

AT124 : Radio Procedures And Flight Regulations

General Information

| | |
|---|---|
| Author: | <ul style="list-style-type: none">Curtis G Potter |
| Course Code (CB01) : | AT124 |
| Course Title (CB02) : | Radio Procedures And Flight Regulations |
| Department: | AT |
| Proposal Start: | Fall 2024 |
| 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) : | CCC000223288 |
| 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 124 is designed to provide current and prospective pilots with the necessary knowledge of radio communication requirements and procedures to operate safely in the national airspace system. Also covered are sections of the Federal Aviation Regulations that pertain to pilot certification, aircraft maintenance, general operating rules, air traffic control procedures and reporting of aircraft accidents. |
| Justification: | Mandatory Revision |
| Academic Career: | <ul style="list-style-type: none">Credit |
| Mode of Delivery: | |
| Author: | Curtis G Potter |
| Course Family: | |

Academic Senate Discipline

| | |
|-----------------------|---|
| Primary Discipline: | <ul style="list-style-type: none">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) 3

Maximum Credit Units (CB06) 3

Total Course In-Class (Contact) Hours 54

Total Course Out-of-Class Hours 108

Total Student Learning Hours 162

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.

Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience

Education Status (CB10)

Weekly Student Hours

| | In Class | Out of Class |
|------------------|----------|--------------|
| Lecture Hours | 3 | 6 |
| Laboratory Hours | 0 | 0 |
| Studio Hours | 0 | 0 |

Course Student Hours

| | |
|--|----|
| Course Duration (Weeks) | 18 |
| Hours per unit divisor | 0 |
| Course In-Class (Contact) Hours | |
| Lecture | 54 |
| Laboratory | 0 |
| Studio | 0 |

Total 54

Course Out-of-Class Hours

Lecture 108

Laboratory 0

Studio 0

Total 108

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

Advisory

AT120 - Private Pilot Ground School

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

Course Limitations

Cross Listed or Equivalent Course

Specifications

Methods of Instruction

Methods of Instruction Lecture

Methods of Instruction Discussion

Methods of Instruction Multimedia

Methods of Instruction Collaborative Learning

Methods of Instruction Guest Speakers

Out of Class Assignments

- Homework and reading assignments (i.e. Assignments are taken from required textbook and aviation regulations)
- Group discussions (i.e. Discussions concern pilot-controller communications and include role-playing exercises)

Methods of Evaluation

Rationale

| | |
|----------------|---|
| Exam/Quiz/Test | Practical examinations (i.e. These will be taken from the lectures and reading assignments and will consist of fill-in-the-blank questions) |
| Exam/Quiz/Test | Multiple-choice quizzes |
| Exam/Quiz/Test | Multiple-choice midterm examination |
| Exam/Quiz/Test | Final examination |

Textbook Rationale

No Value

Textbooks

| Author | Title | Publisher | Date | ISBN |
|--------------|--|-------------------------------------|------|-------------------|
| Gardner, Bob | Say Again, Please: A Pilot's Guide to Radio Communications | Aviation Supplies & Academics, Inc. | 2023 | 978-1-64425-293-2 |
| FAA | 2024 FAR/AIM | Aviation Supplies & Academics, Inc. | 2024 | 978-1-64425-281-9 |

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

No Value

Materials Fee

No value

Learning Outcomes and Objectives

Course Objectives

Describe communication procedures in various classifications of airspace.

Employ professional skills of enroute communication procedures.

Explain the purpose and function of the National Transportation Safety Board.

Identify pilot, equipment, and communication requirements for various airspace classifications.

Discuss the major parts of the Federal Aviation Regulations and summarize those apply to private and commercial pilots.

Contrast radio procedures while operating under visual flight rules versus instrument flight rules.

Compare the function and limitations of hand-held and panel-mounted communication equipment.

Translate the phonetic alphabet.

SLOs

Explain the privileges and limitations for a private pilot certificate.

Expected Outcome Performance: 70.0

| | |
|--|--|
| <i>ILOs</i> 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. |
| <i>AT</i> Pilot Training - A.S. Degree Major | demonstrate an understanding of Federal Aviation Regulations. demonstrate the skills required to successfully pass the FAA knowledge exam appropriate to the rating sought. |
| <i>AT</i> Pilot Training - Certificate | demonstrate an understanding of Federal Aviation Regulations. demonstrate the skills required to successfully pass the FAA knowledge exam appropriate to the rating sought. |
| <i>AT</i> Aviation Administration - Certificate | demonstrate an understanding of the differences and similarities between general aviation and commercial aviation. |

Identify the appropriate part of the Federal Aviation Regulations for various topics.

Expected Outcome Performance: 70.0

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

Compose proper pilot requests for visual and instrument flight rules operations.

Expected Outcome Performance: 70.0

ILOs Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions;
Core cultivate creativity that leads to innovative ideas.
ILOs

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

Additional SLO Information

Does this proposal include revisions that might improve student attainment of course learning outcomes?

No

Is this proposal submitted in response to learning outcomes assessment data?

No

If yes was selected in either of the above questions for learning outcomes, explain and attach evidence of discussions about learning outcomes.

No Value

SLO Evidence

No Value

Course Content

Lecture Content

Federal Aviation Regulations (30 hours)

- Part 1 – Definitions and abbreviations
- Part 43 – Preventive maintenance
- Part 61 – Pilot and instructor certification
 - Subpart A – General
 - Subpart B – Aircraft ratings and special certificates
 - Subpart E – Commercial pilots
- Part 67 – Medical standards and certification
- Part 71 – Airspace
 - General
 - Class A through E airspace
 - VOR Federal airways
- Part 73 – Special Use Airspace
 - Restricted Areas
 - Prohibited Areas
- Part 91 – General operating and flight rules
 - General
 - Visual flight rules
 - Instrument flight rules
 - Equipment and instruments
 - Special flight operations
 - Maintenance

- Temporary Flight Restrictions
- Part 141 – Certificated

National Transportation Safety Board (4 hours)

- Definitions
- Accident and incident notification requirements
- Accident and incident reporting requirements
- Preservation of aircraft wreckage, mail, cargo, and records
- Overdue aircraft reporting

Radio Procedures (20 hours)

- Basic operating principles
 - Frequencies and waves
 - VHF utilization
 - UHF utilization
- Basic operating procedures
 - The phonetic alphabet
 - The pilot/controller glossary
 - Proper pilot phraseology
 - Basic communication formats
 - Essentials of good communications
 - Microphone techniques
- Radio communications facilities
 - Flight Service Stations
 - Pre-flight briefings and flight plans
 - Pilot reports (PIREP)
 - Tower airports
 - Ground operations and clearance delivery
 - Control tower communications
 - ATIS and UNICOM functions
 - Runway incursion avoidance
 - Non-tower airports
 - Communication with TRACON and ARTCC controllers
- Special Use Airspace
 - Pilot, equipment, and communication requirements for entry
 - Controlling agency
- Radio equipment
 - Panel-mounted
 - Hand-held
 - Headsets
 - Emergency transmitters
 - Use of cellular devices
- NextGen & evolution of aviation communications

Total hours: 54

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 liaison?

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