AT112 : Private Pilot Laboratory I

General Information

Author:	• Curtis G Potter
Course Code (CB01) :	AT112
Course Title (CB02) :	Private Pilot Laboratory I
Department:	AT
Proposal Start:	Spring 2025
TOP Code (CB03) :	(3020.20) Piloting
CIP Code:	(49.0102) Airline/Commercial/Professional Pilot and Flight Crew.
SAM Code (CB09) :	Clearly Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000547303
Curriculum Committee Approval Date:	05/22/2024
Board of Trustees Approval Date:	07/16/2024
Last Cyclical Review Date:	05/22/2024
Course Description and Course Note:	AT 112 is a flight training laboratory course intended to begin the student's preparation for the Federal Aviation Administration Private Pilot Certificate Oral and Practical Tests. Topics covered include: Preflight inspection, weather briefings, starting procedures and use of checklists, taxi procedures, normal and cross wind takeoffs and landings, slips, four fundamentals of aircraft control, emergency procedures, traffic patterns, ground reference maneuvers, stalls, and radio communications.
Justification:	Mandatory Revision
Academic Career:	• Credit
Mode of Delivery:	
Author:	Curtis G Potter
Course Family:	

Academic Senate Discipline

Primary Discipline:	• Aviation (Flight, navigation, ground school, air traffic control)
Alternate Discipline:	No value
Alternate Discipline:	No value

Course Development

Basic Skill Status (CB08)

Course is not a basic skills course.

☐ Allow Students to Gain Credit by Exam/Challenge

Course Special Class Status (CB13)

Course is not a special class.

Pre-Collegiate Level (CB21)

Not applicable.

Grading Basis

- Grade with Pass / No-Pass Option

Course Support Course Status (CB26)

Course is not a support course

General Education and C-ID

General Education Status (CB25)

Not Applicable

Transferability

Transferable to CSU only

Transferability Status

Approved

Units and Hours

Summary

Minimum Credit Units (CB07)	2
Maximum Credit Units (CB06)	2
Total Course In-Class (Contact) Hours	108
Total Course Out-of-Class Hours	0
Total Student Learning Hours	108

Credit / Non-Credit Options

Course Type (CB04)

Credit - Degree Applicable

Noncredit Course Category (CB22)

Credit Course.

Noncredit Special Characteristics

No Value

Course Classification Code (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	0	0
Laboratory Hours	6	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	108
Studio	0

Total	108

Course Out-of-Class Hours

Lecture	0
Laboratory	0
Studio	0
Total	0

Time Commitment Notes for Students

No value

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Prerequisite

AT120 - Private Pilot Ground School (in-development)

Objectives

- Apply Federal Aviation Regulations to flight.
- Perform tasks of enroute communication procedures.
- Demonstrate knowledge of weather theory.
- Evaluate aviation weather information.
- Develop the skills of navigation, including radio, pilotage, and dead-reckoning.

Entry Standards

Entry Standards

Demonstrating basic engine operating principles.

Express an understanding of aerodynamics and the science of flight.

Course Limitations

Cross Listed or Equivalent Course

Specifications

Methods of Instruction

Methods of Instruction	Lecture
Methods of Instruction	Laboratory

Out of Class Assignments

- Pre-solo test
- Pilot communications simulations
- Self-assessment of fitness for flight prior to each lab meeting

Methods of Evaluation	Rationale
Exam/Quiz/Test	Pre-solo written knowledge exam
Evaluation	Oral and practical exam with a designated check pilot

Textbook Rationale

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
FAA	Airplane Flying Handbook	FAA	2021	978-1-64425-068-6

Other Instructional Materials (i.e. OER, handouts)

No Value

Materials Fee

A material/lab fee may be required for this course.

Learning Outcomes and Objectives

Course Objectives

Apply Federal Aviation Regulations (FAR) Parts 61 and 91 to flight planning.

Articulate airspace rules and procedures for the airport where the student is receiving instruction.

Explain the flight characteristics and operational limitations for the airplane make and model in which the student is receiving the training.

Demonstrate proficiency in the procedures and maneuvers required for solo flight in the make and model airplane.

Obtain a Federal Aviation Administration Student Pilot Certificate.

Safely complete a first supervised solo flight.

SLOs

Demonstrate appropriate pilot communication techniques and phraseology. Expected Outcome Performance: 70.0

ILOs Core ILOs	Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.
AT Pilot Training - Certificate	demonstrate practical skills required to pass FAA practical testing for the rating sought.
AT Pilot Training - A.S. Degree Major	demonstrate practical skills required to pass FAA practical testing for the rating sought.

Compare and contrast the concepts of risk assessment and aeronautical decision making. Expected Outcome Performance: 70.0

ILOs Core ILOs	Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas.
AT Pilot Training - A.S. Degree Major	demonstrate practical skills required to pass FAA practical testing for the rating sought.
	demonstrate proficiency in cross country flight planning.
AT Pilot Training - Certificate	demonstrate practical skills required to pass FAA practical testing for the rating sought.
	demonstrate proficiency in cross country flight planning.

Recognize and simulate stall and emergency procedures. Expected Outcome Performance: 70.0

ILOs Core ILOs	Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.

Course Content

Lecture Content

No value

Laboratory/Studio Content

Preflight and Orientation-Dual (10 hours)

- Preflight inspections and aircraft documents
- Starting procedures

- Taxi and use of controls on ground
- Pre-takeoff check/use of checklists
- Four fundamentals (climbs, straight and level, turns, descents)
- Use of trim
- Scan techniques
- Departure procedures

Four Fundamentals-Dual (10 hours)

- Review of the four fundamentals
    - Climbs
    - Straight and level
    - Turns
    - Descents
- Scan techniques
- Navigation to and from practice area

Slow Flight and Stalls-Dual (8 hours)

- Collision avoidance, clearing turns
- Use of flaps and trim
- Pitch-power correlation
- Slow flight (various configurations)
- Stall demonstration

Ground Reference Maneuvers and Stalls-Dual (10 hours)

- Rectangular pattern
- S-turns across a road
- Turns around a point
- Stalls (power-on and power-off)

Stall and Emergency Procedures-Dual (10 hours)

- Stalls (power-on, power-off, accelerated)
- Demonstration of cross-control and secondary stalls
- Emergencies (strikes, fire, radio failure, lost)
- Emergency landing procedures
- Radio procedures

Takeoffs and Landings-Dual (20 hours)

- Traffic pattern procedures
- Normal takeoffs
- Normal landings
- Go-arounds
- Aborted takeoffs
- Emergencies in pattern
- Wake-turbulence avoidance
- Determining aircraft performance

Cross Wind Takeoffs and Landings-Dual (8 hours)

- Cross wind takeoffs
- Cross wind landings
- Slips

Pre-Solo Practice (at instructor's discretion)-Dual (12 hours)

Remedial/Review Instruction at Instructor's Discretion (12 hours)

First Supervised Solo Flight-Solo (8 hours)

- Pre-solo written examination
- Student pilot certificate and logbook endorsements

Total hours: 108

Additional Information

Is this course proposed for GCC Major or General Education Graduation requirement? If yes, indicate which requirement in the two areas provided below.

No

GCC Major Requirements

No Value

GCC General Education Graduation Requirements

No Value

Repeatability

Not Repeatable

Justification (if repeatable was chosen above)

No Value

Resources

Did you contact your departmental library liaison?

Yes

If yes, who is your departmental library liason?

Adina Lerner (Technology & Aviation, Visual & Performing Arts)

Did you contact the DEIA liaison?

Yes

Were there any DEIA changes made to this outline?

No

If yes, in what areas were these changes made:

No Value

Will any additional resources be needed for this course? (Click all that apply)

- No

If additional resources are needed, add a brief description and cost in the box provided.

No Value