On behalf of all in Biology, we wish you the best for the end of Fall term, the December 2021 exam period, and beyond! December is undoubtedly a stressful time in any given year, so keep basic stress busters in mind - sleep well, eat well, manage your time appropriately, and talk to others. We are always here if you need to chat about various things.

This year-end December issue is also a forward-looking issue with many career-building endeavours to consider for 2022. Check them out and let us know if you need guidance or further information.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Thinking of Graduate Studies?

2022-2023 Canada Graduate Scholarship- Masters (CGS M) Competition

These scholarships are for eligible undergraduate students who will be Master’s students in research- based programs in 2022-2023, and for eligible current Master’s students who will be in year 2 of their Master’s program in 2022-2023, in research- based programs.
A memo with details of the 2022-2023 Canada Graduate Scholarship- Masters (CGS M) Competition through this link.

Join the BISC this Year!

Looking to get out and add a more worldly perspective to your studies? A term at the Bader International Study Centre (BISC), Queen’s UK Castle campus, is the opportunity for you!

Enjoy the BISC’s small class sizes, close contact with professors, research opportunities, and experiential learning in the BISC’s Winter General or Castle Summer+ program.

Looking for engaging electives? The BISC’s online courses BISC 100/3.0 Thinking Locally (Fall) & BISC 101/3.0 Acting Globally (Winter) tie into a number of degree plans and examine global issues from national and international perspectives. Interested? Get a sneak peek at BISC 100 & 101 here.

Applications are open now for the BISC’s Winter and Summer 2022 programs! For BISC 100 and BISC 101 online, change the course career to “Undergraduate Online” and select “BISC First Year Program” as the course subject when searching online BISC courses on SOLUS, no application is required. Learn More
If you have questions about the Castle or the application process, contact castle@queensu.ca.

Brochures for:
- Winter Term at the Castle
- Health Studies at the Castle
- Psychology at the Castle

Summer 2022 Research Award Opportunity

NSERC Undergraduate Summer Research Awards (USRAs): Canada’s Natural Science and Engineering Research Council (NSERC) underwrites these prestigious awards to stimulate student interest in research and to help cultivate tomorrow’s scientists. USRAs involve independent research and are taken up in NSERC-funded laboratories. The awarding of USRAs is carried out internally through Queen’s Biology. The 2021-22 application forms and details are available through Awards and Opportunities.

The award is $6000.00 plus a minimum supervisor top-up of 14.25/hour plus required fringe benefits (vacation pay is included).
Terms:
- Students must work 16 consecutive weeks (35 hours per week).
- Students are not permitted to do thesis research while holding an award.
- Students are not permitted to take courses during working hours throughout the term of their award.

Eligibility:
- Must be a Canadian citizen or permanent resident of Canada.
- Must be registered in an honours degree program in BIOL at the time of application and must be in at least year 2 of study.
- Must have obtained at least a “B” (or B-) (65-79%) average in their previous years of study.
- If you are registered in health sciences (M.D., D.D.S., and B.Sc.N.) or have a higher degree in the natural sciences or engineering you are NOT eligible. Graduating BIOL students are eligible providing they have not started a program of graduate studies.

Registration Now Open for Summer 2022 Biology Courses

**BIOL 404 - Summer 2022**
BIOL 404 will be offered this coming summer. It will be offered twice, once in May and again in August. Don't forget to register. This course fills fast!

Course description: **BIOL 404/3.0 Techniques in Molecular Biology**
Intensive laboratory work (8h/day) to be carried out over two and a half weeks in May. Practical work includes DNA isolations, DNA cloning, PCR, production of proteins, biochemical and immunological analysis of proteins. NOTE Priority to students registered in BIOL Major and Specialization degree Plans. See course website for details. LEARNING HOURS 112.5 (100Lb;12.5P). PREREQUISITE (BCHM 218/3.0 or BIOL 330/3.0) and a minimum GPA of 2.0 in the Biological Foundations List

**BIOL 418 - Summer 2022**
BIOL 418 will be offered this coming summer. The course is scheduled for the beginning of May. This course also fills fast!

Course description: **BIOL 418/3.0 Fisheries Techniques**
This course will introduce students to many “hands-on” techniques currently used in fisheries. This will include fish identification, different capture techniques for fisheries assessment, bioacoustics, environmental monitoring, techniques for ageing fish, diet analysis, fish tracking (biotelemetry approaches), and data management. LEARNING HOURS 120 (30Lb;10T;40P). PREREQUISITE BIOL316/3.0 and a minimum GPA of 2.0 in the Biological Foundations List
Are you going into 4th year 2022-23? Wondering about BIOL 537 and BIOL 500 courses?

We are in the process of setting up an information session in the new year. Details will follow in the next newsletter and will also be sent out to all BIOL 3rd year students via e-mail. Tentative date is early evening, February 2, 2022, by Zoom but we will confirm in January.

Did you know?

In order to encourage students to explore subject matter outside their program of study and to promote interdisciplinary study, all upper-year Arts and Science students will be permitted to designate up to 6.0 units of degree-credit courses for pass/fail grading, thereby minimizing any risk to the students’ GPA. Such courses designated for pass/fail grading will be referred to as Personal Interest Credits (PICs).

Wondering about how many courses you can take from other Faculties and Schools towards your degree plan/program?

A maximum of 6.0 units from courses offered by other Faculties and Schools may be counted towards the Program and/or Plan requirements of any degree in the Faculty of Arts and Science, in addition to any such courses allowed as either Core or Option course requirements.

The courses listed in the document below are approved for students in the Faculty of Arts and Science.

REMINDEERS!
Not sure if you have picked up the right courses for your degree plan?

It is important that you check your degree plan/program requirements before the September add/drop date to ensure you are on target. Please review your degree plan/program requirements using SOLUS. This is a great tool and will help keep you on track. January 21, 2022 is the last day to add winter classes or drop without financial penalty.

Biology Degree Plans

Review your degree plan requirements and make sure you are selecting courses you need. Degree plan requirements can be found at: https://www.queensu.ca/artsci/undergrad-students/academic-calendar
**Biological Foundations List - IMPORTANT!**

*It is very important to keep this GPA requirement in mind throughout your program, starting with first year. To be admitted to 400 and 500 level Biology courses, you will need a minimum GPA of 2.0 in any previously taken courses from Biological Foundations list.*

*The Biological Foundations List is BIOL 102, 103, 200, 212, (201, 202), 205, 206, 300, 330, 334, 339, & 341 (302, 303).*

*To be admitted to BIOL 400 and 500 level Biology courses you will need a minimum cumulative GPA of 2.0 in any previously taken courses from this list.*

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Need help with your studies?

Please visit Student Academic Success Services (SASS) at [http://sass.queensu.ca/](http://sass.queensu.ca/). SASS offers academic support to students who wish to develop their skills in critical thinking, reading, learning, studying, writing, and self-management.

Looking for a job?

Wondering about career options or maybe considering Graduate School...then you need to visit: [https://careers.queensu.ca/students](https://careers.queensu.ca/students)

Explore opportunities through Queen’s University Biological Station

The Queen's University Biological Station (QUBS) is one of the premier scientific field stations in Canada. For almost 70 years, researchers and students have gathered at QUBS to conduct leading-edge research and participate in courses spanning ecology, evolution, conservation, geography, and environmental science. Don’t forget to check out available awards for field-based undergraduate research experience.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
WANT TO GAIN EXPERIENCE IN RESEARCH AND DATA SCIENCE SKILLS? Lead a research project team by applying to become an Undergraduate Research Lead for the 2021-2022 year. In this role, you will lead a group of high school investigators in developing a research project using data science skills (excel and R) to present at a symposium!

APPLY HERE: https://docs.google.com/forms/d/e/1FAIpQLSd0N1zZsgNJSkiyRFHBBGbv7XwKKU9LEYqSXCvTbHEw93Q5w/viewform

BIOL 307 → https://biology.queensu.ca/academics/undergraduate/courses/biology-field-courses/

Intercultural Training: https://quic.queensu.ca/get-involved/intercultural-training/

Wondering how to contact your course program associate regarding work associated with the lab component of core courses?

BIOL 102: biol102@queensu.ca
BIOL 103: biol103@queensu.ca
BIOL 200: biol200@queensu.ca
BIOL 205: biol205@queensu.ca
BIOL 206: biol206@queensu.ca
BIOL 212: biol212@queensu.ca
BIOL 300: biol300@queensu.ca

Important Links
Updates on COVID-19: https://www.queensu.ca/safereturn/

Helpful Links
Information on Applying for a Course Prerequisite Waiver
Looking for a job? Quick Link
Looking for study and travel opportunities? Quick Link

BIOLOGY Undergraduate Office
Monday to Friday 9:30am – 12:00pm & 1:00pm – 3:00pm
Rm. 3109d, BIOSC Complex
ug.biology@queensu.ca

Past Newsletter Issues
January 2021
February 2021
March 2021
April 2021
May 2021
June/July 2021
August 2021
September 2021
October 2021