



## COURSE OUTLINE: AVT259 - INSTRUMENT PROCEDURE

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Approved: Greg Farish, Chair, Aviation Technology - Flight

<b>Course Code: Title</b>	AVT259: INSTRUMENT PROCEDURES
<b>Program Number: Name</b>	4061: AVIATION TECHNOLOGY
<b>Department:</b>	AVIATION TECHNOLOGY
<b>Academic Year:</b>	2022-2023
<b>Course Description:</b>	This course covers the rules and procedures for all aspects of flight in instrument flight conditions. Topics covered are navigation aid tracking, general flight rules, departure, enroute, arrival and holding procedures. An emphasis is placed on sourcing all course material from official government publications such as the Canadian Air Pilot and CARs.
<b>Total Credits:</b>	1
<b>Hours/Week:</b>	1
<b>Total Hours:</b>	15
<b>Prerequisites:</b>	AFT120, AVF241, AVF242, AVF245, AVT248
<b>Corequisites:</b>	There are no co-requisites for this course.
<b>This course is a pre-requisite for:</b>	AFT360, AVT361, AVT363, AVT364, AVT366, AVT369
<b>Essential Employability Skills (EES) addressed in this course:</b>	<p>EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.</p> <p>EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>EES 3 Execute mathematical operations accurately.</p> <p>EES 4 Apply a systematic approach to solve problems.</p> <p>EES 5 Use a variety of thinking skills to anticipate and solve problems.</p> <p>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.</p> <p>EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.</p> <p>EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others.</p> <p>EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.</p> <p>EES 10 Manage the use of time and other resources to complete projects.</p> <p>EES 11 Take responsibility for ones own actions, decisions, and consequences.</p>
<b>Course Evaluation:</b>	Passing Grade: 70%, B  A minimum program GPA of 2.0 or higher where program specific standards exist is required



for graduation.

**Other Course Evaluation & Assessment Requirements:**

Unexcused absences will result in 2% deduction of the final mark for each occurrence, arriving for class late will result in a 1% deduction of the final mark for each occurrence, and violations of the dress code will result in a 1% deduction of the final mark for each occurrence. Refer to the SOP GEN 1.3 for dress code policies and SOP GEN 1.6.7 for policy regarding absence from classes.

Quizzes will be given without prior notice.

Students may request a deferment of a test or exam or exam for compassionate reasons. Compassionate grounds for deferment will include but not be limited to death of an immediate family member, personal illness, or recent diagnosis of a serious illness of a family member. Make-ups will not be permitted after the fact for compassionate reasons.

A classroom code of conduct can be found in the SOP General section, and will be adhered to. Attendance is mandatory for all Aviation classes unless approval is granted. In the case of illness, a phone call, voice mail or e-mail message is expected.

If a student expects to be late or will be delayed for any reason, every attempt should be made to contact the professor, or leave a message on voice mail or e-mail.

Although attitude, co-operation, etc., are not graded, students may be terminated based on their performance in this area (see section VI). These attributes are also considered in the selection of the Air Canada Award and other scholarships.

Dates of tests will be announced at least 1 week in advance.

**Books and Required Resources:**

Aeronautical Information Manual  
Downloadable from Transport Canada's web site

Canada Air Pilot - CAP 4  
Available by subscription from Nav Canada or electronic format from other suppliers - see Nav Canada website for list of providers

**Course Outcomes and Learning Objectives:**

<b>Course Outcome 1</b>	<b>Learning Objectives for Course Outcome 1</b>
1. The ability to effectively navigate IFR ground, aircraft and satellite-based aids.	1.1 Explain the operation and usage of the VOR and DME as aids to enroute and terminal IFR flight procedures. 1.2 Explain the operation and usage of the ADF and RMI equipment as aids to enroute and terminal IFR flight procedures. 1.3 Use LOC and ILS and explain ILS advantages and limitations as a primary instrument approach aid. 1.4 Use the Global Positioning System (GPS) as a navigation aid for enroute and terminal IFR operations.
<b>Course Outcome 2</b>	<b>Learning Objectives for Course Outcome 2</b>
2. Use various charts, approach plates, and other publications associated with IFR Flight	2.1 Understand the general layout and be able to navigate through the relevant sections of the CAP and CAP GEN with an objective to using it as a learning document and as a reference for the professional IFR commercial pilot
<b>Course Outcome 3</b>	<b>Learning Objectives for Course Outcome 3</b>



	3. Understand air law as it pertains to instrument flight conditions.	3.1 Explain Canadian domestic airspace and VFR procedures in preparation for detailed discussion on applied instrument flight procedures. 3.2 Prepare for safe and effective flight in an IFR environment, including departure, enroute, holding, separation and instrument arrival procedures. 3.3 Review airport markings, systems and distances as they relate to aerodrome traffic.
	<b>Course Outcome 4</b>	<b>Learning Objectives for Course Outcome 4</b>
	4. Understand the instrumentation use and designs of specific aircraft systems.	4.1 Explain pitot-static and gyroscopic flight instruments 4.2 Explain the design, errors and usage of the magnetic compass
<b>Evaluation Process and Grading System:</b>	<b>Evaluation Type</b>	<b>Evaluation Weight</b>
	Final Exam	50%
	Mid Term	30%
	Quizzes	20%
<b>Date:</b>	July 4, 2022	
<b>Addendum:</b>	Please refer to the course outline addendum on the Learning Management System for further information.	