



DEGREE CHECKLIST
2024-2025

BACHELOR OF SCIENCE (BSc Specialized Honours) EARTH & ATMOSPHERIC SCIENCE
Atmospheric Science Stream

NAME

STUDENT #

Students are strongly advised to refer to online Academic Calendars before enrolling into courses:
<https://calendars.students.yorku.ca/academic-calendar#/programs>

		COURSES		CREDITS EARNED	GRADE
First Year Courses					
	<input type="checkbox"/>	SC/CHEM 1000 3.00 or SC/CHEM 1001 3.00	Chemical Structure or Chemical Dynamics		
	<input type="checkbox"/>	LE/EECS 1541 3.00 or LE/EECS 1011 3.00	Introduction to Computing for the Physical Sciences or Computational Thinking through Mechatronics		
	<input type="checkbox"/>	LE/ESSE 1011 3.00	Introduction to Atmospheric Science		
	<input type="checkbox"/>	LE/ESSE 1012 3.00	The Earth Environment		
	<input type="checkbox"/>	SC/MATH 1013 3.00	Applied Calculus I		
Prerequisite: SC/MATH 1013 3.00	<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		
Prerequisite: SC/PHYS 1011 3.00	<input type="checkbox"/>	SC/PHYS 1012 3.00	Physics II		
Non-Science Requirement (3.00 credits)	<input type="checkbox"/>				

For transfer credit students, the following are acceptable substitutes for the foundational science (SC/PHYS 1011 3.00 and SC/PHYS 1012 3.00) 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					
	<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 or LE/CIVL 2210 3.00	Introduction to Continuum Mechanics or 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/GEOG 2420 3.00 or SC/MATH 2565 3.00 or SC/MATH 2930 3.00	Quantitative Methods or Introduction to Applied Statistics or Introductory Probability and Statistics		
	<input type="checkbox"/>	SC/PHYS 2020 3.00	Electricity and Magnetism		
Non-Science Requirement (3.00 credits)	<input type="checkbox"/>				
Non-Science Requirement (3.00 credits)	<input type="checkbox"/>				

Notes

	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"/>				
Non-Science Requirement (3.00 credits)	<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>*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>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.</p> <p>B. Major Requirements As specified above.</p> <p>C. Science Breadth: Satisfied by above requirements</p> <p>D. Upper Level Requirement: Satisfied by above requirements</p> <p>E. Additional elective credits, as required, for an overall total of 120 credits</p>					
TOTAL CGPA (minimum cumulative GPA of 5.00 (C+) required to graduate with an Honours degree)					
Participation in Co-op is highly recommended, but is not a degree requirement.					
BSc Spec Hons, EATS - Atmospheric Science				Page 2 of 2	

Non-Science Requirement

BSc, Honours BSc, iBSc General Education

Essentials

- You need to pass a total of 12 credits to satisfy this requirement
- You need to choose from at least two different subject areas (for example: ECON and HUMA)

Restrictions & Reminders

- Courses taken to learn a language **do not** count
- Courses cross-listed to a Faculty of Science (SC) course **do not** count
- Courses with a Faculty of Science (SC) course listed as a course credit exclusion (CCE) **do not** count
- Courses with a focus on science, math or statistics **do not** count (e.g. MODR 1650, ECON 1530, etc.)
- Courses taken to satisfy a second major/minor **cannot** be double counted towards the non-science requirement
- These courses **cannot** be taken on a [pass/fail basis](#)

Subject to the restrictions noted above, courses in the following subject areas may be taken:

Anthropology (ANTH)	French Studies (FR)	History (HIST)	Political Science (POLS)
Classical Studies (CLST)	Gender and Women's Studies (GWST)	Humanities (HUMA)	Social Science (SOSC)
English (EN)	Geography (GEOG)	Modes of Reasoning (MODR)	Sociology (SOCI)
Economics (ECON)		Philosophy (PHIL)	

Students may also take literature, linguistics, or culture courses (**NOT language courses**) from the subject areas listed below:

Arabic (ARB), Chinese (CH), Department of Languages, Literature and Linguistics (DLLL), English as a Second Language (ESL), French (FR, FRAN), Greek (GK), Modern Greek (GKM), Hindi (HND), Italian (IT), Japanese (JP), Korean (KOR), Latin (LA), Linguistics (LING, LIN), Language Learning Seminar (LLS), Persian (PERS), Portuguese (POR), Spanish (SP)

(e.g. **ARB 2700 Intro to Arab Culture counts, but not ARB 1000 Intro to Modern Standard Arabic**)

Courses from the list below may also be taken:

EU/ENVS 1000 6.00	FA/MUSI 1500 6.00	FA/MUSI 1550 6.00	FA/VISA 2110 6.00
EU/ENVS 2100 6.00	FA/MUSI 1510 6.00	FA/MUSI 2520 6.00	FA/VISA 2540 6.00
EU/ENVS 2150 3.00	FA/MUSI 1520 6.00	FA/THEA 1500 6.00	FA/VISA 2550 6.00
FA/DANC 1340 3.00	FA/MUSI 1530 6.00	SB/ENTR 3400 3.00	FA/VISA 2620 6.00
FA/DANC 2340 3.00	FA/FILM 1401 6.00	SB/ENTR 3600 3.00	LW/LAW 3591M 3.00
FA/FACS 1900 6.00	FA/MUSI 1540 6.00	SB/ENTR 4500 3.00	