

## **Ground School Curriculum for CPL**

### **Section 1 Theory of Flight (6 Hours)**

- Principles of Flight
- Forces Acting On an Aeroplane
- Aerofoils
- Propellers
- Design of the Wing
- Stability
- Flight Controls

### **Section 2 Flight Instruments (5 Hours)**

- Pitot Static System
- Airspeed Indicator
- Vertical Speed Indicator
- Altimeter/Encoding Altimeter
- Magnetic Compass
- Gyroscope
- Heading Indicator
- Attitude Indicator
- Turn and Bank Indicator/ Turn Co-Ordinator
- Instrument Flying

### **Section 3 Airframes Engines and Systems (6 Hours)**

- Airframes
- Landing Gear, Brakes and Flaps
- Engines
- Carburation
- Fuel Injection
- Electrical System
- Lubricating Systems and Oils
- Fuel Systems and Fuels
- Other Aircraft Systems

# **Guardian Aerospace Holdings Inc.**

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## **Section 4 Air Law (10 Hours)**

- Part I General Provisions
- Part II Aircraft Identification and Registration
- Part III Aerodromes and Airports
- Part IV Personnel Licensing and Training
- Part VI General Operating and Flight Rules
- Part VII Commercial Air Services
- Air Traffic Services and Procedures
- Transportation Safety Board of Canada
- International Flight Procedures
- Other Legislation

## **Meteorology (6 Hours)**

- The Earth's Atmosphere
- Atmospheric Pressure
- Meteorological Aspects of Altimetry
- Temperature
- Moisture
- Stability and Instability
- Clouds
- Surface Based Layers
- Turbulence
- Wind
- Air Masses Fronts and Frontal Weather
- Aircraft Icing
- Thunderstorms
- Hurricanes and Tornadoes
- Meteorological Services Available To Pilots
- Weather Maps and Prognostic Charts

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## **Flight Operations (3 Hours)**

- General
- Aircraft Performance
- Use of Performance Charts
- Weight and Balance
- Wake Turbulence
- Search and Rescue (SAR)
- Aircraft Critical Surface Contamination

## **Navigation (6 Hours)**

- Navigation and Radio Aids
- Maps and Charts
- Time and Longitude
- Pilot Navigation
- Triangle of Velocities
- Navigation Computers
- Pre-Flight Preparation

## **Radio and Electronic Theory (4 Hours)**

- Vhf Omni direction Range (Vor)
- Automatic Direction Finder
- Radio Magnetic Indicator (Rmi)
- Global Navigation Satellite System (Gnss/Gps)
- Other Radio and Radar Aids – Basic Principles and Use

## **Human Factors (5 Hours)**

- Aviation Physiology
- The Pilot and the Operating Environment
- Aviation Psychology
- Pilot – Equipment/Materials Relationship
- Interpersonal Relations
- Threat and Error Management (Tem)