Student-led organizations as a mechanism for improving department culture

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PSU’s Association of Women Geoscientists chapter is a student-led effort to highlight and combat the challenges faced by an increasingly diverse geoscience community.

Organization structure

- Two co-presidents (one from previous year)
  - (interface with donors and university)
- Executive board
  - Treasurer, secretary, outreach coordinator(s), mentor-mentee coordinator(s), fundraising coordinator(s)
- Other college- and science-associated organizations
  - (Women in EMS, We Are For Science, Geoscience club)
- Faculty advisor
- General members and graduate students
  - (general meeting attended to grads and undergrads on department listserve)
- Alumni-led AWG chapters and mentorship programs at other schools

Timeline of important events for AWG and department

- 2018 - department establishes Social Committee; outreach program with Bearded Ladies exhibit; 4x fundraising increase for field camp scholarship ($1k to $4k)
- 2016 - AWG Chapter Excellence award; field camp scholarship matched by AWGF; first student-led lunch discussion; formalized outreach executive position; department colloquium increased number of women speakers to 50/50
- 2014 - first colloquium speaker breakfast

What challenges do students experience at Penn State Geosciences?

- Financial
  - High cost of undergraduate programs
  - Financial burdens on graduate students
- Mental health support
- Impostor syndrome
- Lack of awareness of resources and coping strategies

Identity
- Lack of diversity in faculty prevents students from having role models and building their own scientific identities
- Dearth of women- and URM-centered career advice

Opening discussion

To promote open discussion of challenges faced by members of the geoscience community, graduate students and some faculty lead “brown bag discussions,” luncheon events in which a topic is chosen and background reading is disseminated. Participants are encouraged to read, express their thoughts and ask questions. Many times department administrators sit in on discussions and note changes or improvements to be made. Lunch discussions held in 2016: 3; in 2017: 4; in 2018: 3; in 2019: 4.

Disparities in rec letters for women

(outresulted in a letter from graduate students, discussed in a faculty meeting)
- Accessibility in geosciences (featured presentation on virtual-reality field trips)
- Anxiety and mental health in academia (featured reading an excerpt from Lab Girl by Hope Jahren)
- Impostor syndrome
- Male allyship in academia
- Chronic and invisible illnesses
- LGBTQ+ inclusion

Visiting speaker breakfasts

AWG invites visiting speakers, LGBTQ+ and other allies visiting the department for breakfast or afternoon coffee and informal discussion. Visitors share their experiences, challenges and advice with undergraduate and graduate women. Such “on-the-fly” mentorship and insight provides participants with diverse ideas about what it means to be a scientist. Number of breakfasts hosted in 2016: 6; in 2017: 9; in 2018: 15; in 2019: 10.

Outreach

In conjunction with the visiting Bearded Lady project exhibit at the Earth and Mineral Science Museum on campus, we organized 120 middle and high school girls come from 10 different counties across the state to watch the documentary, do a museum/gallery scavenger hunt, talk with a panel of grad students, and learn the basics of geology and the diversity of sub disciplines and career opportunities.

We also participate in local K-12 outreach events throughout the year by providing hands-on geology activities such as the WPSU radio station annual Eventapalooza, the Eberly Mineralogical Society’s Jr. Education day, and PSU sponsored events via the Eberly College of Science.

Mentoring

Our Mentorship program pairs interested undergraduate students with graduate student mentors to build relationships and provide insight and advice on getting involved in research, applying to graduate school, and so much more. We also organize graduate school panels, graduate school application writing workshops and practice sessions for senior thesis presentations.

Funding

Fundraising techniques:
- Event-based (ticketed potlucks, raffles, etc)
- University-department camaraderie enhanced:
  - March sales
  - Alumni donations
- Scholarship award factors:
  - Financial need
  - Academic merit
  - Personal essays

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