

AVIATION SUSTAINABILITY WINTER 2023

GEOG 416 / AVIA 416

Published Jan 10, 2023

CLASS SCHEDULE

Section	Location	Time	Instructor(s)
GEOG 416 001 [LEC]	EV3 3412	Tuesdays 11:30 a.m. - 2:20 p.m.	Walter Palmer w2palmer@uwaterloo.ca
AVIA 416 001 [SEM]		Tuesdays 11:30 a.m. - 2:20 p.m.	
			This table is generated automatically

INSTRUCTOR / TA INFORMATION

Walt Palmer can be reached at the email provided above and will have office hours in EV-1, Room 235, Tuesdays, 14h30-16h30. An online meeting can also be scheduled.

Kaylia Little has provided the following:

Name: Kaylia Little, PhD Candidate in Sustainability Management

Email: kaylia.little@uwaterloo.ca (mailto:kaylia.little@uwaterloo.ca)

Office Hours: By appointment both online and in-person (EV1 Room: 117)

Subjects: Feel free to email me about anything SDGs related, Learn related, or UW related.

Cheers,

Kaylia

COURSE DESCRIPTION

Calendar Description for GEOG 416

An exploration of how sustainability is sought within the international aviation industry. The course takes a cross-sectional approach to aviation, exploring sustainability within the various sectors that make up the air transport system (e.g., air law, aircraft, operations, navigation, airports, and safety). Both the positive and negative impacts of aviation upon the sustainable development goals will be analyzed through reviewing case studies and industry practices. This course includes significant student project teamwork.

Prereq: AVIA 100; Level at least 2A. Antireq: GEOG 474/AVIA 374 001 W18, GEOG 315/AVIA 315

Calendar Description for AVIA 416

An exploration of how sustainability is sought within the international aviation industry. The course takes a cross-sectional approach to aviation, exploring sustainability within the various sectors that make up the air transport system (e.g., air law, aircraft, operations, navigation, airports, and safety). Both the positive and negative impacts of aviation upon the sustainable development goals will be analyzed through reviewing case studies and industry practices. This course includes significant student project teamwork.

Prereq: AVIA 100; Level at least 2A. Antireq: GEOG 474/AVIA 374 001 W18, GEOG 315/AVIA 315

LEARNING OUTCOMES

By the end of this course students should be able to:

Describe sustainability in a more comprehensive way
Reason clearly about the sustainability challenges faced by the aviation industry
Understand the scope of action available to various players: air carriers, regulators, industry bodies, ICAO
Speak knowledgeably about the United Nations Sustainable Development Goals (SDGs) and how aviation contributes (both positively and negatively to their pursuit
Engage actively on all course topics through discourse, presentation, speaking, and writing

TENTATIVE COURSE SCHEDULE

The course will generally proceed on the basis of covering one major topic each week. The last two weeks sessions will mostly be taken up with group presentations on an assignment. An updated schedule will be maintained in LEARN

TEXTS / MATERIALS

Title / Name	Notes / Comments	Required
		Yes

In general, reading will largely be from online sources discussed in class, include in the LEARN weekly modules. There will be some photocopied handouts in Week One and these are short and 'must-read'

STUDENT ASSESSMENT

Component	Value
Level of Engagement	30%
Assignment 1 (Class thought exercise and very short written report)	10%

Component	Value
Assignment 2 (Very short individual presentation on an assigned topic)	15%
Assignment 3 (As a member of a group, contribute to and then also a presentation on a topic that will be chosen by your group from a list of provided topics or an approved additional topic of your choice)	30%
Assignment 4 (Written summary of factors relating to aviation and the United Nations Sustainable Development Goals)	15%

Note that 'Level of Engagement' is one of the very most important considerations. It will be assessed progressively throughout the course, in many different ways. The course is 'seminar-' and 'project-oriented,' but the projects are designed to engender discussion. So discussion is the basis of our learning and progress. Be 'present.' There is no specific score for attendance, but assuming that you will be in attendance absolutely as much as possible in order to be involved in essential participation and discussion, 'be present' has just that meaning: always be ready to provide comment, question, and challenge.

N.B.: Where an assignment uses the word, 'presentation,' this should not be interpreted as meaning a slide presentation with reading or some commentary. Presentation software is certainly allowed as an aid, but the student(s) should be prepared to *speak* about their ideas using slides as an assist, where necessary, to illustrate ideas or data, or to list points. Speak your presentation and use slides for specific things. *Please* do your very best to avoid simply giving the class your slide deck on the screen with an oral reading of the slide content.

Assignment One: This is a 'no-wrong-answer' exercise. It will be a spontaneous response -- reflecting your ideas -- to a question posed during the Week One class. Here is the relevant text copied from the LEARN module:

- ***"Assignment 1:*** Very short (200-300 words, Times New Roman, double-spaced) written report, per specific ideas that will be discussed in the first class (today). ***Due Friday, January 13, 17:00: Marked as 10% of the course total"***

Assignment Two: This assignment asks for the individual to prepare a presentation. Please note well that you are not asked to identify the 'biggest' or 'most important' sustainability challenge faced by some component of aviation (airlines, for example) but rather find some sustainability problem that will be faced by some industry component -- and perhaps even specific to a region -- and a problem that will be particularly tricky to address. Here is the relevant text copied from the LEARN module:

- ***"Assignment 2:*** Prepare a presentation to address the question, *What individual industry or activity, within the larger, comprehensive commercial aviation industry, faces the most difficult challenge in becoming sustainable?* It will be a talk of three-minutes -- *maximum*; two and a half minutes would be better. ***This talk will be given in class Week 4 and will be worth 15% of final mark"***

Assignment 3: Note that group dynamics dictate that some thought will have to go to presentation strategy and skills. This is not a course on presentation skills but it will be hard to treat the material fairly if it is not coherently

presented. Work together on the presentation, and support each other. Here is the relevant text copied from the LEARN module:

"Assignment 3: Participate as a group member to prepare a presentation (length of presentation to be determined). The presentation to be on *one* of the following subjects:

- **(Option 1)** Characterization of what the group considers to be the most important sustainability challenge faced by commercial aviation, including potential avenues in addressing the challenge.

or

- **(Option 2)** Critical assessment of ICAO CORSIA programme.

or

- **(Option 3)** Develop the argument in favour of the proposition that social justice is necessary in order to secure environmental benignity and vice versa

or

- **(Option 4)** Provide a commentary on the concept of emissions 'scopes' per the Greenhouse Gas (GHG) Protocol

Note on process:

The class will be broken into several groups. The groups will be chosen by lot and will comprise approximately five students each. Once the groups are established, they can each express an order of preference (first choice topic; second choice, etc) for the options on which they would like to engage and as many wishes as possible will be honoured. All four listed options will be pursued, but if none of the four listed options generate sufficient interest within a group, that group can propose a different topic. If a new and different topic is approved, it can be listed as one of that group's choices of topic. Inasmuch as there will be more than four groups completing presentations, and allowing that there may not be other, new, group-generated topics approved, it is a given that some topics may be assigned to more than one group. All decisions as to group formation and topic assignment will be determined by lot.

IMPORTANT: all members of each group must participate in the presentation

The presentations must be ready for class in Week 11. This is a major group assignment and is worth 30% of your final grade"

Assignment 4: This is a simple written assignment. Here is the relevant text copied from the LEARN module:

"Assignment 4: In a written summary (1,000 - 2,000 words), outline how, notionally, the various SDGs may be affected positively and negatively by commercial aviation. Also, pick the SDG that you think that aviation most directly and effectively supports and the SDG that aviation most adversely affects -- use the bulk of your word count to address this latter and more specific point.

- ***This assignment is due Friday, March 24 and is worth 15% of your final mark"***

ASSIGNMENT SCREENING

No assignment screening will be used in this course.

ADMINISTRATIVE POLICY

In light of the fact that so much of your success in this course will depend on level of engagement -- and beyond the routine availability of office hours for consultation -- you are requested to book an online chat with the instructor at some point (preferably at some time during the third, fourth, or fifth week of the course) for a mutual exchange of impressions as to progress and your engagement with the material and your fellow students.

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 <https://uwaterloo.ca/campus-wellness/> (<https://uwaterloo.ca/campus-wellness/>) 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.

All students are encouraged to download the WatSAFE app which is available free through the google and iOS app stores. The WatSAFE app provides on- and off-campus contacts for students in distress, including international students, and other information related to campus safety and security.

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.

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.

Recording lecture: Use of recording devices during lectures is only allowed with explicit permission of the instructor of the course. If allowed, video recordings may only include images of the instructor and not fellow classmates. 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.

UNIVERSITY POLICY

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. [Check [the Office of Academic Integrity](https://uwaterloo.ca/academic-integrity/) (<https://uwaterloo.ca/academic-integrity/>) for more information.]

Grievance: A student who believes that a decision affecting some aspect of their university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70, Student Petitions and Grievances, Section 4](https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70) (<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70>) . When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

Discipline: A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for their actions. [Check [the Office of Academic Integrity](https://uwaterloo.ca/academic-integrity/)

(<https://uwaterloo.ca/academic-integrity/>) for more information.] A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate associate dean. For information on categories of offences and types of penalties, students should refer to [Policy 71, Student Discipline](https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-71) (<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-71>) . For typical penalties, check [Guidelines for the Assessment of Penalties](https://uwaterloo.ca/secretariat/guidelines/guidelines-assessment-penalties) (<https://uwaterloo.ca/secretariat/guidelines/guidelines-assessment-penalties>) .

Appeals: A decision made or penalty imposed under [Policy 70, Student Petitions and Grievances](https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70) (<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70>) (other than a petition) or [Policy 71, Student Discipline](https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-71) (<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-71>) may be appealed if there is a ground. A student who believes they have a ground for an appeal should refer to [Policy 72, Student Appeals](https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-72) (<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-72>) .

Note for students with disabilities: [AccessAbility Services](https://uwaterloo.ca/disability-services/) (<https://uwaterloo.ca/disability-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.

Turnitin.com: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit alternate assignment.