B.Sc. General Degree

Revised B.Sc. General degree requirements as approved by Senate in May 2021, to be effective Fall 2021

The three-year General program is intended to provide diversified training in Science. The program provides students with broad exposure to the major areas of Science at the introductory level with a requirement for more advanced studies in one or more areas of Science.

This program is not intended for students who desire to practice in some field of specialization in the Sciences. Students with that intent are recommended to pursue the Honours or the four-year Major program.

Students are required to have the equivalent of high school Mathematics 40S (either pre-calculus or applied mathematics) and at least one of high school Chemistry 40S or Physics 40S.

Students having difficulty with the interpretation of the following regulations or the way in which they are applied, are urged to contact a Science Academic Advisor in the general office. Students are responsible for their own degree progress and completion.

Students admitted into the B.Sc. General degree program prior to September 2021 should consult with a Science Academic Advisor about their degree requirements.

Students anticipating a transfer to either a four-year Major or Honours program at the end of the second or third year should consult with a Science Academic Advisor before registering.

Students must complete 90 credit hours with passing grades ("D" or better) in each course. Please note higher grades are usually required for prerequisite purposes. See course descriptions for details. A student must obtain a minimum grade point average of 2.00 on the 90 credit hours, which constitute the degree to qualify for the degree of Bachelor of Science (General).

Students must complete:

Introductory Level Faculty of Science Courses (21 credit hours)[1]

- **9 credit hours from the Computational and Mathematical Sciences:**
    - COMP 1010 (or COMP 1012[2]), COMP 1020,
    - [(MATH 1220 or MATH 1300 (or equivalent)) or (MATH 1210[3])], [MATH 1230 or MATH 1500 (or equivalent)], [MATH 1232 or MATH 1700 (or equivalent)], MATH 1240,
    - [STAT 1000[4,5] (or STAT 2220[4]) or STAT 1150[5]], STAT 2000[5], STAT 2150
- **6 credit hours from the Physical Sciences[6]:**
    - ASTR 1810, ASTR 1830,
    - CHEM 1100, CHEM 1110, [CHEM 1120 or (CHEM 1122 and CHEM 1126)[7]],
    - (PHYS 1020 or PHYS 1050), [PHYS 1030 or (PHYS 1070 or PHYS 2152)][8]

- **6 credit hours from the Life Sciences:**
    - BIOL 1020, BIOL 1030, BIOL 1410, BIOL 1412
    - MBIO 1010, MBIO 1220[9]

[1] When selecting courses to fulfill the Introductory Faculty of Science requirement, a student should consider the subject areas in which they wish to select Advanced Level Faculty of Science courses, and select courses that will fulfill the prerequisite requirements of the Advanced Level courses. A student is encouraged to consult course descriptions and an academic advisor for guidance. Students must satisfy the W requirement, within the first 60 credit hours.

[2] COMP 1012 is primarily intended for Engineering students and may not be held for credit with COMP 1010.

[3] MATH 1210 is intended for Engineering students and may not be held for credit with MATH 1220 or MATH 1300 (or equivalent).

[4] STAT 2220 is intended for Engineering students and may not be held for credit with STAT 1000 or STAT 1150.

[5] STAT 1150 may not be held for credit with STAT 1000 or STAT 2000.

[6] Students must have at least one of High School Chemistry 40S or Physics 40S. Students who do not have either of these high school courses will not be able to satisfy this requirement without taking CHEM 1018, PHYS 1018, or another equivalent.CHEM 1018 or PHYS 1018 may be used to fulfill the Faculty of Science requirement, or an elective requirement.

[7] CHEM 1122 and CHEM 1126 are intended for Engineering students and may not be held for credit with CHEM 1120.

[8] PHYS 2152 is intended for Engineering students and may not be held for credit with PHYS 1070.

[9] MBIO 1220 is primarily intended for students planning to enter the College of Nursing or other health care or related programs. It will not act as a prerequisite to higher level Microbiology courses.

Advanced Level Science Courses (36 credit hours)

To satisfy the advanced level requirements of the 3-year General Degree program, thirty-six (36) credit hours at the 2000, 3000, and (or) 4000 level must be chosen from courses offered by the Faculty of Science. Courses offered by the Faculty of Science include courses from the departments of Biological Sciences, Chemistry, Computer Science, Mathematics, Microbiology, Physics & Astronomy, and Statistics. Courses with the prefix DATA, FORS, and SCI, are also courses taught by the Faculty of Science and may be used to fulfill this requirement.

Of these 36 credit hours, at least 9 credit hours must be chosen from 3000 or 4000 level courses.

Students should note prerequisite requirements for upper level courses when planning their program.

PHYS 2152, SCI 3980, SCI 3990, SCI 4980, SCI 4990, STAT 2000, and STAT 2220 may not be used to fulfill this requirement.

Other Course Requirements (33 credit hours)

- **Faculty of Science Elective Course (3 credit hours)** - In addition to the 57 credit hours of Faculty of Science courses stated above, students must take an additional 3 credit hours from the Faculty of Science. This course must be at the 1000-level or higher.
- **Other Faculty Courses (12 credit hours)** - Students must take a minimum of 12 credit hours of courses from outside the Faculty of Science, **of which at least six credit hours must be from the Faculty of Arts**. Students may take up to 30 credit hours of courses from outside of the Faculty of Science using the 18 credit hours of electives below.
- **Elective Courses (18 credit hours)** - Students must take 18 credit hours of electives in this program. Elective courses may include courses from within the Faculty of Science, or courses from other faculties.

Degree Requirements

General[1]

Year 1
9 credit hours from COMP, MATH or STAT [2]
6 credit hours from ASTR, CHEM or PHYS [3, 4]
6 credit hours from BIOL or MBIO [5]

Hours
Years 1-3
3 credit hours of Faculty of Science courses
12 credit hours from outside of the Faculty of Science, of which at least 6 credit hours must be from the Faculty of Arts
18 credit hours of electives

Hours
Years 2-3
27 credit hours at the 2000 level or higher from the Faculty of Science [6]
9 credit hours at the 3000 level or higher from the Faculty of Science

	Hours
	Total Hours

Plan of Study Grid

[1] Student must satisfy the W requirement in their first 60 credit hours.

[2] Chosen from:
- (COMP 1010 or COMP 1012), COMP 1020,
- [MATH 1220 or MATH 1300 (or equivalent), or MATH 1210], [MATH 1230 or MATH 1500 (or equivalent)], [MATH 1232 or MATH 1700 (or equivalent)], MATH 1240,
- (STAT 1000 or STAT 2220 or STAT 1150), STAT 2000, STAT 2150.

[3] Chosen from:
- ASTR 1810, ASTR 1830,
- CHEM 1100, CHEM 1110, [CHEM 1120 or (CHEM 1122 and CHEM 1126)],
- (PHYS 1020 or PHYS 1050), [PHYS 1030 or (PHYS 1070 or PHYS 2152)].

[4] Students must have at least one high school Chemistry 40S or Physics 40S, or equivalent.

[5] Chosen from:
- BIOL 1020, BIOL 1030, BIOL 1410, BIOL 1412,
- MBIO 1010, MBIO 1220.

[6] PHYS 2152, SCI 3980, SCI 3990, SCI 4980, SCI 4990, STAT 2000, STAT 2220 cannot be used to satisfy this requirement.