



## 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 1.1-1.1.10 - Navigational Aids
- Chapter 1.1.11-1.2.3 - Navigational Aids
- Chapter 2 - Aeronautical Lighting and Airport Visual Aids
- Chapter 3 - Airspace
- Chapter 4.1 - Services Available to Pilots
- Chapter 4.2 - Radio Communications
- Chapter 4.3 - Airport Operations
- Chapter 4.4 - Clearances
- Chapter 5.1-5.2 - Preflight and Departure
- Chapter 5.3 - En Route
- Chapter 5.4-5.6 - Approach
- Chapter 6 - Emergency Procedures
- Chapter 7.1-7.2 - Weather and Altimeter Settings
- 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 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

## **CFIT AVOIDANCE (FW)**

### **Tutorial - CFIT Avoidance (FW)**

Introduction  
Outside Factors  
Combating CFIT

### **Lessons**

CFIT 1  
CFIT 2  
Approach and Landing Accident Reduction (ALAR)

## **CLASSES OF FIRE**

### **Tutorial - Classes of Fire**

General Description  
Anatomy of a Fire  
Classes of Fire  
Types of Fire Extinguishers  
Using a Fire Extinguisher  
Lavatory Fires  
Basic Procedures for All Fires  
Toxic Fumes  
Current Safety Standards

### **Tutorial - Lithium Battery Fires**

Lithium Battery Fires

### **Lessons**

Classes of Fire-1  
Classes of Fire-2  
Lithium Battery Fires

## **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

### **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

## **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 - High Altitude Aerodynamics**

- Principles of Mach Flight
- Critical Aspects of Mach Flight
- Aerodynamics and Performance

### **Tutorial - High Altitude Weather**

- The Atmosphere
- The Jet Stream
- High Altitude Clouds
- Clear Air Turbulence
- High Altitude Weather Systems
- High Altitude Weather Products

### **Lessons**

- High Altitude Weather
- Aerodynamics

## **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

## **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

## **OPTIONAL LESSONS**

### **Lessons**

- Edible Plants
- Human Performance

## **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

## **RNP**

### **Lessons**

- RNP Lessons

## **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

## **RVSM-DRVSM**

### **Tutorial - RVSM-DRVSM**

- Introduction
- Monitoring/Removal of Authority
- Training/Operating Practices
- Turbulence & Mountain Wave Activity
- Wake Turbulence
- TCAS v.7

### **Tutorial - Oceanic RVSM**

- Introduction
- Concepts and Contingencies
- Turbulence & Equipment Failures
- Regional Supplemental Procedures
- Wake Turbulence Procedures

### **Lessons**

- RVSM - 1
- RVSM - 2
- Oceanic RVSM - 1

## **SURVIVAL**

### **Lessons**

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

## **TAWS**

### **Tutorial - TAWS**

- History
- Regulations
- Required Equipment
- Terrain Database
- Aircraft Flight Manual Inclusions
- Caution and Warning

### **Lessons**

- TAWS

## **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

**US RAV OPERATIONS**

**Tutorial - US RNAV Operations**

- Background
- Eligible Aircraft Systems
- Operating Procedures
- RNAV DP and STAR Specific Requirements
- Pilot Knowledge Requirements

**Lessons**

- RNAV

**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 Restricted Airports

**Lessons**

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

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