Biochemistry & Molecular Biology

Program Coordinators

Chair of the Department of Biology
To be named

Chair of the Department of Chemistry
A. J. Vreugdenhil, BSc (Queen's), PhD (McGill)

Professors
See faculty listings in Biology and Chemistry

The chemistry of life processes is at the essence of all living things. The Biochemistry & Molecular Biology program is designed to provide a foundation in the chemistry of biological systems, combining study of analytical, organic, inorganic, and physical chemistry with biochemistry, molecular biology, and cell physiology. Students completing the program will have a detailed understanding of the processes that control and mediate health, illness, reproduction, growth, and ultimately life itself. Honours research projects introduce students to modern methods in protein chemistry, bioengineering, and molecular biology.

Bachelor of Science Program in Biochemistry & Molecular Biology

- In addition to the program requirements listed below, students must satisfy the University degree requirements (see p. 14).
- The Biochemistry & Molecular Biology program is a sequence of courses offered by the Departments of Biology and Chemistry that compose an integrated whole. For information on individual courses see Calendar entries for Biology and Chemistry.
- Students wishing to transfer to a single-major program in Biology or Chemistry should consult the chair of the appropriate department when they have successfully completed 8.0 to 10.0 credits.
- A maximum of 2.0 credits in thesis and/or project courses may be counted toward a Biochemistry & Molecular Biology degree.
- An average of 75% in all previous Chemistry and Biology courses and permission of the coordinator are prerequisites for CHEM 4030Y and 4040D.
- For the Specialization in Health Sciences, see p. 52.

The single-major Honours program. 20.0 credits including the following 16.0 credits:

- 2.5 BIOL credits consisting of BIOL 1020H, 1030H, 2050H, 2070H, and 3080H
- 5.0 CHEM credits consisting of CHEM 1000H, 1010H, 2100H, 2110H, 2200H, 2300H, 2400H, 2500H, 3310H, and 3320H
- 2.0 BIOL credits from BIOL 3250H, 3830H, 3840H, 4080H, 4130H, 4160H, 4260H, 4320H, 4340H, 4370H, 4380H, 4600H, or 4840H
- 1.0 CHEM credit at the 3000 level in addition to the above
- 1.0 CHEM credit at the 4000 level
- 3.0 BIOL and/or CHEM credits at the 3000 level or beyond in addition to the above
- 1.0 MATH credit from MATH 1110H and 1120H; or from MATH 1005H and another 0.5 MATH credit (excluding MATH 1001H and 1080H)
- 0.5 PHYS credit from PHYS 1001H or 1060H

The single-major General program. 15.0 credits including the following 12.0 credits:

- 2.5 BIOL credits consisting of BIOL 1020H, 1030H, 2050H, 2070H, and 3080H
- 5.0 CHEM credits consisting of CHEM 1000H, 1010H, 2100H, 2110H, 2200H, 2300H, 2400H, 2500H, 3310H, and 3320H
- 2.0 BIOL credits from BIOL 3250H, 3830H, 3840H, 4080H, 4130H, 4160H, 4260H, 4320H, 4340H, 4370H, 4380H, 4600H, or 4840H
- 1.0 CHEM credit at the 3000 level in addition to the above
- 1.0 MATH credit from MATH 1110H and 1120H; or from MATH 1005H and another 0.5 MATH credit (excluding MATH 1001H and 1080H)
- 0.5 PHYS credit from PHYS 1001H or 1060H