

AERO 4300A: Acoustics and Noise Control

WINTER 2021

COURSE OUTLINE

Instructor:

	Dr. Joana Rocha
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Email:	Joana.Rocha@carleton.ca
Office Hours:	After class and/or by appointment
Lectures:	Tue, Thu: 11:35 AM - 12:55 PM (Online)

Prerequisites:

MATH 3705 (Mathematical Methods I) and Fourth-year status in Engineering.

Course Content:

1. Fundamentals of Mechanical Vibrations
2. Traveling and Standing Waves
3. Acoustic Wave Equation and its Fundamental Solutions
4. Noise, Speech and Hearing
5. Environment Acoustics
6. Architectural Acoustics.

Recommended Textbook:

Kinsler, L. E., Frey, A. R., Coppens, A. B., Sanders, J. V., *Fundamentals of Acoustics*, 4th Ed., John Wiley & Sons, 2000 (ISBN 978-0-471-84789-2).

* The textbook is also available at the Carleton University library (on reserve).

Grading Policy:

Assignments (2): 30%
Attendance: 10%
Final Exam: 60%

Note: A passing grade (i.e. at least 50/100) in all components in grading scheme above is required to pass the course. Assignments and final exam are all closed book - you are only allowed to consult the equation sheet, will provided to you prior to the assignment/exam. Failing to attend one or more of the assignments will result in the % weight of the assignment(s) to be transferred to the final exam %.

E-Proctoring:

Please note that assignment and final exam in this course will use a remote proctoring service provided by Scheduling and Examination Services. You can find more information at <https://carleton.ca/ses/e-proctoring/>. The minimum computing requirements for this service are as follows:

- Hardware: Desktop, or Laptop.
- OS: Windows 10, Mac OS 10.14, Linux Ubuntu 18.04.
- Internet Browser: Google Chrome, Mozilla Firefox, Apple Safari, or Microsoft Edge.
- Internet Connection (High-Speed Internet Connection Recommended).
- Webcam (HD resolution recommended).

Note: Tablets, Chromebooks and Smartphones are not supported at this time. Windows-based tablets are not supported at this time.

Requests for Academic Accommodations:

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Pregnancy obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Religious obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. carleton.ca/pmc

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline