

The Unofficial Guide to Graduate School

For students in the UCSB Departments of
Molecular, Cellular and Developmental Biology
and
Biomolecular Science and Engineering

Brought to you by

GUMBI

GRADUATE UNION OF MOLECULAR BIOLOGY INVESTIGATORS

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v 1.0

Greetings fellow BMSE and MCDB Graduate students!
You are holding a little guide to Graduate School, conceived and designed by the Graduate Union of Molecular Biology Investigators (GUMBI) with input from many students and department members. This guide is a collection of established campus resources and includes tips from experienced students. Included is some information to ease the transition to graduate life, to life in Santa Barbara, California, and to assist you in gaining the most out of your graduate experience.

Importantly, this guide is designed to *complement* the essential Official Guides to Graduate Study produced by our respective departments, not to replace them.

Specific questions regarding Curriculum, Grades, Program Requirements, Petitions, etc. can be located in the Official Guides and garnered from our Graduate Advisors.

Disclaimer: GUMBI does not claim responsibility for the accuracy or content of any website source included in this guide, nor directly endorse any referenced publications or organizations. Included contact information may become obsolete. Grammatical errors are almost guaranteed.

Feel free to send suggestions, corrections, concerns, comments or approbation to GUMBI@lifesci.ucsb.edu

Visit our site @

<http://www.lifesci.ucsb.edu/~gumbi-www/index.html>

Compiled by Jess Porter

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I. Revving to go

Take advantage of the invaluable information and pointers included in the Graduate Student Orientation materials. The Kiosk site in particular is a central collection of important useful info for student life at UCSB!

<http://kiosk.ucsb.edu>

<http://kiosk.ucsb.edu/GraduateStudentServices/index.aspx>

Moving

Residency

If you are from out of state, start the **CA Residency Application** process as soon as possible.

Register to vote*, get a CA driver's license, register your vehicle (there is a Goleta DMV) and fill out your CA taxes for April. Submit an application by Spring quarter for the following Fall quarter!

<http://www.registrar.ucsb.edu/residenc.htm>

Residence Deputy, Office of the Registrar
Student Affairs and Administrative Services Building, Room 1105
University of California, Santa Barbara
Santa Barbara, CA 93106-2015
(805) 893-3033
regresid@sa.ucsb.edu

* You can obtain a record of your voter registration by visiting the Registrar of Voters downtown @ 1100 Anacapa Street 805-568-2200

Housing

Housing in Santa Barbara is expensive; particularly in Isla Vista, where many undergraduates live and will pay \$600 to share a sub-par room in a dilapidated house on a noisy street. Most grad students live in other neighborhoods. If you are looking for housing, check the listings at:

UCSB housing: <http://www.housing.ucsb.edu>

Santa Barbara City College (they provide a nice neighborhood map): <http://www.sbccc.edu/housing/>

Craigslist: <http://santabarbara.craigslist.org/>

Join the **Graduate Student Association Housing Listserve:**

<http://gsa.ucsb.edu/cgi-bin/mailman/listinfo/housing>

As one disenchanted graduate student phrased it:

“California: Housing prices::

- A. Sun:Hot
- B. Ocean:Shallow
- C. Airport:Tuna Sandwich
- D. Pope:Atheist

The answer is of course C. Trying to find housing out here is like buying a tuna fish sandwich at the airport. You will end up spending 10 times as much as you would other places for a shoddy product that smells kinda funny.”

Transportation

Bike

UCSB is a bike-friendly campus, and it is possible to bicycle through much of Santa Barbara. There are detailed bike path maps available, as well showers and lockers. Be sure to lock your bike securely in designated bike racks or take your bike into your building if there is space; bike theft is common and bikes left in undesignated areas may be impounded.

<http://as.ucsb.edu/bikes/index.html>

<http://www.santabarbaracarfree.org/bike.htm>

Bus

The bus system is quite extensive and free for students. Complete bus schedules are available at the TAP office.

Drive

Parking permits are available (\$432/year) and are prorated if purchased during the year, and can be returned for a refund during the year. Motorcycles can park on campus for free!

Graduate students can also have a nights and weekends permit for free, may be eligible for Staff (S) parking, or a limited-time in-car parking meter through the **Transportation Alternative Program (TAP)**.

TAP also offers ride-shares, a Car-Share program, Amtrak discounts, vehicle rentals and other cool services.

Transportation and Parking Services:

<http://www.tps.ucsb.edu/>

Finances

(grad students cannot live on noble pursuits alone...)

Get the info

We all enter our grad programs with varying degrees of financial and “real-world” savvy. It is essential to invest some time and effort to determine from where your fiscal support will come each quarter. Talk to administrations and faculty, ask straightforward question, don’t be timid in looking out for your own security and always be vigilant.

As one grad student advised:

“On solving financial and administrative issues: Communicate!

The administration people are, for the most part, really wonderful and dedicated people who work hard to make things easier for the graduate students, and they're a very under-utilized resource. Make

time to go visit and talk about issues and concerns you have with those "non-science" people, and you'll get things figured out really fast. Oh, and 10 minutes of face-to-face time solves more than 2 weeks of e-mail tag.”

Each student’s specific financial situation will differ; these are general guidelines:

Some of us will enter the program supported by our own fellowships. Some of us may be on fellowships through the department and not be aware of it. Some of us will be Teaching Assistants (TAs) the first quarter and will be paid by our department. Once you join a lab, you may be supported by your PI’s funds as a Graduate Student Research Assistant (GSR or RA), or you may continue to be a TA. Some external fellowships prohibit the recipient to earn extra money from the department. Determine your situation, because it will affect your finances. (Ignorance is not bliss!)

You may wish to open a **bank account** with a bank with local branches. There are Bank of America and Wells Fargo ATMs on campus. There are no local Union Bank of CA branches. Scheduling **Direct-Deposit** for checks cut through BARC or your department or grants manager is a good idea, as you may not always be on campus to pick up paper checks, especially around the holidays.

Pay the Man

At the beginning of each quarter (F,W,S), **student fees** (tuition and health insurance) are due. These fees are billed to your BARC account, and if not paid by a stated deadline, your class enrollment will be canceled, and a hold will be placed on your account. Find out the fee deadlines before each quarter, and ensure that the fees are paid, by your departmental Staff Graduate Advisor, your PI’s

funds manager (or associated administrators), or by yourself in the case of some students who will be TAs.

<http://www.busserv.ucsb.edu/barc/Billing/index.htm>

Mind the Gap

The **transition** from department-supported to Principle Investigator Grant-supported may result in a transition from academic quarterly pay (big check at beginning of quarter) to monthly pay for the previous month's work. This transition may result in a paycheck "gap", so **plan ahead** to buffer that time (don't live paycheck to paycheck!).

Summer Status

During the **summer**, we are not enrolled in classes and are therefore not fully students, but are considered Staff: as summer session TAs or GSRs. This means that we may not take academic classes, or be eligible for "student" loans. We may purchase student-rate gym memberships during the summer. The staff appointments are sometimes technically 49% appointments, so we do not qualify for full-time staff benefits, including retirement savings.

Financial Aid

Financial Aid is available to graduate students, but you must fill out a **FAFSA** by March of each year to be eligible for the following academic year. The award letter is generated usually by July and is accessible through the financial aid office website. The offered aid, including **Work Study**, must be accepted or declined. Once you have joined a lab, Work Study funds may be applied towards your PI's grant. The paperwork is generally available online in September, and must be returned by December.

<http://www.finaid.ucsb.edu/index.asp>

Extra Funding

There are opportunities to be awarded **additional funding** including fellowships from the Nation Science Foundation (NSF), extramural sources and UCSB awards. These awards will help financially and will strengthen your CV. There are Graduate Division Fellowships for new and continuing students, including **travel grants** for presenting work at conference and **dissertation fellowships** for graduate students in the final stages of doctoral thesis writing.

Attend workshops, look out for email announcements, discuss with your advisor and labmates and check out Graduate Division info:

<http://www.graddiv.ucsb.edu/academic/handbook/financial.htm>

<http://www.graddiv.ucsb.edu/financial/>

<http://www.graddiv.ucsb.edu/financial/awards.htm>

Getting Connected

Internet and email

Get a lifesci account through the **Biological Sciences Computer Support Services**. The Computer Support Staff will also assist in setting up personal laptop computers to be able to access the **internet** from lab buildings. They can be contacted by submitting Service Requests through the website. Ask your lab about billing polices.

<http://www.lifesci.ucsb.edu/compsup/>

Printing

Many buildings have accessible **computing/printing facilities** including the 2nd Floor MCDB computer room in BioII and the Life Sciences Computing Facility

<http://mentor.lscf.ucsb.edu/>

Plugging in

Sign up for **automated email groups** to keep informed about campus and department (even specific building) news, events and opportunities:

Bio Seminar Announcements:

<https://www.lifesci.ucsb.edu/mailman/listinfo/seminars>

News pertaining to the Life Sciences:

<https://www.lifesci.ucsb.edu/mailman/listinfo/bionews>

Graduate Student Association (GSA) Housing, Announcements and For Sale lists:

<http://www.gsa.ucsb.edu/resources/index.html>

There are also automated email groups for MCDB Grads, BMSE Grads, NRI Grads, Laboratory Buildings and BIO Business, among others.

II. Full Throttle

Classes

Make sure that you sign up for classes before the registration deadline, or you will be charged a fee and will give your Staff Advisor a headache. You are required to be signed up for at least 12 units for full student status.

Be aware of which classes will not count towards your degree. It may be possible to enroll and get credit for lab meetings.

During your first year of rotations, MCDB students enroll in 3 units of MCDB 596. Research units are approximately 5 hours/unit.

Check out the UCSB Library site for instructions on setting up a proxy server so that you can access the university journal subscriptions from home!

<http://www.library.ucsb.edu/help/offcampus.html>

Order your Registered Student Sticker from GOLD:

<https://gnet.ucsb.edu/gold/>

There may be past exams for review in the Staff Grad Advisor's office.

Consider study groups. Talk with professors.

A heads-up from an MCDB grad student:

“Each class is one quarter, which is barely any time, and taught by about 6 professors each. This means you'll get 2 weeks from one person and like 3 days from each of the other.”

This is sometimes referred to as the “Professor Parade”.

Teaching

“Ah! I'm teaching!”

Check out the Teaching Assistant Development site, including TA Handbook & other TA Resources.

All TAs can have a Video Taping and Consultation of a teaching session.

<http://www.oic.id.ucsb.edu/TA/index.html>

In addition, you may want to get a copy of the TA Evaluation Forms. These are distributed at the end of every quarter to the students; you can see on what points you will be assessed.

Tips:

- Make an outline prior to each section to remind you what you will try to cover.
- Grade the same question of exams and assignments at the same time to increase consistency.
- If exam grading is going to be unmanageable, you can ask for a grader or reader.
- Keep answer keys with the point allocation and well-organized grade sheets to avoid grade conflicts or discrepancies.

A grad student shares TA experience:

“Depending on your attitude towards public speaking and dealing with people asking you dozens of questions this could be one of the most fun things you do. I *loved* TAing. The most difficult thing with this is scheduling. If you have a palm pilot it will become attached to your hip. I have found it’s best if you do a thumbnail sketch of the experiment when you get up there. Just try to emulate your favorite teacher. If you level with your students they will love you all the more for it.”

Rotations

Be proactive and prompt in talking with PIs and asking if you can rotate in their lab. Sometimes, several people would like to rotate in the same lab. The first students to organize their rotations, and inform the Graduate Staff Advisors of their arrangements usually get their first choices.

Chat with PIs and lab members about current projects; the newest work might not be published yet. Don’t be shy; (most) faculty won’t bite!

During the rotation, it is not assumed that you will produce manuscript-worthy data in less than 10 weeks. However, the experience is a two-way interview, and it would be very unwise to make negative impressions on your future colleagues during your time in the lab. We can’t learn without asking questions, and this is great opportunity to try out new techniques and make connections. Most students will present their results and experiences at the end of the quarter at a lab meeting.

Strategies from a grad student:

“When you are choosing your rotations make sure that you pick labs that are a) accepting graduate students b) have money c) match your work ethic d) match your interests. Hopefully not everyone in your class is interested in the same 3 labs or else a

bunch of people are going to have to scramble. Also always keep a plan B, C, D, E and probably even F in case things get messed up.”

Joining a Lab

From the horse:

“On choosing a lab: First off, and I feel like a heretic for saying this: the research doesn't matter... that much. You'll be spending your time in the lab, day in and day out, working with labmates and your advisor for something on the order of 10,000 hours during your graduate career. Plus, if you want to continue as an academic (or even in industry), you'll often do a post-doc which actually indicates your field of choice. Put those facts together and you can see my advice coming from a mile away-- choose a lab with people you get along with, respect, work well with, and with an advisor with similar goals and expectations as you; all other concerns are secondary. Anything else is madness. More graduate students than the program would like to admit play "advisor shuffle" a year or so in, when they realize they didn't follow this advice. Ten thousand hours...do you want to be working with someone who doesn't fit the above criteria for ten thousand hours? I thought not.”

THM: ask the lab members what they think and how they feel, what the biggest gripes are, ask about funding security and, ask your gut.

Candidacy Exam

(This section is geared towards the MCDB exam process, but may be largely applicable to BMSE students.)

A couple weeks before the MCDB Specific Aims submission Deadline of Fall and Winter quarter, GUMBI hosts an informational Proposal Pizza Night. Here, students can get

questions about the candidacy exam process answered by advanced grad students. MCDB and BMSE students are welcome.

Exam tips and suggestions (from faculty!) @ GUMBI

http://www.lifesci.ucsb.edu/~gumbi-www/graduate_life/CandidacyExam/index.html

Writing the Exam

General Tips:

- Follow up on all your submissions and approvals. If you don't hear from the Grad Faculty advisor or Grad Committee, contact them.
- Ask for previous students' exams and for a file of past exams available from the Staff Grad Advisor.
- Pick a topic that will keep you interested, but that is different from work you have done, or will be doing. Try reviewing recent Review articles for solid leads
- Form a strong hypothesis and independent hypothesis-driven Aims. You can talk about ideas with people through this process.
- The MCDB Graduate Committee reviews and approves (or not) your initial submission.
- Get Endnote for your computer.
- A great source for techniques: Current Protocols- A UCSB subscription
- http://www3.interscience.wiley.com/browse/?type=CURRENT_PROTOCOL

- Read, read, read, talk, outline, write, write, write, reread.
- Submit your exam, keeping in mind page limits. (Figures don't count towards the total). Consider a glossary. Don't submit near the end of the quarter; scheduling an exam will be more difficult. The exam should be scheduled to take place about 2 weeks after your submission.
- After the written exam is submitted, anyone can read your exam.
- Keep reading.

Some advice from an experienced grad:

“1) Don't show your physical writing to anyone until after you've submitted. You can *talk* to anyone at any point, but wait until it's submitted to have anyone else read your writing. Once you've submitted, anyone can read your exam.

2) For each aim, have: experiments to test that aim, controls, possible results/how you'd interpret them, caveats, and alternative experiments. You can ask older graduate students to see their proposals for ideas on how to organize this part of your exam. For your hypothesis, be clear about what you are testing and don't overstate what you are testing.”

Oral Exam

Most student will schedule a **Mock Exam** to be held about 1 week prior to their oral exam date. Be considerate when asking students and post docs to give you a hand; they are busy and a Mock is a quite a commitment. Arrange a time and date when everyone is available and reserve a room though LifeSci.

<http://www.lifesci.ucsb.edu/support/support.html>

Most Mock exams will take 3-4 hours. Many students bring some snacks for the Mock committee. Provide the Mock committee with copies of your written exam with enough time for them to read and process it.

Do not bring any prepared slides or similar materials to the Mock or true oral exam.

There is no such thing as practicing explaining your proposal too much! Reserve rooms and friends to practice at the whiteboard.

General MCDB Oral Exam Procedure:

Arrive early to your room. After greeting the exam committee (3 faculty and 1 faculty chair), you will be asked to step out of the room. The committee will then review your file and discuss your written exam.

You will then be asked back into the room to begin presenting your Introduction and Hypothesis.

You might be asked:

About the Significance/ Background and Support of your proposal, to expand your Aims and discuss experimental design, including caveats and possible alternatives, the interpretation of data, the efficiency of procedures and/or the impact of findings. Be prepared to speculate and give perspective, consider crosstalk, discuss how instruments and assays work, or the origin of protocol components.

You may not complete discussing all the aims.

If the committee asks for a break, take a break.

At a stopping point, you will leave the room again, and the committee confers, possibly with your advisor.

You may be passed, conditionally passed, or asked to rewrite sections or all of your exam or re-defend your exam.

Remember, the faculty is not out to get us! They want us to pass.

III. Taking the Wheel

Informed Consent (Kick the Tires)

Know what you're getting into!

Here are a few books that will let you know what to expect and how to make the most of it:

The Ph.D. Process: A Student's Guide to Graduate School in the Sciences

by Dale F. Bloom , Jonathan D. Karp , Nicholas Cohen

Paperback: 224 pages

Publisher: Oxford University Press, USA (December 31, 1998)

ISBN-10: 0195119002

ISBN-13: 978-0195119008

Getting What you Came For: The Smart Student's Guide to Earning an M.A. or a Ph.D. By Robert Peters

Paperback: 400 pages

Publisher: Farrar, Straus and Giroux; Rev Sub edition (1997)

ISBN-10: 0374524777

ISBN-13: 978-0374524777

At the Bench: A Laboratory Navigator

Author: Kathy Barker

Publisher: Cold Spring Harbor Laboratory Press

ISBN: 0879697083

Grad Div Degree Requirements and Milestones

<http://www.graddiv.ucsb.edu/academic/handbook/degreerequirements.htm>

Thesis Committee

Within 6 months of advancing to candidacy, students should have asked faculty to serve on their thesis committee. The committee members' names need be submitted to the Faculty Grad Advisor. Usually, three faculty members and one's advisor serve as a thesis committee. Give the committee members sufficient and considerate advance notice for meetings. Reserve a room; meetings are generally about an hour long. Many students review their thesis project(s) presentation with their mentor prior to meeting with the full committee. Providing the committee an outline of your projects prior to the meeting is helpful. After the initial meeting, if the projects are approved, the committee meetings should take place at least once a year. "The meetings are designed to help the student's project proceed in a timely manner."

Research

Whether you've been working in industry for several years, or are fresh from undergraduate with little benchwork under your belt, it may be helpful to review lab decorum and techniques from: *At the Bench: A Laboratory Navigator*.

Many advisors and experienced researchers recommend pursuing several **projects in parallel**. This prevents project fatigue, assists in your efficiency and avoids eggs-in-the-basket disaster.

Utilize the relative accessibility and proximity of other labs to establish **collaborations**, even interdepartmental projects!

PubMed searches can be saved, and new papers sent to you automatically.

Resources

Computing Skills

Never quite mastered Photoshop? Want to beef up on Excel? Software workshops are offered every quarter, free to students. Specific courses or training may be arranged for a fee.

<http://training.ic.ucsb.edu/workshops/>

Software Depot- Campus and Department software licenses

<http://cosl.ic.ucsb.edu/>

Poster Printing

We have on campus printing services for presentation posters:

<http://www.photo.id.ucsb.edu/>

Biology Machine Shop:

“We have a full machine shop, carpentry shop, and electronics repair facility. Other technical functions we provide are refrigeration, welding, plumbing, electrical, Plexiglas fabrication, and glass working.”

<http://www.lifesci.ucsb.edu/eemb/department/support/shop/shop.html>

Supplies

There is a Promega research reagent vending machine on the 4th floor of BioII. Many Life Science supplies usually ordered through VWR can be ordered directly from UCSB Central Stores.

The Physics Storeroom may have that reagent you just have to have today (and isn't in stock). “Write your Biostore 4 digit code after your name, and in their code section put 54, for Biological Sciences.”

Many researchers use the BioNews email list to request to borrow instruments or supplies.

Writing

Manuscripts

An excellent concise guide for gathering data and writing it up:
Whitesides' Group: Writing a Paper by George M. Whitesides
Advanced Materials 2004, 16, No. 15, August 4

Also:

How to Write and Publish a Scientific Paper: 6th Edition

by Robert A. Day, Barbara Gastel

Paperback: 302 pages

Publisher: Greenwood Press; (March 30, 2006)

ISBN-10: 0313330409

ISBN-13: 978-0313330407

Thesis (don't be an ABD!)

Phds.org- thesis writing

<http://www.phds.org/graduate-school-success/writing-your-dissertation/>

Ideally, a **thesis** will consist of data published during one's graduate career and extra unpublished findings with an introduction and considerable discussion. Start early! Six months prior to your desired defense date is reasonable; more time may be better.

Endnote provides a thesis template, but ensure that the document specifications meet the department and thesis binding standards. The department supports the printing and binding of 3 copies of the dissertation: one for the MCDB library, one for the PI and one for you.

It is possible to take a Filing Leave of Absence the quarter you file for defense. Students are required to only pay the filing fee that quarter, but must file their thesis, and restrictions exist for the

Leave of Absence status.

Grad Div's Thesis Filing Guide:

http://www.graddiv.ucsb.edu/pubs/filing_guide/

Involvement (froadin')

To make the most of our graduate careers, to develop fully as students, scientists and citizens, it's essential to look around, and get involved with our communities.

Departmental Community

Attend the annual departmental **retreats** to hear about current faculty research, have good food and drink and mingle with faculty, postdoc and students new and old. Usually held the week prior to first day of Fall instruction. Students are encouraged to participate as Session Chairs.

Attend the **Seminars!** Weekly departmental seminars are not just mandatory, but vital to the graduate growth experience. Think about attending other departmental seminars of interest, and make sure to go to, and participate in, **Friday Noon Seminar**. Ask questions! There are yearly cash prizes to best presentations and participation for FNS.

During the academic year, there is a weekly chance to have lunch with the seminar speaker. An unbeatable opportunity to chat with faculty and faculty candidates from a range of institutions, all while having a tasty complimentary meal at the **Faculty Club**.

Get to know the Life Science Administrative and Support **Staff**. These people are full of answers and will save your rear end several times. Often a phone call or visit is exponentially more effective than an email.

Check out the snazzy **MCDB News** publication, with updates and brags about the department.

<http://www.lifesci.ucsb.edu/mcdb/>

Graduate Union of Molecular Biology Investigators (**GUMBI**) is a student initiated and run organization that represents the graduate students from the departments of Molecular, Cellular and Developmental Biology and Biomolecular Science and Engineering. GUMBI serves the needs of students on a variety of academic issues throughout their graduate careers ☺

<http://www.lifesci.ucsb.edu/~gumbi-www/index.html>

BEERS

5pm Fridays at the BioStore Courtyard or on the MSI Deck
Beer and wine for a few bucks, free snacks, occasional BBQ and seasonal activities.

Campus Community

Graduate Student Association:

The GSA is the elected representative government for graduate and professional students at UCSB. They work to ensure that graduate student concerns are addressed in on- and off-campus policy decisions. They also provide graduate students with information concerning decisions that are relevant to graduate student life and organize **graduate social events**.

<http://www.gsa.ucsb.edu/>

Bagels and more!

Every Wednesday, 8:30-10:30am, **GSA Lounge** (2nd Floor of Multicultural Building)

GSA hosts a bagel hour every Wednesday morning. Come rub elbows with other graduate students. Every bagel hour also

features an opportunity to talk to representatives from campus resources relevant to grads.

Hone your science explanation skills and have fun researching quirky topics by helping out **UCSB Scienceline**, an NSF-funded online Q&A service for the community.

<http://www.scienceline.ucsb.edu/>

Office of International Students and Scholars

Resources to support international students, from visa information to conversation groups.

<http://www.oiss.ucsb.edu/>

Daily Nexus

Pick up the campus rag for IV news, racy columns or daily sudoku.

<http://www.dailynexus.com/>

UCSB Arts and Lectures

World-class performances held at campus and around town; discounted and free admission for students. Box office near Campbell Hall.

<https://artsandlectures.sa.ucsb.edu/index.aspx>

Convergence

The award-winning quarterly UCSB Science and Engineering News Publication.

<http://www.engineering.ucsb.edu/convergence/>

WiSE

“Women in Science and Engineering (WiSE) promotes equal opportunity for women and girls in science and engineering and to improve their scientific and career advancement. WiSE encourages the participation of all science/engineering undergraduates, graduates, researchers, faculty, and professionals in the Santa Barbara area.”

<http://www.wise.ucsb.edu/index.html>

IV Events- Films, comedy, concerts...

<http://islavista-arts.org/programs.html>

Community Garden: get a plot on campus to tend, or just stroll through.

<http://orgs.sa.ucsb.edu/ghgp/>

UCSB Leisure Review

Quarterly smorgasbord of enrichment classes:

<http://www.recreation.ucsb.edu/leisure/leisure.php>

Art Museum and Live Music on Campus:

<http://www.uam.ucsb.edu/>

<http://www.music.ucsb.edu/>

Who doesn't need caffeine?

“There are **espresso** machines in the 2nd floor of the MRL and in KITP. You make your own for 75 cents; cheaper, better coffee than Nicoletti's. Otherwise, get a UCen mug for \$3, and a cup of coffee at Nicoletti's is only \$1.05”

Local Community

Every year, grab a chance to serve as a mentor or volunteer for local schools' **science fair**.

For personal enrichment, look into Adult Education Classes through **SBCC**. Music, sketching, jewelry, writing workshops...

Downtown and Goleta locations:

<http://ce.sbcc.edu/classes.htm>

The **Independent** is a free weekly reader full of local news and

events. Look for it on Thursdays.

<http://independent.com/>

Santa Barbara is known for her **farmers' markets**. One each day of the week:

<http://www.sbfarmersmarket.org/home.htm>

A comprehensive SB **dining** and living guide:

<http://www.santabarbara.com/>

Explore your city!

http://www.santabarbara.com/community/visitors_center/things_to_do/

Local **hiking trail** status updated regularly at this comprehensive site: <http://www.santabarbarahikes.com/>

Camping just up the road at El Capitan and Refugio:

http://www.parks.ca.gov/?page_id=603

The **Santa Barbara Art Museum** admission is free every Sunday:

<http://www.sbmuseart.org/>

A grad student warns:

“Also I’m sure people tell you about how there are surfboards lining the hall and people go out swimming while their gels are running. *This is a filthy filthy lie.* There are no surfboards and maybe the fishpokers and dolphinhuggers get to do this, but not MCDB or BMSErs.”

However, several students (and faculty!) *do* manage to arrange their schedules for runs and rides.

The truth? You decide.

Science Community

Consider joining **science societies**, such as AAAS. Usually, in addition to publications, there is a discounted student rate, reduced registration fees to conferences and other perks (besides another CV line).

Many people like to have the **Table of Contents** of various journals automatically emailed to them weekly.

Check out science **podcasts** to listen to on runs or during monotonous lab work:

<http://www.thenakedscientists.com/>

<http://www.sciencefriday.com/>

Consider getting the **National Academies of Science** (publisher of PNAS) updates: <http://www.nas.edu/>

IV. Keep on Truckin'

Health

Health Insurance

Health Insurance is mandatory for all graduate students at UCSB. You will automatically be enrolled in GSHIP unless you waive out. It is quite a comprehensive plan, with dental and eye care.

<http://studenthealth.sa.ucsb.edu/insurance/GshipQna.asp>

Mental Health

The on-campus Student Counseling Center offers a variety of services from crisis and short-term counseling to referrals to multiple providers. Stress Management, group counseling sessions and mediation too!

<http://www.counseling.ucsb.edu/CounselingOverview/index.aspx?page=gradcounselingoverview>

Body Shop

The UCSB Recreation Center has an indoor climbing wall, lockers for rent and shower facilities.

<http://www.recreation.ucsb.edu/reccen/reccen.php>

The Leisure Review is the source for quarterly classes of all kinds, from belly dancing to backpacking and wine tasting to first aid.

Sign up early during business hours!

<http://www.recreation.ucsb.edu/leisure/leisure.php>

Affordable massage sessions at Santa Barbara Bodyworks

Massage School:

http://www.santabarbarabodyworks.com/massageschool/student_clinics.html

Great Source for Hikes!

<http://www.santabarbarahikes.com/>

Career

Someday, we will no longer be grad students (gasp!). We can help ourselves secure employment post grad school by actively sharpening our skill sets, surveying possibilities for life scientists in the work force, and (what we do best) doing our research!

Campus Resources

The UCSB **Career Center** is geared towards serving grad students too, with specific workshops and advising:

<http://career.ucsb.edu/>

A program to complete concurrent with the PhD:

“The UCSB Certificate in College and University Teaching (CCUT) is designed for students who wish to demonstrate superior competence and experience in preparation for teaching at the university or college level.”

<http://www.graddiv.ucsb.edu/academic/ccut/>

Technology Management Program (TMP)

“To provide Master’s degree or PhD candidates at UC Santa

Barbara a sound introduction to the fundamentals of entrepreneurship and business management in a technology-driven organization.”

<http://www.tmp.ucsb.edu/index.html>

A testimonial:

“[**CCUT and TMP**] allow grad students to augment their molecular biology education with some real world skills that might be helpful down the road. While the a student may spend untold hours in lab with no meaningful results to show for it, the hours put into these programs result in tangible certificates that will no doubt offer benefits when it comes to getting and performing a job after graduating. The time requirement is usually not too excessive and can help to break up a long day in lab. Along with a buddy of mine in lab, I finished the GPMP certificate and competed in the New Venture Competition. The knowledge and experience we gained was tantamount to being part of a start up biotechnology company. Plus, we won some money and that is nice when you are a graduate student trying to afford that extra can of sardines at Trader Joes.”

(Mmm...TJ's.)

I am job

The Chronicle of Higher Education Career site:

<http://chronicle.com/jobs/>

AAAS Career site:

<http://sciencecareers.sciencemag.org/>

The Scientist career site:

<http://careers.the-scientist.com/>

Great career support and listings from PhDs.org:

<http://www.phds.org/>

Good site for European Post Doc listings:

<http://www.findapostdoc.com/firstmain.asp>

A few good books

So What Are You Going to Do With That?: A Guide for M.A.'s and Ph.D's Seeking Careers Outside the Academy

by Susan Basalla & Maggie Debelius

Paperback: 256 pages

Publisher: Farrar, Straus and Giroux (January 3, 2001)

ISBN-10: 0374526214

ISBN-13: 978-0374526214

Alternative Careers in Science: Leaving the Ivory Tower (Scientific Survival Skills)

by Cynthia Robbins-Roth (Editor)

Paperback: 320 pages

Publisher: Academic Press; 2 edition (August 26, 2005)

ISBN-10: 0125893760

ISBN-13: 978-0125893763

Pimp Your Ride

Additional Resources

UCSB Graduate Division: Fantastic Source for all our Grad Questions

<http://www.graddiv.ucsb.edu/>

Grad Div Essential Orientation information:

<http://www.graddiv.ucsb.edu/gradlife/>

Grad Div Handbook: all the details, all the official forms! The answers are here, or at least the number of someone with the answers.

<http://www.graddiv.ucsb.edu/academic/handbook/contents.htm>

UCSB Graduate Student Bill of Rights:

<http://www.graddiv.ucsb.edu/academic/handbook/BoR.htm>

“The goal of the site is help students to prepare for the changing demands of today's **job market** and to provide a **voice** for early career scientists.”

<http://www.phds.org/>

Seed Magazine scene; Science is Culture. Blogs, art, news...

<http://seedmagazine.com/>

Piled Higher and Deeper; you'll laugh, and then weep, because it's true:

<http://www.phdcomics.com/comics.php>

iTunesU:

Because you were jonesing for a lecture on Art History from Stanford

<http://www.apple.com/education/itunesu//index.html>

Some parting words from a grad student:

“Coming into grad school is a very new experience where the focus shifts from how you do in classes to how good your lab work is. You also get to meet a bunch of new people, which is fun and exciting. Be sure you stay active and forge connections with people in the labs you rotated in; you never know when you may need something from one of them. Also, Santa Barbara is a beautiful place and you should use whatever few moments you can grab to get out there and explore the area. I've heard things get easier once you get into a lab... I'm not sure I believe that. That being said, I still wouldn't switch my lot with any of the future telemarketers of the world (Communications majors) even though they have all the free time in the world. Best of luck to you.”

You know you're a Biologist if...

- ✓ You refer to children as the F1s
- ✓ You've suffered carpal tunnel from a pipetman
- ✓ You wash your hands *before* you use the bathroom
- ✓ You've used Kimwipes as Kleenex
- ✓ A timer clipped to the hip is not only practical, but dead sexy
- ✓ You've played Battleship using tip boxes
- ✓ The front pages of Science is your light reading
- ✓ You think the following is a quality insult: "I've seen cells more competent than you!"
- ✓ Helicase has ever appeared in your pick-up lines
- ✓ You've wondered which residue of the catalytic triad you would be if you were an amino acid
- ✓ Your sleep revolves around your cell culture
- ✓ The scent of latex reminds you of work, not play
- ✓ You refer to the Gospel according to Alberts

GUMBI

GRADUATE UNION OF MOLECULAR BIOLOGY INVESTIGATORS