



EESA09H3 – Wind: Online Summer (L99)

Instructor: Tanzina Mohsin (first half) and Andrew Zajch (second half)

Room: EV364

Email: tanzina.mohsin@utoronto.ca (until June 30th)

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(please read the email policy at the end before you send an email)

Online Office Hours via Zoom (link will be posted at Quercus: applicable until July 1st)

Wednesdays: 12:30 am to 1:30 pm (will start on May 18th, 2022)

In person office hours- will be held on request (subject to COVID situation)

Teaching Assistants

Taylor Tabobondung

Lauren Miller

Lecture posting time

Every Wednesday, starting May 11th the video recording of the lecture will be posted. Not everything in the video will be relevant to what you will do in terms of participation in the course. However, the content taught in the video will be the same unless specified otherwise.

Course Description

A survey of the science, history and applications of wind. Topics include storms including hurricanes, tornadoes and midlatitude cyclones, global circulation, local circulations, measurement of winds, impact of winds on land surfaces, wind power, winds and pollution, historical and literary winds, and contemporary ways to look at the actions of wind in our society through various lenses. No prior knowledge of environmental science is required.

Tentative Lecture List

1. Introduction: the big picture	Week 1
2. Science of WIND	Week 2
3. Global Wind Circulation	Week 3
4. Synoptic weather phenomenon 1: Hurricanes	Week 4
5. Synoptic weather phenomenon 2: Midlatitude cyclones	Week 5
6. Reading week	Week 6
7. Midterm (tentative)	Week 6/7
8. Synoptic weather phenomenon 3: Thunderstorms and Tornadoes	Week 8
9. Synoptic weather phenomenon 4: Other storms	Week 9
10. Wind in your neighborhood	Week 10
11. Measuring the Wind in the atmosphere	Week 11
12. Wind as a driver of pollutants	Week 12

13. Wind as a source of Power	Week 13
14. Changing Wind with Climate Change	Week 14

Evaluation Scheme

Participation (quizzes + participation assignments) - 20%

Contemporary analysis of wind related issues - 10%

Midterm Test - 25%

Final Exam - 45%

Quizzes will be held via Quercus every week starting on Monday May 23rd. Each quiz will cover the materials from the previous week lecture. If you miss a quiz, there is no makeup and you will miss out a participation opportunity. Participation opportunities will also be available to a maximum of 4 marks. All participations should be submitted via Quercus/Tophat (based on textbook exercises). Detail of the quizzes and participations will be discussed during the lecture and will be posted on the Quercus.

Course Requirement

We will be using the Top Hat (www.tophat.com) for some participation and homework. In addition, we will be using the custom-built interactive textbook **Wind** within Top Hat for this class. Given that the course is fully online, working through TopHat HomeWorks throughout the semester will be extremely beneficial for you to get prepared for midterm and final exam.

You can visit the Top Hat Overview (<https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide>) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system. An invitation will be sent to you by email. Top Hat may require a paid subscription, and a full breakdown of all subscription options available can be found here: www.tophat.com/pricing.

Your textbook will be applied at checkout for an additional cost. Don't worry if you don't see any content in the course right away, I will make it available to you as we progress through the semester.

Should you require assistance with TopHat at any time, due to the fact that they require specific user information to troubleshoot these issues, please contact their Support Team directly by way of email (support@tophat.com), the in app support button, or by calling 1-888-663-5491. If you have any issue with the TopHat please do not keep it until later in the term because missing the TopHat assignments can affect your grades in both midterm and final exam.

Please email me at tanzina.mohsin@utoronto.ca if you have any question regarding the course content on Tophat.

Midterm

Week of June 13th or 27th (tentative). The midterm and final exam will be held online.

I expect all students to write the midterm exams except under the most severe and exceptional circumstances.



If, for some extraordinary reason, you do miss a midterm, please notify me within 24 hours of the exam by email. A non-vague note from a doctor will be required on the **U of T medical form**.

Midterm and Final exam format

Same format for both exams, only differing in quantity.

1. True or false questions and multiple-choice questions
2. Short answer/descriptive questions
3. Special topics – contemporary wind issue analysis

How to study for the exams

You must study the book chapters available through Tophat in addition to the lecture slides, for the tests and exams. The major topics are elaborated in the chapters. In order to understand a specific topic and to describe it in detail on the exam paper these are very helpful. The lecture slides are only the guide to study the topics. However, studying only the chapters of the textbook (on Tophat) are also not recommended because the lecture slides have figures, plot, pictures, videos, and other information that are not available in the book chapters. The homework assignments from the textbook **will prepare you for midterm and final exam**. The students completing the textbook homework usually excel in the course (receive above 80%).

PLEASE NOTE THAT THE VIDEOS THAT ARE USED DURING LECTURE OR USED FOR PARTICIPATION OUTSIDE OF LECTURE ARE IMPORTANT FOR MIDTERM AND FINAL EXAM.

Emails

I welcome communication by email concerning the issues related to the course. However, I will delete without answering any emails asking me what is covered on the term tests or final exam, any questions regarding participations (all can be found in the syllabus or on the Quercus), which will be always available on the Quercus. In addition, I always assign office hours to discuss the term test. Include EESA09 in the subject line of your emails (this especially makes it easier to find your email later). Although I provide email address to communicate on urgent matter, I encourage that you discuss your concerns/questions during online office hours. **YOU CAN ONLY USE THE EMAIL LISTED AT THE TOP OF THIS COURSE OUTLINE.**

Copyright statement

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