## Science

## ENRIGHED PURE AND APPLIED SGIENGE


www.dawsoncollege.qc.ca/enriched-pure-applied

If you would like to:Be part of a small and super committed learning communityGo beyond the Pure and Applied Science curriculum and challenge yourselfLearn outside the classroom through extracurricular activitiesParticipate in field trips to world-class research facilitiesConduct original research with Dawson teachersBe well prepared for university studies in life sciences, medicine, ecology or environmental sciences
Then the Enriched Pure and Applied Science Profile could be for you.

Explore, research and discover what interests you most in the vast world of science. The Pure and Applied Science Profile offers exposure to many disciplines in the first year. In the second year, students can go deeper into topics of particular interest, such as ecology and the environment, engineering, and computer science. The Integrative Project is another opportunity to choose what you wish to learn.
What will you learn?

- To think like a scientist
- To employ a scientific method
- To read and analyze scientific publications
- To choose and appropriately use digital technologies to support learning, to present content, to model, to simulate and to program
- To design and implement a scientific project
- To collect, analyze and communicate experimental data
- To solve complex problems

The program exposes students to another side of science not usually covered in the curriculum, such as aspects of Research and Development and applications of science in solving real-world problems.

- Lucas C.

Where will this program lead you?
Graduates of this profile are well prepared for a wide variety of university studies, such as engineering, physics, mathematics, or computer science.
What do you need to apply?

- Secondary V Chemistry
- Secondary V Physics
- Secondary V Mathematics: Technical \& Scientific option (TS) or Science option (SN)
Application Deadline
March 1


## Selection of Science Option Courses

Pure and Applied Science students will choose two option courses from this list. Please note that not all courses are offered every year.

- Human Anatomy and Physiology
- Field and Community Ecology
- Biotechnology
- Topics in Biology
- Multivariable Calculus
- Discrete Mathematics
- Linear Algebra 2
- Topics in Mathematics
- Organic Chemistry
- Environmental Chemistry
- Forensic Chemistry
- Organic Chemistry 2
- Topics in Chemistry
- Astrophysics
- Engineering Physics
- Medical Physics
- Topics in Physics
- Physical Geology
- Topics in Geology
- Programming in Science 2
- Programming for Data Science
- Algorithms: Real World Applications
- Topics in Computer Science
- Applied Mathematics in Science
- Topics in Science


## LIST OF SPECIFIC COURSES

All students must also take General Education courses such as English, French, Humanities and Physical Education, in addition to complementary courses.

| Year 1•Term 1 | Year 2•Term 3 |
| :--- | :--- |
| - Calculus I | - Probability and Statistics |
| - Mechanics | - Waves and Modern Physics |
| - Programming in Science | - Choice (2): Linear Algebra, Cellular Biology, |
| - Ecology and Evolution | Chemistry of Solutions, Option Course |
| Year 1-Term 2 | Year 2•Term 4 |
| - General Chemistry | - Choice (2): Linear Algebra, Cellular Biology, |
| - Calculus II | Chemistry of Solutions, Option Course |
| - Electricity and Magnetism | - Choice (1): Option Course |
|  | - Integrative Project |

