



9203

ADVANCED AVIATION (12B)

40S/40E/40M

A Pilot Ground School Course

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Course Description

Students gain an advanced understanding of navigation technologies, aerodynamics, the relationship between meteorological conditions and aircraft performance, and air law.

Goal 1: Describe and apply appropriate **health** and **safety** practices.

GLO 1.1: Describe and apply appropriate **health** and **safety** practices.

SLO 12B.1.1.1 Demonstrate an understanding of safe practices.

SLO 12B.1.1.2 Adhere to safe practices.

Goal 2: Demonstrate an understanding of **human factors** in aviation.

GLO 2.1: Demonstrate an understanding of **human factors** in aviation.

No applicable SLOs.

Goal 3: Demonstrate the use and management of **materials, tools,** and **equipment.**

GLO 3.1: Demonstrate the use and management of **materials, tools,** and **equipment.**

SLO 12B.3.1.1 Demonstrate the appropriate use and management of materials, tools, and equipment.

Goal 4: Demonstrate an understanding of **flight** and **aerodynamics.**

GLO 4.1: Demonstrate an understanding of **flight** and **aerodynamics.**

SLO 12B.4.1.1 Demonstrate an understanding of aircraft stability and controls.

Goal 5: Demonstrate an understanding of **engines, airframes, systems, and instruments.**

GLO 5.1: Demonstrate an understanding of **engines, airframes, systems, and instruments.**

No applicable SLOs.

Goal 6: Demonstrate an understanding of **meteorology** and the atmosphere.

GLO 6.1: Demonstrate an understanding of **meteorology** and the atmosphere.

SLO 12B.6.1.1 Demonstrate an understanding of the effect of various atmospheric conditions on aircraft performance.

Goal 7: Demonstrate an understanding of **navigation, aerodromes, and airports.**

GLO 7.1: Demonstrate an understanding of **navigation.**

SLO 12B.7.1.1 Demonstrate an understanding of GPS and the app ForeFlight, and the ability to use them for navigational purposes.

SLO 12B.7.1.2 Demonstrate an understanding of a Very High-Frequency (VHF) Omnidirectional Range (VOR) system, and the ability to use it for navigational purposes.

SLO 12B.7.1.3 Demonstrate the ability to perform pre-flight preparations.

SLO 12B.7.1.4 Demonstrate an understanding of and the application of radio theory.

SLO 12B.7.1.5 Demonstrate an understanding of and the application of performance charts.

GLO 7.2: Demonstrate an understanding of **aerodromes and airports.**

SLO 12B.7.2.1 Demonstrate an understanding of regulations pertaining to aerodromes and airports.

Goal 8: Describe and apply transferable **cross-curricular** knowledge and skills (of literacy, numeracy, and the sciences) as they apply to aviation.

GLO 8.1: Describe and apply **literacy** knowledge and skills related to aviation.

SLO 12B.8.1.1 Demonstrate the ability to read, understand, and communicate using language, signs, symbols, and images.

GLO 8.2: Describe and apply **numeracy** knowledge and skills related to aviation.

No applicable SLOs.

GLO 8.3: Describe and apply knowledge and skills from the **sciences** that relate to aviation.

No applicable SLOs.

Goal 9: Demonstrate an understanding of the **ethical and legal standards** that pertain to aviation.

GLO 9.1: Demonstrate an understanding of the **ethical standards** that pertain to aviation.

No applicable SLOs.

GLO 9.2: Demonstrate an understanding of **air law**.

SLO 12B.9.2.1 Demonstrate an understanding of air law as described in *Canadian Aviation Regulations (CARs)*.

Goal 10: Demonstrate **employability skills**.

GLO 10.1: Demonstrate basic **employability skills**.

SLO 12B.10.1.1 Demonstrate regular and punctual attendance.

SLO 12B.10.1.2 Communicate respectfully and effectively with others.

SLO 12B.10.1.3 Take responsibility for own actions.

SLO 12B.10.1.4 Demonstrate adaptability, initiative, and effort.

SLO 12B.10.1.5 Demonstrate teamwork skills.

SLO 12B.10.1.6 Stay on task and use time effectively.

SLO 12B.10.1.7 Demonstrate the responsible use of wireless communication devices.

GLO 10.2: Demonstrate **critical thinking** skills.

No applicable SLOs.

GLO 10.3: Demonstrate an understanding of **culture** in the workplace.

No applicable SLOs.

Goal 11: Demonstrate an understanding of **sustainability** as it pertains to aviation.

GLO 11.1: Demonstrate an understanding of the impact of the aviation industry on **human sustainability** and on the health and well-being of aviation workers and passengers.

No applicable SLOs.

GLO 11.2: Demonstrate an understanding of the aviation industry's **sustainability practices** and impact on the environment.

No applicable SLOs.

Goal 12: Demonstrate an understanding of the **scope** of, and **education and employment opportunities** in, the aviation industry.

GLO 12.1: Demonstrate an understanding of the **scope** of the aviation industry.

No applicable SLOs.

GLO 12.2: Demonstrate an understanding of **education and employment opportunities** in the aviation industry.

No applicable SLOs.

Goal 13: Demonstrate an understanding of the **evolution** of aviation, including its **technological progression and emerging trends**.

GLO 13.1: Demonstrate an understanding of the **evolution** of aviation, including its **technological progression and emerging trends**.

No applicable SLOs.
