



**DEGREE CHECKLIST  
2024-2025**

**BACHELOR OF SCIENCE (BSc)  
EARTH & ATMOSPHERIC SCIENCE**

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<br>EARNED | GRADE |
|---|--------------------------|---|---|-------------------|-------|
| <b>First Year Courses</b>                     |                          |   |   |                   |       |
|   | <input type="checkbox"/> | SC/CHEM 1000 3.00<br><b>or</b><br>SC/CHEM 1001 3.00 | Chemical Structure<br><b>or</b><br>Chemical Dynamics  |                   |       |
|   | <input type="checkbox"/> | LE/EECS 1541 3.00<br><b>or</b><br>LE/EECS 1011 3.00 | Introduction to Computing for the Physical Sciences<br><b>or</b><br>Computational Thinking through Mechatronics |                   |       |
|   | <input type="checkbox"/> | LE/ESSE 1010 3.00<br><b>or</b><br>LE/ESSE 1012 3.00 | The Dynamic Earth and Space Geodesy<br><b>or</b><br>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  |                   |       |
| 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  |                   |       |
| <b>Non-Science Requirement (3.00 credits)</b> | <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.

|   |                          |   |   |  |  |
|---|--------------------------|---|---|--|--|
| <b>Second Year Courses</b>                    |                          |   |   |  |  |
|   | <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<br><b>or</b><br>LE/CIVL 2210 3.00                                   | Introduction to Continuum Mechanics<br><b>or</b><br>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<br><b>or</b><br>SC/MATH 2565 3.00<br><b>or</b><br>SC/MATH 2930 3.00 | Quantitative Methods<br><b>or</b><br>Introduction to Applied Statistics<br><b>or</b><br>Introductory Probability and Statistics |  |  |
|   | <input type="checkbox"/> | SC/PHYS 2020 3.00   | Electricity and Magnetism   |  |  |
| <b>Non-Science Requirement (3.00 credits)</b> | <input type="checkbox"/> |   |   |  |  |
| <b>Non-Science Requirement (3.00 credits)</b> | <input type="checkbox"/> |   |   |  |  |

**Notes**

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|  |                          | COURSES           |   | CREDITS<br>EARNED | GRADE |
|--|--------------------------|-------------------|---|-------------------|-------|
| <b>Third Year Courses</b>  |                          |                   |   |                   |       |
|  | <input type="checkbox"/> | LE/ESSE 3600 3.00 | Geographical Information Systems (GIS) and Spatial Analysis |                   |       |
| <b>9.00 credits from:</b><br>LE/ESSE 3020 3.00, LE/ESSE 3030 3.00, LE/ESSE 3040<br>3.00, SC/MATH 3241 3.00 ☐ | <input type="checkbox"/> |                   |   |                   |       |
|  | <input type="checkbox"/> |                   |   |                   |       |
|  | <input type="checkbox"/> |                   |   |                   |       |
| <b>9.00 additional credits from ESSE courses at 3000<br/>level or higher</b>                                 | <input type="checkbox"/> |                   |   |                   |       |
|  | <input type="checkbox"/> |                   |   |                   |       |
|  | <input type="checkbox"/> |                   |   |                   |       |
| <b>Non-Science Requirement (3.00 credits)</b>  | <input type="checkbox"/> |                   |   |                   |       |
| <b>Additional elective credits, preferably from ESSE<br/>courses, for a minimum of 90 credits</b>            | <input type="checkbox"/> |                   |   |                   |       |
|  | <input type="checkbox"/> |                   |   |                   |       |

**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**  
 As specified above.

**C. Science Breadth:**  
 Satisfied by above requirements

**D. Upper Level Requirement:**  
 Satisfied by above requirements

**E. Additional elective credits, as required, for an overall total of 90 credits**

**TOTAL CGPA** (minimum cumulative GPA of 4.00 (C) required to graduate with an Ordinary degree)

**Notes**

# 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

Courses in the following subject areas may be taken (subject to the restrictions noted above):

|                          |                                   |                           |                          |
|--------------------------|-----------------------------------|---------------------------|--------------------------|
| 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 (SOVI)         |
| 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 |                   |