

# SMA 1000 – Private Pilot Licence Ground School

## Course Outline

2024-2025

Pre-requisite(s): N/A

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## Course Description

Canadian aviation industry regulator, Transport Canada (TC), Private Pilot Licence (PPL) – Aeroplane candidates to demonstrate they meet specific ground school knowledge standards and hourly minimums. Using general aviation as a focal point, SkyMap Aviation's (SA) private pilot licence ground school course not only meets TC's PPL minimum requirements, but also prepares students to successfully complete the applicable mandatory PPAER: Private Pilot Licence - Aeroplane written examination.

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## Course Learning Outcomes

When you have successfully completed this course, you will have demonstrated the ability to:

**1. Logically apply the Canadian Aviation Regulations (CARs) with respect to the safe and legal private pilot operation of general aviation aircraft.**

- Explore the constitution of the Canadian Aviation Regulations (CARs);
- Describe how to locate information within the Canadian Aviation Regulations (CARs); and
- Explain how the CARs apply to common situations encountered by a private pilot.

**2. Describe visual flight rules (VFR) navigation concepts and practices as expected of a private pilot.**

- Differentiate classes of airspace, facilities information and the related procedures.
- Identify and utilize appropriate navigational charts.
- Execute VFR navigation calculations.
- Devise, file and update a flight plan.

**3. Apply fundamental meteorological theory principles for the reporting and interpretation of weather information in support of flight safety.**

- Recognize, differentiate, and communicate various cloud types, fog formations, forms of precipitation, air masses, storms, fronts and winds.
- Decode, analyze, assimilate and institute the use of aviation weather forecasts.

#### 4. Explain and apply the concepts and practices of basic aeronautics with respect to the safe and proficient operation of general aviation aircraft.

- Identify and categorize various airframes, engines and flight instruments.
- Examine Pilot Decision Making (PDM) practices and the Human Factors that affect PDM.
- Discern aircraft performance and limitations applicable to the single-engine general aviation training aircraft.

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## Learning Resources

### REQUIRED

- A.F. MacDonald, I.L. Pepler, ***From the Ground Up***, ISBN 0-9680390-5-7
- Transport Canada, ***Flight Training Manual***, TP1102E, ISBN 0-7715-5115-0
- ***Cessna Skyhawk Model 172P (1982) Information Manual***. ISBN 88880105882
- **Flight Computer**: Large Metal;
- **Protractor** 5"x5"
- **ICAO Chart Ruler**
- **Current VNC** (e.g. Toronto VNC - Current Edition)
- Industry Canada, ***Study Guide for the Restricted Operator Certificate with Aeronautical Qualification (ROC-A)***. RIC-21 Issue 3 February 2010 (free online)
- Transport Canada, ***Aeronautical Information Manual***, TP 14371E, Current Edition. ISSN 1715-7382 (free online)
- Transport Canada, ***Study and Reference Guide Student Pilot Permit or Private Pilot Licence for Foreign And Military Applicants, Aviation Regulation***, TP 11919E, Current Edition. ISBN 978-1-100-18348-0 (free online)

### RECOMMENDED (Optional)

- National Defence, ***Air Command Weather Manual***, TP 9352E, 2003. ISBN N/A
- National Defence, ***Air Command Weather Manual Supplement***, TP 9353E, 2003. ISBN N/A
- Transport Canada, ***Human Factors for Aviation, Basic Handbook***, TP 12863E, 2003, ISBN 0-660-166655-0
- **Canada Flight Supplement (CFS)** – available via Nav Canada website (<http://products.navcanada.ca/shop-vfr/Canada-Flight-Supplement/>)
- **Current VTA** (e.g. Ottawa VTA) - available via Nav Canada website (<http://products.navcanada.ca/shop-vfr/VFR-Terminal-Area-Charts/>)

## Learning Activities

- Assigned Readings
  - Class/Video Lectures/Tutorials
  - Problem solving and answering questions
  - Using the E6-B computer, ICAO Ruler, and aviation chart protractor
  - Assignments, practice tests and examinations
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## Course Related Information

Students must pass the final course examination with a minimum mark of 75% (including a minimum of 60% in each of the 4 sections) to attain the required letter of recommendation to attempt the PPAER (TC written examination).

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## College Related Information

**Students are especially encouraged to be aware of the following SkyMap Aviation expectations**

### Academic Integrity

SkyMap Aviation is committed to the highest standards of academic integrity, and students are expected to uphold these standards as part of the learning process. Any academic work submitted by a student is expected to be their own work, unless designated otherwise and all sources must be attributed. Students with any questions about the course expectations regarding academic integrity are encouraged to speak to their instructor and the SkyMap Aviation academic integrity team at [skymapaviation@gmail.com](mailto:skymapaviation@gmail.com).

### Use of Mobile Devices in Class

With the proliferation of small, personal mobile devices used for communications and data storage, SkyMap Aviation believes there is a need to address their use during classes and examinations. During classes, the use of such devices unless authorized by your instructor can be disruptive and disrespectful to others. During examinations, the use of such devices is generally prohibited unless authorized by your professor. Otherwise use is considered academic dishonesty in the form of cheating.