## DEGREE CHECKLIST  
### 2023-2024

### BACHELOR OF SCIENCE (BSc Hons)  
#### EARTH & ATMOSPHERIC SCIENCE  
Honours - Atmospheric Science Stream

<table>
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<tr>
<th>COURSES</th>
<th>CREDITS EARNED</th>
<th>GRADE</th>
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### First Year Courses
- LE/EECS 1541 3.00
  - or
  - LE/EECS 1011 3.00
  - Introduction to Computing for the Physical Sciences  
  - or  
  - Computational Thinking through Mechatronics
- LE/ESSE 1011 3.00
  - Introduction to Atmospheric Science
- SC/MATH 1013 3.00
  - Applied Calculus I
- SC/MATH 1014 3.00
  - Applied Calculus II
- SC/MATH 1025 3.00
  - Applied Linear Algebra
- SC/PHYS 1011 3.00
  - Physics I
- SC/PHYS 1012 3.00
  - Physics II
- 3.00 Credits - Non-Science Requirement
- 3.00 Credits - Non-Science Requirement
- 3.00 Credits - Non-Science Requirement

### Second Year Courses
- LE/EECS 2501 1.00
  - Fortran and Scientific Computing
- LE/ESSE 2010 3.00
  - Introductory Meteorology
- LE/ESSE 2020 3.00
  - Introduction to Climate Science
- LE/ESSE 2030 3.00
  - Planetary Geophysics
- LE/ESSE 2470 3.00
  - or
  - LE/CIVL 2210 3.00
  - Introduction to Continuum Mechanics  
  - or  
  - Fluid Mechanics
- SC/MATH 2015 3.00
  - Applied Multivariate & Vector Calculus
- SC/MATH 2271 3.00
  - Differential Equations for Scientists and Engineers
- SC/PHYS 2020 3.00
  - Electricity and Magnetism
- 3.00 Credits - Non-Science Requirement

The course requirements for the second major or the minor

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**Note:** For students transferring into the EATS program, the following are acceptable substitutes for the 6 credit foundational science (physics) requirement: SC/PHYS 1800 3.00 and SC/PHYS 1801 3.00; or SC/ISCI 1310 3.00; or SC/ISCI 1301 3.00 and SC/ISCI 1302 3.00; or any of the following with a minimum grade of C in each course: SC/PHYS 1410 6.00; SC/PHYS 1420 6.00; SC/PHYS 1411 3.00 and SC/PHYS 1412 3.00; SC/PHYS 1421 3.00 and SC/PHYS 1422 3.00.
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<th>COURSES</th>
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<tbody>
<tr>
<td><strong>Third Year Courses</strong></td>
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<tr>
<td>LE/ESSE 3030 3.00  Atmospheric Radiation and Thermodynamics</td>
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<tr>
<td>LE/ESSE 3040 3.00  Atmospheric Dynamics I</td>
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<td><strong>Fourth Year Courses</strong></td>
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<tr>
<td>LE/ESSE 4050 3.00  Synoptic Meteorology I</td>
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<tr>
<td>LE/ESSE 4051 3.00  Synoptic Meteorology II</td>
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<tr>
<td>LE/ESSE 4120 3.00  Cloud Physics and Radar Meteorology</td>
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<tr>
<td>LE/ESSE 4130 3.00  Atmospheric Dynamics II</td>
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<td>LE/ESSE 4140 3.00  Numerical Weather Prediction</td>
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<td>LE/ESSE 4230 3.00  Remote Sensing of the Atmosphere</td>
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The course requirements for the second major or the minor including credits at the 3000-level or higher for a minimum overall total of 42 credits at the 3000-level or higher.

A. General Education Requirement:
- non-science requirement: 12 credits from the approved list of courses and subject areas in your Academic Calendar;
- mathematics: SC/MATH 1013 3.00; SC/MATH 1014 3.00;
- computer science: LE/EECS 1011 3.00 or LE/EECS 1541 3.00;
- foundational science: SC/PHYS 1010 6.00, or both of: SC/PHYS 1011 3.00 and SC/PHYS 1012 3.00.

B. Major Requirements the EATS program core, as specified above (19 credits);

C. Science breadth:
- Science breadth: satisfied by above requirements.

D. Upper level requirement:
- A minimum of 42 credits at the 3000 level or higher.

E. Additional elective credits, as required, for an overall total of 120 credits.

F. Standing requirements: a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all courses completed.

Participation in the Co-Op Program is highly recommended for all Honours students, but is not a degree requirement.