BHSc Learning Tracks – Archived April 2022

# Molecular Basis of Biology

The courses that make up this learning track focus on the fundamental processes of life and human disease at the molecular and cellular level. Courses contributing to this learning track include chemistry and biochemistry courses that will introduce you to the structure and function of the molecules of life. These will be followed by upper year courses designed to study emerging fields such as genomics and proteomics that deal with large-scale molecular and cellular data.

**This track requires students to take a total of 7 courses; 5 Required and 2 Additional**

## Required Courses

**All**of these courses must be taken for this track to be completed

#### [PHGY 170 - Human Cell Physiology](https://bhsc.queensu.ca/program-and-courses/learning-tracks/molecular-basis-biology#accordion-cr52d-1)

#### [BCHM 270 - Biochemical Basis of Health and Disease](https://bhsc.queensu.ca/program-and-courses/learning-tracks/molecular-basis-biology#accordion-cr52d-2)

#### [BCHM 370 - Genetics and Genomics](https://bhsc.queensu.ca/program-and-courses/learning-tracks/molecular-basis-biology#accordion-cr52d-3)

#### [BCHM 482 - Proteomics and Metabolomics](https://bhsc.queensu.ca/program-and-courses/learning-tracks/molecular-basis-biology#accordion-cr52d-4)

#### [BCHM 218 - Molecular Biology](https://bhsc.queensu.ca/program-and-courses/learning-tracks/molecular-basis-biology#accordion-cr52d-5)

## Additional Courses

Students must take **at least TWO (2)** of the following courses to complete this track

#### [CHEM 281 - General Organic Chemistry I](https://bhsc.queensu.ca/program-and-courses/learning-tracks/molecular-basis-biology#accordion-pw4hu-1)

#### [CHEM 282 / CHEM 285 - General Organic Chemistry II](https://bhsc.queensu.ca/program-and-courses/learning-tracks/molecular-basis-biology#accordion-pw4hu-2)

#### [BMED 381 - Clinical and Diagnostic Chemistry](https://bhsc.queensu.ca/program-and-courses/learning-tracks/molecular-basis-biology#accordion-pw4hu-3)

#### [BMED 390 - Integrative Laboratory Studies](https://bhsc.queensu.ca/program-and-courses/learning-tracks/molecular-basis-biology#accordion-pw4hu-4)

#### [MICR 290 - Antibiotic Resistance Lab](https://bhsc.queensu.ca/program-and-courses/learning-tracks/molecular-basis-biology#accordion-pw4hu-5)