Course Outline: Flight 12

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Course Overview:

This Grade 12 Flight Academy course provides students with foundational knowledge and practical skills in aviation and flight operations. Students will explore the principles of aerodynamics, aircraft systems, navigation, meteorology, and aviation safety. The course combines classroom instruction with hands-on activities, simulation exercises and ground school training to develop critical thinking, problem-solving, and decision-making skills essential for future pilots and aviation professionals. Emphasis is placed on professional skills such as discipline, communication, and teamwork, preparing students for advanced flight training and careers in the aviation industry.

To achieve success in the SAFA program, it is essential for students to prioritize their flying activities by adhering to the provided timeline. This careful management will enable them to complete the program within the designated flight hours. It is important to note that any time spent exceeding the allotted 70 hours set by the academy will incur additional costs, which must be paid separately by the student.

Students can track flight hours through the FlightLogger, which provides real-time updates and feedback on their progress. Additionally, students will receive monthly email updates that include flight projections, ensuring they remain informed about their standing in the program. Staying on top of these details will not only help students manage their time effectively but also aid in their overall success within the SAFA program.

Super T & Flying:

- Super T instructors will be teaching ground school for the entire year at Super-T Aviation airport location.
- Students will be bussed from EBHS at 10:05 to either the SAC building or Super T aviation and will return to the high school at 12:15. Students who drive to either SAC or Super T are not permitted to leave until the bus leaves.
- Students who are flying must follow Super T guidelines and rules Ex. dress code
- Students are expected to complete their solo cross country flight before the start of grade 12.

Expectations:

- Active Participation: Students are expected to engage actively in all classroom discussions, practical exercises, and simulation activities to enhance their understanding of aviation concepts.

- Safety Awareness: Students must consistently follow all safety protocols and demonstrate responsibility during all hands-on training, flight simulations, and actual flying exercises.

- Punctuality and Preparedness: Students should arrive on time and come prepared with necessary materials, including flight manuals, notebooks, and any assigned work.

- Respect and Teamwork: Students are expected to show respect for instructors, peers, and equipment, and collaborate effectively in team-based activities.

- Flight Strategy Execution: During flight strategy lessons and practical flying sessions, students are expected to apply learned techniques accurately, demonstrate sound judgment, and adapt to changing flight conditions safely and confidently.

- Continuous Learning: Students should demonstrate a commitment to learning by completing assignments, studying course materials, and seeking clarification when needed.

- Professionalism: Students must exhibit discipline, integrity, and professionalism in all aspects of the course, reflecting the standards of the aviation industry.

- Communication: Parents and students are encouraged to check in with instructors when questions or concerns arise. It is also highly recommended that both student and parent attend Parent Teacher Interviews in semesters 1 and 2 to help support student learning.

Module	Course Description	Assessment	Credits
Aviation Structures 35 - LDC3341	Students will have the opportunity to explore what it means to maintain the aircraft that transport people and products in our increasingly interconnected world. While developing the skills for maintaining an aircraft, students will also engage in the hands-on application and engineering concepts.	Participation - 90% Self Assessments (2) - 10%	1
Aviation Flight 35 - LDC 3841	Students will build the relevant skills, training, and knowledge in order to explore the world of airplane operation.	Super T assessments - 50% TC Written Exam - 30% Self Assessments/Journals 20%	3

Print Reading - FAB2020	Students develop basic skills in reading and interpreting working drawings to prepare a bill of materials and sequence of operations.	Participation - 90% Self Assessments (2) - 10%	1
Aviation Navigation Aids - LDC 1346	Students will be exposed to the design, function, and operation of high frequency airplane navigation systems. Specifically, students will explore the Automatic Direction Finder (ADF), the Very High Frequency Omni Directional Range system (VOR), and the Global Position System (GPS) . This program will be foundational to the knowledge requirement in Transport Canada's written Private Pilot License (PPL) as well as a basis for the Commercial Pilot License (CPL) and Instrument Flight Rules (IFR) rating's ADF, VOR and GPS knowledge.	Super T assessments - 50% Self Assessments/Journals 20%	3
Mental Health and Wellness - HSS3020	Students acquire the attitude, skills and knowledge necessary for achieving and maintaining mental health and wellness. Students study stress and its relationship to health and wellness and examine resources to prevent and manage stress as well as adaptive and maladaptive coping mechanisms related to stress. Students gain an appreciation for the complexity of a variety of mental health conditions including dementia and depression and the medical and integrative health approaches and resources available to manage them. Students examine the impact of mental health as it pertains to the individual, family, peers and community.	Participation - 90% Self Assessments (2) - 10%	1
Structures and Materials - MEC1160	Students identify the types of materials and components used in vehicle construction.	Participation - 90% Self Assessments (2) - 10%	1
Sheet Fabrication 2 - FAB2090	Students use basic layout, cutting, bending and fastening operations to transform common types of sheet metals into consumer products.	Participation - 90% Self Assessments (2) - 10%	1

Engine Fundamentals - MEC 1040	Students investigate and describe operating principles, construction and applications of engines.	Participation - 90% Self Assessments (2) - 10%	1
Physical Education 30 - PE30	Students participate in a variety of games to develop individual and manipulative skills, techniques, strategies, and spatial awareness. Inherent in playing all games are cooperation, respect for others, fair play and etiquette.	Participation - 90% Fitness Test (2) - 10%	3
Robotics 3 - ELT 3150	Students demonstrate remote/autonomous control systems by constructing circuits to control robotic behaviour.	Participation - 90% Self Assessments (2) - 10%	1
HSS Advanced Practicum - HSS3950	Students apply prior learning and demonstrate the attitudes, skills and knowledge required by an external organization to achieve a credential/credentials or an articulation. Credit given for fully completing the PPL.	TC Written Exam (1st attempt) - 40% Flight Test - 40% Reflection - 20%	1

Flight General Timeline	**Completion Date**
☐ Medical	Fall of Grade 10
☐ PSTAR, ROC-A, Cessna 172 Exam	Spring of Grade 10
☐ Walk Around/ Weight & Balance	Spring of Grade 10
☐ Flight Lessons/Ground Briefing	Spring of Grade 10
☐ First SOLO	Before Fall of Grade 11
☐ Navigation	Fall of Grade 11
☐ Cross Country	Spring of Grade 11
☐ SOLO Cross Country	Before Fall of Grade 12
☐ Transport Canada Exam Prep	Fall of Grade 12
☐ Written Exam/ Flight Test	Spring of Grade 12

Notes:

Students are required to complete the ROCA, PSTAR, and Cessna 172 examinations during the second semester. The specific dates for these assessments will be assigned by the instructor. It is crucial to adhere to this schedule, as there will be no exceptions granted for any reason. Please ensure that you are prepared to take these exams on the designated dates to avoid any complications.