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URGE Resource Map for the University of Michigan Department of Climate and Space Sciences and Engineering

This is a draft Resource Map for the Department of Climate and Space Sciences and Engineering at the University of Michigan. 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. 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 plan

- General:
 - Clarify the purpose of the resource map such that is well understood by everyone, as well as the plan for working with new hires/students and ensuring their awareness of useful resources (e.g. schedule for initial call(s) and/or meeting(s) to identify needs/interests).
 - Have resource map easily accessible to all in the department (student handbooks, prominent placement on department website, course syllabi, and orientations, workshops and faculty meetings)
 - UM Standard Practice Guide: https://spg.umich.edu/
 - Individual/Group meeting expectations (interval/frequency, journal articles, presentations, socializing, time management, reviewing manuscripts, revising manuscripts/dealing with rejection, careers, current events, media requests)
 - Mentoring Others Results in Excellence (MORE; Rackham program): We can use this as a guide for group- and individual-based mentoring plans.
 - Evaluations of mentor "program": rubric, frequency for advisor/committee evaluations, encourage self-evaluation (reflection) and review long term goals and how to achieve them
 - Rackham Mentoring Plan Workshops (Example: https://rackham.umich.edu/event/more-student-mentoring-plan-work shop/)
 - Mentoring Plan Template: <a href="https://www.google.com/url?q=https://docs.google.com/document/d/1QHgjaYb4tL0dvM0J4l8qS2kQ7OhWzaaKx12ljGRPNEU/template/preview&sa=D&source=editors&ust=1619290303017000&usg=A0vVaw2h7hvUulzFCcv4viOx2WhH

 General Rackham mentoring resources for mentoring: https://rackham.umich.edu/faculty-and-staff/resources-for-directors/mentoring/

For Students:

- CLaSP Student Handbook:
 - https://clasp.engin.umich.edu/resources/graduate/

For Staff:

Currently very limited (or no) resources are available to guide staff. The pod recognizes the crucial role our staff fills in the successful execution of departmental operations. This pod recommends the department develop resources to help staff with their duties and help them feel integrated with the rest of the CLaSP community.

For Faculty:

- CoE and University-wide New Faculty Orientations (generally August)
- New Faculty Foundations Program (https://crlte.engin.umich.edu/new-faculty/)
- ADVANCE <u>Launch Committee</u> program, a committee created around each new tenure-track faculty to ensure that they get the support they need from their department and colleagues. Ends after the first year.
- UM Faculty Handbook: https://www.provost.umich.edu/faculty/handbook/
- There are currently Mentoring Committee monthly lunches, but they are often poorly attended and lack organization to make them productive.

Core work resources

- The pod cannot overemphasize the urgency of the department immediately establishing a robust reporting policy that addresses issues related to insensitivity, harassment, exclusion, and the related consequences (e.g. not everyone drinks alcohol; no "locker room" talk). These policies must be made clear to everyone in the department and should *clearly* provide contacts for reporting outside of one's advisor (e.g. Department, College, and University reporters). Anonymous reporting links should also be easily accessible to everyone, such as the graduate student handbook.
- This pod recognizes that the nature of the work within each lab may vary greatly. We recommend that each group develop a set of expectations and best practices that are clearly laid out for everyone to see. Items addressed should address inclusivity and diversity, mental health, physical health, accessibility concerns, emergency contingency plans, publications or outputs (i.e., group expectations), social media use to amplify professional profile, working hours, and vacation allocation.
- Communication plan and expectations: How do members communicate with each other? What times are appropriate?
- Outline expectations for taking vacation (e.g., 3 weeks) and for reasonable work hours (e.g., 40-50 hrs/wk; be explicit!)

- 20 hours working (graduate student research assistant (GSRA) work) and 20 hours on research.
- If the grad student is a graduate student instructor (i.e., GSI), GSRA work is replaced by GSI duties.
- Work hours and vacation are shown in https://clasp.engin.umich.edu/wp-content/uploads/sites/10/2020/12/2020-21-CLaSP-Graduate-Student-Handbook-1.pdf
- Equipment for work and recreational purposes where to find, fund individual gear like hiking boots, fund or provide access to sufficient "library" of hiking/camping/outdoor equipment
 - Adventure Leadership: https://recsports.umich.edu/rentals/
- Conference and workshop participation (how often and who pays for it?)
 - Be explicit about opportunities for this type of participation and at what point they will be expected to attend conferences. Encourage discussion among the lab about what to expect at conferences and advice for leveraging networking opportunities.
 - Encourage students to apply for funding assistance, such as the Rackham Travel Grant: https://rackham.umich.edu/funding/funding-types/rackham-conference-tra vel-grant/
- Be open to considering proposed workshops/conferences, especially for groups like SACNAS, NABG, AISES, GeoLatinas and others
 - The pod recognizes that there are hundreds of student groups and organizations dedicated to representing the broad diversity of our student body; such as the Black Student Union (https://maizepages.umich.edu/organization/BSU) or over 100 Asian American and Pacific Islander student organizations (https://lsa.umich.edu/apia/student-life/student-organizations.html). We recommend that the department's student advisors encourage students to participate in these groups, as well as develop an infrastructure to specifically address student concerns surrounding identity and disabilities.
 - SACNAS https://maizepages.umich.edu/organization/SACNASatumich
 - ESWN no link for UM group (M-ESWN; Allison Steiner was a co-founder of ESWN and is one of two advisors for M-ESWN). M-ESWN does host a variety of professional development activities.
 - GradSWE https://www.gradswe.engin.umich.edu/resources Graduate Society of Women Engineers UM COE chapter is really active on professional development activities
 - 1st gen students: https://1stgen.engin.umich.edu/
 - Our Diversity Ally grant had funding to support student travel for different professional development activities/conferences/travel that would be related to different affinity groups and possibly not covered by your advisor. Few students took advantage of this in the past (only had like

three people request funds). We encourage increased awareness of similar funding opportunities in the future, as well as input for what types of conferences and workshops that would maximize participation.

- Community support and mental health resources
 - Assistance finding accommodations, moving expenses/assistance
 - For faculty, moving expense reimbursement information is on https://spg.umich.edu/policy/201.68
 - Outline services at organization/university: diversity officer, counseling and psychological services, ombudsperson, affinity groups, etc.
 - Counseling and Psychological Services (CAPS) https://caps.umich.edu
 - National Alliance on Mental Illness (NAMI) of Washtenaw County https://namiwc.org/
 - The Office of the Ombuds https://ombuds.umich.edu/
 - CLaSP diversity committee https://clasp.engin.umich.edu/wp-content/uploads/sites/10/2020/09/CLaS

 P-Faculty-Committees-20-21v6.pdf
 - The pod acknowledges external recommendations from URGE Geoscience to encourage and assist in making connections to someone who may understand their experience (e.g., Black male counselor for a Black male student). While we strongly recommend CLaSP take steps to increase the diversity of the student, staff, and faculty body, there are steps the department can immediately take to accomplish this goal. One such step would be to incentivize and compensate CLaSP alumni from underrepresented groups to mentor students.
 - Calendar(s) of department/university events or mailing lists to join (networking, job postings, etc)
 - We will work on developing a department-based calendar to post on the CLaSP website home page. Content will include department events, seminars, and professional development activities, among others.
 - General: https://www.phys.ocean.dal.ca/hotlists/jobs.html
 - Climate-focus listservs: <u>CLIMLIST</u>, <u>WHOI Geophysical Fluid Dynamics</u>, <u>CRYOLIST</u>, <u>ES_jobs_net</u>, <u>met-jobs</u>, <u>NCAR CGD</u>, <u>PennState</u>, <u>Tropical</u> Storms
 - Space/Planetary-focus listservs: <u>Planetary Electronic Newsletter</u>, <u>Women in Planetary Science</u>, <u>AAS Planetary Sciences</u>, <u>SolarNews</u>, <u>AGU SPA</u>, <u>CEDAR</u>, <u>GEM Messenger</u>
 - What activities/institutions will help BIPOC students 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
 - Student handbook lists the following: Students of Color of Rackham (SCOR; https://www.scor-umich.com/) and the Graduate Rackham

- International (GRIN) organization (https://maizepages.umich.edu/organization/GRIN).
- Link for all UM international student associations (unclear if undergraduate-only, graduate-only, or all students can join individual organizations):
 https://internationalcenter.umich.edu/students/international-student-associations
- Student organization activities in the College of Engineering: https://www.engin.umich.edu/about/ann-arbor-campus/student-life/student-orgs-activities/
 - Identity-Based Organizations link does not work (code 404).
- Businesses or other needs, e.g. gyms (https://recsports.umich.edu/facility/ncrb/ free for students), barber shops/hair services, etc.
- Introductions for other people of color fund membership fees (DO ANY OF THESE ORGANIZATIONS HAVE FEES? There are a lot of them) for organizations like SACNAS, NABG, AISES, GeoLatinas, and others
- 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.
 - Admissions: previously-taken courses (See session 5 deliverable): https://clasp.engin.umich.edu/academics/graduate-studies/graduate-admi-ssions/
 - What skills training is supported through the organization, how would someone acquire/improve these skills? What training is available prior to arrival?
 - Diversity Ally-related activities. [see note above we had dedicated some funding for students to participate in other career-related activities (that might not be supported on regular research grants), though no one really used this resource)
 - ASES teaching engineering organization
 - Training prior to arrival: GREAT workshop, PICASSO-REU
 - NextProf https://nextprof.engin.umich.edu/ (preparing for faculty careers)
 - Early Career Geoscience Faculty
 - National Center for Faculty Development and Diversity
 - 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?
 - CLIMATE 323: Earth System Analysis (Python)
 - CLIMATE/SPACE 423: Data Analysis and Visualization (Python)
 - CLIMATE 586: Climate Data Analysis (Matlab, Python)
 - REU programming basics workshop (Python)
- Professional development resources
 - o Outline available resources for training/development or best practices in:

- Teaching/pedagogy
 - Center for Research on Learning and Teaching (CRLT; https://crlt.umich.edu)
- Project management/budgeting: Currently no such resource exists. This pod recommends that we implore the desire for such dedicated resources among faculty and postdocs.
- Media training: no regular sessions.
 - Ashley Payne led a Diversity Allies professional development seminar specifically for online research promotion.
- Proposal writing
 - Graduate students: CLIMATE/SPACE 747 1-credit seminar.
 - Faculty: Currently there are limited workshops provided through ADVANCE, primarily devoted to specific grants. We recommend that the department consults with junior faculty to identify voids in professional development resources.
- Public speaking
 - GUStO Flash Talks
 - Michigan Geophysical Union (MGU) conference.
- Networking
 - National Advisory Board/Alumni
 (https://clasp.engin.umich.edu/alumni/national-advisory-board/) Diversity Ally funding has hosted a networking event specifically with the NAB and students every year
- Design/drafting of figures using Adobe Suite/Python/ArcGIS
- Getting involved in professional societies
- Additional coursework
- List fellowships, internships, summer experiences, field course opportunities
 - Graduate Student opportunities: NASA FINESST, NSF, DoE
 - Rackham Merit Fellowship
 - Summer experiences: JPL internships, WHOI GFD program
- Outline departmental and regional seminars, presentation opportunities, and opportunities to meet with speakers for building a professional network
 - MGU, AGU, AMS, Gordon Research Conferences
 - Students have the opportunity to meet with weekly seminar speakers and faculty candidates

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 in the graduate student handbook, as well as on the department website.
- 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

- UM CoE Center for Engineering Diversity and Outreach (CEDO): https://cedo.engin.umich.edu/
- o Information on honoraria and establishing/charging speaker fees
- o Recognition and Awards for department students, faculty, and staff.
 - First paper awards/presentation event
 - CoE Graduate Student awards
 - Lots of staff/faculty awards within UM. Not sure how much is relevant to list here, usually these are developed by the department Awards committee
- Reporting resources:
 - Rackham Diversity Allies
 - Ombudsperson
 - Spectrum Center
 - Dean of Students
 - Resolution Officer for Graduate Students and Postdoctoral Fellows
 - OIE (Office of Institutional Equity)
 - SAPAC (Sexual Assault Prevention and Awareness Center)
 - Beyond the Diag (Student off campus housing)
 - OSCR (Office of Student Conflict Resolution)
 - Expect Respect Campaign
 - DPSS (Division of Public Safety & Security)
 - Office of Faculty Affairs
 - Trotter Multicultural Center
 - SSD (Services for Students with Disabilities)A