COURSE TIME

Lectures: Tuesdays & Thursdays 2:00-3:20pm, HSLH 100A
Discussion 1 (optional): Wednesday 12:00-12:50, PSCB-140
Discussion 2 (optional): Friday 11:00-11:50, RH-184
Discussion 3 (optional): Friday 1:00-1:50pm, SH-134

INSTRUCTOR

Professor Jin-Yi Yu
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TEACHING ASSISTANTS

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COURSE DESCRIPTION

This course introduces students to the fundamental properties of the atmosphere and helps them understand the physics behind the weather and climate. The course begins with an introduction of the thermal structure, mass distribution, and general circulation of the atmosphere and an explanation of how these properties are determined by the balance between the solar and terrestrial radiations. The second part of the course describes the weather features we experience in daily life, including midlatitude storms, tropical hurricane, tornadoes, clouds, and precipitation. The last part of the course looks into how the atmosphere interacts with oceans, land, ice, and human activities to determine the past and possible future climate changes. Students will be tested on their knowledge of the atmosphere and also on their understanding of the physical processes behind it.

WEEK | DATE | TOPICS | CHAPTER
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Week 1 | 4/01 | Composition and Structure of the Atmosphere | Ch.1
| 4/03 | Composition and Structure of the Atmosphere | Ch.1

Week 2 | 4/08 | Solar Radiation & Seasons | Ch.2
| 4/10 | Energy Balance & Temperature | Ch.3

Week 3 | 4/15 | Atmospheric Pressure & Wind | Ch.4
| 4/17 | Atmospheric Pressure & Wind | Ch.4

Week 4 | 4/22 | Atmospheric Moisture | Ch.5
| 4/24 | Atmospheric Moisture | Ch.5

Week 5 | 4/29 | Midterm Examination | Ch.1-5
| 5/01 | Movie on Global Warming |

Week 6 | 5/06 | Cloud Development & Forms | Ch.6
| 5/08 | Precipitation Processes | Ch.7

Week 7 | 5/13 | Global Atmosphere/Ocean Circulations | Ch.8
| 5/15 | El Niño & Climate Variability | Ch.8

Week 8 | 5/20 | Air Masses & Fronts | Ch.9
| 5/22 | Mid-Latitude Cyclones | Ch.10

Week 9 | 5/27 | Mid-Latitude Cyclones | Ch.10

Grades: Homework (30%), midterm (30%), pop quizzes (10%) and Final Exam (30%).

Homework: Usually issued on Thursday and due on the following Thursday. There is a 20% penalty per day for late homeworks. Group answers are not acceptable. Homeworks will be returned by TAs in the discussion section.

It is student's responsibility to make sure that the TAs receive their homework. Email answers are not acceptable. If you turn in your homework after the lectures, you should email TAs to notify them where and when you drop the homeworks. You should also check the EEE grade book to make sure you received homeworks grades.

Optional Discussion Sessions: TAs will review course material and answer questions about the homework problems. They will also provide reviews for midterm and final examinations.

### TA OFFICE HOURS (at Croul Hall Room# 3242A)

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<tr>
<th>Time</th>
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<tr>
<td>9:30-10:30</td>
<td>Qi Tang</td>
<td>Angie Kao</td>
<td>Min-Hui Lo</td>
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