DEGREE CHECKLIST 2021-2022	**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					
	☐	SC/CHEM 1000 3.00 ***or*** SC/CHEM 1001 3.00	Chemical Structure ***or*** Chemical Dynamics		
	☐	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 1010 3.00 or LE/ESSE 1012 3.00	The Dynamic Earth and Space Geodesy ***or*** The Earth Environment		
	☐	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	☐				

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.

Second Year Courses					
	☐	LE/EECS 2501 1.00	Fortran and Scientific Computing		
	☐	LE/ESSE 2011 3.00 Introduction to Physical Meteorology or *3.00 additional credits from the list of 15.00 credits required below			
	☐	LE/ESSE 2012 3.00	Introduction to Dynamic Meteorology		
	☐	LE/ESSE 2030 3.00	Geophysics and Space Science		
	☐	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/GEO 2420 3.00 or SC/MATH 2565 3.00 or SC/MATH 2930 3.00	Introductory Statistical Analysis in Geography ***or*** Introduction to Applied Statistics ***or*** Introductory Probability and Statistics		
	☐	SC/PHYS 2020 3.00	Electricity and Magnetism		
3.00 Credits - Non-Science Requirement	☐				
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	COURSES			CREDITS EARNED	GRADE
Third Year Courses					
	☐	LE/ESSE 3020 3.00	Global Geophysics and Geodesy		
	☐	LE/ESSE 3030 3.00	Atmospheric Radiation and Thermodynamics		
	☐	LE/ESSE 3040 3.00	Atmospheric Dynamics I		
	☐	LE/ESSE 3280 3.00	Physics of the Space Environment		
	☐	LE/ESSE 3600 3.00	Geographical Information Systems (GIS) and Spatial Analysis		
	☐	SC/MATH 3241 3.00	Numerical Methods I		
6.00 Credits from the list of 15 credits required below*	☐				
	☐				
3.00 Credits - Non-Science Requirement	☐				
3.00 Elective Credits	☐				
Fourth Year Courses					
	☐	LE/ESSE 4050 3.00	Synoptic Meteorology I		
	☐	LE/ESSE 4051 3.00	Synoptic Meteorology II		
	☐	LE/ESSE 4120 3.00	Cloud Physics and Radar Meteorology		
	☐	LE/ESSE 4130 3.00	Atmospheric Dynamics II		
	☐	LE/ESSE 4140 3.00	Numerical Weather Prediction		
	☐	LE/ESSE 4160 3.00	Climate and Climate Change		
	☐	LE/ESSE 4230 3.00	Remote Sensing of the Atmosphere		
9.00 Credits from the list of 15.00 credits required below*	☐				
	☐				
	☐				

***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

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 1800 3.00 and SC/PHYS 1801 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 (minimum overall GPA of 5.00 required to graduate with an Honours degree**)**

All Honours BSc degree candidates are encouraged to complete a non-credit industrial internship (normally salaried). This provides experience in a four-month to 12-month placement, normally after the third year of study.