## science <br> 

## iBSc Handbook

## Biology and Biomedical Science

Department of Biology
Faculty of Science


The International BSc at York University

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## A. INTRODUCTION

This handbook is for students in the International Bachelor of Science (iBSc) program. It is designed to provide you with the basic information needed to plan and complete your degree, and to answer some of the common questions that iBSc students have. If, after reading through the book, you still have questions, contact the iBSc advisor (see below).

## What is the iBSc degree?

The iBSc is a special program that integrates a science degree with international experience. The program provides science students with the opportunity to develop global competencies through language study, internationally-focused courses and study in another country. In our competitive and increasingly globalized world, it is more important than ever to tailor your education to expand and develop your career possibilities. We hope that this degree will help you develop a valuable set of skills and experiences that will be an asset to any career path. We expect the program will contribute to enhanced reflective and critical skills, a stronger sense of citizenship in the global community, language skills, cross-cultural sensitivity and understanding, and international experience.

## Who is it for?

The iBSc is best suited to students who are interested in studying science, but are also looking for something different, something more challenging, that will set them apart from other students. You will need to be interested in experiencing other cultures and other countries, and in broadening your horizons. As an iBSc student you will have to spend some time investigating other institutions to find one that is a good fit for your academic interests, and you will have to work with advisors in your Faculty and at York International, to ensure a successful exchange term. There are choices to make and planning to do; this will take time and energy, but it should also be interesting and enjoyable.

## Who is your academic advisor?

The academic advisor for iBSc programs in the Department of Biology is Professor Paula Wilson pjwilson@yorku.ca

## B. DEGREE REQUIREMENTS

The iBSc degree options in biology are listed below. All are honours degrees and require the completion of a minimum of 120 credits.
iBSc Honours Biology
iBSc Honours Major/Minor Biology
iBSc Specialized Honours Biology
iBSc Honours Biology (Biomedical Science Stream)
iBSc Honours Major/Minor (Biomedical Science Stream)

The generally structure of the iBSc Honours degree (also called Honours Major degree) is quite simple:

1. International component (30 credits)
2. Science component ( 85 credits)
3. Free elective ( 5 credits)

The International component is the same for all iBSc degrees. The Science component will vary with your particular program and major, but it is similar to a comparable BSc degree with the same major. Details regarding each component are below.

## 1. International Component

The international component includes:
i. 12 credits in language study
ii. 12 credits in non-science "international content" courses
iii. 6 additional credits in language or non-science "international content" courses
iv. one or two exchange terms abroad

To complete these components you may wish to focus on an international thematic issue such as international development, a particular country or a particular geographic region. In most cases we expect students will choose language, international courses and the exchange partner with a common theme. For example, you may wish to study Japanese, take courses in Asian studies, then go on exchange to Japan. However, there may be exceptions to
this rule - if you have a reason for wanting to take a more diverse approach, speak to your iBSc academic advisor.

The program allows you to choose from a wide variety of languages, international courses and places to study, so that you can tailor the program to your own interests and needs. However, the many options available require you to do some planning. While there are advisors in place to help you with every aspect of your degree, remember it is your responsibility to understand and meet your degree requirements.

## i. Language Study

You must complete 12 credits (two full-year courses) in language study other than English.

What language can I choose?
You may choose any modern language offered at York, which at the time of publication includes Arabic, Chinese, French, German, Greek, Hebrew, HindiUrdu, Italian, Japanese, Korean, Persian, Portuguese, Russian, Spanish, Swahili (see https://www.yorku.ca/laps/dlll/languages-literatures/ for more information). This list is subject to change. Ideally you should choose the language of the country you would like to go to during your exchange term abroad, but if that country speaks English or the language is not offered at York, choose whatever interests you.

## What if I'm already fluent in a language?

You must choose a different language. Normally you must complete a placement test to determine the appropriate course entry level. If you are placed in a course above the 1000 level, you must still be able to complete 12 credits in that language (for example a 2000-level and 3000-level course or a 3000 and 4000 level course).

How do I enroll in a language course?
You must contact the appropriate department and complete an assessment in order to ensure you're placed in the right course for you.

To enroll in a French course:
Contact the Department of French Studies in LAPS and complete a placement test. For details please visit:
https://www.yorku.ca/laps/fr/future-students/language-proficiencyrequirements/

To enroll in a language course other than French:
Visit the Office of the Department of Languages, Literatures and Linguistics, in room S 561 Ross Building. In most cases you will need to complete a placement test prior to enrolment.

Remember! If you are already fluent in a language, you must choose another language.

## ii. International Content Courses

You must complete a minimum of 12 credits in International Content courses. International content courses are non-science courses that are international in scope. For example, a history course about a country or region outside of Canada, or a course on globalization.

Important: Your international content courses must first be approved by your iBSc advisor. The first 12 of the international content credits must also satisfy the Facultv's non-Science General Education Requirement.

What are international content courses?
The intent of this component is to give you an opportunity to take courses that focus on a country or region that is relevant to your chosen language stream and/or on an international issue that is of particular interest to you. The courses must be non-science courses and have an international theme. Non-language courses taken within the Departments of French Studies and Languages, Literatures and Linguistics or the Departments of Hispanic Studies and French Studies at Glendon College may count toward this requirement. Twelve of the international content courses must also meet the non-science General Education (Gen Ed) requirement.

Can I do some of these courses while on exchange?
Yes! In fact, it's a good idea to do so if possible. Availability of course options will vary with each exchange partner so it's good to be flexible.

What if I want to take a Gen Ed course that does not count as an international content course?
You can take the course, but be aware that you will still have to complete your international content credits, so you may end up taking more than 120 credits to complete your degree. It is not uncommon for students to complete more than the minimum for graduation, so as long as you are willing to do so it is your choice.

What if I have to do an ESL course as part of my admission requirement? In some cases you may be able to take an ESL course that counts both as Gen Ed and International content. If not, they will be free elective credits and you may need to complete more than 120 credits to meet degree requirements.

I know what International content courses I want, but I seem to be blocked from enrolling in them. What do I do?
Access to many courses are controlled by the department that offers them. If you find you can't enroll in a course you want, it may be full or access may be restricted or controlled. You should contact the department offering the course; if it is an access issue contact the iBSc academic advisor, who may be able to help. In some cases, though, you may have to choose another course.

If you are unsure whether your chosen courses will also satisfy the Gen Ed Requirement, please see your iBSc academic advisor. A sample list of courses appears at the end of this handbook. If you find a course you would like to take that does not appear on this list, please consult your iBSc academic advisor before enrolling, to ensure it is acceptable.

## iii. 6 additional credits in language study or non-science "international content" courses

Having completed 12 language credits and 12 international content credits (that also cover the gen ed requirement), you now have a choice. You need to complete another 6 credits in one or the other. If you want to improve your proficiency in your new language, take another language course. If you'd rather learn more about an international topic, choose an international content course. Just make sure to get approval from the iBSc academic advisor for the international content courses.

## iv. Exchange Term

The final part of the international component is study outside of Canada. York has special exchange partnerships with institutions around the world, and you must spend at least one full term at one of York's exchange partners. Many students will choose to go for a full academic year, and some partners require students to do so. York International (YI) is the office responsible for facilitating student exchanges.

## For information about going on exchange:

https://yorkinternational.yorku.ca/global-learning/outgoing-global-learning/outgoing-academic-exchange/

When should I start thinking about and planning my exchange?
You should really start thinking about it as early as possible. You must begin planning seriously in the fall one year before the year you go on exchange.

When should I go on exchange?
Most students will choose to go abroad in third year, though you may elect to go during second or fourth year, depending on your program, the courses you wish to take and your language skills.

How do I decide where to go?
You can go to any of York's partners provided they offer the courses you need and/or want. Typically you will choose a country that speaks the language you are studying, but there may be exceptions to this rule. The list of exchange partners may be found at:
https://vorkinternational.yorku.ca/where-can-i-go/
Do I have to study in a different language?
No. While many students will want to live and work in the language they are studying to improve their language skills and to experience the culture first hand, it may not be feasible for everyone. If you are learning a language from scratch, 12 credits likely will not bring you to a level where you feel confident enough to study in that language; in that case you may choose to take a third course in the language prior to going and then complete a proficiency test, or choose an institution that offers courses in English.

I was going to study in another language, but now that I am getting closer I don't think I'll be ready. What should I do?
You can choose a place where courses are taught in English. Before you do so, though, you might want to complete a proficiency test or speak with your language instructor, in case your language skills are better than you think.

## How many courses must I take?

While on exchange, generally you must carry a full-time course load. The number of courses that constitutes a full load will vary by institution. YI should be able to help you navigate this aspect.

## How do I arrange to go on exchange?

YI is the office responsible for students going on exchange. It takes a fair bit of planning and time to prepare to go on exchange. The folks at YI will work with you to help you prepare for the term abroad and complete the application. Many of the answers to your questions, including a list of our partners, may be found on the YI website (see above).

Each fall YI holds information sessions for students planning to go on exchange the following year. Make sure you attend one of these sessions. They begin around the second week of September, with 2-3 sessions per week. The schedule is usually posted on the YI site.

Preparing for exchange will involve choosing three possible institutions for study, researching the course offerings at the institution, and deciding on courses in consultation with your iBSc academic advisor, so it will take some time and thought - the sooner you get started, the better!!

## What about financial support?

You will pay tuition to York as usual, not to the exchange institution. You will have to pay for your living costs etc while you are away. York does offer some financial support. For more information visit: https://yorkinternational.yorku.ca/outgoing-global-learning-funds/

Still have questions? Contact the Exchange experts at York International:
York International
200 York Lanes
4167365177
goglobal@yorku.ca

## 2. Other Degree Requirements

The remainder of your degree will vary depending on your specific degree program. Some sources of information include the University Calendar (follow the Calendar of the year that you entered your program) and the Biology Undergraduate Resources eClass site. You will be given access to the eClass site sometime in your first semester. If you are in your second semester or later and do not see the eClass site when you are in eClass, email biology@yorku.ca.

## C. CHOOSING YOUR FIRST YEAR COURSES

Normally your first year courses will be required courses at the 1000 level (course numbers begin with ' 1 ') such as first year biology, chemistry and math. In addition to required science courses, you should also take your first language course.

## Biology

The most important courses for you to take in first year are Biology, Chemistry, Math, a language course and a Computer Science course. Chemistry, Math and Comp Science (CSE) courses are required for second year Biology courses. A typical first year program in the iBSc Biology:

| Fall Term | Winter Term |
| :--- | :--- |
| SC/BIOL 1000 | SC/BIOL 1000 |
| SC/CHEM 1000 | SC/CHEM 1001 |
| SC/MATH 1506 or 1013 | SC/MATH 1507 or 1014 |
| LE/EECS 1520 or 1530 or 1540 | Internat. content Course/Gen Ed |
| Language course | Language course |

## D. ADVISING

## ** Always identify yourself as an iBSc student when contacting any advising office.**

Science Academic Services (general science advising)
352 Lumbers Building
416 736-5085
sciquest@yorku.ca
Office Hours 10-4 M-F
Phone Hours 8:30-4:30 M-F

iBSc Academic Advisor for Biology<br>Professor Paula Wilson pjwilson@yorku.ca<br>Biology Undergraduate Office<br>108 Farquharson Life Science Building<br>416 736-5311<br>biology@yorku.ca

Advising related to going on exchange:
York International
200 York Lanes
4167365177
goglobal@yorku.ca

## E. ADDITIONAL OPPORTUNITIES

If you are interested in additional international opportunities, you may want to consider one or more of the following:

- participation in summer school abroad (non-science courses)
- international research opportunities such as the DAAD RISE Program
- an internship with the award-winning York International Internship

Program

- an international field course


## F. SAMPLE PROGRAM FOR THE iBSc HONOURS BIOLOGY

Degree checklists are available from Science Academic Services in 352 LB
First Year

| FALL | WINTER | Credits |
| :--- | :--- | :--- |
| SC/MATH 1506 3.0 | SC/MATH 1507 3.0 | 6 |
| SC/BIOL 1000 3.0 | SC/BIOL 1001 3.0 | 6 |
| SC/CHEM 1000 3.0 | SC/CHEM 1001 3.0 | 6 |
| LE/EECS 1520 3.0 | International Component 3.0 | 6 |
| Language | Language | 6 |

Total Credits Completed: 30
Second Year

| FALL | WINTER | Credits |
| :--- | :--- | :--- |
| BIOL 2020 3.0 | BIOL 2021 3.0 | 6 |
| BIOL 2030 4.0 | BIOL 2070 3.0 | 7 |
| BIOL 2060 3.0 | BIOL 2040 3.0 | 6 |
| Language | Language | 6 |
| SC/CHEM 2020 3.0 | SC/CHEM 2021 3.0 | 6 |

Total Credits Completed: 31
Third Year

| FALL on exchange | WINTER | Credits |
| :--- | :--- | :--- |
| BIOL 9 credits 3XXX | BIOL 3140 4.0 | 13 |
| International Component 6 | BIOL 3030 4.0 | 10 |
|  | BIOL 3200 3.0 | 3 |
|  | International Comp 3.0 | 3 |
|  |  |  |

Total Credits Completed: 29

## Fourth Year

| FALL | WINTER | Credits |
| :--- | :--- | :--- |
| BIOL4XXX 3.0 | BIOL 4XXX 3.0 | 6 |
| BIOL 4XXX 3.0 | BIOL 4XXX 3.0 | 6 |
| BIOL 4XXX 3.0 | Science Elective 3.0 (sci. breadth) | 6 |
| Intern. Comp 3000/4000 3.0 | Intern. Comp 3000/4000 3.0 | 6 |
| Free Elective 3000/4000 level 3.0 | Science Elective 3.0 | 6 |

Total Credits Completed: 30
Total BIOL 60 (includes core and 3000/4000 requirements of major)
Total Science 87 (meets breadth, science Gen Ed and major requirements)
Total 3000/4000 44
Total Overall Credits 120

## G. SAMPLE INTERNATIONAL CONTENT COURSES

The courses* listed below below meet the requirement of International Content credits as well as non-Science General Education credit.
*Note: courses beginning with GL/ are taught at Glendon College
AP/JP 2700 6.00 Contemporary Japanese Culture and Society
AP/HND 2700 6.00 South Asian Literature and Culture
AP/EN 2250 6.00 Introduction to British Literature
AP/EN 34206.00 African Literature
AP/GLBL 1000 6.00 Introduction to Global Political Studies
AP/GLBL 2201 3.00 Introduction to International Politics
AP/GLBL 3000 3.00 Advanced Global Political Studies: Approaches to Globalization
AP/GLBL 3255 6.00 Human Rights and Global Economy
AP/GLBL 3520 3.00 Governing the New Europe
AP/GLBL 3560 6.00 The Global South: Politics, Policy and Development

AP/HIST 10106.00 War, Revolution and Society in the 20th Century
AP/HIST 1074 6.00 The Chinese Body in Cross-Cultural Perspective: Medicine, Food, and
Footbinding
AP/HIST 1095 6.00 Streetlife: The Culture and History of European Cities
GL/HIST 1615 6.00 The Roots of World Civilizations
AP/HIST 2300 6.00 Modern Europe: From the French Revolution to the European Union
AP/HIST 2710 6.00 History of East Asia
AP/HIST 2731 3.00 Introduction to Caribbean History
AP/HIST 2750 6.00 African History, from 1800 to the Present
AP/HIST 2900 6.00 Global Indigenous Histories
GL/HIST 2901 6.00 Introduction to Latin American History
AP/HIST 3315 3.00 Modern Ukrainian History
AP/HIST 3355 6.00 Modern Greece: From Independence to the Present
AP/HIST 3356 3.00 Greeks in the World. A history of Greek migration and diaspora in the 20th
Century
AP/HIST 3460 6.00 The Shaping of Modern Ireland: 1600 to the Present
AP/HIST 34906.00 Twentieth-Century Britain in Film and Culture
AP/HIST 3701 6.00 Spain's Global Empire, 1500-1900
AP/HIST 3736 6.00 Indigenous Struggles in Latin America
AP/HIST 37663.00 Korea Since World War II
AP/HIST 3771 3.00 Modern Chinese History I
AP/HIST 3796 3.00 Modern India: from the Late Mughal Era through the 19th century
AP/HIST 37973.00 India in the Twentieth Century
AP/HIST 3829 3.00 A Convenient Hatred: Antisemitism Before, During and After the Holocaust

AP/HUMA 11909.00 Nationalism, Authority and Resistance: Perspectives on German Culture and Society
AP/HUMA 1400 9.00 Culture and Society in East Asia
AP/HUMA 14209.00 Introduction to Korean Culture
AP/HUMA 1761 9.00 Italian Cinema, Literature and Society
AP/HUMA 1770 6.00 One World: Historical and Cultural Perspectives of Globalization
AP/HUMA 18456.00 Islamic Traditions
AP/HUMA 18479.00 Sikhs and Sikhi(sm): Texts, Contexts, and Living Traditions
AP/HUMA 18559.00 Buddhism and Asian Cultures
AP/HUMA 2700 6.00 Persian Literature and Culture
AP/HUMA 2999 6.00 Global Cultures of Children and Young People
AP/HUMA 3664 3.00 The Oral Tradition in Caribbean Culture
AP/POLS 2201 3.00 Introduction to International Politics
GL/POLS 2950 3.00 Globalization \& Global Governance
AP/POLS 3200 3.00 Global Conflict and Security I
AP/POLS 35203.00 Governing the New Europe
AP/SOSC 1430 9.00 Introduction to International Development Studies
AP/SOSC 1710 6.00 Globalization and the Human Condition
AP/SOSC 1950 6.00 Prospects and Perils of Globalization
AP/SOSC 2480 6.00 Introduction to African Studies
AP/SOSC 3042 3.00 Business and Social Exclusion in the Global South
AP/SOSC 3101 3.00 Health and Development in the Global South

