

Course Outline

COURSE : Internship on planes 1

PROGRAM : 280.C0 Aircraft Maintenance

DISCIPLINE : 280 Aeronautics

WEIGHTING : Theory : 0 Practice : 3 Personal Study : 1

Teacher(s)	Office	☎ extension	✉ e-mail ou website
Éric Goudreault	C-183	4691	eric.goudreault@ENA.ca

Office hours

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Morning					
Afternoon		12:00 to 15:00 C-183		12:00 to 13:00 C-183	
Other					

Coordinator(s)	Office	☎ extension	✉ e-mail
Stéphanie Arpin	C-160	4630	stephanie.arpin@ena.ca
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1 CONTEXT OF THIS COURSE WITHIN THE PROGRAM

- This course is situated in the program's fifth semester.
- Please note that this course is an absolute prerequisite for course 280-6A4-EM. All students enrolled in this program are called upon in one way or another to perform aircraft inspection activities.
- In this course, inspection activities will be held in the hangar or on the tarmac and will be carried out on different types and models of planes. These activities are planned to allow students to develop skills leading to the mastery of working techniques in aeronautical maintenance and more specifically, related to aircraft inspection. In addition to getting students to apply inspection procedures, the proposed activities will develop the skills expected of researching technical manuals, planning and organization of work, finding anomalies, but also, technical writing specific to the aeronautical maintenance field. Mastery of all of these elements will enable students to fulfill the function of the course of performing activities relating to the inspection of aircraft.
- Students must keep this course outline for the duration of their studies as it will be useful for the comprehensive assessment at the end of the program.

Transport Canada : This course outline meets the requirements of Training Organisation Certification Manual (MCF) of Transport Canada. The Department applies Transport Canada standard which allows a maximum absence of 5% for the course (theory and laboratory). The department compiles absences of all students enrolled in Aircraft Maintenance (280.C0) according to Transport Canada requirements. The application of Transport Canada policies regarding absences is available on the [Ma réussite à l'ÉNA](#) website under the heading « Privilèges accordés par Transports Canada ».

2 COMPETENCIES OF THE EXIT PROFILE (STUDENT SKILL PROFILES)

- To master the aeronautic maintenance work technics.

3 MINISTERIAL OBJECTIVE(S) AND COMPETENCIES

026D To perform activities related to inspecting airplanes and helicopters.

4 TERMINAL OBJECTIVE OF THE COURSE (FINAL COURSE OBJECTIVE)

- At the end of the course, the student will be able to plan and perform inspections on the aircraft according to a methodology and an inspection work technique adapted to the aeronautical standard.

5 TEACHING AND LEARNING STRATEGIES

- Using inspection directives, students carry out maintenance tasks on an aircraft using the maintenance manual as a source of technical information.
- Prior classes, students will have to prepare their activities by answering questions related to their weekly task. Technical documentations will be accessible through a web link given by their teacher. All classes will be given in school.
- Real and simulated scenarios are very important in this course. Students work in teams of two or three.

- Before any summative evaluations, students will have had a formative evaluation to maximize the opportunity to succeed.
- The course is offered in an intensive formula at a rate of 4 hours per week for 12 weeks.

6 COURSE PLAN AND EVALUATIONS

LEARNING OBJECTIVES

1. Conduct research in technical manuals
2. Plan and organize the work load
3. Apply inspection procedures
4. Identify defects
5. Record information

How the course works:

- o All documents will be given to you on paper, you must have a 1 inch binder.
- o The activity documents will be given to you 1 week in advance so that you can prepare (reading and technical research).
- o The activities will be done in teams of 2
- o For each activity, individually, you will have to fill in information and technical snags.
- o For each activity, individually, you will have to produce a short YouTube video and paste the QR Code in the document.

Weekly / Evaluations:

- Week 1 (2H)
 - o General presentation:
 - Course outline, new employee document, hangar equipment, tool box
 - o Presentation of the assignment (0%): Preparation of your course material.
- Week 2 (4h)
 - o Presentation: How to put a video on YouTube and get the QR Code.
 - o Activity: Inspection King Air (UFW) (team of 2)
 - o Activity: Inspection Challenger (BEI) (team of 2)
- Week 3 (4h)
 - o Presentation: The types of inspection document.
 - o Activity: King Air Inspection (UFW) (Team of 2)
 - o Activity: Inspection Challenger (BEI) (team of 2)
- Week 4-5 (4h)
 - o Activity: Run up (OSJ) (team of 2)
 - o Activity: 50H periodical inspection (ACZ, UYG) (team of 2)
- Week 6 (4h)

- **Evaluation 1 (20%):** Review
 - Individual, written exam
 - Content of the documents for weeks 1 to 5
 - Content of the document: the types of inspections
 - Technical research in maintenance manuals
- **Evaluation 2 (20%):** Give to teacher your binder with the documents of the activities
 - Activity documents are completed and meet standards
 - YouTube video meet document requirements
- Activity: Inspection of an ignition and engine control system (UYG, PJQ, ACZ) (team of 2)
- Week 7-8 (4h)
 - Inspection of a piston engine (NMA + UYG) (team of 2)
 - Removal, inspection and installation of a wheel (ASL, NMA) (team of 2)
- Week 9 (4h)
 - Taxi and Marshaling (DSQ) (group)
- Week 10-11 (4h)
 - Cabin heating system inspection (ACZ +?) (team of 2)
 - Landing gear inspection, lubrication and retraction test (PJQ) (team of 2)
- Week 12 (3h)
 - **Evaluation 3 (30%):** Review
 - Individual, written and practical exam
 - Content of the documents from weeks 1 to 11
 - Content of the document on the types of inspections
 - Technical research in maintenance manuals
 - Airplane inspection
 - **Evaluation 4 (30%):** Give to teacher your binder with the documents of the activities
 - Activity documents are completed and meet standards
 - YouTube video meet document requirements

7 REQUIRED MATERIAL

- 1" binder
- Video camera able of uploading videos to YouTube
- Laboratory attire at all times: shoes and safety glasses, tracksuit (blue) or work pants and sweater bearing the ÉNA logo. Working clothes will be mandatory as per the school policy

8 MEDIAGRAPHY

FAA, AC43-13 Aircraft inspection, repair & alterations. Acceptable methods, techniques and practices,
https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/99861, 10 janvier 2021

FAA, AC 20-106 Aircraft Inspection for the General Aviation Aircraft Owner
https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/22051, 12 janvier 2021

All ENA's technical publications (MM, IPC, SB, etc).

9 REQUIREMENTS TO PASS THE COURSE

1. Passing Mark

The passing mark for this course is 60% by adding the marks for the theory and practical work for the course.

2. Attendance for Summative Evaluations

Students must be present for summative evaluations and must comply with the instructions given by the instructor to carry out the evaluation activity and written in the course outline. Unexcused tardiness for a summative evaluation could result in being excluded from the activity. Any absence from a summative evaluation that is not due to serious reasons (illness, death in the family, etc.) could result in a mark of zero (0) for the activity.

Students are responsible for meeting with the instructor before an evaluation activity is held or immediately upon returning to ENA to explain the reason for an absence. Proper documentation, such as a medical certificate, a death certificate, legal papers, etc., must be shown if the reason for absence is serious and recognized as such by the instructor(s), arrangements will be made between the instructor(s) and the student to make up the activity.

3. Submitting Assignments

All assignments must be submitted by the date, hour and location designated by the instructor(s). Late assignments will be penalized 10% per day that they are late and will receive a mark of zero (0) after 6 days.

4. Presentation of Written Work

The instructor(s) will provide students with information and guidelines regarding the presentation of written work. When the presentation of an assignment is unacceptable, the work will be penalized as a late assignment until an acceptable version is submitted. In this case, the penalties for late work will be applied (Late assignments will be penalized 10% per day that they are late and will receive a mark of zero (0) after 6 days).

Students must follow the standards adopted by the Cégep for written work (« *Normes de présentation matérielle des travaux écrits* »). These can be found at: <http://rmsh.cegepmontpetit.ca/normes-de-presentation-materielle-des-travaux-ecrits-du-cegep/>.

10 METHODS OF COURSE PARTICIPATION

SECURITY MEASURES IN THE HANGARS

1. Student participating in a training, maintenance or manufacturing activity in the hangar or workshop must wear safety shoes, ENA work clothes and safety glasses at all times.
2. Smoking is prohibited in the school and ramp area.
3. Sitting on benches or machines is prohibited.
4. Machines must not be used without authorization from the instructor.
5. Caps or hairnets must be worn for long hair when working with the machinery.
6. The machinery and benches must be cleaned after use.

7. Clean workshop and work area used after every classes.
8. No one may circulate in the hangar unless authorized.
9. No visitors are allowed without authorization.
10. Watches, rings and neck chains must be removed before every classes.
11. Do not start any maintenance activities if you are not familiar to the equipment used. Ask your teacher or hangar technician in case of doubt.

11 OTHER DEPARTMENTAL REGULATIONS

Students are encouraged to consult the website for the specific regulations for this course:

<http://guideena-en.cegepmontpetit.ca/departement-rules/>

<https://mareussite.cegepmontpetit.ca/ena/mon-parcours/mon-programme/regles-departementales>

12 INSTITUTIONAL POLICIES AND REGULATIONS

All students enrolled at Cégep Édouard-Montpetit must become familiar with and comply with the institutional policies and regulations. In particular, these policies address learning evaluations, maintaining admission status, French language policies, maintaining a violence-free and harassment-free environment, and procedures regarding student complaints. The French titles for the policies are: *Politique institutionnelle d'évaluation des apprentissages* (PIEA), la *Politique institutionnelle de la langue française* (PILF), la *Politique pour un milieu d'études et de travail exempt de harcèlement et de violence* (PPMÉTEHV), les *Conditions d'admission et cheminement scolaire*, la *Procédure concernant le traitement des plaintes étudiantes dans le cadre des relations pédagogiques*.

The full text of these policies and regulations is accessible on the Cégep web site at the following address:

<http://www.cegepmontpetit.ca/ena/a-propos-de-l-ecole/reglements-et-politiques>. If there is a disparity between shortened versions of the text and the full text, the full text will be applied and will be considered the official version for legal purposes.

13 STUDENT ACCESSIBILITY CENTER - FOR STUDENTS WITH DISABILITIES

Students having received a professional diagnosis of impairment (motor skills, neurological, organic, sensory, learning difficulties, mental health, autism spectrum disorder or other) or suffering from a temporary medical condition may request special accommodations.

Students seeking these accommodations must forward their diagnosis to the CSA by either MIO to "Service, CSA-ENA" or email to "servicesadaptesena@cegepmontpetit.ca".

Students already registered with the CSA must communicate with their teachers at the beginning of the semester to discuss those accommodations they have been awarded by the CSA.

14 ANNEX