EXPANDED COURSE DESCRIPTION
EARTH, SPACE SCIENCE AND ENGINEERING
Lassonde School of Engineering
Earth and Space Science and Engineering
LE / ESSE 4130 3.0 SECTION M
ATMOSPHERIC DYNAMICS II
FALL 2017 / WINTER 2018

Last Modified Date: 08/29/2017

COURSE CALENDAR DESCRIPTION

The theory and behaviour of Rossby, baroclinic and internal gravity waves in the atmosphere, including their origin, structure and propagation. Barotropic and baroclinic instability and the global circulation of the atmosphere. Three lecture hours. One term. Three credits. Prerequisite: LE/ESSE 3040 3.00. Prior to Fall 2014: Prerequisite: LE/EATS 3040 3.00. Prior to Summer 2013: Prerequisite: SC/EATS 3040 3.00.

INSTRUCTOR(S)

<table>
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<tr>
<th>Name</th>
<th>Section / Format / Term</th>
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<td>Chen, Yongsheng</td>
<td>Sec. M / LECT / W</td>
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ADDITIONAL INFORMATION

Topics and Concepts:
- Introduction to linear wave theory
- Sound waves
- Surface and internal gravity waves
- Inertio-gravity and Rossby waves
- Geostrophic adjustment
- Barotropic and baroclinic instability
- The general circulation, angular momentum budget and the energy cycle
- Tropical dynamics, equatorial waves, middle atmosphere dynamics


ACADEMIC INTEGRITY LINKS
- Senate Policy on Academic Honesty - http://secretariat-policies.info.yorku.ca/policies/academic-honesty senate-policy-on/
- Academic Integrity - http://lassonde.yorku.ca/academic-integrity

STUDENT LINKS
- Student Rights and Responsibilities - http://oscr.students.uit.yorku.ca/student-conduct
- Religious Observance - https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs
- Counselling and Disability Services - http://cds.info.yorku.ca/
Many courses utilize Moodle, York University’s course website system. If your course is using Moodle, click here to access it.

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