

1. Course Information:

1.1 Class Location and Time:

Lecture Room: STC 0050

Lecture Date/Time: Thursdays 12:30-2:20pm

Tutorials (*please confirm which tutorial you are enrolled in*):

TUT 101 – Tuesdays 11:30pm – 12:20pm, MC 4064

TUT 102 – Wednesdays 4:30pm – 5:20pm, MC 4064

TUT 103 – Mondays 12:30pm – 1:20pm, RCH 206

TUT 104 – Tuesdays 12:30 – 1:20pm, RCH 208

1.2 Contact Information:

Instructor: Dr. Suzanne Kearns

Office: EV1-238

Office Hours: Thursdays 9:30-11:30pm (or by appointment)

Phone: x32789

Email: suzanne.kearns@uwaterloo.ca

2. Course Description:

This course incorporates a survey of topic areas that impact the aviation industry in Canada. Key areas include aviation history, civil and military aviation, human factors, airspace and air traffic control systems, airport management, and aviation safety. The nature and impact of each of these topics is explored through a combination of lecture, class discussion and activities, and student presentations.

2 hours lecture and 1 hour tutorial, 0.5 course

3. Textbook & Expenses

3.1 Required textbook: Kearns, S. K. (2019). Fundamentals of international aviation. Abingdon, UK: Routledge.

3.2 No additional expenses are anticipated associated with this course.

4. Objectives and Format

4.1 Learning objectives

Through an interdisciplinary focus, with emphasis on teamwork and professional approaches, successful students will:

- Demonstrate their understanding of key elements critical to the aviation industry in Canada and Internationally. Describe a range of professional and safety issues, give examples of domestic and international regulatory and lab our issues, and examining environmental concerns associated with aviation.

- Collaborate with team members and develop public speaking skills by developing an outreach learning presentation.

4.2 Course format

The course will be organized as a combination of lecture and tutorial session. The lectures will incorporate a presentation made by the instructor along with several guest speakers from industry. The tutorials will incorporate group discussion, activities, and preparation of student presentations.

5. Evaluation

5.1 Tutorial Attendance (10%): A crucial element of this course is the sharing of ideas and opinions. Since each of us brings a unique background of experiences, much can be learned from debate and discussion. Tutorial sessions will give you the opportunity to further explore subject matter that was presented in the lecture within group activities. In addition, this course is designed to provide mentorship opportunities for you, and undergraduate TAs will attend tutorials for this purpose. When you attend tutorial sessions, attendance will be taken, which is worth 10% of your overall grade in the course. Attendance will be taken within the first 5 minutes of the tutorial. Any late arrivals will not receive an attendance grade (no exceptions).

5.2 Online Quizzes (10%): To reinforce your learning of classroom concepts, online quizzes will be available each week on Learn. Your grade on these quizzes will account towards 10% of your overall course grade (1% for each of the 10 quizzes). Quizzes must be completed each week – you will have online access to them at the end of each lecture and they must be completed before the next lecture. There is no exception to this and no make-up grades are not available as completing quizzes during their assigned window is an element of ‘professionalism’ within the course. Learn will automatically grade your quiz and record your score in the gradebook (which you can check at any time).

To locate quizzes, login to the course’s Learn site. At the end of each lecture file is a practice quiz, which you can attempt an unlimited number of times (practice quizzes are not scored). Separate from the lecture is an identical version of the quiz, which is automatically graded. PLEASE NOTE: each time you open the graded quiz your grade automatically resets (which can result in you overwriting a 100% with a 0%). Please be careful **not** to reopen the graded quiz once you have achieved a score you are happy with. The practice quiz (embedded with the lecture) will be available all semester for practice, review, and studying purposes.

5.3 Midterm Examination (20%): A midterm examination will be given in class mid-semester (see Lecture Schedule later in this Outline). The midterm exam will cover all information that has been presented in the course up until the midterm date, including readings, lectures, videos, examples, etc. Therefore, it is crucial that you take good notes throughout the term and complete all assigned readings. The exam format is multiple choice. Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

5.4 Aviation Outreach Presentation (20%): As the international aviation industry is experiencing a time of unprecedented growth, the International Civil Aviation Organization (ICAO) has made outreach a global priority. ICAO’s group is called the Next Generation of Aviation Professionals (NGAP) and the goal is to educate the general public (from 5-6 year olds up to adults) about opportunities within aviation.

This activity is intended to help you develop teamwork, presentation, professional communication, and outreach skills. Additional instruction and guidance will be provided in tutorial sessions. Any conflicts among group members should be brought forward to the instructor or TA. If conflicts result in disproportionate workload among group members, the group will meet with the instructor at the end of term to assess each member’s workload and resolve the conflict.

See ‘Appendix A’ for details on this assignment (at the end of this syllabus).

5.5 Final Examination (40%): A comprehensive final examination will be given at the end of the semester. A final exam review will be given prior to the exam. The final exam will cover all information in the course, including presentation, lectures, videos, tutorial activities, etc. Therefore, it is crucial that you take good notes throughout the term and complete all assigned workbook activities. The exam format will be multiple choice. Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Evaluation Item	Percentage of Course Grade
5.1 Tutorial Attendance	10%
5.2 Online Quizzes	10%
5.3 Midterm Examination	20%
5.4 Aviation Outreach Presentation	20%
5.5 Final Examination	40%

Exams are in multiple choice format. Each exam, in total, will be scheduled for 2 hours and are closed book examinations. Dictionaries are NOT allowed into the examinations.

Students are responsible for material covered in the lectures as well as the content discussed within the tutorial sessions. The midterm exam will be held during class time. The final exam will be scheduled during the exam period at the end of the semester. Exams will not be returned to students but may be reviewed in the instructor's office during office hours, or by appointment with your TA.

Students are *required to complete all components* of this course. Extra assignments to improve grades *will not* be allowed.

All communication with students must be through either the student's University of Waterloo email account or via Learn. If a student emails the instructor or TA from a personal account, they will be requested to resend the email using their personal University of Waterloo email account.

Assignments are due on dates indicated. Last assignments are penalized 10% every 24-hours.

Grades will not be adjusted on the basis of need. It is important to monitor your performance in the course. Remember: *You* are responsible for your grades in this course.

6. Lecture Schedule

Week	Lecture	Tutorials
1	September 5, 2019 Course Introduction & International Air Law	Course Introduction, Overview of Syllabus, Expectations of Professionalism
2	September 12, 2019 Aircraft	Group-formation for outreach assignment
3	September 19, 2019 Operations	Tutorial Topics for remainder of semester will follow the same content as the previous lecture.

4	September 26, 2019 Navigation	
5	October 3, 2019 Airports	
6	October 10, 2019 Industry Guest Speakers	
7	October 24, 2019 <u>Midterm</u>	
8	October 31, 2019 Security	
9	November 7, 2019 Environment	
10	November 14, 2019 Accidents	<i>*Outreach assignments due November 15th.</i>
11	November 21, 2019 Safety	
12	November 28, 2019 Remotely Piloted Aircraft Systems (drones)	<i>*Outreach presentations must be made during tutorials within the last two weeks of the semester (unless they were delivered live).</i>

7. University Policies Related to Assignments, Tests, and Final Exams

Intellectual Property:

Students should be aware that this course contains the intellectual property of their instructor, TA, and/or the University of Waterloo. Intellectual property includes items such as:

- Lecture content, spoken and written (and any audio/video recording thereof);
- Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides);
- Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and
- Work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many

cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

Academic Integrity:

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. The University's guiding principles on academic integrity can be found here: <http://uwaterloo.ca/academicintegrity>. ENV students are strongly encouraged to review the material provided by the university's Academic Integrity office specifically for students: <http://uwaterloo.ca/academicintegrity/Students/index.html>

Students are also expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offense, or who need help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. Students may also complete the following tutorial: <https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial>

When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline: <https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-71>. Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance: <https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70>

Note for students with disabilities: AccessAbility Services, located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.

Mental Health: The University of Waterloo, the Faculty of Environment and our Departments/Schools consider students' well-being to be extremely important. We recognize that throughout the term students may face health challenges - physical and / or emotional. **Please note that help is available.** Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services <http://www.uwaterloo.ca/counselling-services> is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

Religious Observances: Students need to inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. See Policy 70 - Student Petitions and Grievances, Section 4, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please contact your Undergraduate Advisor for details.

Appeals: A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 – (Student Discipline) may be appealed if there is a ground. A student who believes he/she

has a ground for an appeal should refer to Policy 72 (Student Appeals)
www.adm.uwaterloo.ca/infosec/Policies/policy72.htm

Unclaimed assignments:

Unclaimed assignments will be retained for one month after term grades become official in quest. After that time, they will be destroyed in compliance with UW's [confidential shredding procedures](#).

Communications with Instructor and Teaching Assistants:

All communication with students must be through either the student's University of Waterloo email account or via Learn. If a student emails the instructor or TA from a personal account they will be requested to resend the email using their personal University of Waterloo email account.

Turnitin: Text matching software (Turnitin®) may be used to screen assignments in this course. This is being done to verify that use of all materials and sources in assignments is documented. To better understand the meaning of 'similarity' in Turnitin, see https://guides.turnitin.com/01_Manuals_and_Guides/Student/Classic_Student_User_Guide/17_Similarity_Check#Viewing_an_Originality_Report.

Students will be given an option if they do not want to have their assignment screened by Turnitin®. In the first week of the term, details will be provided about arrangements and alternatives for the use of Turnitin® in this course.

Recording lectures:

- o Use of recording devices during lectures is only allowed with explicit permission of the instructor of the course.
- o If allowed, video recordings may only include images of the instructor and not fellow classmates.
- o Posting of videos or links to the video to any website, including but not limited to social media sites such as: facebook, twitter, etc., is strictly prohibited.

Co-op interviews and class attendance: Co-op students are encouraged to try and choose interview time slots that result in the least amount of disruption to class schedules. When this is challenging, or not possible, a student may miss a portion of a class meeting for an interview. Instructors are asked for leniency in these situations; but, a co-op interview does not relieve the student of any requirements associated with that class meeting. When a co-op interview conflicts with an in-class evaluation mechanism (e.g., test, quiz, presentation, critique), class attendance takes precedence and the onus is on the student to reschedule the interview. CECA provides an interview conflict procedure to manage these situations.

Students will be required to provide copies of their interview schedules (they may be printed from WaterlooWorks) should there be a need to verify class absence due to co-op interviews.

8. Other Information

- Bring student identification to exams.
- Nothing is to be on/at one's desk during an exam except a pencil, an eraser, a clear water bottle, and the individual's student card
- Do not wear baseball caps to exams
- Do not bring cell phones, smart watches, beepers, or other electronic devices to exams.

9. FREQUENTLY ASKED QUESTIONS

Question	Answer
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How can I succeed in this course?	Attend class and tutorials, complete homework, focus on understanding the principles in a way that lets you apply them to new situations. Complete online quizzes every week to earn 100% on this grade element.
When will the exam grades be posted?	Grades are posted on Learn when they become available – typically within one week of the exam.
Can I come and see my exam?	You can review your exam during office hours or at any other mutually convenient time.
There is so much material. How can I possibly remember everything?	You do not need to remember everything. You need to understand the fundamental principles and how to apply them.
This mark is going to prevent me from getting accepted into graduate school/getting hired.	Grades are given based on actual performance, as set out on the course outline. In order to be fair to all the students in the course, grade adjustments, extra assignments, and the reweighting of course components are not available except in exceptional circumstances (such as a documented serious illness).
I need a certain mark to get or maintain a scholarship.	
I tried really hard but I still got a poor mark.	

Appendix 1: Assignment: Outreach Alternative Assignment

Overview

As the international aviation industry is experiencing a time of unprecedented growth, the International Civil Aviation Organization (ICAO) has made outreach a global priority. ICAO's group is called the Next Generation of Aviation Professionals (NGAP) and the goal is to educate the general public (from 5-6 year olds up to adults) about opportunities within aviation. You will be participating in this initiative by forming a small group with your classmates and creating an outreach activity that can be distributed electronically or presented in front of a group. Your group will be automatically assigned through the Learn platform, although the tutorial instructor will assist if there are any problems. The group element of this assignment is important as it facilitates teamwork, communication, decision-making, and leadership skills – all of which are related to the learning outcomes of this course.

The targeted age/grade level will be chosen by your group:

- Kindergarten-Grade 2
- Grade 3-Grade 5
- Grade 6-8
- Highschool
- Post-Secondary.

You must specifically define the age level and **learning objectives** of your outreach activity. Your activity must include:

- 1) a presentation (may be PowerPoint, a video, or another format) of approximately 7-10 minutes,
- 2) student handouts,
- 3) a description of an activity that could be conducted with the class, and
- 4) instructions/teaching notes for the instructor, including learning objectives.

Your grade on this assignment will be based on 1) evaluation of the written and electronic materials you have developed and 2) your presentation of those materials within our tutorial sessions in the last two weeks of the semester. *PLEASE NOTE: if you choose to deliver your presentation to a group of students in the community you will receive a grade of 100% on the 'presentation' element.*

Assignment materials should be uploaded to the Dropbox in Learn by **November 15th, 2019**.

This activity is intended to help you develop teamwork, presentation, professional communication, and outreach skills. Additional instruction and guidance will be provided within weekly tutorial sessions. Although preparation for this assignment will be ongoing throughout the semester, if you choose to make your presentation during the tutorial, it must be within the last two weeks of the semester. Any conflicts among

group members should be brought forward to the tutorial instructor. If conflicts result in disproportionate workload among group members, the group will meet with the instructor at the end of term to assess each member's workload and resolve the conflict.

Steps to Completing this Assignment and Timeline

Step	Complete by:
Exchange contact information with your group-members and establish a plan for the assignment	September 20th
Assignment Materials Uploaded to Learn	November 15 th (in Dropbox)
Tutorial Presentations (order of presentations will be determined by tutorial instructor)	Last two weeks of classes
<i>Please note: Your group is strongly encouraged to deliver your presentation in-person to a group in the community. This could be a group of school children, air cadets, pilots, or others. As this is valuable 'outreach' service, if you choose this option, your group will receive a grade of 100% on the 'presentation' element of this assignment. Your TA will need email confirmation from the teacher/facilitator where you delivered the presentation, before your grade is finalized.</i>	

What Should my Activity Include?

You must include:

- 1) 7—10 minute presentation slides/outline
 - a. Either powerpoint slides, a video, or other type of file
 - b. The intent is to highlight aviation professions and inspire the target age group to consider careers in this field
 - c. You could also choose to highlight a small chunk of educational content – think of the ‘4 forces affecting an aircraft’ or ‘how ATC and pilots communicate’.
 - d. You can reach out to professionals in the field, interview them, include stock photos, or educational materials repurposed from our class
 - e. Be presented in a manner that is appropriate for the grade level and understanding of the audience
- 2) Handouts for learners
 - a. A 1-page informative handout that learners would take home with them after your presentation
 - b. Should be attractively designed and informative
 - c. Should highlight the key learning objectives of your presentation as well as interesting facts
- 3) A description of an interactive activity that could be conducted with the learners
 - a. Be interactive in nature, including either a hands-on activity, a student involved demonstration, or a game
 - b. An activity may include folding paper airlines, a debate/discussion, a case that could be analyzed, etc. Reflect on the interactive aspects of AVIA 100 and build upon that. This material will must include instructions for the teacher to deliver the activity.
- 4) Instructions/handouts for teacher, including learning objectives
 - a. Clearly state for the instructor what the purpose of the activity is as well as instructions on how to deliver the materials.
 - b. Include the Learning Goals and for the lesson

Presentation Requirements (ONLY if you choose to present in the last 2 weeks of your tutorial sessions and NOT in the community):

Your group must present your assignment in condensed format within your tutorial session (in a 5-7 minute presentation). Your presentation should include:

- An introduction
 - Your team, the age group you targeted, the learning objectives, and the goal of the project
 - Details of your lesson plan
- Three lessons you learned during your work together
 - Related to the areas of: teamwork, communication, professionalism in together, workload management, lesson planning (*use at least three*)
- In the Future...
 - Include how the lesson you built relates to a topic of study in AVIA 100
 - Include how that lesson is a building block to a specific career in aviation
 - Include how your lesson may create interest and even passion in aviation in the future
- *More presentation requirements*
 - *Professional attire, attitude and appearance*
 - *Everyone MUST contribute in a meaningful way to the presentation, and this must include verbally presenting materials*
 - *Spoken to the audience, with time for understanding to set in, in an engaging way, and without cue cards or notes to demonstrate mastery of presentation*
 - *Use professional slide design, including:*
 - *Simple, coherent slides with appropriate use of imagery, a cohesive slide design and simple transitions*
 - *Use of the rule of six throughout the presentation (a maximum of 6 bullets and 6 words per bullet), though more images and less text is preferable*

Grading:

- This assignment counts for 20% of your grade in the AVIA 100 course. Your grade on this assignment will be determined based on analysis of your submitted materials and final presentation (total to 20%).
 - **Assignment – 15%**
 - *Presentation slides/outline – 5%*
 - *Handouts for learners – 2.5%*
 - *Description of interactive activity – 2.5%*
 - *Instructions for teachers including learning objectives – 5%*
 - **Presentation – 5%**

Tutorial Presentation Rubric

Group Members:

Rubric:

Notes:	Ability to analyze your classroom experience 5 – Made connections that show synthesis and creativity 4 – Made solid connections without issue 3 – A few minor issues with connections 2 - Many issues with connections 1 – Did not connect to course materials				
Content Areas	5	4	3	2	1
Lesson learned related to assigned area:					
Lesson learned related to assigned area:					
Lesson learned related to assigned area:					
How your classroom lesson relates to a topic of study in AVIA 100					
How your classroom lesson is a building block to a specific career in aviation					
How your classroom lesson may create interest and even passion in aviation in the future					
Total	/30				
Introduction details					
Lesson Plan Details					
Total	/10				
Notes:	2 – Met requirements in every way 1 – Some minor issues in meeting requirements 0 – Did not meet requirements				
Presentation Requirements	2	1	0		
Professional Attire, Attitude and Appearance					

Meaningful contribution to presentation verbally for each group member			
Speaking to the audience in an engaged and focused way			
Professional Slide Design – Visuals			
Professional Slide Design – Rule of Six			
Total			
Assignment Total			

Group Work Notifications:

Conflicts among group members must be brought forward to the course instructor and will be resolved. Grade disputes related to various levels of contribution from group-members should be brought forward to the instructor and will be resolved. For the group presentation, a group assignment disclosure is required.

Group Assignment Disclosure

Please read the disclosure below following the completion of your group assignment. Once you have verified these points, hand in this signed disclosure with your group assignment.

1. All team members have referenced and footnoted all ideas, words or other intellectual property from other sources used in the completion of this assignment.
2. A proper bibliography has been included, which includes acknowledgement of all sources used to complete this assignment.
3. This is the first time that any member of the group has submitted this assignment or essay (either partially or entirely) for academic evaluation.
4. Each member of the group has read the full content of the submission and is assured that the content is free of violations of academic integrity. Group discussions regarding the importance of academic integrity have taken place.
5. Each student has identified his or her individual contribution to the work submitted such that if violations of academic integrity are suspected, then the student primarily responsible for the violations may be identified. Note that in this case the remainder of the team may also be subject to disciplinary action.

Course:

Assignment:

Date:

Name (print)	Signature	Section Contributed	Section Edited