

## Resources for new Geosciences graduate students

Compiled by the GeoClub, Fall 2015

### *Welcome to the University of Arizona Department of Geosciences!*

We're the GeoClub. We organize graduate student events and fundraisers, promote academic development, act as a peer support network, and conduct outreach events in the community.

We aim to help you have a productive and fun graduate school experience!

### **Who we are:**

President: Shaunna Morrison

Alumni-Relations Chair: Andrea Stevens

Events Chair: Connor Nolan

Field Trip Chair: Jay Chapman

Mentoring Committee: Gloria Jimenez (chair), Kat Compton

Outreach Chair: Carson Richardson

Website: <http://www.geo.arizona.edu/geoclub>

Grad Student Listserv: [geos\\_gradstudents@list.arizona.edu](mailto:geos_gradstudents@list.arizona.edu)

GeoClub Listserv: [geoclub@list.arizona.edu](mailto:geoclub@list.arizona.edu)

Geosciences Grad Student Representatives: Gloria Jimenez, Philip McFarland

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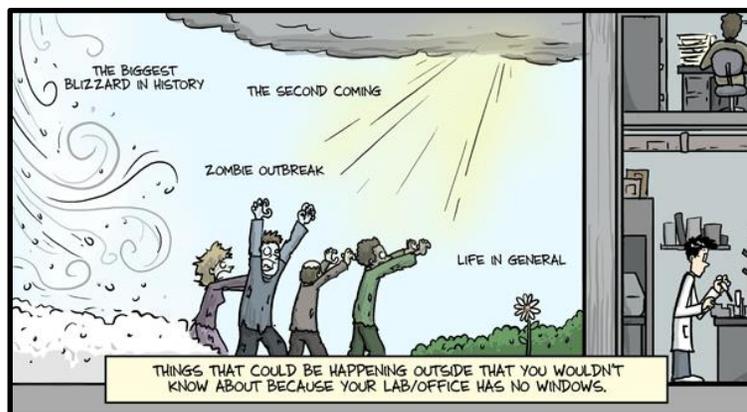
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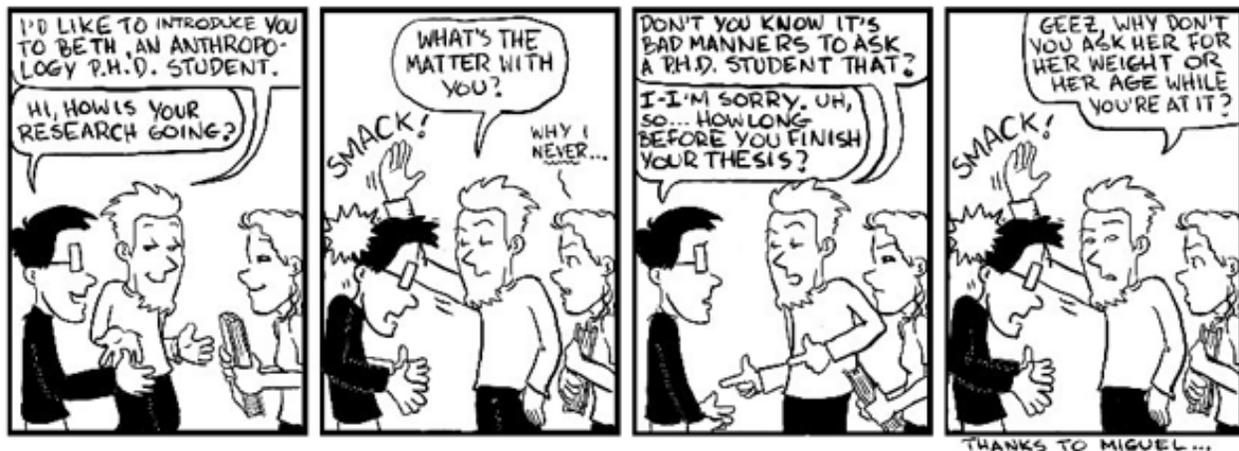
## Peer mentors

The mentors below are happy to answer any and all questions about the department, grad school, Tucson, etc. (though we've specified areas we feel particularly well-versed in). Feel free to stop by or contact us by email!

- Andrea Stevens (Tectonics, PhD track), GS 307
  - [andreastevens@email.arizona.edu](mailto:andreastevens@email.arizona.edu)
  - Ask me about adjusting to your first year in grad school, starting new research projects, apatite fission track thermochronology, finding funding, internships, and good books (please come and talk to me about books!).
- Carson Richardson (Ore Deposits/Structural Geology, PhD track), GS 318
  - [carichardson@email.arizona.edu](mailto:carichardson@email.arizona.edu)
  - Ask me about continental extension, the geometry and growth of normal faults, and porphyry systems... Or Mediterranean food, awkward comedies, engrossing dramas, and NPR.
- Conner Nolan ((paleoclimate/paleoecology, PhD track), GS 318
  - [cjnolan@email.arizona.edu](mailto:cjnolan@email.arizona.edu)
  - Ask me about attending conferences and workshops, paleoclimate, drought, and the central and eastern US. Also about coffee, crossfit, podcasts, beer, and live music.
- Daniel Portner (Geophysics, PhD track), GS 539
  - [portner@email.arizona.edu](mailto:portner@email.arizona.edu)
  - Ask me about being new to grad school, getting involved, starting a webpage, and I'm always happy to talk about geophysics and international fieldwork or whatever else you like!
- Drew Laskowski (Tectonics, PhD track), GS 308
  - [aklask@email.arizona.edu](mailto:aklask@email.arizona.edu)
  - Ask me about conducting field work, publishing, life in Tucson, and riding mountain and road bikes in southern Arizona.
- Emma Reed (Paleoclimate, MS track), GS 127
  - [evreed@email.arizona.edu](mailto:evreed@email.arizona.edu)
  - Ask me about MS vs. PhD, applying for funding, getting around Tucson without a car (aka biking), and podcasts.
- Garrison Loope (Paleoclimate, PhD track), GS 350
  - [gloope@email.arizona.edu](mailto:gloope@email.arizona.edu)
  - Ask me about awesome local hikes, biking in Tucson, organizing field work, coring lakes, or monsoons.
- Gloria Jimenez (Paleoclimate, PhD track), GS 127
  - [jimenezgloria@email.arizona.edu](mailto:jimenezgloria@email.arizona.edu)

- Ask me about traveling or working abroad, applying for funding, alt-ac careers, grad student rights and advocating for yourself, vegetable smoothies, rock climbing, yoga, crossfit, and scooters.
- Jennifer Kielhofer (Geoarcheology, PhD track), GS 511
  - [jkielhofer@email.arizona.edu](mailto:jkielhofer@email.arizona.edu)
  - Ask me about soil characterization, micromorphology, geoarchaeology, studying human adaptation to high-latitude environments, and working in Alaska, as well as good spots for hiking, tennis, concerts, and wine tasting in Tucson.
- Jamie Ryan (Geophysics, PhD track), GS 543 (GSAT lab)
  - [jgeoryan@email.arizona.edu](mailto:jgeoryan@email.arizona.edu)
  - Ask me about using earthquakes to image the Earth like a giant MRI machine, and working in national labs, industry, and other countries. Also craft beer, single-malt Scotch, local places to get good food, and finding the best pool places (of both the table and water-sport variety!).
- Kat Compton (Geophysics, PhD track), GS 546
  - [kcompton@email.arizona.edu](mailto:kcompton@email.arizona.edu)
  - Ask me about finding funding, alt-ac careers, and alternative (non-industry) internships. Also farmers markets, veggie gardens, mountain biking, rock climbing, and homeownership!
- Kevin Ward (Geophysics, PhD track), GS 535, 539
  - [wardk@email.arizona.edu](mailto:wardk@email.arizona.edu)
  - Ask me about coding anything (MATLAB, GMT, etc...) and playing intramural sports.
- Lucy Profeta (Tectonics/Petrology, PhD track), GS 318
  - [luciaprofeta@email.arizona.edu](mailto:luciaprofeta@email.arizona.edu)
  - Ask me about petrology, mass specs, how to survive TA-ing every semester, Belgian beers, hiking, things to do in Europe.
- Luke Parsons (Paleoclimate, PhD track), GS 350, GS 509
  - [lukeaparsons@email.arizona.edu](mailto:lukeaparsons@email.arizona.edu)
  - Ask me about fieldwork preparation/logistics, NSF GRFP and Carson Scholarship applications, lake paleoclimate work, climate model data analysis, publishing, climbing, photography, and restaurants.
- Paul Goddard (Climate modeling, PhD track), GS 509
  - [goddarpb@gmail.com](mailto:goddarpb@gmail.com)
  - Ask me about using climate data, atmosphere department courses, and climate coursework. And where to play golf, nearby cities to visit, department sports and fantasy leagues. I have also become the de facto airport transportation guy.
- Ryan Leary (Tectonics/Sedimentology, PhD track), GS 307
  - [leary@email.arizona.edu](mailto:leary@email.arizona.edu)

- Ask me about remaining moderately sane through many years of grad school, masters/PhD transition, field work logistics, oil internships, TAing, rock climbing.
- Shaunna Morrison (Mineralogy, PhD track), GS 524
- [shaunnamm@email.arizona.edu](mailto:shaunnamm@email.arizona.edu)
  - Ask me about GeoClub, Chevron, NASA, Tucson Gem & Mineral Show, UA Mineral Museum, mineralogy, crystallography and X-ray diffraction.



## Hints for navigating the department and UA

### 1) Department activities

- Printing
  - You should have access to a printer and scanner with paper/toner via your advisor (ask your advisor about this). You can get more paper from the front office; talk to the student workers at the desk.
  - There is a copier in the department office; get a code from your advisor or as a TA.
  - FastCopy in the Student Union is a good place for large volume or specialty printing (binding documents, photos, certificates, etc).
  - Print posters for conferences on the Reflection Seismology printer on the 5th floor (\$35-50 per poster). Contact Kiriaki Xiluri-Lauria ([kxiluri@email.arizona.edu](mailto:kxiluri@email.arizona.edu)).
- IT issues
  - Isaac Way ([isaac@email.arizona.edu](mailto:isaac@email.arizona.edu)) and Kiriaki Xiluri-Lauria ([kxiluri@email.arizona.edu](mailto:kxiluri@email.arizona.edu)) are the department tech gurus.
  - The 24/7 IT Support Center is a great resource for software or hardware issues (e.g. computer won't start, you need help installation help) Phone: (520) 626-8324. (<http://uits.arizona.edu/departments/the247>)
- Building access
  - That weird room privilege card is actually necessary. If you lock yourself out of your office/building, Security will ask to see your room privilege card before letting you back in.

- Receiving mail
  - Every grad student is assigned a mailbox in the department office. If you need to order something work or research-related, you can have it sent to the department at:
    - Your name
    - 1040 E 4th St
    - Geosciences Dept Rm 208
    - Tucson, AZ 85721
  - Michelle Garcia will email you when your package arrives and you will have to sign for it. Note that you cannot receive personal mail at the department.

## 2) Quick contacts (Or, who do I talk to about...?)

Knowing who does what around the department can be confusing at first. Remember that GeoClub and the department's peer mentors are happy to answer questions and help you. Here's a quick reference list of who to go to with some common issues:

- Curriculum questions, degree requirements
  - Anne Chase (Graduate/Undergraduate Advisor; [achase@email.arizona.edu](mailto:achase@email.arizona.edu))
- Departmental and degree policies; academic concerns
  - Susan Beck (Director of Graduate Studies; [slbeck@email.arizona.edu](mailto:slbeck@email.arizona.edu))
- Travel questions, reimbursement
  - Heather Alvarez (Senior Accountant; [halvarez@email.arizona.edu](mailto:halvarez@email.arizona.edu))
- Human resources questions; hiring; insurance
  - Sharon Bouck (Principal Accountant; [boucks@email.arizona.edu](mailto:boucks@email.arizona.edu))
- Career questions
  - Peers, advisor, committee
  - Susan Beck (Director of Graduate Studies; [slbeck@email.arizona.edu](mailto:slbeck@email.arizona.edu))
  - Peter Reiners (Department Head; [reiners@email.arizona.edu](mailto:reiners@email.arizona.edu))
- Interpersonal or professional issues
  - Ombuds program; see [Grad Student Rights and Support](#) section for this and other on-campus resources

## 3) Transportation and parking

- Cars: Permits are expensive (\$405+) and specific to one lot or garage.
  - There are a couple 20 minute spaces in the Gould Simpson loading dock if you only need to run in quickly.
  - Many permit spaces and surface lots around Gould Simpson are free after 6 PM and on weekends (carefully read the signs).
- Motorcycles/scooters: Motorcycle parking permits (\$143) allow you to park in any motorcycle spot on campus.

- Buses & CatTran: UA students and employees are eligible for discounted sunLink, sunTran and sunShuttle passes (includes the new streetcar that runs between UA and downtown <https://parking.arizona.edu/alternative/>)
  - Get a free 14-day SunLink SunTran pass here: <https://parking.arizona.edu/Sunlink/U-CellPass/>
  - CatTran is a free shuttle service throughout campus: <https://parking.arizona.edu/alternative/cattran.php>
  
- Bikes: Theft is a huge issue on campus and in the UA area, especially at the beginning of the semester. *Lock your bike well, at school and at home* (with a U-lock at least)! Registering your bikes with campus police aids in bike recovery if your bike is stolen. (<https://parking.arizona.edu/account/bicycle.php>)
  - Free bike tune ups (including changing flats) are offered at the campus bike station, which is in a tent on the mall on Tues.-Thurs. from 9am-2pm. You can also register your bike there, for which you will receive a free bike bell.
  - Pima County runs bike safety classes and gives free bike supplies to attendees (lights, locks, helmets, etc.). Sign up for classes at the campus bike station booth located on the mall. <http://webcms.pima.gov/cms/One.aspx?portalId=169&pageId=54575>
  - Need a bike for just a day? The Cat Wheels Bike Share program lets you rent bikes for free from any of the parking garages on campus. You need your CatCard and student ID number. Rentals last 24 hours (weekdays) or until the next school day (weekends).
  - Bike parking: many people use a bike locker (prepare to be on a waiting list for a few months), bike enclosure or bike “valet” lot to store their bikes during the day. More information about these options: <https://parking.arizona.edu/alternative/indexBike.php>

#### 4) GeoDaze

- GeoDaze is a student-run symposium for graduate and undergraduate students to showcase their research. It happens in early April in conjunction with EarthWeek, a weeklong event organized by the School of Earth and Environmental Sciences (SEES). Guests join us from governmental and private agencies and a distinguished scientist delivers the keynote address each year.
- GeoDaze gives students a forum to present their research and receive feedback. The best student presentations and posters receive monetary prizes, made possible by donations from industry and private sponsors.
- GeoDaze also includes:
  - A slideshow of student and faculty photos to celebrate our travels and research.
  - Departmental post-GeoDaze party, hosted by a faculty member.
  - A day-long field trip to a nearby area of geologic interest.

## 5) Degree requirements

Some hints for making sure you go through all the steps to your degree, including completing paperwork and online forms:

- The Graduate College's steps to your degree page for both MS and PhD students (<http://grad.arizona.edu/gsas/degree-requirements>)
- Geosciences-specific program information for MS and PhD students (<http://www.geo.arizona.edu/currentgrad>)
- PhD final requirements (<http://www.geo.arizona.edu/sites/www.geo.arizona.edu/files/pictures/PhD%20Final%20Requirements%20Check%20List.pdf>)

## Teaching resources on campus (for TAs)

### 1) TA workshops

- TA training is held by the College of Science before fall semester every year. If you missed it this year, keep an eye out for next year!

### 2) Office of Instruction and Assessment

- <http://oia.arizona.edu/content/tas>
- Offers a variety of services and programs that provide instructional support and development opportunities to TAs.
  - One-on-one consultations are available related to any pedagogical topic, issue, challenge, or concern.
  - Workshops available throughout the year addressing common teaching topics. Check the website for updates on these courses.
  - TAs can request a teaching observation or a student focus group to get feedback about any aspect of their teaching.

### 3) TATO (TA Training Online)

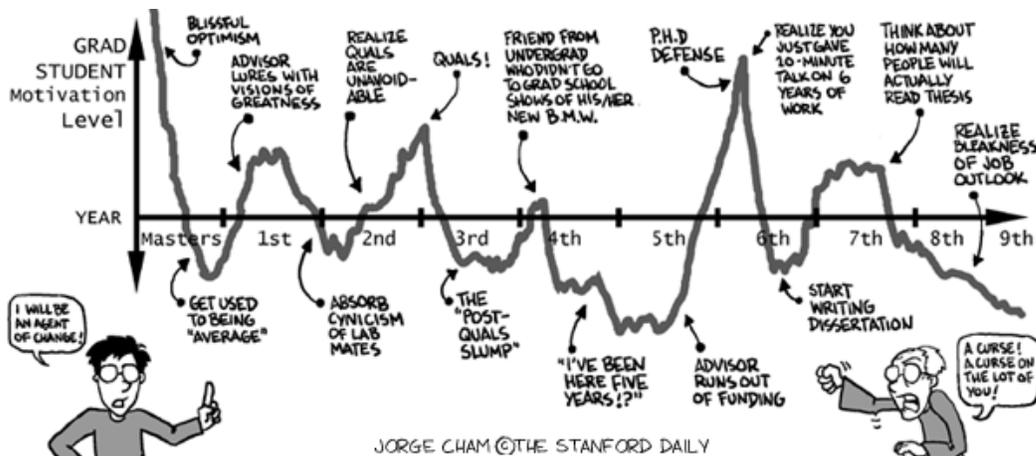
- Self-paced online models to help TAs. Module topics include: How to create and use grading rubrics, how to lead discussions, how to write learning objectives, how to assess student writing.

### 4) Words of wisdom

TAing can be a time-consuming endeavor, particularly when teaching upper level classes or labs. Make sure to communicate with your advisor so s/he is aware of the time commitment each semester and can adjust research goals appropriately. While TA-ing is important, keep focused on your research goals during busy semesters and buckle down during semesters when you have a lighter TA load. If you are interested in an academic job, hang on to your teaching evaluations--some job applications request evidence of teaching experience. Remember: being a great TA will not get you a degree, but finishing your research will.

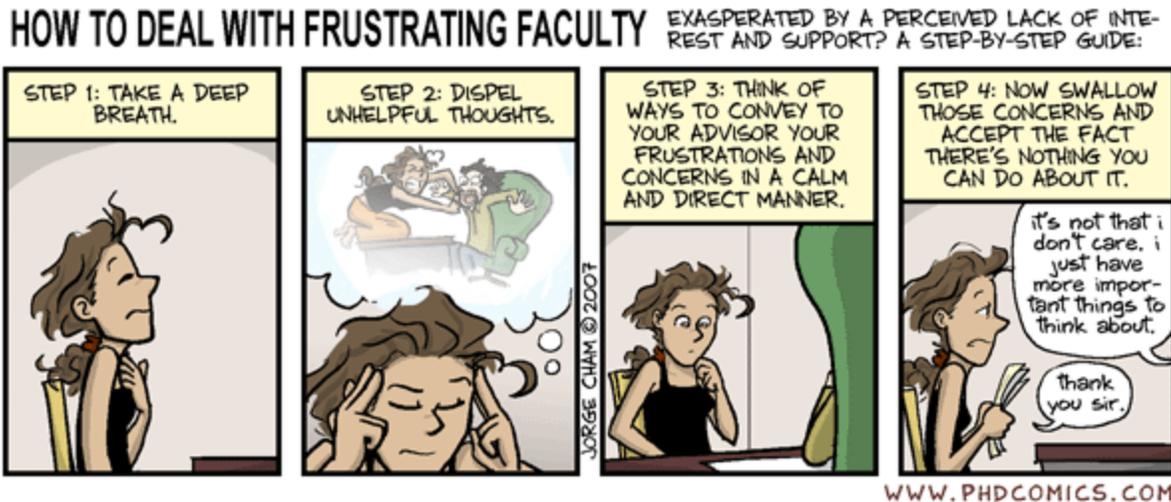
## Staying productive and sane in graduate school

Graduate school is stressful. It can (and will!) take a toll on your mind, body, or spirit if you let it.



- It turns out, science is hard. And doing outstanding science is really, really hard. Remember, as a graduate student you are an “apprentice scientist” and are here to learn—over many years—how to be an excellent scientist.
  - “The Gap” Ira Glass on meeting your own expectations for your creative work  
<http://vimeo.com/85040589>
  - “The importance of Stupidity in Scientific Research”  
<http://jcs.biologists.org/content/121/11/1771.full>
  - “Why truly innovative science demands a leap into the Unknown”  
[http://www.ted.com/talks/uri\\_alon\\_why\\_truly\\_innovative\\_science\\_demands\\_a\\_leap\\_into\\_the\\_unknown](http://www.ted.com/talks/uri_alon_why_truly_innovative_science_demands_a_leap_into_the_unknown)
- We all have bad days (/weeks/months) and good ones, for a whole slew of reasons. Graduate school is a roller coaster. You are not alone in the highs or lows. Make sure the lows don’t get too low.
  - “Paying Graduate School’s Mental Toll”  
[http://sciencecareers.sciencemag.org/career\\_magazine/previous\\_issues/articles/2014\\_02\\_04/caredit.a1400031](http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2014_02_04/caredit.a1400031)
- Learn how to manage your time effectively. This is much harder than it sounds. Ask office/labmates, peer mentors, advisors, etc. for strategies.
- Don’t burn yourself out. Grad school—especially if you’re PhD track—is a marathon, not a sprint. Get sleep, go outside, eat well, socialize, exercise.
- Do things that help you remember why you like geology.
- Find blogs and other resources for inspiration and tips, for example:

- A blog from McGill University: “How not to suck at graduate school”  
<http://www.mcgill.ca/connectionslab/blog>
- Find humor in science and grad school, and share it!
  - PhD comics <http://phdcomics.com/comics.php>
  - xkcd <http://xkcd.com/913/>
  - <http://whatisgeology.tumblr.com/>
  - <http://whatshouldwecallgradschool.tumblr.com/>



## 1) Managing your relationship with your advisor

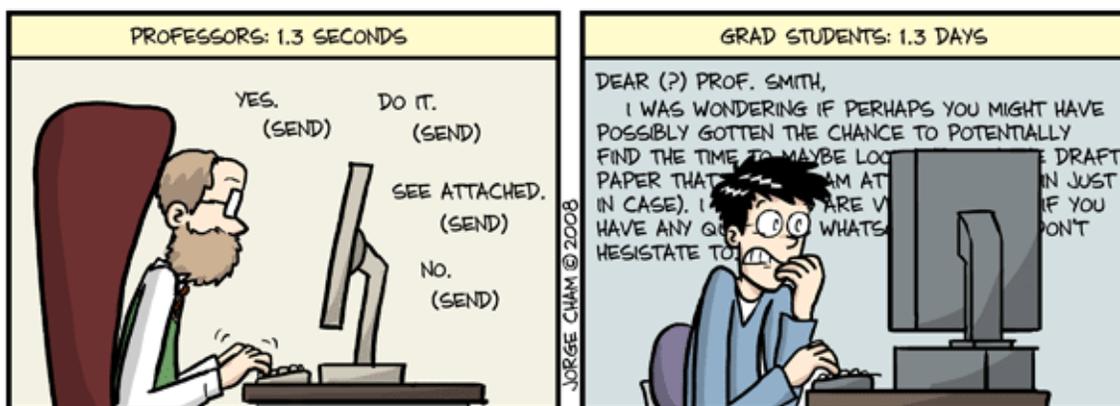
- Your relationship with your primary advisor is a key part of your graduate school experience. Communication is a key part of this relationship!
- Read this excellent article: “The care and maintenance of your advisor”  
<http://www.nature.com/naturejobs/2011/110127/pdf/nj7331-570a.pdf>
- Even the best advisor won’t be able to mentor you in all the ways you need, so find other mentors you can rely on, too. Your other committee members can be a huge source of guidance and information.
- When you first arrive, meet with your advisor to discuss expectations and the nuts and bolts of working in their lab (see checklist below).

### First advisor meeting topics to discuss

- Office
  - Where is it? If your advisor doesn’t know, Anne Chase or Michelle Garcia in the front office will.
  - Make sure you both know where the other’s office is.
- Keys
  - Ask your advisor which keys you will need (generally, everyone should have keys to the building and his/her office and labs).

- S/he will have to sign a room privilege card for your keys (you need to have this card with you in the building). The key desk closes at 3 pm and is at the north end of campus (head there early in the day).
- Be careful with your UA keys! Replacing them is a hassle, particularly if they are stolen.
- Printing
  - What printer(s) can you use? Are you responsible for monitoring and replacing paper and ink? Do you have access to scanning or copying? Printing setups vary between labs/advisors.
- Computers, software, programming, etc
  - Is there a designated lab computer for you (if not, will your personal computer be adequate for your work)?
  - Are there any computer programs you need for your computer or any programs/languages you need to learn?
- Tech problems
  - Who should you go to for troubleshooting (whether it's accessing the campus wifi or your lab server)? There may be someone in your lab to go to before asking Kiriaki, Isaac, or the 24/7 IT Support Center.
- Lab facilities
  - Which labs do you need access to, and do they require special training or certification?
- Account numbers
  - Where does the money for your project come from? What about lab supplies? There may be multiple account numbers to use.
- Funding:
  - See our funding opportunity list on the GeoClub website (<http://www.geo.arizona.edu/sites/www.geo.arizona.edu/files/FundingOpportunities.pdf>); see also the [Managing your Finances section](#), below.
  - What should you apply for and when? Should you expect a TA or RA over the course of your degree? (Note: advisors may not know about all of the available funding opportunities.) Are there grants available to cover your research and travel expenses?
  - Plan ahead for fieldwork and writing. This is especially important for Master's students who have more limited time.

## AVERAGE TIME SPENT COMPOSING ONE E-MAIL



- Meetings
  - Discuss how you'll handle meetings. Don't be afraid to let your advisor know what you want/what will be best for you. If you don't know at this point, try out a few things and see what works best.
  - For example: do you want weekly meetings? Do you want to check in by email? Should you set up meetings ahead of time or walk in with questions? Are there particular days that your advisor will be un/available?
  - It's usually a good idea to meet more frequently in the beginning as you are figuring out the working relationship.
  - Try to have an agenda with specific topics to discuss and agree on actions and deliverables by the end. Your advisor will be most useful and eager to help if s/he feels that you respect his/her time and have made the effort to prepare prior to meeting.
  - Sending a follow-up email outlining the meeting's key points can be useful for reference purposes and to make sure everyone is on the same page.
- Expectations, timeline
  - How much does your advisor want you to accomplish and in what timeframe? (Remember things can take longer than you expect--this is why communication is important.)
  - If you don't already have a project, does your advisor have some ideas you can get started on?
  - What coursework should you plan to take in your first semester/year?
  - When will your advisor be out of town/on sabbatical?
  - Your advisor is there to help you reach your research goals. Work hard, but it's okay to say no sometimes. Communication is key!



## 2) Managing your mental and physical health

Life happens during grad school. No one likes to think about the possibility of getting sick or injured, but these things can happen during your time at UA. Your best bet is to be aware of the risks you are taking, and be aware of the resources available to help you deal with problems when they arise.

### Health Insurance

A Graduate Assistantship contract includes a health insurance waiver (for more information on fees and insurance, see <https://www.health.arizona.edu/insurance.htm>). Some things to be aware of concerning campus health insurance:

- The Campus Health Service clinic often has more affordable rates for copays and prescriptions than outside providers or pharmacies. For non-emergency services off-campus, you will generally need a referral from Campus Health.
- Campus Health offers very good physical therapy. The copay for a visit is generally \$15 (after you have been referred).

### Workman's Compensation

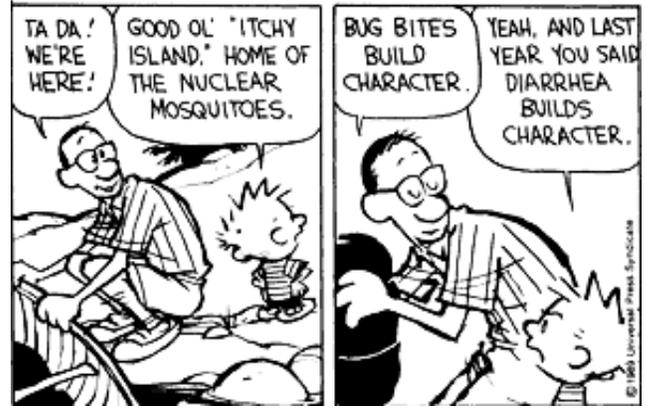
- Many graduate students are not aware that their RA or TA contract guarantees them Workman's Compensation Insurance if they are injured on the job (for more information, see the Student Employee Manual <https://financialaid.arizona.edu/types-aid/work-study/student-employment-manual#4>).
- This insurance, which is federally mandated, is designed to cover medical expenses and lost time wages associated with on-the-job injuries. It is intended to pay an employee's portion of any costs that their health insurance doesn't cover. For example, if you get sick during fieldwork and need to be hospitalized, or slip and break a limb in the lab, Workman's Compensation may cover your medical expenses.
- NOTE: There is a major loophole in this coverage. Graduate students who have an external fellowship (NSF, NDSEG, etc.) do not technically have an employee relationship with UA and are not covered by Workman's Compensation. This exposes fellowship students to significant risk.
  - Members of GeoClub are currently working with the department and university administration to come up with a permanent solution to this issue. In the meantime, the department recommends that fellowship students purchase additional fieldwork insurance through HTH Worldwide; talk to your advisor about getting reimbursed for this cost.

### Fieldwork best practices

Many of us spend a significant amount of time in the field. Planning a field season can seem daunting at first, so ask your advisor and labmates for tips and tricks.

- Travel authorization: For any travel, including to conferences, you must submit a travel authorization form to the Geosciences Business Office. Submit your forms early - failure to do so may delay or preclude your travel or result in a lack of insurance coverage.

- International travel:
  - Register international travel early at <http://ua-risk.terradata.com/>. Failing to do so may delay your trip. As always, make sure you talk to your advisor about expectations and field work procedures.
  - Check the visa requirements for each country you plan to visit by going to that country's government website.
  - Ensure you have the proper, up-to-date vaccinations for each country you plan to visit. Vaccine information can be found at the CDC's website: <http://wwwnc.cdc.gov/travel>. You can also make an appointment with the Student Health Center's travel clinic.
  - Information about UA policies for international travel and emergency phone numbers can be found at: <https://ua-risk.terradata.com/index.cfm?FuseAction=Abroad.Home>
- Fieldwork health and safety: In most cases, ensuring health and safety in the field falls to you. There are no mandatory trainings in wilderness first aid or risk management. Make sure you have what you need to feel safe when you go out to do your work.
- Logistics:
  - For domestic field work, it's common to rent a vehicle from the UA Motorpool (<https://www.fm.arizona.edu/fm-dept/motorpool.html>). Make reservations through the Geosciences Business Office.
  - Funding for your fieldwork should come from grants (personal, such as GSA, AAPG, etc. or through your advisor). Talk with your advisor before paying any of these expenses out-of-pocket.



### **Mental health resources**

Here are some resources available to help students overcome past or current struggles and succeed in grad school. These are also good resources to know about as a TA or instructor.

### On-campus resources

- CAPS: Counseling and Psych Services (<http://www.health.arizona.edu/caps.htm>; all services are completely confidential)
  - Clinical services
    - Counseling and brief therapy
  - Group services: weekly meetings
    - Grad student support group: free, drop-in
    - Stress and Anxiety Management Group: \$5 per class,
    - Self Compassion Group: \$5 per session
    - Learning to Cope Group: \$5 per group
    - Test Anxiety Group: free
  - ADHD: does not diagnose, but can manage and refer
  - Psychiatric Medication: does not diagnose, but can manage and refer

- Veteran Services: see <http://vets.arizona.edu> and their office in room 404 of the Student Union
- Consultative services
  - Call and Consult: for faculty and staff to assist you with student problems that come to your attention
  - Friend 2 Friend: information and advice that you can use to help a friend who might be experiencing problems
- Online Services
  - Screening for: anxiety, depression, suicide
  - Suicide prevention
  - Local Community Resources
- QPR training for suicide prevention
- More services for substance abuse, eating disorders, violence, etc. on the CAPS site

#### Some other local resources

- Southern AZ Mental Health (SAMHC; [www.samhc.com](http://www.samhc.com)): 24 hour local mental health crisis support.
- 2-1-1 (<http://211arizona.org/> or call 2-1-1): everything from Arts & Culture to Mental Health/Counseling to Domestic Violence Services.
- National Alliance for the Mentally Ill, Southern Arizona (NAMISA; <http://www.namisa.org/> or the UA club <http://clubs.asua.arizona.edu/~namiua/>): support, education and advocacy to all those affected by mental illness.
- Mental Health America of Arizona (MHA AZ; <http://mhaarizona.org/>).

### **3) Managing your finances**

Grad school is a great time to learn good financial practices. Here are some financial matters to consider and plan for and some resources to help you along.

#### **Funding and fees**

- The department guarantees TA funding for the first 2 years of a Master's and the first 4 years of a Ph.D. (note that some students take longer than this to finish).
  - After this time, even if you have never been a departmental TA, your funding is not guaranteed. The department does its best to help people find positions, but this can still be very stressful. Try to plan ahead, which could mean deferring a fellowship or RA until your final year and TAing earlier on.
- Summer funding
  - Think ahead about how you will support yourself over the summer, whether that means an internship, an RA (check with your advisor), a fellowship, or something else. Few TAs are available in the summer.
  - You'll have the opportunity to apply for a summer funding grant through the department (up to \$1500) to cover fieldwork, research costs, or self-support. Anne Chase will send an application in the spring.
- There are several fees not covered by TA or RA contracts (note that many fellowships *do* cover or reimburse these fees--check if that applies to you). These include:
  - Fees for fall and spring semester (\$510.94/semester for 2015-16).

- Doctoral program fees (once you pass your comps): \$135.
- Master's program fees (once you submit your plan of study): \$35.
- Summer rec center membership (if you aren't enrolled): \$50.

### Research expenses

- As mentioned above, talk to your advisor early and often about expenses required for you to conduct your research. Their grant(s) may be able to cover these costs; and if not, they may support you in applying for research and travel grants. *Do not default to paying out of pocket!*
- The following costs may be covered by a grant, whether to you or your advisor:
  - Manuscript publication costs.
  - Fieldwork: These costs can include gas, mileage on your car, food, lodging, necessary medications (such as malaria prophylaxis), passport and visa expenses, permits, equipment, and so forth.
  - Travel to conferences: Your advisor may have money for conference travel and attendance. Some individual fellowships (e.g., NSF) also come with small amounts of funding.

### Budgeting

- Be aware of your finances and consider making a budget. Some links that might be useful:
  - “Personal Finance in Grad School” from Inside Higher Ed has advice and lots of links to useful apps, guides, and plans (<https://www.insidehighered.com/blogs/gradhacker/personal-finance-grad-school>)
  - “Tips for broke graduate students” (<http://www.apa.org/science/about/psa/2013/06/broke-students.aspx>)
  - Free budget templates and spreadsheets (<http://www.budgetsaresexy.com/2009/07/free-budget-templates-sites/>)
  - You can always check to see if you qualify for social services such as the Supplemental Nutrition Assistance Program (SNAP, also known as Food Stamps). Fill out the form at Arizona Self Help (<http://www.arizonaselfhelp.org>), which uses basic financial data to determine your eligibility for several government assistance programs.

## 4) Grad student rights and support

Many graduate students arrive prepared for academic challenges, but we generally do not anticipate the effect of bureaucratic or institutional hurdles.

Like many public universities, UA has suffered significant budget cuts in recent years. These have affected graduate students in a number of ways, including cuts to healthcare (for example, dependent child care was cut for 2015-2016 and the deductible for prescriptions and procedures was doubled) and additional fees (for example, a summer rec center fee was added in 2015). These issues can affect the quality of life for all graduate students, but especially for more vulnerable groups such as students with dependents or medical conditions.

There are several organizations on campus that advocate for graduate students. If you run into a problem that requires intervention at a higher level than the department, or find that a university policy is negatively impacting you, one of these groups may be able to assist you. You might also consider joining them or following them on social media if graduate student rights issues are important to you.

#### AGCCS: Associate Graduate Council for the College of Science

(<http://cos.arizona.edu/content/graduate-students/agccs-associate-graduate-council-college-science>)

- AGCCS represents graduate students in the College of Science. Graduate students in the sciences fill many essential roles in the university's research and teaching missions. AGCCS exists to address their academic, professional, and intellectual concerns in the college and the university. More specifically, AGCCS serves as a “direct line” between students in the CoS and the dean.
- Geosciences representatives:
  - Phillip McFarland  
[pmcfarla@email.arizona.edu](mailto:pmcfarla@email.arizona.edu)
  - Gloria Jimenez  
[jimenezgloria@email.arizona.edu](mailto:jimenezgloria@email.arizona.edu)

#### GPSC: Graduate and Professional Student Council

(<http://www.gpsc.arizona.edu/>)

- The GPSC Mission:
  - To promote the academic, economic, and social aims of the graduate and professional students of the University of Arizona.
  - To establish effective communication among graduate students and professional students.
  - To facilitate communication within the University and with other organizations.

#### ASUA: Associated Students of the University of Arizona

([http://legal.asua.arizona.edu/Legal\\_Services/home.html](http://legal.asua.arizona.edu/Legal_Services/home.html))

- Free consultations with a legal professional.
- Easy to make an appointment and available to all UA students.

#### UA Grad Organizing Committee

(find them on Facebook; you can sign up for their listserv there)

Grassroots student-run organization that was recently founded in response to budget cuts. They advocate for student issues ranging from healthcare to living wages and reasonable tuition and fees.

#### UA Ombuds Program

(<http://ombuds.arizona.edu/>)

The Ombuds Program at the University of Arizona is an informal, neutral, confidential and independent resource for any academic or workplace concern. Visiting an ombuds can help you

to understand a University policy, access appropriate individuals or resolve conflicts with other members of the University community.

Student Resources via the Programs for Inclusive Excellence  
(<http://diversity.arizona.edu/get-academic-support>)

Programs for Inclusive Excellence serves as a focal point for campus diversity efforts and collaborates with campus leadership to develop high-quality, high impact strategies to advance diversity and inclusion at the University of Arizona,. The page above provides links to a number of on-campus groups that aim to support the academic, cultural and individual needs of students.

## Opportunities for internships and outreach

- There are lots of funding opportunities through the department that offer small stipends while also giving you valuable experience.
- Other options for outside sources of funding:
  - The GeoClub website has a list of opportunities (<http://www.geo.arizona.edu/sites/www.geo.arizona.edu/files/FundingOpportunities.pdf>).
  - The UA Office of Fellowships and Community Engagement (<https://grad.arizona.edu/ofce/>) sends out a monthly funding newsletter. To subscribe, send an email to [list@list.arizona.edu](mailto:list@list.arizona.edu). Include "subscribe gradfunding *Your Name*" in the subject line. Leave the message body blank and delete any automatic signature.
- APPLY APPLY APPLY! And don't be bashful about asking any of us for help. Many of us will be happy to share our successful applications with you or read over your materials.

### Internships

- Oil companies: Several companies conduct informational meetings and a series of interviews to recruit early in fall semester. Alicia Saposnik will email a reminder to sign up for interviews (sign up early!). If you are interested in an internship, talk to your advisor early on about plans for the coming summer. Even if you can't take an internship your first summer, consider interviewing, which gives the recruiters time to get to know you and lets you practice your interviewing skills.
  - Former interns include:
    - BP**: Clint Koch, Jared Olyphant, Saba Kaynejad, Andrew Kowler
    - Chevron**: Andrea Stevens, Shaunna Morrison, Jared Olyphant, Kate Metcalf, Jon Delph
    - ExxonMobil**: Kendra Murray, Ryan Leary, Jamie Ryan
    - Shell**: They don't currently recruit at UA but are considering it. You can apply for an internship online at [www.shell.us/students](http://www.shell.us/students) and if there is enough interest, they may recruit in the future.
- National labs: There are lots of opportunities to intern at or conduct collaborative research with a national lab. Often, there are fellowships or other funding opportunities to

help you out, so touch base with the Office of Fellowships and Community Engagement if you're interested (<https://grad.arizona.edu/ofce/>).

- **Other:** Internships abound! It just might take a little digging to find them. For example, both AGU and GSA have policy internship opportunities. Kat Compton ([kcompton@email.arizona.edu](mailto:kcompton@email.arizona.edu)) interned with AGU if you're interested in learning more.

## Outreach

- **Department-sponsored**

At times, the department hires graduate students to coordinate outreach events. These positions include a small stipend and applications go out to the grad student listserv in September. (If you want to help without committing to the whole event, many also recruit short-term volunteers).

- **Saturday Science Academy:** Geosciences partners with the UA Office of Early Academic Outreach's MESA program to host hundreds of underserved Tucson area youth from more than 11 schools to participate in educational demonstrations and activities during a half-day Saturday workshop.
- **Tucson Gem and Mineral Show:** UA's undergraduate Society of Earth Science Students (SESS) cooperates with the Tucson Gem and Mineral Society (TGMS) to provide three days of educational geoscience activities for young people, including minerals in everyday objects and a build your own volcano table. This international show is the largest in the world and draws more than 50,000 people to Tucson each year. (Contact Gloria Jimenez for more info: [jimenezgloria@email.arizona.edu](mailto:jimenezgloria@email.arizona.edu))
- **Festival of Books** - This two day event, held during the first weekend of spring break, draws more than 100,000 people from the Tucson area each year. Geosciences volunteers engage young students in geology with activities like a dinosaur dig and observing seismic waveforms from jumping. (Contact Carson Richardson for more info: [carichardson@email.arizona.edu](mailto:carichardson@email.arizona.edu))

- **Sky School**

- The Sky School provides overnight and weeklong inquiry-based science education to underserved K-12 groups in the Southwest, from our 25-acre campus at the Mt. Lemmon summit (<https://skyschool.arizona.edu/>).
- Applications are usually solicited in the spring. Contact Phil Stokes ([pjstokes@email.arizona.edu](mailto:pjstokes@email.arizona.edu)) for more information.

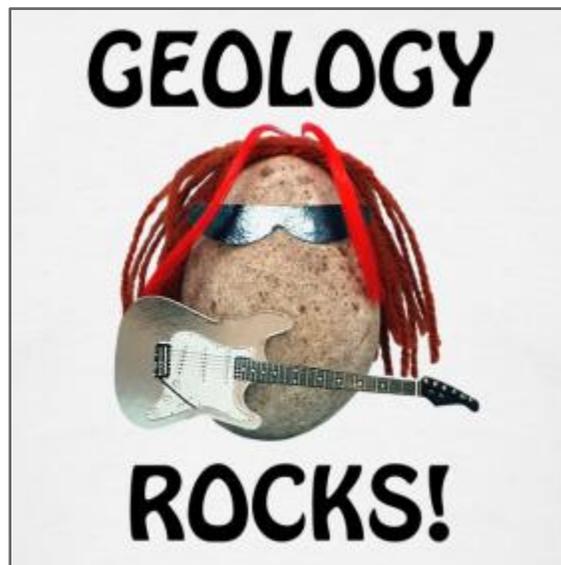
- **Arizona Assurance (AZA)**

- The UA Arizona Assurance Scholars Program is a financial aid program for low-income students in the state of Arizona. The program assists undergraduate students by providing both financial aid and support services.
- Mentors are paired with their mentees in the fall semester, based on common interests and/or academic discipline and are recommended to connect at least twice a semester.
- If you are interested in becoming a mentor through AZA, check out their website (<http://assurance.arizona.edu/aza-mentor-program>).

### **Some final thoughts....**

If you're still reading, we're impressed! We wrote this document to provide a useful resource for new and continuing students. In the end, grad school should be about learning, having opportunities to discover exciting things, and doing interesting, impactful research. Whether your goal is to become a famous scientist, a policymaker, an industry researcher, or something else, we hope that we've helped you get there.

Have fun, be safe, and always remember...



From [Green Tea and Velociraptors](#)