

# Dept. of Biological Sciences

## Programs and Admissions



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# YOU@UofC

<b><i>Faculties:</i></b>	<b><i>Departments:</i></b>	<b><i>Undergraduate Programs:</i></b>
Science	Biol. Sciences	Biochemistry
Arts	Physics & Astronomy	<b>Biological Sciences</b>
Kinesiology	Chemistry	Plant Biology (Botany)
Medicine	Geosciences	Cellular, Molecular and Microbial Biology
Vet. Med.	Math & Stats	Ecology
etc	Computer. Sci.	Zoology

# What is an Undergraduate Program ?

- The set of courses you will take to complete your B.Sc. Degree successfully.
- You select a program based on your interests, aspirations, and abilities.
- Certain courses are required and some are selected by you.
- 6 to choose from.....

# Dept. of Biological Sciences

## BioSciences Program

Most flexible in terms of course selection.

Intended for students whose needs are not met by the specialty programs.

The onus is on YOU to design your program wisely.

# Dept. of Biological Sciences

## Biochemistry Program

Can specialize in:

- Cell and Microbial Biochemistry
- Biochemical Genetics
- Plant Biochemistry
- Animal Biochemistry
- Biotechnology
- Structural Biology - crystallography
- Biocomputing



# Dept. of Biological Sciences Plant Biology (Botany) Program

Can specialize in:

- Plant Systematics
- Plant Biotechnology and Biochemistry
- Plant Morphology and Physiology
- Plant Ecology
- Plant Molecular Biology



# Dept. of Biological Sciences

## Cellular, Molecular and Microbial Biology Program (CMMB)

Can specialize in:

- Cell Biology
- Microbiology
- Molecular Biology  
and Genetics





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## Ecology Program

Can specialize in:

- Aquatic ecology
- Terrestrial Ecology
- Behavioural Ecology
- Community and Ecosystem Ecology
- Fish and Wildlife Ecology
- Population Ecology
- Physiological Ecology





# Dept. of Biological Sciences

## Zoology Program

Can specialize in:

- Animal Development and Morphology
- Animal Physiology
- Animal Biodiversity and Systematics
- Evolutionary and Ecological Physiology
- Invertebrate Biology
- Vertebrate Biology



## ***Honours Programs***

-Strong student ?

-Interested in going on in Science (eg. grad school) or Professional School?

-You should seriously consider doing an Honours degree in any of our majors

ADVANTAGES: guaranteed research project in final year; guaranteed access to some high-demand required courses. Can take more courses from major field. Closer interactions with faculty and graduate students.

# More information about Programs

For extensive information about the BioSci department in general and all of the programs please visit:

<http://www.bio.ucalgary.ca/undergraduate>

# Your First Year

As a first-year student entering from high school, you are admitted to the Biological Sciences program (BISC).

(OR to Hons BCEM, ZOOLOGY, or CMMB)

You should be enrolled in the following courses.....

# Dept. of Biological Sciences

## First Year Courses:

Fall	Winter
BIOL 241	BIOL 243
CHEM 201 or 203 (or 211)	CHEM 201 or 203 (or 213)
MATH 249 or 251 or 281 (217 also possible)	MATH 211 or 213 or 253 or 283
PHYS**, CPSC or GLGY	PHYS**, CPSC or GLGY
Non-science option	Non-science option

# Be aware of the following:

\*IB and AP students may receive credit for BIOL 243. - see section A.20 of the Calendar. They may still choose to take BOTH BIOL 241 and BIOL 243

\*\* If you plan to enter the Biochemistry program you require the Physics options (PHYS 211 or 221, and 223).



# Your Second Year

Fall	Winter
BIOL 311 (genetics)	BIOL 331 (cell biology)
BIOL 313 (ecology) or option*	BIOL 313 (ecology) or option*
CHEM 351	CHEM 353 or option *
BIOL 371	BCEM 393*
Non-science option	Non-science option

. Note: \* indicates not required by ALL programs, but most students should take these courses

## Be aware of the following:

- Students planning to major in Biochemistry or CMMB must take CHEM 353
  - BCEM 393 not required for Ecology program, BIOL 313 not required for CMMB and Biochemistry programs.
- \*\* Consult specific programs to see which options you should take in 2<sup>nd</sup> year (see section 5.1.1 of the *Calendar*); to fit in these options, it is best to take BIOL 313 in Fall if your program requires BIOL 313.

# Admission to Programs (other than BioSci)

- Normally done at end of 2<sup>nd</sup> year , but starting 2012-2013 may be done at end of 1<sup>st</sup> year (into Hons programs)
- Check Calendar for individual program regulations.
- Performance over most recent courses up to a maximum of 5 FCE (competitive GPA)
- Application for change is made on-line  
- don't miss the deadline! (April usually)
- Notified by mail, usually in July.

# Transfer to Dept. of BioSci

- Transfer students must have completed the following courses with grade of C- or better:
  - MATH 251 or 249 or 281, and MATH 211 or 213 or 253 or 283 (or other equivalent courses)
  - CHEM 201/211 and 203/213
  - BIOL 241, 243 or equivalent (still accepting 231/233).
- Spring/Summer courses taken during that academic year will not be considered for purposes of admission (after April 1) !

# Double Majors

It is possible to complete a double major combining any two of the following programs:

- Biochemistry
- Botany (Plant Biology)
- Cellular, Molecular and Microbial Biology
- Ecology
- Zoology

The degree requirements for both programs must be satisfied.

Only the biology core courses plus BCEM 393 will apply toward the major field of both programs, not other courses in the major field.

# What Calendar do I follow?

- The *Calendar* for the year of your admission to the Dept. of Biological Sciences is the one that you should follow.
- If admitted for Fall 2013, you will follow the program requirements as outlined in the 2013/2014 *Calendar*.
- *This applies to all future program changes....*

**READ THE CALENDAR !!!**



# What Calendar do I follow?

For example:

- Admitted in Fall 2013 to BioSci major program.
- Change to Biochemistry (Hons) in Spring 2014
- BCEM program as outlined in 2013/2014 Calendar STILL applies to you.
- *Changes to core courses have taken place so keep this in mind. Guides for all years of entry are posted on our web site*

# Human Medicine:

- If you plan to apply to medical school, be aware of the required courses for entrance to the schools you are considering.
- Please direct any questions regarding entrance requirements to those medical schools (**biosci can't answer them**).
- *Same applies for any other professional schools.*

# Veterinary Medicine:

- If you plan to apply to vet school, be aware of the recommended courses for entrance to the programs you are considering.
- U of C School of Veterinary Medicine  
<http://www.vet.ucalgary.ca>

# Plan A or B

- Plan your course selection so that you obtain a quality B.Sc. in one of our programs, regardless of your aspirations for professional school.
- You can satisfy admission requirements for most professional schools from any of our programs.

# Seek academic counseling!

- Student Success Centre:  
Now in Taylor family Digital Library (TFLD)
- Dept. of Biological Sciences:  
-main office 186, or a program advisor

**ASK US WHEN YOU HAVE QUESTIONS !**

# Contact information:

- [www.bio.ucalgary.ca](http://www.bio.ucalgary.ca)
  - Undergraduate Office: BI 186
  - Phone: 403-220-3140
  - Email: [biosci@ucalgary.ca](mailto:biosci@ucalgary.ca)
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- This presentation will be viewable at the above website.



# The first rule about University

- You are ADULTS; we assume you are capable of independent learning at the University level. We are here to help, and glad to do so, but ultimately, the responsibility for your education is YOURS.

# About marks .....

- First year can come as a shock to some students (too much freedom ?)
- Average marks in first year Bio classes range from high 60s to low 70s – (C to B minus range)
- Expectations are a bit different from high school.

# Academic Misconduct

- Check calendar and course outlines for definitions. ASK instructors if unsure.
- You **MUST** submit work that is entirely your own.
- Don't write essays or lab reports collaboratively; discuss results with others when appropriate, then go home and write it **ON YOUR OWN, IN YOUR OWN WORDS.**
- Do not share completed Lab reports with other students. **EVER!**

# About being a student.....

- Many opportunities to be involved in arts, student politics, volunteering, concerts, plays, learning languages etc. - take advantage!
- Can study abroad or work abroad in labs in summer – highly recommended !
- Don't let concern about marks and courses interfere with your EDUCATION
- Study what interests you, and what you enjoy, not what someone else wants you to do.



**QUESTIONS ?**