Instructor Information

Instructor: Jerry Y. Jien
Email: tanzina.mohsin@utoronto.ca
Office: EV350
Office Hours: Wednesday 11am – 1 pm in EV350 or by appointment

I will answer emails related to course matters within 48 hours (excluding weekends), with “EESB03” provided in the subject.

Teaching Assistants:

Sławomir Kowal
Peter Ng
Daniel Lane-Coplen

Course Description:

This is an overview of the physical and dynamic nature of meteorology, climatology and related aspects of oceanography. Major topics include: atmospheric composition, nature of atmospheric radiation, atmospheric moisture and cloud development, atmospheric motion including air masses, front formation and upper air circulation, weather forecasting, ocean circulation, climate classification, climate change theory and global warming.

Prerequisite: EESA06H3 or EESA09H3
Exclusion: GGR203H, GGR312H

Course Meeting Information

Lectures:

Wednesday 10-11 am, SW128
Wednesdays 1-3 pm, SW128

Special Topics (10-11am):
January 6 Introduction
January 13 (Regular lecture)
January 20 Frost quakes
January 27 Climate of Toronto I
February 3 Toronto’s Developing Heat Island
February 10
February 17 Reading Week
February 24 Midterm
March 2 Atlantic Hurricanes
March 9 Thunderstorms
March 16 Large-scale Natural Oscillation
March 23
March 30

Course Content (1-3pm):

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 6</td>
<td>Introduction + Radiation I</td>
<td>Chapter 1, 2</td>
</tr>
<tr>
<td>January 13</td>
<td>Radiation II and III</td>
<td>Chapters 2, 5</td>
</tr>
<tr>
<td>January 20</td>
<td>Vertical Structure/Stability</td>
<td>Chapters 4, 5, 6</td>
</tr>
<tr>
<td>January 27</td>
<td>Atmospheric Dynamics</td>
<td>Chapters 8, 9</td>
</tr>
<tr>
<td>February 3</td>
<td>Global Circulation</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>February 10</td>
<td>Meteorological Variables</td>
<td>Chapter 13</td>
</tr>
<tr>
<td>February 17</td>
<td>Reading Week</td>
<td></td>
</tr>
<tr>
<td>February 24</td>
<td>MIDTERM</td>
<td></td>
</tr>
<tr>
<td>March 2</td>
<td>Mid-latitude Cyclones</td>
<td>Chapter 11, 12</td>
</tr>
<tr>
<td>March 9</td>
<td>Tropical Climatology (Hurricanes)</td>
<td>Chapter 15</td>
</tr>
<tr>
<td>March 16</td>
<td>Storms (Thunderstorms &amp; Tornadoes)</td>
<td>Chapter 14</td>
</tr>
<tr>
<td>March 23</td>
<td>Global Warming</td>
<td>Chapter 16</td>
</tr>
<tr>
<td>March 30</td>
<td>Climate of the Arctic / Review</td>
<td></td>
</tr>
</tbody>
</table>

**Tutorials**

Tutorials (1 hour):
Wednesday 9 am (2 sections)
Wednesday 11 am (1 section)
Wednesday 4 pm (2 sections)

Teaching Assistants:

Slawomir Kowal
Quizzes and assignments will be administered by your TA. You will complete the quizzes, at the beginning of your registered tutorial. An assignment on the topic of hurricane will be formally introduced and discussed in the tutorial. Please see below for the Tutorial Schedule on the dates for quizzes and the due date for Hurricane assignment.

**Tutorial Schedule:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 6</td>
<td>T1 review of Radiation 1</td>
</tr>
<tr>
<td>Jan 13</td>
<td>T2 (Quiz 1 on Radiation I)</td>
</tr>
<tr>
<td>Jan 20</td>
<td>T3 (Quiz 2 on Radiation II)</td>
</tr>
<tr>
<td>Jan 27</td>
<td>T4 (Quiz 3 on Stability)</td>
</tr>
<tr>
<td>Feb 3</td>
<td>T5 (Quiz 4 on Dynamics)</td>
</tr>
<tr>
<td>Feb 10</td>
<td>Reading Week</td>
</tr>
<tr>
<td>Feb 17</td>
<td>Midterm</td>
</tr>
<tr>
<td>Mar 2</td>
<td>T6 Hurricane assignment</td>
</tr>
<tr>
<td>Mar 9</td>
<td>T7 Weather Maps &amp; PRL</td>
</tr>
<tr>
<td>Mar 16</td>
<td>T8 (Quiz 5 on PRL)</td>
</tr>
<tr>
<td>Mar 23</td>
<td>T9 Review; Hurricane Assignment due (Hard Copy)</td>
</tr>
<tr>
<td>Mar 30</td>
<td></td>
</tr>
</tbody>
</table>

**Marking Scheme**

- Quizzes (5): 20%
- Assignment: 10%
- Midterm: 20%
- Final Exam: 40%
- Participation: 10%

Medical documentation is needed if you miss the quiz, midterm test or final exam. If you legitimately miss the midterm the final will be worth more correspondingly (no make up midterm).

**Text Book**

*Meteorology Today: An Introduction to Weather, Climate and the Environment,* 2nd Canadian Edition
A copy of the textbook is placed on course reserve at the UTSC library and is available to be borrowed on a short-term basis.

*You are welcome to use 1st Canadian Edition of Meteorology Today. Be mindful that the content and page numbers may have been shifted.

**Caution**

Be wary of the fine line between working together and plagiarizing

No electronic devices other than UTSC approved calculators

http://www.utsc.utoronto.ca/~vpdean/academic_integrity.html

**Course communication**

Blackboard

**Other Academic Resources**

Academic Advising & Career Centre
http://www.utsc.utoronto.ca/aacc/

AccessAbility
http://www.utsc.utoronto.ca/~ability/

UTSC Library
https://utsc.library.utoronto.ca

The Writing Centre
http://www.utsc.utoronto.ca/twc/welcome