



**DEGREE CHECKLIST
2019-2020**

**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 1010 6.00 <i>or both</i> SC/PHYS 1800 3.00 & SC/PHYS 1801 3.00	Physics <i>or both</i> Engineering Mechanics & Electricity, Magnetism & Optics for Engineers	
3 Non-Science Credits (or Electives)	<input type="checkbox"/>		
	<input type="checkbox"/>		
Second Year Courses			
	<input type="checkbox"/> LE/EECS 2501 1.00	Fortran and Scientific Computing	
	<input type="checkbox"/> LE/ESSE 2011 3.00	Introduction to Physical Meteorology	
	<input type="checkbox"/> LE/ESSE 2012 3.00	Introduction to Dynamic Meteorology	
	<input type="checkbox"/> LE/ESSE 2030 3.00	Geophysics and Space Science	
	<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/MATH 2565 3.00 <i>or</i> SC/GEOG 2420 3.00 <i>or</i> SC/MATH 2930 3.00	Introduction to Applied Statistics <i>or</i> Introductory Statistical Analysis in Geography <i>or</i> Introductory Probability and Statistics	
	<input type="checkbox"/> SC/PHYS 2020 3.00	Electricity and Magnetism	
6 Non-Science Credits (or Electives)	<input type="checkbox"/>		
	<input type="checkbox"/>		

	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 Credits from the list of 15 credits required below*	<input type="checkbox"/>			
	<input type="checkbox"/>			
3 Non-Science Credits (or Electives)	<input type="checkbox"/>			
3 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 Credits from the list of 15 credits required below*	<input type="checkbox"/>			
	<input type="checkbox"/>			
	<input type="checkbox"/>			
*15 credits (to include at least 3 credits from EATS 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:				
<i>non-science requirement: 12 credits;</i>				
<i>mathematics: SC/MATH 1013 3.00; SC/MATH 1014 3.00;</i>				
<i>computer science: LE/EECS 1011 3.00 or LE/EECS 1541 3.00;</i>				
<i>foundational science: SC/PHYS 1010 6.00 or both of SC/PHYS 1800 3.00 and SC/PHYS 1801 3.00.</i>				
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.				
TOTAL CREDITS & CGPA (minimum overall GPA of 4.00 required to graduate with a BSc)				
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.				
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