

# UC SANTA BARBARA

# Earth Science

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## URGE Resource Map for UCSB

This is a draft Resource Map for the UCSB Earth Science Department at UCSB. This was adapted from the "Sample Ph.D. Mentoring Plan" developed by Vashan Wright (Woods Hole Oceanographic Institution) and Karin Block (City College of New York and CUNY Graduate Center), License: [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/). Some of these will be resources common to all and some will be questions for identifying specific resources based on needs/interests identified during initial meetings while implementing the mentoring plan.

### **Mentoring plans:**

- Summary of the intent of the resource map as well as the plan for working with new hires/students for connecting them with resources that will be of most use to them, e.g. schedule for initial call(s) and/or meeting(s) to identify needs/interests
- Individual/Group meeting expectations (interval/frequency, journal articles, presentations, socializing, time management, reviewing manuscripts, revising manuscripts/dealing with rejection, careers, current events, media requests)
- Evaluations: rubric, frequency for advisor/committee evaluations, encourage self-evaluation (reflection) and review long term goals and how to achieve them
- **Undergraduate Mentoring**
  - Faculty advising program developed this year:
    - The new advising structure is as follows:
      - 1. At the start of the fall quarter, we will hold a town hall for all new majors, to provide general information on the department and major. All students are welcome to attend.
      - 2. Each undergraduate will meet with their faculty emphasis advisor during the fall quarter. These meetings will be 15–20 minutes. We will follow up in the next couple weeks with details on how to schedule a zoom advising meeting and to let you know who your assigned emphasis advisor is. We anticipate the meetings will start around Oct. 15.
      - 3. During the winter and spring quarters, each emphasis will hold a town hall. Our hope is these will provide an opportunity to share new information, answer questions and build community within the emphases (especially once we can return to in-person meetings).
    - Geoscience Enrichment and Mentoring for Students by Students (GEMSS) program established Summer 2020 by a group of undergraduate and graduate students

- Info on GEMSS from the department website: “The Geoscience Enrichment and Mentoring for Students by Students (GEMSS) program is a peer mentoring program aimed at supplementing the undergraduate experience in the UCSB Earth Science department. Undergraduate students are paired with graduate or senior undergraduate student mentors, in order to help them navigate their undergraduate experiences at UCSB, particularly in the Earth Science department. Mentors provide guidance on applying to graduate school, finding and applying to internships, writing resumes and cover letters, reaching out to professors about getting involved with research, etc. The goals of the GEMSS program is to help undergraduate students network with senior undergraduates and graduate students, so they have someone to go to with all of their Earth Science career and UCSB Earth Science department-related questions.
  - GEMSS also hosts panels and workshops aimed at helping undergraduate students make informed decisions about their Earth Science career paths. For example, GEMSS has hosted panels and workshops on graduate school, resume and cover letter writing, interviewing, geoscience careers in industry, and careers in academia. We also hope to hold social events to promote undergraduate-graduate student networking in the future.
  - If you are an undergraduate student who would like a mentor, or a graduate student who is interested in mentoring an undergraduate student, please email us at [gemss@geol.ucsb.edu](mailto:gemss@geol.ucsb.edu).
- **Graduate Mentoring**
  - Annual committee meetings to walk through the year’s timeline
  - No generalized mentoring plans for graduate students
    - Students are recommended to set up a plan with their advisor or committee
  - Faculty are working to formalize co-advisorships of graduate students to help accommodate students with multi-faceted interests.
  - University-wide Graduate Scholars Program matches incoming grads with a more senior student as a mentor. Program is invitation-only.
  - UCSB Earth Science is part of the California Consortium for Inclusive Doctoral Education (C-CIDE) that is working to teach participating faculty and graduate students how to be better mentors and mentees.
    - Advisors are largely expected to provide professional mentoring, but mentoring in other areas can come from other people in a mentoring network
- **Faculty Mentoring**
  - From the Faculty Strategic Action Plan: “Initiatives that we are discussing and implementing include: i) the development of a welcoming document that will be

provided to new faculty; ii) assignment of a faculty mentor who can provide guidance on student mentoring, teaching, and other university and academia-wide activities; iii) climate surveys to identify areas for improvement; iv) events that will support junior or new faculty such as monthly get-togethers where discussion of topics such as mentoring, undergrad research ideas, building a lab group, how graduate admissions works, how funding works, etc. can occur. In addition, one of the faculty JEDI committee's highest priorities is to work with other members of the faculty to facilitate dialogue and communicate the latest research and best practices for creating a safe, inclusive, and equitable academic environment."

## Core work resources

- **Code-of-conduct**
  - [UCSB Student Conduct Code](#)
  - [Graduate student handbook](#) lists general conduct guidelines based on the [UCSB Student Conduct Code](#) and the [General University Policy Regarding Academic Appointees: APM - 015 - The Faculty Code of Conduct](#), which applies to teaching assistants.
    - **What is the "Department Committee on Gender, Climate, and Minority Issues" mentioned in the Graduate Student Handbook?**
  - Faculty and staff code of conduct?
    - [UC Faculty Code of Conduct](#)
  - Ideally: "All members must sign a code of conduct that addresses inclusivity and diversity, mental health, publications or outputs, social media use, working hours, and vacation"
- **Communication plan and expectations, e.g. how do members communicate with each other and what times are appropriate—this varies from research group to research group**
- **Reporting Policy - should address issues related to insensitivity, harassment, exclusion and what are the consequences (e.g., no "locker room" talk), provide additional contacts for reporting outside of advisor**
  - Faculty Strategic Action Plan has a proposal in progress to implement a department reporting system
- **Equipment - where to find, fund individual gear like hiking boots, fund or provide access to sufficient "library" of hiking/camping/outdoor equipment**
  - Partnership between department and [UCSB Adventure Program](#)
  - [UCSB Making Adventures Possible for All Students \(MAPAS\)](#) organization runs financially accessible field trips and hosts programs with equipment provided
- **Conference and workshop participation (how often and who pays for it?)**
  - Preston Cloud Award provides \$300 to Earth Science graduate students to attend one conference or professional meeting

- UCSB Graduate Student Association Conference Travel Grant provides up to \$200 to cover otherwise unfunded expenses for graduate students to present original research at professional conferences.
    - Students may receive the grant once per academic year.
    - Grants are awarded by lottery.
  - Individualized Professional Skills grants can supply up to \$1000 for graduate students and postdocs to pursue professional development opportunities not directly related to the student/ postdoc's academic research. This can include workshop attendance.
  - Individual meetings may offer travel funds for students.
- **Community support and mental health resources**
    - Assistance finding accommodations, moving expenses/assistance
      - The [Graduate Division](#), [Graduate Student Association](#), and [Housing, Dining, and Auxiliary Enterprises](#) all list housing options at different price points, but moving expenses and assistance are not covered. May need to apply separately to emergency grants for financial assistance (e.g., [GSA Emergency Relief Grant](#), [Housing Voucher Program](#))
    - Outline services at organization/university: diversity officer, counseling and psychological services, ombudsperson, affinity groups, etc.
      - [Graduate Division Diversity Officers](#)
      - [UCSB Counseling and Psychological Services \(CAPS\)](#) provides group and individual counseling for students free of charge.
        - For long-term individual counseling, students are frequently referred to the community.
        - Free teletherapy is available to UC-SHIP insurance holders through LiveHealth Online. Students with other insurance may have a copay.
    - Encourage and assist making connections to someone who may understand their experience (e.g., Black male counselor for a Black male student)
    - Calendar(s) of events or mailing lists to join
    - What activities/institutions will help them feel at home? Are there local clubs, religious or spiritual organizations, organizations, hobbies they were previously involved with that they can get connected with in the area?
    - Connecting with cohorts, organizations, social clubs with common identities and/or interests
    - Businesses or other needs, e.g. gyms, barber shops/hair services, etc.
    - Introductions for other people of color - fund membership fees for organizations like SACNAS, NABG, AISES, GeoLatinas, and others
    - Outline expectations for taking vacation (e.g., 4 weeks) and for reasonable work hours (e.g., 40-50 hrs/wk; be explicit!)

- **Skillset support resources**

- What skills or experiences are required for their work/coursework? e.g., driving, hiking/outdoors activities, compass/GPS navigation, swimming/SCUBA, operating power tools, first aid, etc. What skills training is supported through the organization, how would someone acquire/improve these skills? What training is available prior to arrival?
  - [Summer Institute in Mathematics and Science \(SIMS\)](#) is a 3-week academic preparation and research training program for incoming first-year students intending to enroll at UCSB directly from high school
  - Undergraduate students have [requirements for different emphases](#) listed on the department website.
  - All incoming graduate students take an entrance assessment drafted by their advisor to identify areas that they need to improve on, and then are assigned coursework to address these areas.
  - [Environmental Health and Safety](#) offers first aid and field safety trainings.
- Do they need to know how to code? If so, what languages? (e.g., R, Matlab, Python) If they do not have this skill, what resources/training are available?
  - [Collaborate Student Support Center](#) offers quarterly workshops on
    - Microsoft Office
    - Python
    - iMovie
    - Photoshop
    - Illustrator
    - Javascript
    - InDesign
    - R
  - EARTH 232 teaches UNIX, Python, Fortran 90, Generic Mapping Tools (GMT), LaTeX.
  - EARTH 201C teaches MATLAB and basic statistics.
  - Other departments on campus offer classes in other languages (e.g., Statistics uses R).
  - Affinity groups (e.g., SACNAS) will occasionally host introductory workshops

- **Professional development resources**

- [UCSB Career Services](#) has professional development services for undergraduate and graduate students
  - [Handshake](#) is UCSB's online database of internship and job postings
  - UCSB Career Services has a [document review service](#) where students can submit resumes and cover letters on which they can receive feedback.
  - Their [website](#) also provides tips for searching for jobs, interviewing, writing resumes and cover letters, and negotiating job offers.

- Professional development opportunities are offered through the GEMSS program which allows students to network with industry professionals and scholars
- Graduate students are required to speak in the department Colloquium during their third or fourth year, providing an opportunity to practice public speaking
- [Instructional Development](#) offers training on campus for faculty and graduate teaching assistants
- [Center for Innovative Teaching, Research, and Learning \(CITRAL\)](#) offers workshops center around inclusive and best teaching practices
- [Center for Science and Engineering Partnerships \(CSEP\)](#) offers a professional development series for graduate student postdocs that focuses on basic skills (e.g., writing, time management), communication skills (e.g., science presentation, teaching, grant writing), and career skills (e.g., career awareness, networking)
- Undergraduate students on campus can publish work in the [URCA Journal](#) to gain experience with the publication process
- Fellowships, scholarships, and grants
  - At UCSB:
    - UCSB Financial Aid has partnered with [ScholarshipUniverse](#) for students to find scholarship relevant to them from thousands of available external scholarships
    - [Undergraduate Research & Creative Activities grant \(URCA\)](#)
      - Up to \$750 to fund undergraduate research
    - [Transfer Student Research Activities grant \(TSRA\)](#)
      - Up to \$750 for transfer students to pursue undergraduate research
    - The Associated Students (AS) of UCSB lists [funding opportunities](#) for specific projects
    - [Graduate Student Internship Fellowship](#) provides \$2,000-2,500 for graduate students pursuing unpaid or underpaid internships not associated with their academic programs.
    - The Graduate Division lists [fellowships, employment opportunities, financial aid](#)
  - Outside of UCSB:
    - National Science Foundation
      - [Graduate Research Fellowship Program](#) (can apply as an undergraduate or graduate student)
      - The UCSB Graduate Division offers an [NSF GRFP success series workshop in the fall of every](#) academic year (usually fall and spring)
    - The Geological Society of America
      - [Expanding Representation in Geosciences \(ERG\) Scholarship](#)
        - \$1,500 scholarship, student membership in GSA, GSA meeting registration

- [On To the Future \(OTF\) program](#)
    - Travel funding, meeting registration, and mentorship for GSA annual meeting, GSA student membership
  - [Graduate Student Research Grants](#)
    - Up to \$2,500 to support graduate student research
    - Can apply twice in graduate student career
  - [AGeS2 Program](#)
    - Up to \$10,000 to fund student research in geochronology
  - [GSA/ZEISS Research Grant](#)
    - \$10,000 to fund graduate student, post-doc, early career research in “innovative microscopy”
  - [GSA Annual Meeting Travel Grants](#)
  - American Geosciences Institute
    - [Harriet Evelyn Wallance Scholarship for Female Graduate Geoscience Students](#)
      - \$5,000 scholarship for female graduate student
    - [AGI Scholarship for Advancing Diversity in the Geoscience Profession](#)
      - \$5,000 scholarship for geoscience graduate student who self-identifies as an underrepresented minority
  - [AAPG Grants-in-Aid](#)
    - \$500–3,000 student research grants
  - [Ford Foundation Fellowship Programs](#)
- Internships
    - UCSB Career Services [Handshake](#) is an online database of internship and job opportunities
    - [Scientists in the Parks](#)
    - [GeoCorps America](#)
    - The American Association of Petroleum Geologists (AAPG) sponsors several internship and job fairs every year
      - [The Rocky Mountain Rendezvous](#)
      - [AAPG Student Expos](#)
  - Outline available resources for training/development or best practices in:
    - Teaching/pedagogy
    - Project management/budgeting
    - Proposal writing
    - Public speaking
    - Networking
    - Getting involved in professional societies
    - Additional coursework
  - List summer experiences, field course opportunities

- [CSEP lists multiple summer internship and scholarship opportunities for undergraduates](#) including:
        - [EUREKA!](#): Summer internship program in STEM (hosted by CSEP) for first-year students
        - [Gorman Scholars Program](#)
        - [SACNAS Scholars Program](#)
      - The UCSB Earth Science department offers spring (104B) and summer field courses for undergraduates.
      - A list of field courses offered by other schools can be found at <https://geology.com/field-camp.shtml>
      - [National Association of Geoscience Teachers \(NAGT\) lists available field courses](#)
    - Outline departmental and regional seminars, presentation opportunities, and opportunities to meet with speakers for building a professional network
      - UCSB Earth Science has a departmental colloquium, usually offered to local scientists but remote talks have expanded our geographic range of speakers. Weekly colloquium speakers also typically have time to meet with faculty and students who are interested in talking about their work and careers.
- **Outreach resources**
  - Outline opportunities, expectations, benefits, and/or compensation for mentoring new hires and/or students who wish to engaged in belonging, accessibility, justice, equity, diversity, and inclusion (Be A JEDI) efforts
    - One of the faculty JEDI committee's highest priorities is to work with other members of the faculty to facilitate dialogue and communicate the latest research and best practices for creating a safe, inclusive, and equitable academic environment. As part of this effort, we will collect and maintain a list of JEDI-oriented activities that faculty can become involved with, which will be noted and rewarded in merit/promotion evaluations per the Dean's office.
    - Student JEDI Council onboarding procedure: Reach out and meet with students, figure out what they're interested in, connect with subcommittee, attend whole group meeting
    - All JEDI activities are volunteer activities.
  - Explicitly acknowledge, discuss, and suggest policies to limit the "time tax" put on people of color for participation in Be A JEDI activities and support clear path for opting out
    - We do not address the time tax.
  - Information on honoraria and establishing/charging speaker fees
    - We do not pay speakers.
- Broader Earth Science community resources:
  - [Asian Americans and Pacific Islanders in Geosciences \(AAPIIG\)](#)



- [GeoLatinas](#)
- [National Association of Black Geoscientists \(NABG\)](#)
- [The International Association for Geoscience Diversity \(IAGD\)](#)
- [Society for Women in Marine Science](#)
- [Earth Science Women's Network \(ESWN\)](#)
- [Mentoring Physical Oceanography Women to Increase Retention \(MPOWIR\)](#)
- [Society for Advancement of Chicanos/Hispanics & Native Americans in Science \(SACNAS\)](#)
- [American Indian Science and Engineering Society \(AISES\)](#)
- [Alaska Native Science and Engineering Program \(ANSEP\)](#)
- [Association of Filipino Scientists in America \(AFSA\)](#)