

## BSc CELL BIOLOGY

HONORS OR SPECIALIZATION PROGRAM  
FACULTY OF SCIENCE

UPDATED FEBRUARY 2012

This Academic Planning Guide highlights major points only regarding admission and transfer. Students are advised to read the university and RDC calendars, and the Alberta Transfer Guide for other necessary information. Some courses listed may have prerequisites; refer to [Course Descriptions](#). Access this guide online: [www.rdc.ab.ca/academic\\_advising](http://www.rdc.ab.ca/academic_advising).

### THE DIFFERENCE BETWEEN BSc HONORS, SPECIALIZATION, AND GENERAL PROGRAMS AT UOFA

The 4-year **Honors programs** are the most desired route for students continuing to Master of Science (MSc) or Doctor of Philosophy (PhD) and a research or academic career. Honors students focus on their major field of study, and are expected to maintain a higher standard of academic achievement than those in a Specialization or General program.

The 4-year **Specialization programs** do not concentrate on one subject to the same extent as the Honors programs. Specialization students take most of their courses in the major field of study, and are expected to maintain a higher standard of academic achievement than those in a General program. The Specialization degree can provide the background to help you proceed to a higher degree but its primary function is to provide a comprehensive education at the undergraduate level.

Transfer admission to Honors and Specialization programs requires a minimum course load and GPA in each year of post-secondary study preceding admission. Students wishing to move into these programs must meet the requirements regardless of their original/current program of study.

The 4-year **General program** provides a diverse education in more than one branch of study. Each student must complete a Science major and also a second Science major *or* complete a minor. The minor may be in Science or in Agricultural, Life & Environmental Science, Arts or Business. The General program allows for subsequent transfer to Specialization and Honors programs and may be used to prepare for admission to professional programs.

**The Cell Biology program gives you a scientific grounding to enter medical school or go on to graduate school in either a MSc or PhD degree program.** Cell Biology is the life science that takes a coordinated approach to the study of cells, the basic units of life. It integrates all the other life sciences, including biochemistry, biology, genetics, immunology, and biophysics to study the function of cells. This broad range of study will be attractive to you if you are interested in studying the chemistry of living organisms but do not wish to study them in their most minute biochemical detail. This program is taught by the Faculty of Medicine and Dentistry.

Because Cell Biology is the comprehensive study of cells, it can provide answers to questions about how cells react and change in response to drugs. This knowledge is important in developing new techniques as well as new and more effective drugs.

As a Cell Biology Graduate, you might choose to enter employment in the research lab of a pharmaceutical company, where your work could involve growing tissue cultures, or screening new drug compounds and testing them for particular properties. Or you might enter a biotechnology company and become involved in developing new techniques for synthesizing and purifying enzymes. You might also find employment doing similar work in a hospital research lab.

RDC does not admit to BSc Cell Biology; apply to BSc General to take courses towards this program. If you will take BIOCH 401 in year three, transfer after one year is recommended (UofA Calendar 193.4.1 and 193.4.2). Physics 30 is required for BSc Cell Biology course work.

## SUGGESTED PATTERN OF COURSES YEAR 1

FALL	WINTER
BIOL 218 (3)	BIOL 217 (3)
CHEM 211 (3)	CHEM 212 (3)
STAT 251 (3)	CHEM 351 (3)
MATH 202 or MATH 203 (3) <sup>1</sup>	ARTS OPTION OR APPROVED SCIENCE OPTION (3) <sup>2</sup>
ENGL 219 (3)	ENGL 220 (3)

### NOTES:

1. Students with a grade of 70% or more in Math 31 are advised to take MATH 203 instead of MATH 202.
2. See *Arts Option* and *Approved Science Options* below.

## SUGGESTED PATTERN OF COURSES YEAR 2

**Note:** There are \*6 Cell Biology options in year three of this program. BIOCH 401 is recommended in year three but students may choose a different course from the list of approved options. If you will take BIOCH 401 in year three, you are advised to transfer to UofA after one year to take BIOCH 320 in year two (see UofA Calendar 193.4.1 and 193.4.2).

FALL	WINTER
BIOL 317 (3)	BIOL 301 (3)
CHEM 352 (3)	GENE 370 (3)
ARTS OPTION (3) <sup>1,3</sup>	ARTS OPTION OR APPROVED SCIENCE OPTION (3) <sup>1-3</sup>
MICR 365 (3)	BIOC 301 or BIOC 393 (3)
PHYS 205 (3)	PHYS 226 (3)

### NOTES:

1. **ARTS OPTION:** ANTH, CLAS 209, ECON 201, FREN, GEOG (not 230 or 231), HIST, PHIL, POLI, PSYC (not 260), SOCI (not 310, 312), SPAN
2. **APPROVED SCIENCE OPTIONS:** BIOL 318, ZOOL 342.
3. The Arts and Science options may be taken in either term.

### ALL BACHELOR OF SCIENCE STUDENTS ARE STRONGLY ADVISED TO:

1. Consult [Course Descriptions](#) for any course pre-requisites,
2. Check [Alberta Transfer Guide](#) concerning course credit transfer to UofA, and
3. Consult the [University of Alberta Calendar](#) for admission and program information.

## TRANSFER CHECKLIST

1. **Junior Level Courses:** Not more than \*42 (42 credits) of all courses taken can be at the junior level (100-level at UofA). Any junior course in excess of \*42 will not be counted towards the Science degree.
2. **Honors Program:** Students who intend to transfer to this Honors program require a minimum GPA of 3.0 on a minimum of \*24 *in each preceding Fall/Winter*.
3. **Specialization Program:** Students transferring into this Specialization program require a minimum GPA of 2.3 on a minimum of \*24 *in each preceding Fall/Winter*. Possession of the minimum GPA does not guarantee admission.
4. **Spring term courses:** a spring term course may be taken in year of transfer if it is not required for admission to the program. The grade will not be calculated in the AGPA nor will it count towards Fall/Winter course load. Ensure the transcript submitted shows registration in the spring course.

5. **A minimum grade of C-** must be achieved in order for course credit to be transferable. However, while courses with grades of D or F will not transfer, they remain on your transcript and will be used in calculation of your GPA. Please consult with Faculty of Science and Registrar at UofA if further information is necessary.
6. **Conditional Admission:** If you have higher than average standing in your post-secondary courses, you may be eligible for conditional admission. Official high school transcripts and unofficial transcripts of all post-secondary course work to date, including all final grades, first/Fall term results and second/Winter term registration are required by March 15th for conditional admission.
7. **Course Attempts:** Students attending UofA are allowed to attempt a course no more than two times and cannot retake a course in which a passing grade was received. However, UofA honours the decisions of other institutions with respect to their students, so if a student attempts a course twice at RDC (withdrawal, failing grade or non-transferable grade), UofA will accept the third attempt (if it is a C- or better) when determining transfer credit.

When calculating the AGPA, UofA will use all grades obtained in the most recent terms containing at least \*24, including both a failing/non-transferable grade and a transferable grade in the same course. The first grade of C- or better received in a course is the only grade accepted for that course. Therefore, repeating a course for a higher grade is not advisable. If a student truly believes that he/she needs to repeat a course (in which a transferable grade was already earned) to master the material sufficiently to successfully continue in the program, it is recommended that the student audit the course.

8. **Academic Standing:** If you earn or have earned a GPA below 2.0 in any academic year of post-secondary education you are strongly advised to consult the UofA Calendar and contact the Faculty of Science **now** concerning your future admission to programs in the faculty. See [UofA Calendar](#) 15.15.7(3) and 15.15.7(4) and contact information in *How to Find* more Information.
9. **Application deadline:** May 1st    **Transcript deadline for transfer students:** June 15th
10. **Regarding course transfer to the University of Alberta & Augustana Faculty:** When checking course transfer to the University of Alberta, note that courses which have *AU* as the first two letters of the course abbreviation in the Alberta Transfer Guide will transfer only to the UofA Augustana Faculty in Camrose. In order for a course to also transfer to other UofA faculties, there must be another entry indicating transfer as a course not beginning with *AU*. See example below.

CMPT 214 =        UofA CMPUT 114 (3) OR AUCSC 1xx (3)  
 CMPT 261 =        UofA AUCSC 1xx (3)

CMPT 214 is transferable to all UofA faculties, including Augustana. CMPT 261 is accepted by Augustana Faculty only and will not transfer to other faculties at UofA.

## HOW TO FIND MORE INFORMATION

### [Science Department](#)

Warren Elgersma, Chairperson  
Office: 1607-E  
403-343-4052  
[warren.elgersma@rdc.ab.ca](mailto:warren.elgersma@rdc.ab.ca)  
[http://www.rdc.ab.ca/about\\_rdc/academic\\_departments/sciences](http://www.rdc.ab.ca/about_rdc/academic_departments/sciences)

### [Academic Advising](#)

Academic Advising Centre: Room 1102  
[advisors@rdc.ab.ca](mailto:advisors@rdc.ab.ca) 403-342-3163  
[http://www.rdc.ab.ca/academic\\_advising](http://www.rdc.ab.ca/academic_advising)

### [RDC Website](#)

<http://www.rdc.ab.ca>

### [RDC Timetable](#)

<http://www.rdc.ab.ca/timetable>

### [Alberta Transfer Guide](#)

<http://www.acat.gov.ab.ca>

### [Faculty of Science](#)

<http://www.science.ualberta.ca> 1-800-358-8314

### [Department of Cell Biology](#)

<http://www.ualberta.ca/cellbiology>

### [University of Alberta](#)

<http://www.registrar.ualberta.ca>

### **PLEASE NOTE:**

Be aware that you are responsible for ensuring that your registration is complete and appropriate and that your course choices comply with the program to which you have been admitted at RDC and/or to the university to which you wish to transfer.

You are cautioned that any changes to your courses, your major or your transfer destination may adversely affect your transferable credit, admission requirements for future programs, or eligibility to graduate from RDC. Please consult with an academic advisor if you have any questions.

The function of academic advisors is to provide students with information and resources that enable them to make informed decisions relevant to their education. These resources include the RDC Calendar, the Academic Planning Guide for your chosen program and destination university, the Alberta Transfer Guide and the calendar and contact information for your destination university. Academic advisors will assist you in interpreting information from these resources or refer you to your destination university if appropriate. Students in university transfer programs are strongly advised to refer to the calendar of the university to which they wish to transfer and should contact appropriate university departments as required.