



## COMPUTER TRAINING SYSTEMS



FIXED WING  
**TRAINING**

### 14 CFR PART 125 INDOCTRINATION TRAINING SYLLABUS

Each Part 125 training program consists of customer-selected subjects from the list below. Each course is a comprehensive learning program covering the listed topics in each area with individual course examinations drawn from all assigned material testing student retention. Subjects include a mixture of interactive tutorials and text-based lessons, culminating in a final exam. Each course also includes administrator access to online record keeping in order to track and monitor individual pilot progress. All subjects are designed to satisfy the initial and recurrent training requirements of 14 CFR 125.287 as well as other aviation-related topics.

#### 14 CFR PART 1-97 AND 49 CFR, PART 830 - FW

##### Lessons

- 14 CFR Part 91, Subpart A
- 14 CFR Part 91, Subpart F
- 14 CFR Part 91, Subpart G
- 14 CFR Part 91, Subpart C, D, and E
- 14 CFR Part 91.103-153, Subpart B
- 14 CFR Part 91.155-187, Subpart B
- 14 CFR Part 1, 39, 43, and 47
- 14 CFR Parts 61 and 67
- 14 CFR Parts 95 and 97
- 49 CFR Part 830

#### 14 CFR PART 110

##### Lessons

- Definitions

#### 14 CFR PART 119

##### Lessons

- Subparts A and B
- Subpart C - 119.33-53
- Subpart C - 119.55-69

#### 14 CFR PART 125

##### Lessons

- Subpart A-D - Certification Rules and Requirements
- Subpart C-E - Manual, Airplane, and Airworthiness Requirements
- Subpart F - Instrument and Equipment Requirements
- Subpart G-I - Maintenance and Crewmember Requirements
- Subpart J - Flight Operations
- Subpart K-L - Flight Release Rules and Records

#### ADS-B OVERVIEW

##### Tutorial - ADS-B

- Overview and System Description
- ADS-B Operations
- ADS-B Procedures
- ADS-B In Services
- ADS-B In-Trail Procedures
- CAVS
- Human Factors in ADS-B

##### Lessons

- Overview and System Description
- ADS-B Operations
- ADS-B Procedures
- ADS-B In Services
- ADS-B In-Trail Procedures
- CAVS Using ADS-B IN

#### AERONAUTICAL INFORMATION MANUAL - FW

##### Lessons

- Chapter 1.1 - Navigational Aids
- Chapter 1.2 - Performance Based Navigation
- Chapter 2 - Aeronautical Lighting and Visual Aids
- Chapter 3 - Airspace
- Chapter 4.1 - ATC Services Available to Pilots and Radio Phraseology
- Chapter 4.2 - Radio Communications
- Chapter 4.3 - Airport Operations
- Chapter 4.4 - ATC Clearances and Aircraft Separation
- Chapter 5.1-5.2 - Air Traffic Procedures
- Chapter 5.3-5.4 - ATC En route and Arrival Procedures
- Chapter 5.6 - National Security
- Chapter 6 - Emergency Procedures
- Chapter 7.1 - Meteorology
- Chapter 7.3-7.6 - Turbulence and Flight Hazards
- Chapter 8 - Medical Facts for Pilots

#### AERONAV CHARTS

##### Lessons

- Area Charts
- Departure and Arrival Charts
- Enroute Low Altitude Charts
- Enroute High Altitude Charts
- Approach Charts

#### AIRSPACE OVERVIEW

##### Tutorial - Airspace

- Overview
- Class A
- Class B
- Class C
- Class D
- Class E
- Class G
- Special Use Areas
- Other Airspace Areas
- Air Defense Identification Zones
- Charting

##### Lessons

- Controlled and Uncontrolled Airspace
- Special Use Airspace
- Other Types of Airspace

## AVIATION SAFETY ACTION PROGRAM (ASAP) OVERVIEW

### Tutorial - Aviation Safety Action Program

- ASAP Overview
- ASAP Process
- How to Submit a Report

### Lessons

- Aviation Safety Action Program (ASAP) Overview

## AVIATION WEATHER THEORY

### Tutorial - Aviation Weather Theory

- The Standard Atmosphere
- Moisture
- States of Water
- Cloud Types
- Air Masses
- Fronts
- Turbulence
- Adverse Weather
- Aviation Weather Services

### Lessons

- The Standard Atmosphere
- Moisture
- Cloud Types
- Air Masses and Fronts
- Turbulence and Wind Shear
- Adverse Weather – Icing
- Adverse Weather – Thunderstorms
- Adverse Weather – Fog
- Aviation Weather Services

## CANADIAN AIM

### Lessons

- GEN 1-3, 6 - General Information
- GEN 5 - Terms and Definitions
- AGA 1-5 - Aerodromes
- AGA 6-9 - Aerodromes
- COM 1-3 - Communications
- COM 4-7 - Communications
- MET 1 - Meteorology
- MET 2-5 - Meteorology
- MET 6-12 - Meteorology
- NAT - North Atlantic (NAT) Operations
- SAR - Search and Rescue
- MAP - Aeronautical Charts and Publications
- LRA - Licensing, Registration, and Airworthiness
- AIR 1-2.11 - Airmanship
- AIR 2.12-3.8 - Airmanship
- AIR 3.9-4 - Airmanship

## CANADIAN RULES OF THE AIR AND AIR TRAFFIC SERVICES (RACs)

### Lessons

- Section 1 - General
- Section 2 - Airspace
- Section 3 - Flight Planning
- Section 4.1-4.2 - Airport Operations
- Section 4.3-4.6 - Airport Operations
- Section 5 - VFR Enroute Procedures
- Section 6 - IFR General
- Section 7 - IFR Departure Procedures
- Section 8 - IFR Enroute Procedures
- Section 9.1-9.19 - IFR Arrival Procedures
- Section 9.20-9.28 - IFR Arrival Procedures
- Section 10 - IFR Holding Procedures
- Section 11 - ATC Special Procedures
- RAC Annex

## CLASSES OF FIRE AND PORTABLE FIRE EXTINGUISHERS

### Tutorial - Portable Fire Extinguishers

- Overview and Classes of Fire
- Types of Fire Extinguishers
- Location and Use of Fire Extinguishers
- Risks and Hazards of Fire

### Tutorial - Lithium Battery Fires

- Lithium Battery Fires

### Lessons

- Classes of Fire and Types of Extinguishers
- Location, Use, Risks, and Hazards
- Lithium Battery Fires

## CONTROLLED FLIGHT INTO TERRAIN AVOIDANCE (CFIT, TAWS, AND ALAR) - (FW)

### Tutorial - CFIT and ALAR

- Introduction to CFIT
- Combating CFIT
- Approach and Landing Accident Reduction (ALAR)

### Tutorial - TAWS

- Introduction to TAWS
- TAWS Equipment
- Cautions and Warnings
- Databases

### Tutorial - Case Study

- Case Study

### Lessons

- Controlled Flight into Terrain (CFIT)
- Approach and Landing Accident Reduction (ALAR)
- Terrain Awareness and Warning System (TAWS)

## CRM-ADM - Fixed Wing

### Tutorial - CRM - Fixed Wing

- Crew Resource Management
- Authority of the Pilot in Command
- CRM Skills
- Communication Processes
- Building and Maintaining a Flight Team
- Workload and Time Management
- Situational Awareness
- Fatigue: Effects and Reduction Strategies
- Stress: Effects and Reduction Strategies

### Tutorial - ADM - FW

- What is ADM?
- Risk Management
- Operational Pitfalls
- Applying ADM

### Tutorial - Case Study

- Case Study

### Lessons

- Authority of the Pilot-in-Command
- Communication
- Team Building
- Workload and Time Management
- Situational Awareness
- Fatigue - Effects and Reduction
- Stress - Effects and Reduction
- Aeronautical Decision Making
- Risks and Operational Pitfalls

## FIXED WING WINDSHEAR

### Lessons

- Windshear Weather - 1
- Windshear Weather - 2
- Windshear Encounters - 1
- Windshear Encounters - 2
- Flight Crew Actions
- Windshear Recovery

## FUNDAMENTALS OF INSTRUCTION

### Tutorial - Duties, Functions, and Responsibilities

- Duties, Functions, and Responsibilities
- Instruction and Evaluation
- Teaching Risk Management
- Aircraft Procedures and Corrective Actions

### Tutorial - Fundamental Principles of Instruction

- Human Behavior
- Teaching Methods
- Learning Process
- Assessment and Critique
- Risk Management

### Tutorial - Case Study

- Case Study

### Lessons

- Duties, Functions, and Responsibilities
- Fundamental Principles of Instruction

## **GPS (FW)**

### **Tutorial - GPS Overview**

- GPS System Description
- Availability and Reliability
- GPS Errors
- WAAS and GBAS Augmentation
- GPS NOTAMs, RAIM, and Aeronautical Information
- GPS Operational Overview

### **Tutorial - GPS Operations**

- IFR Operations
- Terminal Operations and Approaches
- WAAS Approaches
- Departure Procedures

### **Lessons**

- GPS Overview
- Terminal Operations
- WAAS

## **HAZMAT - WILL CARRY OR WILL NOT CARRY**

### **Tutorial - Label Identification**

- Introduction
- Class 1
- Class 2
- Class 3
- Class 4
- Class 5
- Class 6
- Class 7
- Class 8
- Class 9
- Miscellaneous Labels, Placards, and Markings

### **Tutorial - Security Awareness**

- Introduction and Regulatory Requirements
- Recognizing Security Threats
- Responding to Security Threats

### **Lessons**

- General Philosophy
- Limitations
- List of Hazardous Materials
- Labeling and Marking
- Recognition of Undeclared Hazardous Materials
- Storage and Loading Procedures
- Pilot's Notification
- Provisions for Passenger and Crew
- Emergency Procedures
- Security Awareness

## **HIGH ALTITUDE WEATHER AND AERODYNAMICS**

### **Tutorial - Introduction to High-Altitude Flight**

- The High-Altitude Flight Environment
- Flight Planning and Navigation
- High-Altitude Emergencies

### **Tutorial - Physiological Aspects of High-Altitude Flight**

- Respiration and Hypoxia
- Trapped Gas and Decompression Sickness

### **Tutorial - High-Altitude Mach Flight**

- High-Altitude Aerodynamics and Performance

### **Lessons**

- High-Altitude Weather and Planning
- High-Altitude Emergencies
- Physiological Aspects of High-Altitude Flight
- Mach Flight

## **JEPPESEN CHARTS**

### **Lessons**

- Area Charts
- Departure and Arrival Charts
- Enroute Low Altitude Charts
- Enroute High Altitude Charts
- Approach Charts

## **LAND AND HOLD SHORT OPERATIONS**

### **Tutorial - Land and Hold Short Operations**

- Introduction
- Factors Affecting Landing Distance
- LAHSO Requirements
- LAHSO Procedures
- Pilot-Controller Communications and Airport Markings

### **Lessons**

- Land and Hold Short Operations

## **LOWER THAN STANDARD TAKEOFF MINIMUMS**

### **Lessons**

- Regulations
- RVR Requirements
- Use of Charts
- Runways and Taxiways
- HUD Takeoff Guidance

## **MINIMUM EQUIPMENT LIST (MEL)**

### **Tutorial - Minimum Equipment List (MEL)**

- MEL Overview
- MEL Contents
- MEL Procedures

### **Lessons**

- Minimum Equipment List (MEL)

## **METAR and TAF**

### **Tutorial - METAR and TAF**

- What is a METAR?
- METAR Elements
- METAR Remarks
- The TAF - Significant Differences

### **Lessons**

- Introduction
- METAR Body Elements
- METAR Remarks
- TAF
- Abbreviations and their Meanings

## **PERFORMANCE-BASED COMMUNICATION AND SURVEILLANCE (PBCS)**

### **Tutorial - ADS-C Overview**

- ADS-C Overview

### **Tutorial - CPDLC - U.S. Domestic Operations**

- CPDLC - U.S. Domestic Operations

### **Tutorial - CPDLC Overview**

- CPDLC Overview

### **Tutorial - PBCS Overview**

- PBCS Overview, Approvals, and Authorizations

### **Lessons**

- PBCS
- CPDLC - Domestic Operations
- CPDLC - Oceanic & Remote
- ADS-C

## **PERFORMANCE-BASED NAVIGATION (PBN)**

### **Tutorial - PBN Overview**

- Introduction to Performance-Based Navigation
- Aircraft and Operational Approvals
- RNAV Operations, U.S. Terminal and En Route Area
- RNP Operations, Terminal, En Route, and Approach

### **Tutorial - RNP APCH and Baro-VNAV**

- RNP APCH and Baro-VNAV

### **Tutorial - B-RNAV and P-RNAV**

- Guidance for B-RNAV and P-RNAV in European Airspace

### **Tutorial - RNP AR**

- RNP Procedures with AR

### **Lessons**

- PBN Overview (RNP and RNAV)
- RNP APCH and Baro-VNAV
- B-RNAV and P-RNAV
- RNP AR



## **PHYSIOLOGY AND FIRST AID (FW)**

### **Lessons**

- Decompression Sickness
- CPR
- AED
- First Aid - Bleeding, Wounds, and Burns
- First Aid - Poison, Bites, and Stings
- First Aid - Serious Illnesses and Injuries
- Hyperventilation
- Hypoxia
- Spatial Disorientation
- Trapped Gases

## **PILOT'S GLOSSARY - FW**

### **Lessons**

- Pilot's Glossary A-C
- Pilot's Glossary D-N
- Pilot's Glossary O-W
- IFR Only

## **PRM-SOIA Procedures**

### **Tutorial - PRM-SOIA Procedures**

- PRM and SOIA Introduction
- PRM Procedures
- SOIA Procedures

### **Lessons**

- PRM-SOIA - General Requirements
- PRM Approaches
- SOIA Approaches

## **REDUCED VERTICAL SEPARATION**

### **MINIMUM (RVSM)**

#### **Tutorial - RVSM**

- RVSM and Requirements
- RVSM Procedures
- Turbulence, MWA, Communications, and Contingency Actions
- The Effect of RVSM on TCAS

#### **Tutorial - Oceanic Contingency**

- Procedures and SLOP
- Oceanic Contingency Procedures and SLOP

### **Lessons**

- Reduced Vertical Separation Minimum (RVSM)

## **RUNWAY INCURSION**

### **Tutorial - Runway Incursion**

- Introduction
- Flight Planning
- Ground Operation
- Standard Operating Procedures
- Airport Lighting
- Airport Pavement Markings and Signs
- Equipment and Technology

### **Lessons**

- Runway Incursion

## **SURVIVAL**

### **Lessons**

- General
- Food
- Water
- Making Fires
- Signaling
- Desert Survival
- Arctic Survival
- Survival at Sea
- Navigation

## **TCAS II**

### **Tutorial - TCAS II**

- History and Development
- Basic Concept
- System and Traffic Display
- Types of RAs
- Flight Crew Response
- Problem Encounters
- Operations
- Communication and Reporting
- Requirements

### **Lessons**

- General Information
- System and Displays
- TAs and RAs
- Operations
- Communication and Reporting

## **WINTER OPERATIONS (FW)**

### **Tutorial - Winter Operations**

- Background and Regulations
- In-flight Icing Conditions
- Ground Icing Conditions and Deicing Procedures
- Fluid Types and Holdover Tables
- Application Guidelines
- Runway Contamination
- Cold Temperature Airports

### **Lessons**

- Regulations and Definitions
- Procedures and Holdover Tables
- Effects of Icing on Flight
- Contaminated Runways
- Cold Temperature Airports

An *Operations Manual Training Program* can be developed for your specific operations manual and specifications.