

Survival Guide for Biology Graduate Students at SFU

Welcome to SFU! Grad school is many things, but it is not easy. We hope you find lots of helpful information in this package.

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1.0 Housekeeping

These are things you need to do to “stay on the program”.

We divided this section into things you need to do when you first arrive at SFU, things you need to do frequently, and things you need to do once every semester or year.

We will assume that you have already registered for your first semester at SFU. If you need help with this, please refer to your acceptance package, and if you’re still stuck contact Marlene Nguyen in the Biology Office.

We have not included “housekeeping” information for international students, nor information regarding health and dental plans. For up-to-date guidance on these items, check the website, or visit the relevant offices in the Maggie Benson Center.

1.1 Things you need to do once

1.1.1 Student ID/Library Card

During your first semester you will need to get your photo I.D. The photos are usually taken near the Student Society offices in the Maggie Benston Centre (MBC) sometime early in the semester. This card not only certifies that you are a student at SFU, but it is also your library card. Be sure to look good for this because you will be stuck with it for the entire length of your time here.

1.1.2 SFU Computing ID & e-mail

You can sign up for your computer account by accessing SFU's web pages from a computer in the library, a computing lab, or from an off-campus computer to which you have internet access. You must be registered as a student in order to obtain a computer account.

Once you have an SFU Computing ID and password (you have to make up your own password), make sure the graduate program assistant knows your email address and she will add you to the bisc-grads mail list. The "bisc-grads" email list is where notices for grad students in biology are posted. You can also post messages to this list, thus sending an email to all grad students in the department. (Note that the message will only be delivered if you send it from your SFU email account). Please limit your posts to important announcements or inquiries that are relevant to other grad students in the department.

There is also a “bisc-all” email list (bisc-all@sfu.ca) which reaches everyone in the biology department except undergrads (i.e., faculty, post docs, lab techs, office staff), plus some people outside of the department who want to receive updates about biology events. You can send to this list if you have something that will be of interest to the entire department, but use it with caution, and avoid hitting “reply all” to an email to this group if you just want to reply to the sender. If you only need to reach grad

students, choose bisc-grads (annoying other grad students with unsolicited emails is not as bad as annoying the profs and staff!!)

Your lab group or larger research group may also have a maillist that you should be on. Ask around to find out who manages these lists. In some cases, you can join maillists yourself by logging on at MySFU > managing your email lists > search for maillists.

1.1.3 Keys

Check with your labmates for who you need to see about keys. Most grad students will talk to the Laboratory Coordinator, Brian Medford, for key requisitions for offices, labs, buildings, cabinets, etc. Then take this requisition to the Building Maintenance Help Desk, located on the west side of campus, just west of the Rotunda (or bus loop, if you are coming from below). A base deposit of \$20 is required in addition to specific cutting charges (approximately \$5) for each key. Other labs may have their own staff person who deals with keys.

If you get locked out of your lab or office, Security will come to your rescue provided you have your student I.D. with you. The security number is 778-782-4500, or 2-4500 from any campus phone. Best to write this number down somewhere handy.

1.2 Things you need to do every semester

1.2.1 Registration

You need to register every semester (Fall, Spring, Summer) even if you are not taking classes. It's best to register early (eg. a month) before the next semester, but if you forget, you have a few weeks into a semester to register. Registering itself does not cost money, simply go the Student Information System (SFU>SFUOnline>Student Information System), and log in with your computing ID. Depending on the type of graduate student you are, you need to enroll as if your thesis was a course. The "course" codes are: PhD = BISC 899, MSc = BISC 898, MPM = BISC 849, MET = BISC 656. Failure to register will result in being withdrawn, and you have to complete a new application for admission to graduate studies to continue.

You can also register for other graduate classes online at MySFU (mysfu.ca). You can find course numbers by searching for courses with the subject: BISC Biological Sciences, and course career: graduate. You can also take courses from other departments; there are often popular offerings from the School of Resource and Environment Management (REM) and the Statistics department (STAT). We would recommend checking with your supervisor about which courses they recommend you should enrol in. It's also a good idea to ask your lab mates about positive or negative experiences about courses. You can also see *Academics* for info about choosing courses and requirements.

Around 24 hours after you register, you will have a bill for your tuition and student fees, which you can see in under "Finances" on the Student Information System. There are a few different ways to pay. You

can transfer funds directly from your bank (using internet or telephone banking), by cheque or money order, in person or by debit card. You can NOT use a credit card to pay tuition fees. For more info go to: students.sfu.ca/fees/howtopay/. Tuition and fees must be paid before the deadline announced each semester. Special arrangements may be made to defer payment or deduct it from paychecks or University scholarships, Teaching Assistantships, or Research Assistantships. There are a number of flexible payment schedules to choose from. Deferment forms are available upon registration.

1.2.2 Student loan interest-free status

If you are studying full-time but are no longer receiving student loans, at the beginning of each semester, you need to apply for [interest-free status](#) to delay paying back your student loan. This process does not happen automatically. The loan providers will assume you are no longer in school unless you advise them differently.

If your student loans are from BC, you can do this on-line
(<http://www.aved.gov.bc.ca/studentaidbc/interestfree/welcome.htm>)

If you are unable to complete the online application (for example, if your previous student loans are from a province other than BC), you need to see someone in Financial Aid and Awards (Maggie Benston Centre, 3000 level) to get a paper version of this form. You then mail the completed form to the appropriate student loan centre.

1.2.3 U-pass

If you register early, you will be sent a U-pass to your home address registered on the Student Information System. If your address has changed, be sure to update this online. If you don't get a U-pass in the mail, (either you registered too late or your address was wrong), you will have to go and pick one up at the Maggie Benson Center. In the first week of classes, this usually takes place in a large room with a bit of a line up.

If you have just registered, you will need to wait until the next business day to be in the U-pass system.

If you lose your U-pass you can pick up a new one at the U-pass office for a fee.

1.3 Things you need to do once a year

1.3.1 Tax forms

Tax statements about your enrolment (form T2202A), and tax statements about your income through SFU (T4a slips) are available on the Student Information System, under Finances.

1.4 Things you need to do a lot

1.4.1 Check your SFU email account

Your SFU email account (yourname@sfu.ca) is where all your important emails from the department, your supervisor, other graduate students will be sent to. You can set up your SFU account so that it forwards to another mail program (like Gmail, Mozilla Thunderbird), but it's a good idea to check your SFU account via connect.sfu.ca from time to time to make sure you haven't missed anything important.

1.4.2 Check your mailbox

You have a shared mailbox in the mailroom beside the Biology Office. Please use this address for work/academic use only. Your new business mailing address is:

Department of Biological Sciences
Simon Fraser University
8888 University Drive
Burnaby, BC V5A 1S6
Canada

1.4.3 Photocopy/Fax/Scanner

To use the photocopiers in the mailroom beside the Biology Office, you will need a name and a password. You can set this up with Mike in reception. This will charge your copies and prints to your supervisors account.

These machines work for scanning and printing from your computer. Info on how to do this is posted right behind the machines.

The department has a fax machine for your use. Again, you will need an account code which you can get from your supervisor. You can receive faxes here at: 778.782.3496

2.0 Academics

2.1 Courses

Many people find it's best to get your classes out of the way early in your program before your thesis work starts to be too taxing; this is something you should discuss with your supervisor. Course requirements for the various degree programs vary:

MSc - 4 grad courses (12 credit hours)

PhD - 3 grad courses (8 credit hours)

MPM - 4 elective courses, 1 required course (BISC 847), 5 summer courses (36 credit hours)

MET - 6 required courses in Biological Sciences, STAT 650 (23 credit hours) plus an additional 3 elective courses (9 credit hours) selected from a menu of suitable courses.

Students may be able to take courses for transfer credit at other institutions, such as UBC, under the Western Deans' Agreement (see the graduate secretary regarding registration procedures). Up to one half of the required number of courses may be transferred from another institution, with permission from the student's supervisory committee and the DGSC (Department Graduate Studies Committee).

The Department normally announces courses to be offered two years in advance, which can be found here (www.biology.sfu.ca/degree/graduate/course_offerings). Students can arrange with a professor for a specific directed readings course. Forms and instructions are available from the Graduate Secretary.

2.2 Supervisory Committee

A supervisory committee should be chosen in consultation with your senior supervisor. Choose members that will complement each other with respect to their experience and areas of expertise. These are your resource people and should give you as much breadth as possible; don't duplicate your committee members. Choose your committee as early as possible and demand regular meetings: it's one of the responsibilities that they have assumed by agreeing to sit on your committee. Have your first meeting as soon as possible so that your committee is fully aware of your direction and research plans. Meetings must be held annually and summarized as part of your Annual Progress Report (section 2.3).

2.3 Annual Progress Report

Each year, every grad student must submit a progress report to the Departmental Graduate Studies Committee (DGSC) Chair. The due date for the submission of your progress report is six weeks after the start of the semester in which you entered your graduate program. For example, if you started your MSc at SFU in September of 2010, your first progress report will be due six weeks after September 1, 2011. Similarly, if you started in January of 2011, your first progress report will be due six weeks after January 1, 2012.

The progress report form is available from the graduate secretary and is usually placed in your mailbox at the start of the semester in which it is due. The report does not need to be lengthy, but should detail all sources of funding, courses completed, progress on research, and committee meetings held during the past year. A brief summary of your annual committee meeting must be attached to the form when submitted to the Graduate Secretary for approval by DGSC. These reports are the primary means that the DGSC has to evaluate student progress, and to ensure that all students receive appropriate funding and academic support from their committee. They also serve as a recorded form of communication between you and your committee, to make sure your committee members approve of your progress, your short-term goals, and your timelines. Your progress report must be approved and signed by all

members of your supervisory committee. Each committee member is free to add comments directly onto your progress report and should discuss these comments with you.

An unsatisfactory report will trigger a review by the DGSC. The DGSC, in consultation with the student's supervisory committee, will inform the student of the unsatisfactory progress and may either require the student to improve in specific ways in a specific period of time or may require the student to withdraw.

Related Links: www.biology.sfu.ca/degree/graduate/current

2.4 Communication with your Supervisor

Your supervisor will take many roles in your academic life, and you will take on many roles with respect to them. For example, they will be your employer, your mentor, your manager, your co-author, your examiner and potentially your friend. Be prepared to wear different 'hats', and develop open communication early.

All supervisors have different styles, but good communication is always important. Some supervisors expect to meet once a week, while others will let you go for months without checking in. It is worth taking an active role in your communication. Ask how often he/she would like to meet, if he/she would prefer to communicate by email or in person on certain topics, and if he/she prefers appointments to be made, or when "drop-ins" are welcome. For any meeting, come prepared with a summary of your progress and a list of concise questions, and bring a notebook. You are using their time, so use it wisely.

Whether you have thought about it or not, both you and your supervisor have predetermined expectations of each other. It is important to discuss expectations openly in person so as to encourage a frank discussion of potentially sensitive issues. Find out what expectations your supervisor has of you. All graduate students feel at some time that they are not meeting their supervisor's expectations. This is normal, but the first step is communication.

2.5 Program completion

Further information on switching programs (eg. MSc to PhD), planning a candidacy exam, writing your thesis, and planning your defense are available through the website or by checking with the Graduate Secretary (Marlene).

3.0 Participation

It may sound cheesy, but one of the best ways to get to know your new department is to participate! There are lots of ways to do that.

3.1 Graduate Caucus

You are a member of the Biology Graduate Caucus, a voting group of the Graduate Student Society (GSS). The purpose of the Caucus is to discuss issues important to Biology grad students, including funding, space issues, and development on Burnaby Mountain. The Caucus is also responsible for planning social and educational events, including the BISC Graduate Symposium in March and various socials throughout the year. In addition, the Caucus organizes an annual lottery to distribute Graduate Student Society Travel Grants for student travel to conferences.

Caucus meets once a month on the third Wednesday of each month – check your email for the announcements. The meeting is run by the Caucus Chair and Associate Chair. Free beverages, snacks and lively conversation are guaranteed. Attending Caucus meetings are a great way to meet other grad students and get behind-the-scenes. We'd strongly recommend you attend caucus and have a say in how your department is run and how your student fees are spent! There are also a variety of Caucus Executive positions that are elected in April and volunteers are required for ongoing events; these positions look great on your CV.

Caucus also organizes a graduate student mentor program, where current students are paired with an entering student to pass on the wisdom, tips and hints for success they've learned as a Biology grad student. You can sign up to be a mentor for new grad students – this happens at the end of the summer in August or early September. The mentor program is organized by a grad student (which also is a great way to participate in the department).

Related Links: http://www.sfu.ca/biology/grad_caucus/about.html

3.2 Departmental Seminar Series

Departmental seminars are held once a week, on Thursdays between 3:30-4:30pm. You should attend departmental seminars, even if they are outside your field of research, you never know what you will learn. Seminars are given by visiting researchers and in some cases, department faculty members. The seminar speaker and an abstract of the seminar will be announced each week – look for the announcement in your email (you should be on the bisc-all mailing list) and on the posters near the Main Office. In the future, you may be able to receive course credit for attending departmental seminars.

3.3 Les Écologistes

Les Écologistes is a long-running seminar series focusing on ecology, evolution and behaviour. Les Écols is held once a week, on Thursdays between 12:30-1:30pm in room B9242. Look for posters advertising the seminar near the Main Office or get on the les-ecol@sfu.ca mailing list. Mailing lists are organized on mysfu.ca > Account Management (on the right-side of the screen) > Manage your mailing lists (search for and add les-ecol). Les Écols is coordinated by a different graduate student or group of grad students every semester; this is another great way to get involved.

3.4. Molecular Biology and Biochemistry Seminars

These seminars are organized by the Molecular Biology and Biochemistry (MBB) department, but are open to biology graduate students. They usually occur at 3:30 pm on Fridays in the South Sciences Building room 7172 and highlight visiting speakers invited by the department. To see a list of upcoming speakers, go to the MBB department webpage, and click on 'Calendar of events'.

3.5. Cell and Molecular Biology Colloquium

These are weekly seminar presentations on exciting topics in the fields of cell, molecular and developmental biology, organized within the Molecular Biology and Biochemistry (MBB) department. They usually occur at 12:30 pm on Fridays in the South Sciences Building room 7172. To see a list of upcoming speakers, go to the MBB department webpage, and click on 'Calendar of events'.

3.6 Resource Environment Management (REM) Seminar Series

REM is a course-based graduate program focusing on applied resource management science (fisheries, forestry, etc.) REM holds a seminar series every Friday afternoon with invited guest speakers. Look for posters around the department. REM seminars are held in the REM seminar room in the TASC-1 building.

3.7 Payday coffee

Every second Friday is pay day and the faculty, staff and graduate students celebrate with Payday Coffee. There is free coffee and treats provided by a hosting group starting at 10am on Friday. Check your email (bisc-all@sfu.ca mailing list) for the announcement. Payday coffee is a fun way to socialize over free caffeine and sugary snacks. But be an altruist and make sure your lab signs up to host payday coffee at least once a year. There is a signup sheet in the Mail Room.

3.8 Molecular Biology Colloquium

This is a once-a-year event in which members from many Molecular Biology and Biochemistry labs will give short 15-minute presentations. There is usually a lunch, a keynote speaker, a poster session, and a social to follow. In previous years it has occurred around April.

3.9 Grad Student Hosted Speaker and Symposium

This is another once-a-year event which involves all Biology graduate students. Students vote and nominated a faculty speaker from another university to invite to give a special departmental seminar. There is also a symposium event where labs and research groups give fun posters about their research, which is usually followed by a reception and social. This event usually occurs in March.

4.0 Research Support

4.1 Facilities

The Department has two greenhouses, an insectary, an insectary annex with rooms for rearing and research, an aquatic research center, animal care facilities, museum, radioisotope lab, and analytical laboratories. If your work requires lab animals, they can be kept in the Animal Care Facility (ACF). It is staffed by a Director, a Manager, and Research Technicians and Assistants. See the campus directory and Policy R20 for further details. There is a cost for using the facility, but it is reasonable for the service. Your supervisor is a good first resource to discuss what facilities you will need for your research.

Related Links:

- Research Facilities in Biology at Simon Fraser University (<http://www.sfu.ca/biology/facilities/>)
- Greenhouse Technician (<http://www.sfu.ca/biology/staff/dodd/>)
- Museum Technician (<http://www.sfu.ca/biology/staff/halford/>)
- Radionuclide Facility Technician (<http://www.sfu.ca/biology/staff/hope/>)
- Animal Care Facility @ SFU (<http://www.sfu.ca/acf/>)
- Bamfield Marine Sciences Centre (<http://bms.bc.ca/>)

4.2 Booking rooms and equipment

You are able to sign-out rooms and equipment as a graduate student. For example, during your first committee meeting, you will need to arrange a room in advance and sign out an LCD projector for your PowerPoint presentation. You can do all of this online – there is a Rooms/Equipment Booking link on the main Biology page (www.biology.sfu.ca). The office staff can also help you book out rooms and equipment. Don't forget to book ahead to avoid disappointment.

4.3 Computing

SFU provides e-mail, web services, and academic computing labs for the campus community – (see www.sfu.ca). Sign up for your computer account by accessing SFU's web pages (see section 3.3). You must be registered as a student in order to obtain a computer account. There is a guide to computing facilities here: <http://www.biology.sfu.ca/research/facilities/computer/help>.

Dave Carmean (<http://www.sfu.ca/biology/staff/carmean/>) is the Computer Systems Consultant for the department. Be very nice to him, he will be the first line of help when you have a computer-related problem. Dave says: “I don't mind being caught in the hallway and asked something, and if I forget to respond, to ask me again by sending me an email or stopping by my office”.

In general, graduate computing facilities are to be provided by individual supervisors, and the university-wide Academic Computing Services. The department has a variety of facilities including a dedicated computer teaching lab, which is also available for graduate use when not booked for teaching. Most computers require you to sign in with your SFU account (which must be in a biology mailing list). Please tell the Computer Systems Consultant if anything needs upgrading or fixing.

4.3.1 IT (Computing) Services & Help

IT Services at SFU offers a variety of services and assistance on all topics regarding computers at SFU. Student help is available in Room AQ3148. IT Services also offers credit-free tutorials (they don't count towards your course requirements for graduation) to help students develop a variety of useful computer skills, such as how to use e-mail, the library web page, make a web page, use spreadsheets to organize your data, or make slides for a lecture/talk on the computer.

4.3.2 Internet Access

All the computer labs on campus are connected to the campus network and provide access to the internet, web browsing and email (via SFU Webmail). You may also have internet access through computers in your own lab, depending on what your supervisor has available.

Wireless network access is also now available in common areas around most of campus. For more information about accessing the wireless network, talk to Dave Carmean (see above), or IT Services (<http://www.sfu.ca/itservices/>). Although adjacent common areas may have wireless reception, the

signals have a hard time getting through concrete walls, so you may not be able to get wireless access inside your lab (unless there is a wireless base station in your lab). Eduroam (www.eduroam.org) is a worldwide wireless access service available at many campuses and institutions around the world. The dial-up internet service at SFU has been discontinued.

4.3.3 Network Drive Space

Your SFU computing account also gives you access to 1GB on a network drive. The network drive is one way to back up your work. Also think about DVDs, external hard drives and online storage space (like [Dropbox](#) or [Mozy](#)). Your SFU network drive space is also where you can put your own web pages and publish them for others to browse on the web. This is where you will host your research web page: www.sfu.ca/~yourname.

Find a fellow graduate student with a research website hosted by SFU and ask them how they did it. Dave Carmean is also an excellent resource, or consult with ACS.

4.3.4 Computing Clusters

If your research is computer-intensive (e.g., if you are doing modeling or simulations), you may want to look into SFU's high-power computing facilities. They operate a Beowulf cluster, and are also partners in WestGrid High Performance Computing Grid (if the Beowulf cluster is insufficient for your needs). Speak to your supervisor about getting access to WestGrid.

4.3.5 SFU Campus Bookstore (Tech Shop)

The Tech Shop is located in Maggie Benston Centre in the campus bookstore. They sell hardware and software usually at education prices. If you are paid by SFU you probably qualify for staff perks such as Microsoft Office so first see if it is available from IT Services <http://www.sfu.ca/itservices/software/>. Check prices around town or online as well. Don't forget open source software is available for many different needs (use R instead of SAS/SPSS, NeoOffice or Open Office instead of MS Office).

4.4 Science Stores

Technical and scientific supplies (tubing, pumps, valves, vials, petri dishes, various gizmos) are available in Science Stores on the 6000 level (one floor below and to the west of the 7000-level graduate lounge; ask your new lab mates to show you where it is as it can be tricky to find). Materials can be charged to your supervisor's account provided that you have an understanding with your supervisor. You should discuss this with your supervisor before purchasing from stores. There is usually someone on hand during working hours (8:15 am to 4:30 pm). Just remember to fill out the supply forms when you take something. There is a computer with a bar code scanner at the counter when you walk in: just scan the barcode on your student ID card, and it will print a supply form for you to list the items to charge to the account under which you are registered. Chemical supplies are available here as well. If you require something that is not a regular stock item, it can be ordered from a chemical or scientific supply company. Order catalogues and forms for blanket orders or specialty orders are available as well.

Related Links: <http://www2.sfu.ca/science-stores/>

4.5 Library

The library is located across the mall from the Maggie Benston Centre. Being a graduate student at SFU entitles you to get a card from UBC. Also, if our Library does not carry a journal, have access to it electronically, or have a book that you need, you can request them through Interlibrary Loans (ILL). This accesses libraries across Canada. Any book received through ILL can be kept for 2 weeks. Journal articles are copied and sent to you. Any books that you take out personally from UBC can be returned via the ILL office in the library. There is no cost to graduate students for this service.

Through the Library web site, students have access to article databases (*e.g.*, Web of Science, to search for articles) and even several on-line versions of journals (to download the articles to your computer). The library web site even has a citation manager you can use to collect references for articles that can be downloaded directly into citation management software (such as EndNote and Mendeley). Be sure to check for typos and errors before using these entries in your own articles or thesis.

Related Links: www.lib.sfu.ca

4.6 Statistical Advice

The Department of Statistics and Actuarial Science operates a statistical advice service for students. Short consultations for students are usually free but further assistance is available on a fee for service basis and is charged to your supervisor's grant. Appointments must be made in advance. Statistical advice should be obtained before you design your experimentmakes analysis a lot easier.

Related Links:

- SFU Statistics and Actuarial Science (<http://www.stat.sfu.ca/>)
- Statistical Consulting Service (<http://www.stat.sfu.ca/statsconsulting.shtml>)

4.7 Audio & Visual Aids

The Media Production Group is part of the Learning and Instructional Development Centre, located in the Education Building (EDB? 7560). They offer services in photography, graphic design, and multimedia production. Please take note that they do charge for all services rendered.

The Media Production Group is probably best suited for creating precise visual aids for large classes, media, or publication outlets. It is usually faster and cheaper to make your own visual aids for talks & tutorials on a computer, using presentation software such as Apple's Keynote, or Microsoft PowerPoint.

Related Links:

- Learning and Instructional Development Centre - Media Production Group (<http://www.sfu.ca/lidc/mpg/mpg1.html>)

4.8 Classroom Technology Assistance (CTA)

The CTA office (formerly known as Audio/Visual Services or AV) is located in the South East corner of the Academic Quadrangle. Here one can sign out all manner of multimedia equipment, including LCD, slide or overhead projectors, TV monitors, tape players, etc. One can also get tapes copied and arrange for filming of experiments.

Related Links: http://www.sfu.ca/lidc/cta_ts/index.html

4.9 Photographic Equipment

The department has several cameras and photographic stands. You have the resources here to make your own photos and slides; all you need to pay for is the film. The Department also has a digital camera and slide scanner that can be reserved and signed out at the General Office. See the department's Computer Systems Consultant, Dave Carmean, for software and drivers, if needed.

4.10 Science Technical Centre

Students have available to them the services of metal, glass blowing and electronics shops. They are located on the 8th floor North of Chemistry. Woodwork is done in the Facilities Management building, located south and across the road from the Applied Science Building. If you need a project done by these people, see the Lab Coordinator for a work order. Your supervisor will be charged for work done in these shops and plan ahead: projects are not always completed at the breakneck speed that you may need if your field season starts tomorrow.

4.11 Department Vehicles

Department vehicles (passenger vans) can be signed out from the Main Office.

It is usually a very good idea to request a vehicle well in advance of when you actually need it (particularly in the summer). The costs will be charged to your supervisor. The cost of using a private vehicle for research may be reimbursed at the rate of \$.30 per km. Several small boats and motors are available in the Department. Some research groups have research vehicles as well.

4.12 Field Equipment

Your supervisor is normally responsible for providing necessary field gear. Some faculty members have space in the storage sheds at the back of the "H" Lot (East of the South Science Building). Check with your supervisor about specific equipment.

4.13 Work-Study Program & Lab Volunteers

The SFU Work-Study program provides part time on-campus jobs for full time undergraduate and graduate students during the fall, spring and summer semesters. The purpose is to provide financial assistance and a career-related employment experience to students in high financial need. The value of the award varies according to the student applicant's need and funding availability. Each Work-Study placement pays \$8.75/hour, covering a range of 90 to 140 hours of work in a semester. As these are awards provided by the university, it is a great way to provide research-related employment at no cost to your supervisor. If you don't have volunteers to help you with some of the grudge-work, a work-study student may be able to help. The work-study student must be (nominally) hired by a senior person (Faculty, Adjunct professors and even Research Associates), but grad students can't make applications on their own. A faculty member is usually limited in the number of projects that can be included in applications for any one semester, although it is permissible to ask for more than one student for the same project.

The Biology undergrads have a common room on the 8000-level of Shrum Biology. They have a volunteer board outside the door, where you can post requests for volunteers to help you with research. Also, think about asking for volunteers in undergraduate biology classes – contact the instructor of a course to see if it would be possible for you to make a pitch to the students.

Related Links:

- SFU Work-Study Program (<http://students.sfu.ca/fa/workstudy/index.html>)

4.14 Radio-Isotope and Hazardous Chemical Safety

The Radiation Safety Officer (K. Scheel) and the Radio-Isotope Technician (S. Hope) offer a short course on the safe handling of radioactive materials. Check with them regarding when the next training session is. This course contains much practical information and only takes a few hours over 2-3 days. For information on the safe handling of hazardous materials and spills, contact the staff at science stores.

Related Links:

- SFU Safety Site (<http://www.sfu.ca/scisafe/>)
- Radiation Safety Office (<http://www.sfu.ca/safety/index.html>)
- Science Stores (<http://www2.sfu.ca/science-stores/>)
- Other Resources (<http://www2.sfu.ca/science-stores/resource.html>)

4.15 Safety

Department safety manuals and WCB regulations are posted in each main laboratory. Also, new students are required to attend Occupational Health and Safety seminars (scheduled in fall and spring semesters.)

Related Links:

- SFU Safety Site (<http://www.sfu.ca/scisafe/>)

5.0 Getting to know your department

Now that you're learning your way around the department, there are also a variety of Centers, Institutes and Research Groups that you should know about. These are groups of faculty members, research associates, postdocs and graduate students. Ask your supervisor about how your research group fits in. There are also two important committees that will affect you as a graduate student: the Department Graduate Studies Committee (DGSC) and the Department Scholarship Committee (DSC).

5.1 Pest Management

A group of researchers in the Department focus on biological processes that involve pest organisms. Their research extends to management of pests in agricultural, forest and urban environments. Pest Management, was established at Simon Fraser University in 1967. The Department is recognized to be the first institution in North America to offer a comprehensive post-graduate degree program in pest management. The Master of Pest Management (MPM) degree is heavily course oriented with students traveling during part of two summer semesters throughout B.C. and Alberta in order to examine critical problems in pest management. Although not required, almost all MPM students also undertake research projects to complete their Professional Paper, which is defended as a MSc thesis would be.

5.2 Evolutionary and Behavioural Ecology Research Group (eBERG)

This group was formed in 1989 to pursue basic research in the field of behavioural ecology. Students in this group also form a large portion of the Department. Members of this group are drawn not only from our Department but from the Departments of Psychology and Archaeology as well. Recently, the group has expanded to include an evolutionary focus and is now called eBERG.

5.3 Centre for Wildlife Ecology

The Centre for Wildlife Ecology is collaboration between the Canadian Wildlife Service (CWS) and SFU. Its mission is to link the mission-oriented research and management policies of CWS with the research agenda of the University. The group consists of a senior and junior research chair, and other associated

researchers. Graduate students and faculty conduct research mainly on the biology and behaviour of migratory birds, in collaboration with the Canadian Wildlife Service.

5.4 Environmental Toxicology Research Group

A collection of faculty members, staff and students in the Department of Biological Sciences and other departments at Simon Fraser University sharing an interest in investigating the impact of chemicals on human and environmental health.

5.5 Cell Biology

The cell biology group includes researchers from the departments of Biological Sciences, Molecular Biology & Biochemistry, and Kinesiology. Interests include calcium signaling, membrane trafficking, microtubule dynamics, cell cycle, ion channels, chromatin structure, intracellular pathogens, gene regulation and cellular stress responses.

5.6 Evolution (AKA "The FAB* Lab")

Biological Sciences at SFU has an evolutionary research group. Research focuses on behavioural, genetic and molecular aspects of reproductive isolation, speciation and adaptive radiation; the evolution of social systems; and 'biodiversity', all within a strong phylogenetic/phylogeographic framework.

5.7 Earth₂Ocean Research Group

A recent addition to the research groups in the department is the Earth₂Ocean group (E₂O), founded in 2010 to tackle global environmental problems through interdisciplinary collaborative science. The research focus is applied conservation and management science of aquatic ecosystems.

5.8 Department Graduate Studies Committee (DGSC)

Every graduate department at SFU has a DGSC, which is responsible for the administration and organization of each department's graduate program. In Biology, the DGSC is made up of two grad student representatives and six faculty members (chair of the department, chair of DGSC, and four faculty members). All eight members have full voting rights. Thus, in biology, the students have a big say in what passes across the DGSC table. Elections are held for the student positions on the DGSC at the graduate Caucus meeting every April. Student positions are held for two years.. The outcomes of each DGSC meeting will be reported at Caucus meetings by the graduate student representatives. For various issues, the student representatives will ask Caucus for input. Coming to Caucus meetings ensures your voice to be passed along to DGSC.

The DGSC is also the committee that deals with student-supervisor conflicts. If you are having a conflict with your supervisor and not sure what to do, ask one of the DGSC student representatives. They will keep your concerns confidential and refer to other resources on how to deal with your conflict. More details on handling conflicts with your supervisor are available in the Guide for Graduate Students: Student-Supervisor Relationship document available online.

5.9 Department Scholarship Committee (DSC)

The DSC is responsible for ranking all departmental applications for scholarships, including NSERCs, Graduate Fellowships (GFs), and other internal awards. The committee consists of three faculty members and two graduate student representatives. Announcements for scholarship deadlines and guidelines are sent around via email. Debbie Sandher is the Main Office is the Scholarships Secretary.

Related Links:

- Research in Biology at Simon Fraser (Research Groups) (<http://www.sfu.ca/biology/dept/resgroup.html>)
- Pest Management (<http://www.sfu.ca/biology/mpm/>)
- Behavioural Ecology Research Group (<http://www.sfu.ca/biology/berg/>)
- Centre for Wildlife Ecology Web site (<http://www.sfu.ca/biology/wildberg/>)
- Cell Biology (<http://www.quarmby.ca/cellbio/>)
- Organic Evolution (<http://www.sfu.ca/~fabstar/>)
- Earth₂Ocean (<http://www.sfu.ca/biology/earth2ocean/Earth2Ocean/Home.html>)
- DGSC (http://www.sfu.ca/biology/grad_caucus/about.html#dgsc)
- Committees (<http://biology.sfu.ca/about/contact/committees>)

6.0 Money

The Department strives to provide, but cannot guarantee, full support for all graduate students. It is imperative that you settle the question of financial support with your senior supervisor as soon as possible, preferably before arriving at SFU, and revisit your plan every year. It is quite conceivable that your supervisor may not be able to support you with a Research Assistantship or may be able to do so for only 1 or 2 semesters each year. If you do not have a scholarship, your supervisor is required to

provide some support for an average of 1.5 semesters per year (MSc and PhD programs only). The rest of the time you will be on your own to try to acquire a TA-ship or other funding (see below). At any given time, you should know your plan for financial support for the next few semesters, and your supervisor will expect this discussion with you.

6.1 Research Assistantships

Research Assistantships (RA-ships) are determined solely by your supervisor, from their own grants. The number of RA-ships that a supervisor may be able to provide to support students varies greatly. However, most professors with adequate funding are usually willing to give you one RA-ship per year. The current NSERC maximum rate for an RA-ship is \$1375 per month (\$16,500 per year) for MSc and \$1583 per month (\$19,000 per year) for PhD students.

6.2 Teaching Assistantships

Graduate students are hired by the University to conduct tutorials, mark exams and assist in course labs. Each semester Teaching Assistantship application forms are made available so that graduate students can apply for a Teaching Assistantship appointment in the following semester. Before applying to TA a particular course you are advised to consult with the course instructor. The assignment of Teaching Assistantships to courses is done each semester by the Chairman, under the guidelines of the TSSU (Teaching Support Staff Union) Collective Agreement. Details on TA-ships can be obtained from the Departmental Assistant or the Graduate Student Notice Board by the mailroom.

The current rate of pay is dependent on the teaching load and your status. A full teaching load is equivalent to 5 base units. The amount you will be paid depends on the number of base units you teach, and whether you are an MSc or PhD student. The pay is comprised of a per-base-unit amount, plus an automatic associated scholarship. The pay rates are listed in the TSSU Collective Agreement. For those with expertise in math or physics, contact the appropriate Department as they are usually crying for TAs. Many Biology students also TA courses in molecular biology and biochemistry (see the MBB Administrative Assistant).

All TAs are represented by the TSSU (AUCE local 6). When you accept a TA-ship you automatically become a member of TSSU and therefore are entitled to all the rights and benefits provided by the Union. Everyone in the bargaining unit pays Union dues (currently 1.5% of gross pay), which enables the Union to function. There are usually one or two grad students from the biology department who serve as shop stewards (your departmental liaison with TSSU).

It is your right as a TA to have your students evaluate your performance and this is also required by the Department. The professor you work for also evaluates you and this goes in your file. You have the right to see this evaluation. If you feel it is unfair, you can respond to it and have this response placed in your file as well.

All textbooks needed to TA a course can be borrowed from the Departmental Assistant (DA – Barbara Sherman). If the DA does not have the required text she/he will instruct you to buy the book yourself and get the cost refunded (keep the receipt!). In short, you never have to pay for texts assigned in classes that you are TA-ing. However, any book bought or borrowed from the Department belongs to the Department and must be returned when the course ends.

TA/TM Day is held at the beginning of the fall and spring semesters. These workshops are offered by the Learning and Instructional Development Centre to provide new TAs with skills to assist with the duties of a TA. The hours spent at these workshops count towards your commitment for the semester, so they are paid workshops.

6.2.1 Getting a TA-ship

The key to successfully applying for a TA-ship is to either get a professor to sign your application endorsing you for the course he/she is teaching, or to gain a high priority rating. Priority is determined according to a number of criteria. These are stated in the TSSU Collective Agreement and in the Departmental priority system (as posted on the Graduate Student Notice Board near the mail room). The best rule of thumb is that the fewer TA-ships one has had in the past, the better the chances for getting one in the future. Do not count on more than one TA-ship per year. If you have a scholarship, your only chance of obtaining a TA-ship is to demonstrate that you are the only grad student with the expertise required for a particular course. Some scholarships (*e.g.*, NSERC) will permit the recipient to TA only a few hours per week. The best courses to TA depend on one's background, but one might consider BISC 100, 101, or 102. These classes are fairly easy to prepare for, but they may require a lot of time for graduate students who have forgotten much of their basic biology.

Related Links:

- Teaching Support Staff Union (<http://www.tssu.ca/>)
- Learning and Instructional Development Centre (<http://www.sfu.ca/lidc/>)

6.3 Scholarships

Graduate students at SFU are fortunate in having a large number of scholarships available. The University Calendar and Graduate Awards booklet (from the Dean of Graduate Studies) lists all awards; the Awards Assistant can supply further details. Application forms for most awards are available either from one of the department secretaries (currently Fiona Burrows or Marlene Nguyen) or from the office of the Dean of Graduate Studies (MBC 1100). Note that some scholarships preclude the possibility of concurrently holding an RA-ship or TA-ship or Graduate Fellowship.

There are about 110 awards and scholarships listed, but only about 57 of them would be of interest to students in Biological Sciences. A complete list of awards is available on the Graduate Awards Database, which is searchable by keyword, department, date, or award title.

Related Links:

- SFU Graduate and Postdoctoral Awards Database (<http://fas.sfu.ca/projects/GradAwards/>)

6.4 Loans

Graduate students are eligible to apply for Canada Student Loans. Students from Quebec have to apply for Quebec Student Loans. Emergency loans are available from Financial Aid with a minimum of hassles. The University usually requires proof that you will be able to pay it back within about a month. This is particularly useful when your scholarship cheque doesn't come in until the third week of the month ... a little late for rent.

Related Links:

- Emergency Loans - SFU Financial Assistance (<http://students.sfu.ca/fa/emerg.html>)

6.5 Travel Expenses

If your supervisor has funds to cover travel expenses (and approves of such expenditures) then expenses can be reimbursed by the Departmental Assistant, which usually takes about four weeks. It's quicker to apply for a travel advance (about one week) and submit the expenses later. Travel expenses are reported differently depending on if you are an employee or not (note this may change semester by semester for you), but the forms/online report are available from the Biology homepage>forms.

Students who pay some of their own cost for traveling to a conference may be eligible for a partial rebate (usually up to a maximum of \$100) from money made available by the Student Society. The availability of rebate money varies from semester to semester. For nearby conferences, departmental vehicles can be used. There is a mileage cost, but this is reasonable if there is a group going.

Every spring, the BISC Grad Caucus holds a draw for Student Society travel awards. These are valued at \$100 and may be used to cover the cost of travel and registration for a conference within the next year (*i.e.*, before the next draw). You must apply before the draw, by submitting your name, and the name of the conference you would like to use the award for, to a member of the caucus executive.

6.6 Petty Cash

Minor expenses (less than \$50 on any one receipt) can be reimbursed by one of the staff members in the General Office. Please keep your receipt for any purchase. The costs will be deducted from your supervisor's grant. Limit \$50/receipt/day.