

URGE

Unlearning Racism in Geoscience



Hiring and/or Admissions Policies for University/Organization - URGE Deliverable

This is what was found by URGE Pod at University of Massachusetts, Amherst on Hiring and/or Admissions Policies, as well as what the pod would propose to change and improve.

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¹ R. Kelley, 10 Samples of an Effective EEO Statement, blog.ongig.com/diversity-and-inclusion/eoo-statement-samples, (2017).

² <https://careers.who.edu/opportunities/diversity-inclusion/>

³ K. Cobb, #GRExit Resources, <https://doi.org/10.6084/m9.figshare.13215461.v1>, (2020).

⁴ J. Posselt, Inside Graduate Admissions: Merit, Diversity, and Faculty Gatekeeping, <https://www.jstor.org/stable/j.ctvjghw8s>, (2016).

⁵ <https://www.brandeis.edu/diversity/dei-recruitment-hiring/rubric-for-evaluating-diversity-statements.html>

⁶ K. Griffin, J. Bennett, T. York, Leveraging Promising Practices, Washington DC: Aspire Alliance, (2020).



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Recommendations

Before providing answers to specific deliverable questions, we would like to provide a summarized list of strengths and weakness within our department for future reference by the UMass Amherst URGE Pod:

Department Strengths

- Significant improvements have been made regarding graduate admissions:
 - The GRE is no longer required for graduate applications.
 - In addition to a personal statement, there is now a supplement that aims to specifically identify the strengths of the student.
 - There is now a rubric for assessing applicants.

Areas of potential improvement

- We need an established Code of Conduct for both faculty and students within the department.

Faculty

- Faculty hiring process:



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- We would like to improve transparency throughout the faculty hiring process. Members of the department should be aware of any recent applicants or hires, as well as the process by which applicants are evaluated.
- Potential letters from previous students and subordinates should be considered, if available.
- Rubric for evaluation
 - We would like to institute rubrics for evaluating statements, for example [this could be a model](#). We could also develop a rubric to assess research statements that could help identify research justice issues such as those discussed in the last deliverable.
 - Potentially have the department climate committee score diversity statements, as well as the search committee, then have the search committee compare the climate committee scores with their own.
 - Have each application material be given a set weight.
- Some pod members are in favor of creating a statement for our department's job descriptions that would phrase a commitment to DEI work in the positive as opposed to the negative wording that exists in the EEO statement below was discussed, but there is concern that words without a cultural shift may not represent the reality in the department.

Graduate

- Update graduate application information to include a section about fee waivers (who qualifies? Who do you contact? What's the process?). Make the process straightforward.
 - E.g. statement: "If you would like a fee waiver, contact X"
- Potentially include a section for a student to explain their recommendation letters, and any complications with previous harmful or biased advisors. Also include a section allowing a student to explain their GPA, if low but not reflective of their abilities. This should be available for the particular cases in which a student has worked a full time job, supported a family, or undergone difficult life events, etc., that have harmed their GPA.
- We would like to create a volunteer support structure in which current students that have already been through the process are available to assist applicants through the application process. The potential applicants share whatever demographic information they choose to offer, and we can use that to pair them with buddies.
- A similar support structure could be implemented for incoming students to assist in the transition to grad school. Something similar exists for some new faculty hires, but not all.
- Creating a statement for our department's undergraduate and graduate program that would phrase a commitment to DEI work in the positive as opposed to the negative



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wording that exists in the EEO statement below was discussed, but there is concern that words without a cultural shift may not represent the reality in the department.

- Create a standard list of places to recruit for graduate students including the National Association of Black Geoscientists meeting, SACNAS, AGU, GSA and others.
- The GPD negotiated with the Dean to ensure UMass graduate school application fees were waived for students applying through the AGU Bridge Scholars. We will need to revisit with the new Dean to ensure that it will continue in future years.
- The [application](#) for Bromery funding is out of date and [the page](#) also needs to have qualifications listed.

Undergraduate

- We should explore new avenues for recruiting geoscience undergrads at UMass, such as the following:
 - when we participate in IE courses, student recruitment weekends, RAPs - we should insert a slide with a statement that welcomes everyone from all backgrounds and experiences to geosciences - there is no barrier to entry! All are welcome.
 - We should brainstorm ways to have undergrads do activities with graduate students. Some example activities could include: hikes, day trips, rock climbing, etc.

General Information

Information on the Geosciences graduate program, including links to information on applying can be [found here](#).

The [faculty hiring guide](#) for UMass Amherst can be found here.

No information is included on the undergraduate admissions process because we accept every student who applies and the application is the standard application for UMass Amherst.



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- What EEO (Equal Employment Opportunity) statement¹ is included in a standard job or admissions advertisement? Are there other inclusion statements and resources publicly available²?

The Equal Opportunity Office at UMass Amherst provides a publicly available Policy Statement, which discusses Affirmative Action, Non-Discrimination and Title IX Non-Discrimination. Within this statement and regarding employment and admissions, the Non-Discrimination policy states: *“The University of Massachusetts, Amherst prohibits discrimination on the basis of race, color, religion, creed, sex, age, marital status, national origin, mental or physical disability, political belief or affiliation, pregnancy and pregnancy related condition(s), veteran status, sexual orientation, gender identity and expression, genetic information and any other class of individuals protected from discrimination under state or federal law in any aspect of the access to, admission, or treatment of students in its programs and activities, or in employment and application for employment.”* The Affirmative Action policy states: *“Affirmative action in employment is required for women; racial and ethnic minorities; disabled veterans, recently separated veterans, active duty wartime or campaign badge veterans, and Armed Forces service medal veterans; and individuals with disabilities in order to address under-representation in the workforce.”*

In addition to the EEO statement the College of Natural Sciences also has a diversity statement:

“As part of a commitment to their own multicultural community, CNS seeks an individual with a demonstrated commitment to diversity and one who will understand and embrace university initiatives and aspirations. Candidates will need to submit a Statement of Contribution to Diversity, Equity, and Inclusion (as stated above). The Diversity Statement should identify past experiences and future goals. These contributions may result from lived experiences, scholarship, and/or mentoring, teaching, and outreach activities. (<https://www.cns.umass.edu/diversity-equity-inclusion>.)“



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- Where are advertisements posted or sent? Are there other strategies for reaching applicants for hiring and/or admissions, e.g. job fairs, showcases?

Where advertisements are posted varies based on what type of job, or which particular graduate program, is being posted.

Faculty

For job postings the head of the search committee generally decides where to post and the chosen places will be related to the specialty of the job. For example when there was an opening for someone to run the geography based GIST masters program the position was advertised to geography professional societies, educator's groups, and listservs.

Graduate Programs

For graduate programs it varies by degree program. For example the GIST 1 year program is generally advertised internally to undergrad students at UMass (via department listservs, physical fliers near relevant classes, etc) as well as externally (via regional GIS professional and academic lists).

For the geography MS program there is very limited funding available for students, and recruitment does not happen every year. This is due to a desire to be able to accept enough students at once to have a cohort of about 4-5 people, which generally happens every other year. When they are ready to accept a new cohort, advertisements are posted to regional geography related listservs and professional society websites.

The Geosciences department often has advertising booths at AGU and GSA, however this does not occur every year. One issue that has come up within the department is lack of funding for new students, which may explain the lack of consistent advertising at these conferences. There is limited funding for students already in the department. If a specific faculty member has research funding, they may reach out to colleagues or social media to look for new members of their research group. In addition, some undergraduate students in the department choose to apply to stay and continue their studies as graduate students.

The department has provided support for graduate students of color to attend the National Association of Black Geoscientists meeting and to the SACNAS annual meeting and to talk with prospective graduate students. The College of Natural Sciences regularly has a booth at the



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SACNAS meeting with materials about the Geosciences department. For the past three years, the GPD of the Geosciences program has sent letters to all senior undergraduate McNair scholars indicating interest in geosciences inviting them to apply to our program.

- What are the requirements for an applicant, e.g. letters of recommendations, fees/test scores³/grades? Is providing any of these a potential barrier that could be further lowered or removed? Are there any problematic questions asked?

Faculty

For faculty job applications 3 letters of recommendation (maybe less for lecturer?), a CV, and letter of application (cover letter) as well as statements of teaching, research and diversity are required. Job listings are posted to professional society listservs and discussion boards as well as on the university website. The exact places it gets posted vary each time a job is open based on who leads the search committee and what research subfield they are trying to reach.

While the College of Natural Sciences now requires a diversity statement in job applications, there have been numerous hires within the Geoscience department specifically that have not gone through a clear application or formal review process. One goal for our department ought to be to increase the overall transparency of the hiring and review process.

Graduate programs

The GRE was removed as a requirement in 2019, which opened up a discussion about how to assess admissions in a more holistic and less biased manner.

The UMass Amherst Graduate School requires a set of standard application materials including personal statement, letters of reference, and GPA. Application fees are waived for McNair scholars and AGU Bridge Scholars. The Geosciences GPD has successfully petitioned the graduate school to waive fees for URM students but the students need to disclose their racial/ethnic or low socio-economic status identity prior to applying.

The Geosciences Graduate Program Director, Michele Cooke created a video to inform faculty about the new holistic graduate admissions process and the role of implicit bias in our



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admissions decisions. The video is [available here](#). All faculty were encouraged but not required to watch it. It describes part of the motivation for overhauling admissions and references a talk Dr. Funmi Ayobami gave on the UMass campus called “Implicit Bias Training and Holistic Review of Graduate Admissions”. The graduate admissions committee has a set of interview questions for prospective students that are [available here](#).

The geosciences graduate programs have a required supplement, which can be [found here](#). There are four prompts designed to assess 1) perseverance, 2) independence, 3) curiosity, 4) ability to work in teams, 5) maturity and, 6) communication skills (written and oral). The prompts are:

1. What motivates you to apply for our program? Graduate school is a multiyear commitment to learning and to a research project. The decision to attend graduate school is a major step in your career. Please tell us what motivates you to go to graduate school and why you think the Geosciences Department at UMass is where you would like to go?

2. Tell us about your perseverance and maturity. Completing graduate-level coursework, independent study, and research definitely requires perseverance in handling deadlines, challenges, and even failures along the way. Briefly describe a challenging time (one where you did not fully succeed in achieving a goal or completing a task) and describe how you responded to that and what you learned from that experience. Then, briefly describe an experience where you struggled through a challenging time but eventually succeeded. What helped you get through that struggle and the stress associated with it?

3. Tell us about how you work in teams. As a graduate student, your research will often involve working as a team with your advisor and other collaborators. Think about a past experience being a part of a team (academic or extra-curricular), and please answer the following questions:

- What role(s) did you play on the team (leader, synthesizer, heavy-lifter, etc.) that contributed to its success?
- What did you learn about successful teamwork and/or team culture through the experience?

4. Tell us about your independence, curiosity and problem-solving skills. Conducting research as a graduate student requires curiosity in developing a question or hypothesis and independence along with creative problem-solving in conducting self-directed research. Please describe a time when you took initiative on something, either academic or outside of academics, that highlights some of these qualities.

URGEO

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The Geosciences Department is one of the inaugural departments in the AGU Bridge program. For this program, underrepresented students fill out one common application without indicating specific departments. If our department is successful in recruiting a student to one of our research programs, that student has to then apply to UMass graduate school but their application fees are waived (the GPD negotiated this waiver with the last graduate school Dean and probably needs to revisit with the new Dean).

The geography program follows the process above except the supplemental questions are not required. The GIST 1 year program is a separate application. For that program applicants submit a letter of interest, 2 letters of recommendation, and their transcript.

- How are applicants/applications evaluated? Is that process and/or rubric^{4,5} public? What kind of biases are introduced in this process and what strategies are used to address these, e.g. removing applicant names?

Faculty

For the faculty job application review process there is no rubric or standard way of evaluating applicants. Applications are not anonymized. The search committee narrows down the applications. The search committee attends a training session with the Equal Opportunity Office about creating a fair process and to discuss the analysis of the expected applicant pool. EOO provides an analysis of which groups are underrepresented within the discipline as well as the expected composition of the applicant pool (based on recent NSF PhD numbers). The search committee is expected to solicit an applicant pool that matches the EOO goals. The committee is composed of people in the discipline, maybe 1 or 2 others who are in related fields, and one person from outside the department. The most senior faculty most closely related to position leads the search. If there are a large number of applicants each member of the committee would review a portion of them.

When the full list is narrowed to the final 10-12 candidates, letters of recommendation are requested and everyone on the committee reads all of the letters. As there is no standardized rubric for reviewing them, faculty interviewed during the process of creating this deliverable noted that a few items held a lot of weight during reviews. These items were who wrote the



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letters of rec (i.e. was it from a well established researcher), which particular journals the applicant had published in, and their number of publications. Having been awarded NSF grants was another point that was seen as very favorable. Video interviews are occasionally conducted following letters of recommendation. After reviewing letters the committee further narrows the list to 3-5 finalists who interview on campus for the position. The interview list has to be approved by the Equal Opportunity Office before anyone can be invited. That report has to account for why applicants of color or other groups underrepresented in your field were not selected for interviews. The remainder of the process is described in the next section.

The search committee process is a point where there is a lot of room for bias and the process for faculty hires and criteria for assessing applicants should be reviewed.

Graduate programs

Students from under-represented groups are considered early in the process and, if appropriate, nominated for Graduate School Spaulding-Smith fellowships (deadline Jan 15th). The GPD asks for lists from the graduate school of students who indicate gender, racial/ethnic and pell grant eligibility. The committee also learns of other student minoritized identity, such as disability or LGBTQIA+ identity, from disclosure within the dossier. In cases where students have similar rubric scores, the admissions committee factors the following in order of importance: whether the advisor is early career, the past mentor success of the advisor, equity in department support of students among the research groups and minoritized identities of the applicant.

The Geosciences program graduate student recruitment efforts benefit greatly from the graduate school's Spaulding-Smith program as well as the department's Bromery funding for underrepresented students with preference for African-Americans. Faculty are more likely to take on students with gaps in geosciences training (e.g. chemistry undergrad major), lower GPA or with weaker letters of reference (e.g. bias in letter writing) when independent funding is available. Other STEM fields have larger representation of students of color so drawing non-geosciences trained students to our department is one way to increase diversity. Our project-based MS program provides a way for non-geoscience trained students to fill their knowledge gaps and become PhD ready. Bromery funds have been used to provide fellowships, up front funds to cover onboarding expenses and funds to support research related activities, such as travel to NABG and other conferences. Additional alumni donations to the Bromery fund would significantly increase the program's ability to recruit and support students of color.



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A new rubric for assessing applications to the geosciences program was introduced in 2020. It is designed to focus on the 6 traits listed above which the new prompts are designed to assess. Applicant names are included.

In the Geosciences program, the admissions committee consists of faculty representing three research areas: climate, solid earth and surficial processes. Those faculty read all of the applicants in their sub area and complete rubrics for those applicants. No student is admitted unless an advisor has also filled out the rubric. So each student has at least two scores. Some students fall within two research areas and end up with two scores from the committee members. The admissions director reads over all rubrics that have advisor support to ensure equity of scoring. The admissions committee representatives flag students who have high rubric scores and try to solicit faculty interest in those students who might not have contacted faculty prior to admission.

There are no rubrics for the geography or GIST programs though they are being considered and will likely be similar to those described above..

- Who is on selection committees and who makes the final decisions? Who interacts with the applicants?

Faculty

For faculty hiring, once the search committee narrows the list to the final 5-6 people (refer to previous section for the review process before this) those final candidates will come to campus. The visit is generally 2 days long and consists of meetings with faculty, the Dean, and dept head, as well as giving a research talk and a teaching talk. There is no standard process for evaluating these talks. For the final decision generally the search committee makes a recommendation, and the faculty votes on it, however the vote could be overridden by the department head. At the end of the search, the department head presents the hiring proposal to the dean. No one interacts with applicants unless they are in the top 5.

Graduate programs

For graduate program applicants it varies. The GIST program is run by Graduate Program Director Forrest Bowlick. He is the sole person who reviews these applications. The majority of applications are accepted until capacity is reached. Applicants are generally only declined if they have a very extensive GIS background and therefore UMass offers no classes that would help them advance.



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In the Geosciences program, applicants are encouraged to contact faculty in advance of applying. Our program web page outlines the admissions process and recommends students contact faculty. After the application deadline, faculty contact potential students for their research programs and conduct phone/video interviews as well as visits to campus. We have discussed hosting a prospective student weekend but faculty brought up salient arguments for and against this mechanism.

For the geography program, admissions is decided by Graduate Program Directors Eve Vogel and Qian Yu, in consultation with the geography faculty. In advance of opening applications Eve and Qian decide on the total number of applicants they can accept based on available funding. As the geography program is fairly small and has limited faculty each year they also assess in advance which faculty has capacity and desire to mentor a student. Potential applicants are encouraged on the department website to reach out to potential advisors to discuss interests before applying. Final decisions are jointly made by the faculty with extra attention paid to the opinions of the faculty who have capacity to mentor. For the geosciences program, faculty have the opportunity to read and score the applications and final decisions are again made by the faculty who would be mentoring the student. Geoscience faculty and geography faculty jointly present their recommendations for admission to the full faculty.

- **Has your hiring and/or admissions process been evaluated by outside consultants? What is the process for changing it?**

No outside consultants have reviewed the hiring or admissions process. Changes to graduate admissions can be made by the Graduate Program Directors. Changes to the faculty hiring process would need to be done by the department head or through university channels, such as the College of Natural Sciences or provost office.



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- Has your university or company implemented or considered strategies like cohort hiring, mentoring, dual career support and partner hires, re-visioning your work culture, or other considerations outlined in “Leveraging Promising Practices”⁶?

Cohort hiring (cluster hires) are rare. These are generally done through the College of Natural Sciences as a multi-department initiative led by the dean.

Partner hires are done here. The process is that the spouse being hired states as part of job negotiation that they want their partner hired as a condition of their acceptance. A department must be located to hire the partner. Then an expedited form of a faculty hire occurs where the partner gives a job talk, meets current faculty, etc. The funding for the partner hire is done via an agreement reached between the college, department (or departments in the case of a joint appointment to 2 departments as often happens between our department and Environmental Conservation), and provost office. We are unsure if this process is limited to married people.

When admitting students from the AGU Bridge program for the first time, the Geosciences admissions committee saw great value in recruiting at least two students so that they might form a cohort. To make this happen, the Department Head committed funds from our operating budget and also successfully solicited funding from the CNS Dean to support these students. Additional alumni support for graduate student fellowships would greatly increase our ability to bring in student cohorts.

As far as we can tell no other strategies from this list have been done here.