completes a third supervised solo.

FLIGHT LESSON 8: Solo
A. OBJECTIVES: This lesson will be used by the student for the purpose of building solo
experience in the local practice area. The student will practice minimum controllable
airspeed, stalls, power on and power off, and take-offs and landings

B. CONTENT:
1. Preflight discussion
2. Review
   a. Ground operations
   b. Normal take-offs and landings
   c. Stalls, power on and power off
   d. Minimum controllable airspeed
3. Post-flight discussion and preview of next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student has practiced
the maneuvers as directed by the instructor

FLIGHT LESSON 9: Dual (Ground Trainer)

A. OBJECTIVES: This lesson will be used by the instructor to familiarize the student with
the operation of the approved ground trainer and to allow the student to practice basic
instrument flying skills

B. CONTENT
1. Preflight discussion
2. Introduction
   a. Operation of the ground trainer
   b. Use of radio aids and simulated radar directives
3. Review
   a. Straight and level flight by reference to instruments
   b. Times turns
   c. Constant rate climbs and descents
4. Post-flight discussion and preview of the next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student demonstrates
an understanding of the ground trainer and can maintain constant rate climbs, turns, and
descents while maintaining the desired headings within 10 degrees, altitudes within 100
feet, and airspeeds within 10 KTS.

LESSON 10: Dual (Night)

A. OBJECTIVES: This lesson will be used to introduce the student to night operations and
will be a minimum of 1.5 hours in duration

B. CONTENT
1. Preflight discussion
2. Introduction
   a. Required equipment for night operations
   b. Differences in night operations as opposed to day operations
   c. Hazardous conditions to be found at night
   d. Airport and aircraft lighting
   e. Take-offs and landings (minimum of 7)
f. Emergencies
   (1) Forced landings
   (2) Unforecast weather
   (3) Landing with a burned-out landing light

3. Post-flight discussion and preview of the next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student has received a minimum of 1.5 hours instruction during the hours of darkness and can demonstrate through oral quizzing a thorough understanding of night operations

LESSON 11: Dual (Cross-country -Day)

A. OBJECTIVES: This lesson will be used by the instructor to introduce the student to the procedures necessary for the conduct of a safe solo cross country flight. This flight will entail operations at least one tower-controlled airport and one leg along federal airways.

B. CONTENT:
   1. Preflight discussion
   2. Introduction
      a. Use of available weather services, charts, and reports
      b. Use of appropriate VFR navigation charts
      c. Development and use of a VFR navigation log
      d. Navigation
         (1) Dead reckoning, radio navigation, pilotage
         (2) Use of the magnetic compass as sole heading indication
      e. Short and soft field take-offs and landings
      f. In-flight emergencies
         (1) Estimating in-flight visibilities
         (2) Recognizing hazardous weather
         (3) Diverting to an alternate
      g. Use of two way radio communications with flight service stations and ATC facilities
      h. Operations at controlled airports
      i. Recognition of operational problems associated with various terrain features
      j. Operation of the instruments and equipment in the airplane
      k. Performance charts to include take-off and landing, cruise, and weight and balance
   3. Post-flight discussion and preview of the next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student demonstrates the ability to safely conduct VFR solo cross country training flights.

LESSON 12: Dual (Cross-country, Night)

A. OBJECTIVES: This lesson will be used to finish the student’s night training and will include a cross country flight to an airport more than 50 nm from the originating airport and enough landings to ensure the student has 10 landings to a full stop at night.

B. CONTENT
   1. Preflight discussion
   2. Review
      a. Night operations, hazards and differences from day operations
b. VFR navigation procedures
3. Post-flight discussion and preview of the next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student has completed a night cross-country flight totaling more than 100 nm; has completed 3 hours of night training with a minimum of 10 take-offs and landings to a full stop after flying a pattern and demonstrates through oral quizzing a thorough understanding of night operations.

LESSON 13: Solo - Cross-country

A. OBJECTIVES: This lesson will be used to allow the student to make a solo cross-country to 3 points, including a take-off and landing at a tower controlled airport in Day VFR conditions.

B. CONTENT
1. Preflight discussion
2. Solo cross-country flight
   a. Use of available weather charts and reports
   b. Development and use of a VFR navigation log
   c. Navigation to include use of pilotage, dead reckoning, and radio aids
   d. Airborne communication with FSS and ATC facilities
3. Post-flight discussion and preview of next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student can plan and complete a DAY VFR cross-country flight to a tower-controlled airport.

LESSON 14: Dual STAGE ONE CHECK Cross-country Procedures

A. OBJECTIVES: This lesson will be used by the chief instructor or the designated check pilot to conduct a check of the student’s ability to safely conduct solo cross-country training flights.

B. CONTENT:
1. Stage-check written (must be done prior to flight)
2. Preflight Oral quiz
   a. Aircraft performance to include take-off and landing charts, en route charts, and weight and balance charts
   b. Use of weather services, reports, and charts
   c. Demonstrates knowledge of VFR navigation charts
   d. Demonstrates an understanding of ATC procedures to include FSS and ATC communications.
   e. Demonstrates the ability to plan a VFR cross-country to include development and use of a VFR navigation log
3. Flight check
   a. Demonstrates ability to fly cross-country under VFR conditions
   b. Determines ground-speed and estimated time en route
   c. Demonstrates ability to divert to an alternate airport
   d. Demonstrates ability to control the aircraft while using just the flight instruments to include climbs, turns, descents, and recovery from unusual attitudes.
e. Demonstrates the ability to navigate using only the magnetic compass for heading information
f. Demonstrates ability to perform short and soft field take-offs and landings

4. Post-flight discussion and preview of next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student demonstrates the skill and knowledge to safely conduct VFR solo cross country flights
STAGE III- PRIVATE PILOT CERTIFICATION

STAGE III OBJECTIVES: The student will receive the training and experience necessary to complete the requirements to receive the Private Pilot certificate with Single-Engine Land category and class ratings.

STAGE III COMPLETION STANDARDS: This stage will be complete when the student successfully completes the Stage III written and flight checks and through training records shows the successful completion of the required flight experience.

LESSON 15: Solo - Cross-country

A. OBJECTIVE: This lesson will be used to allow the student to continue to develop skills necessary to conduct solo cross-country flights by flying a solo cross-country to two airports, one of which is at least more than 50 NM from the originating airport and one of which has an operating control tower.

B. CONTENT
   1. Preflight discussion
   2. Review
      a. Cross-country planning to include development of a navigation log
      b. Use of radio, pilotage, and dead reckoning for navigation
      c. Use of FSS and ATC facilities for communication
   3. Post-flight discussion and preview of next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student has completed a solo cross-country to two airports, one of which is more than 50nm from the originating airport and one of which has an operating control tower.

LESSON 16: Dual - Instrument procedures trainer

A. OBJECTIVE: This session will be used by the instructor to allow the student to continue developing the skills necessary to control an airplane solely by use of aircraft flight instruments.

B. CONTENT
   1. Preflight discussion
   2. Review
      a. Use of the procedures trainer
      b. Four basic skills
   3. Introduction
      a. Airspeed and configuration changes
      b. VOR tracking

C. COMPLETION STANDARDS: This lesson is complete when the student is able to maintain desired altitudes within 75 feet, headings within 10 degrees and desired airspeeds within 10kts.

LESSON 17: Solo Cross-country

A. OBJECTIVE: This lesson will be used by the student to finish the cross-country training
by planning and completing solo cross-country flights to two airports, one of which is more than 100nm from the originating airport and one of which has an operating control tower.

B. CONTENT
1. Preflight discussion
2. Review
   a. Preflight planning and development of a VFR navigation log
   b. Use of pilotage, radios and dead reckoning for navigation
   c. Use of radio for communications with FSS and ATC facilities
3. Post-flight discussion

C. COMPLETION STANDARDS: This lesson is complete when the student has completed the cross-country, has made 3 landings at a tower-controlled airport, and has flown a cross-country to an airport that is more than 100nm from the originating airport

LESSON 18: Dual (Preparation for check ride)

A. OBJECTIVE: This lesson will be used by the instructor to begin preparing the student for the final stage check and the issuance of the Private Pilot - Airplane certificate.

B. CONTENT
1. Preflight discussion
2. Review
   a. Short and soft field take-offs and landings
   b. Flight at minimum controllable airspeed
   c. Stalls, both power on and power off
3. Post-flight discussion and preview of next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student can perform the maneuvers smoothly and accurately with little supervision from the instructor.

LESSON 19: Solo (Local Area)

A. OBJECTIVE: This lesson will be used to practice those maneuvers assigned by the instructor in order to develop the standards necessary for passing the final stage check.

B. CONTENT
1. Preflight discussion
2. Review
   a. Short and soft field take-offs and landings
   b. Minimum controllable airspeed and stalls - both power on and off
3. Post-flight discussion and preview of next lesson

C. COMPLETION STANDARDS: This lesson will be complete when the student has practiced the assigned maneuvers and through oral quizzing demonstrates an understanding of each maneuver.

LESSON 20: Dual (Preparation for checkride)
A. OBJECTIVE: This lesson will be used by the instructor to continue preparing the student for the final stage check and the issuance of the Private Pilot Airplane certificate

B. CONTENT
   1. Preflight discussion
   2. Review
      a. Normal take-offs and landings
      b. Slips to a landing
      c. Rectangular patterns, S-turns across a road, and turns about a point
      d. Forced landings
      e. Basic instrument flying under a view limiting device
   3. Postflight discussion and preview of next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student can perform the ground reference maneuvers without supervision, and has acquired 3.0 hours of instrument flying in airplanes

LESSON 21: Solo (Practice in local area)

A. OBJECTIVE: To finish the solo time required and to practice those maneuvers assigned by the instructor.

B. CONTENT
   1. Preflight discussion
   2. Review and practice maneuvers assigned by the instructor
   3. Postflight discussion and preview of the next lesson

C. COMPLETION STANDARDS: This lesson is complete when the student demonstrates through oral quizzing an understanding of the maneuvers and the student has completed the solo flight time for the course.

LESSON 22: Dual (Preparation for the checkride)

A. OBJECTIVE: This lesson will be used by the instructor to finish preparing the student for the final stage check and the issuance of the Private Pilot Certificate.

B. CONTENT
   1. Ground discussion of items in the Private Pilot Practical Test Standards
      a. Student will plan a short VFR cross-country to include use of weather services, airplane performance charts, and preparation of a VFR navigation log
      b. Instructor will conduct oral quizzing as outlined in the Private PTS
   2. Flight will consist of a practice flight test as outlined in the Private Pilot PTS.
   3. Postflight discussion and review.

C. COMPLETION STANDARDS: This lesson is complete when the student has acquired the flight experience required and demonstrates knowledge and skills necessary to pass the Private Pilot airplane Single-engine Land Practical Test

LESSON 23: Dual FINAL STAGE CHECK
A. OBJECTIVE: This lesson will be used by the authorized check pilot to conduct the final stage check using the Private Pilot Airplane Single Engine Land Practical Test Standards to determine if the student can perform to Private Pilot Standards.

B. CONTENT
   1. Preflight discussion
      a. Areas of operations and tasks in the Private Pilot Airplane Single-Engine Land PTS
      b. Aircraft performance and systems
      c. Cross-country procedures
      d. Private pilot privileges and limitation
   2. Flight will include those areas required by the Private Pilot Airplane Single-engine Land Practical Test Standards
   3. Postflight discussion and review

C. COMPLETION STANDARDS: This lesson is complete when the student demonstrates knowledge and skills necessary to act as a Private Pilot in single-engine land airplanes.