



**DEGREE CHECKLIST
2023-2024**

**BACHELOR OF SCIENCE (BSc Spec Hons)
EARTH & ATMOSPHERIC SCIENCE
Specialized Honours - Atmospheric Science Stream**

NAME

STUDENT #

Students are strongly advised to refer to online Academic Calendars before enrolling into courses: <http://calendars.registrar.yorku.ca/>

		COURSES		CREDITS EARNED	GRADE
First Year Courses					
	<input type="checkbox"/>	SC/CHEM 1000 3.00 <i>or</i> SC/CHEM 1001 3.00	Chemical Structure <i>or</i> Chemical Dynamics		
	<input type="checkbox"/>	LE/EECS 1541 3.00 <i>or</i> LE/EECS 1011 3.00	Introduction to Computing for the Physical Sciences <i>or</i> Computational Thinking through Mechatronics		
	<input type="checkbox"/>	LE/ESSE 1010 3.00 <i>or</i> LE/ESSE 1012 3.00	The Dynamic Earth and Space Geodesy <i>or</i> The Earth Environment		
	<input type="checkbox"/>	LE/ESSE 1011 3.00	Introduction to Atmospheric Science		
	<input type="checkbox"/>	SC/MATH 1013 3.00	Applied Calculus I		
	<input type="checkbox"/>	SC/MATH 1014 3.00	Applied Calculus II		
	<input type="checkbox"/>	SC/MATH 1025 3.00	Applied Linear Algebra		
	<input type="checkbox"/>	SC/PHYS 1011 3.00	Physics I		
	<input type="checkbox"/>	SC/PHYS 1012 3.00	Physics II		
3.00 Credits - Non-Science Requirement	<input type="checkbox"/>				
<p>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 6.00; 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.</p>					
Second Year Courses					
	<input type="checkbox"/>	LE/EECS 2501 1.00	Fortran and Scientific Computing		
	<input type="checkbox"/>	LE/ESSE 2010 3.00	Introductory Meteorology		
	<input type="checkbox"/>	LE/ESSE 2020 3.00	Introduction to Climate Science		
	<input type="checkbox"/>	LE/ESSE 2030 3.00	Planetary Geophysics		
	<input type="checkbox"/>	LE/ESSE 2470 3.00 <i>or</i> LE/CIVL 2210 3.00	Introduction to Continuum Mechanics <i>or</i> Fluid Mechanics		
	<input type="checkbox"/>	SC/MATH 2015 3.00	Applied Multivariate & Vector Calculus		
	<input type="checkbox"/>	SC/MATH 2271 3.00	Differential Equations for Scientists and Engineers		
	<input type="checkbox"/>	SC/GEO 2420 3.00 <i>or</i> SC/MATH 2565 3.00 <i>or</i> SC/MATH 2930 3.00	Introductory Statistical Analysis in Geography <i>or</i> Introduction to Applied Statistics <i>or</i> Introductory Probability and Statistics		
	<input type="checkbox"/>	SC/PHYS 2020 3.00	Electricity and Magnetism		
3.00 Credits - Non-Science Requirement	<input type="checkbox"/>				
3.00 Credits - Non-Science Requirement	<input type="checkbox"/>				
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	COURSES		CREDITS EARNED	GRADE
Third Year Courses				
	<input type="checkbox"/>	LE/ESSE 3020 3.00	Global Geophysics and Geodesy	
	<input type="checkbox"/>	LE/ESSE 3030 3.00	Atmospheric Radiation and Thermodynamics	
	<input type="checkbox"/>	LE/ESSE 3040 3.00	Atmospheric Dynamics I	
	<input type="checkbox"/>	LE/ESSE 3280 3.00	Physics of the Space Environment	
	<input type="checkbox"/>	LE/ESSE 3600 3.00	Geographical Information Systems (GIS) and Spatial Analysis	
	<input type="checkbox"/>	SC/MATH 3241 3.00	Numerical Methods I	
6.00 Credits from the list of 15 credits required below*	<input type="checkbox"/>			
	<input type="checkbox"/>			
3.00 Credits - Non-Science Requirement	<input type="checkbox"/>			
3.00 Elective Credits	<input type="checkbox"/>			
Fourth Year Courses				
	<input type="checkbox"/>	LE/ESSE 4050 3.00	Synoptic Meteorology I	
	<input type="checkbox"/>	LE/ESSE 4051 3.00	Synoptic Meteorology II	
	<input type="checkbox"/>	LE/ESSE 4120 3.00	Cloud Physics and Radar Meteorology	
	<input type="checkbox"/>	LE/ESSE 4130 3.00	Atmospheric Dynamics II	
	<input type="checkbox"/>	LE/ESSE 4140 3.00	Numerical Weather Prediction	
	<input type="checkbox"/>	LE/ESSE 4160 3.00	Climate and Climate Change	
	<input type="checkbox"/>	LE/ESSE 4230 3.00	Remote Sensing of the Atmosphere	
9.00 Credits from the list of 15.00 credits required below*	<input type="checkbox"/>			
	<input type="checkbox"/>			
	<input type="checkbox"/>			
<p style="text-align: center;">*15.00 credits (to include at least 3.00 credits from Earth and Atmospheric Science (ESSE) courses) from: LE/ESSE 3130 3.00, LE/ESSE 4000 3.00, LE/ESSE 4000 6.00, LE/ESSE 4020 3.00, LE/ESSE 4220 3.00, LE/ESSE 4240 3.00, LE/ESSE 4600 3.00, SC/GEOG 2400 6.00, SC/GEOG 4205 3.00, SC/GEOG 4210 3.00, SC/GEOG 4215 3.00, SC/GEOG 4310 3.00, SC/GEOG 4400 3.00, SC/MATH 3242 3.00, SC/MATH 3271 3.00, SC/MATH 3410 3.00, SC/PHYS 2060 3.00, SC/PHYS 3050 3.00, SC/PHYS 4120 3.00</p>				
Notes				
<p style="text-align: center;">A. General Education Requirement: <i>non-science requirement:</i> 12 credits from the approved list of courses and subject areas in your Academic Calendar; <i>mathematics:</i> SC/MATH 1013 3.00; SC/MATH 1014 3.00; <i>computer science:</i> LE/EECS 1011 3.00 or LE/EECS 1541 3.00; <i>foundational science:</i> 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. TOTAL CREDITS & CGPA a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all courses completed.</p>				
Participation in the Co-Op Program is highly recommended for all Honours students, but is not a degree requirement.				
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