INVENTORY AND RECOMMENDATIONS FOR HIRING AND ADMISSIONS POLICIES AND PRACTICES IN THE DEPARTMENT OF GEOSCIENCES AT PENN STATE UNIVERSITY

Faculty Hiring

Existing Policies and Practices

Equal Opportunity and Inclusion statements in job ads:

- Overall Penn State recruitment and hiring information from the Affirmative Action office https://affirmativeaction.psu.edu/welcome/recruitment-searches/
- Penn State Equal Opportunity statement is written into every posted ad: https://hr.psu.edu/content/affirmative-action-equal-employment-opportunity-policy *"EEO is the Law: Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to all qualified applications without regards to race, color, religion, age, sex, sexual orientation, gender identify, national origin, disability or protected veteran status. If you are unable to use our online application process due to an impairment or disability, please contact 814-865-1473."*
- Ads from the College of EMS (including Geosciences) all include an additional statement of valuing diversity such as *"The College of Earth and Mineral Sciences relies on the expertise, sensitivity and commitment of an inclusive faculty to enhance diversity, seek equity, and create a welcoming environment within our community. We are committed to nurturing a learning and working environment that respects differences in culture, age, gender, race, ethnicity, physical ability, sexual orientation, and religious affiliation. In welcoming every candidate, we strive to meet the needs of professional families by actively assisting with partner-placement needs."*
- All Penn State posting also include information about campus crime statistics as part of Cleary Act compliance. These statements feel a bit jarring, juxtaposed next to the inclusive sentiments expressed by the College statements, but at present, moving the statement (e.g., below the Equal Employment Opportunity statement) is not possible due to HR demands at the University level.

Position advertising
- Paid ads for faculty positions are generally placed in wide-spread society newsletters such as EOS from AGU; most searches also advertise with the Association for Women Geoscientists
- Faculty position ads are sent to relevant disciplinary listservs
- Individual faculty send ads around to their networks

Required application materials
- Statement of interest/cover letter
- Curriculum vitae
- Statement of research plans and vision
- Statement of teaching philosophy and interests
- A separate diversity statement that demonstrates a commitment to fostering diversity, equity, and an inclusive environment in their department/workplace
- Names and contact information for 3-4 references

Applicant evaluation
- Committee members are strongly encouraged to attend trainings provided by the Affirmative Action Office https://affirmativeaction.psu.edu/welcome/recruitment-searches/
- During the ad-writing process, committees consider what attributes they would like to see in an ideal candidate
- Committee members are advised to go slowly to give adequate time for anti-biased review of application materials
- Committee members are recommended to develop their own rubrics or criteria for ranking potential diversity, teaching, and research contributions, as well as potential fit in the department (disciplinary needs, etc.). We do not use a uniform or standardized rubric, but examples are provided. Faculty members are asked to think clearly about specific evidence that leads them to rank candidates higher or lower and are encouraged to consider a wide range of factors and a holistic view of excellence that extends beyond traditional "metrics" such as numbers of publications, citation indices, and grant money raised.
- Committee members are strongly discouraged from reviewing an applicant's CV prior to reading their statements. This recommendation aims to slow down the review process and center candidates' words and minimize the potential impact of pedigree and metric-based accomplishments emphasized by the CV (e.g., what programs/labs someone came from, how many publications they have, etc.). The recommended reading order is 1) cover letter, 2) diversity statement, 3) teaching statement, and 4) research statement; all prior to viewing the CV. For committees who have used this approach, general feedback has been that this is a successful way of emphasizing candidate's individual expression and perspectives and that it helps identify strong applicants who are early career or from less-familiar institutions. Additionally, it helps sort out a candidate's individual perspectives and ideas when they come from large working groups.

Decision-making process
- The search committee (appointed and charged by the Department Head) manages the search and evaluates candidates based on their own review of materials and interviews, informed by feedback from the broader faculty and graduate students.
- During the interviews, as many faculty as possible meet with the candidates (in individual and small-group meetings). Every candidate meets with a group of graduate students (usually ~8 students during lunch hour). The committee meets as a group with each candidate for 1 hr. Candidates interact with search-support staff during scheduling and visit coordination.
- Faculty submit feedback on each candidate that is accessible to the search committee.
- Graduate students may also submit feedback and their collective reactions are summarized for the search committee by the graduate student representatives to the faculty.
- The search committee evaluates all materials and feedback and decides on a recommendation that is put forth as a formal motion to the faculty. A faculty meeting is convened and the entire faculty votes on the motion. *[This is specified in the Department Bylaws; link couldn't be located after the web redesign]*
- Ultimately it is the Department Head who has the final say in faculty hiring decisions. In practice, strong consensus is typically achieved before moving forward.

Process assessment
- Our hiring process has not been assessed by outside consultants; however, there has been active internal engagement to improve the process, particularly as the department moved to broaden review criteria to include JEDI-related contributions.
- The College of EMS currently (2020-2021 academic year) has a committee evaluating college hiring practices; recommendations from that committee are generally in line with what the Department is currently doing. The committee is developing a self-assessment tool for departments in the college to use to evaluate their hiring practices and will recommend that departments across the college conduct regular re-evaluations of their practices and compare experiences with other departments. This review and comparison will likely be facilitated by the EMS Associate Dean for Educational Equity and Associate Heads for Diversity Equity and Inclusion across EMS departments.
- Suggestions for changes to practices within the department can be brought to the Department Head or the Associate Head for DEI. Departmental practices are kept in compliance with College-level policies, so communication with the Dean, the Associate Dean for Educational Equity, and College Human Resources are important pathways for alignment.

Recruiting and hiring strategies
- When Geosciences has had multiple positions, we have tried pairing them or advertising in groups to emphasize cohort possibilities. College and Institute-level hiring priorities sometimes result in cohort or cluster hiring opportunities that we partake in when possible.
- Our Department has a strong track-record of working toward dual-career solutions whenever possible. This has recently been added to the language in ads: "*In welcoming*

every candidate, we strive to meet the needs of professional families by actively assisting with partner-placement needs."

- The request for, and review emphasis on, candidate statements on Diversity, Equity, and Inclusion statements is intended to help underscore the importance of this aspect of our departmental and college community and culture.

Recommendations

- Standardize (and expand) the list of job advertising venues (ensure all ads are posted to NABG and SACNAS, for example); keep a list of active information to pass to each new search committee chair.
- Strengthen template for committee discussion of "needs" vs. "wants" and priorities in searches prior to applicant review (during the ad-writing phase). Clearer discussions of the relative ranking/prioritization of disciplinary or teaching needs, or different kinds of contributions to diversity (e.g., representational diversity,

Graduate Student Admissions

Existing Policies and Practices

Equal Opportunity and Inclusion statements:

- The department doesn't have anything specific beyond the general Graduate School admissions language

Advertising

- We rely on faculty meeting and engaging with prospective applicants at meetings
- REU programs (historically, Africa Array) help geoscience students get to know our program
- We work with the EMS Office of Educational Equity and visit with prospective applicants hosted by EMS and the Graduate School STEM open house.
- We recruit from our own undergraduate program, including our amazing students from the Fort Valley dual degree program.

Required application materials

- Personal statements (5 short statements; prompts listed below)
- List of STEM courses
- Letters of recommendation
- Transcript
- List of other items such as awards, publications, etc.

Personal Statement Prompts:

1. **Review Criterion: Problem Solving Abilities.** Describe your most meaningful research experience (in class, in a research lab, at work, etc.). Your answer should include the scientific questions or hypotheses you asked, the experimental design you used to test the hypothesis or question, your results, and the conclusions you drew about the scientific processes you studied. Did you conduct this research independently or as a member of a research team that conducted the research? 250 words maximum.
2. **Review Criterion: Resilience and Adaptability** Briefly describe an academic obstacle you faced or a challenge you have met. What strategies did you use to overcome the challenge? If you faced a future technical problem in your research, how would you overcome this hurdle. 250 words maximum.
3. **Review Criterion: Motivation and Future Goals.** What are your current research interests, why is that field/area attractive to you, and which faculty in the department would allow you to pursue these interests? What do you see yourself doing in 10 years from now? 250 words maximum.
4. **Review Criterion: Respect for Diversity and Inclusion.** Socially diverse groups do better science, are more productive and innovative, and make better decisions. Describe any of your past activities or experiences that have supported diversity and inclusion and/or how you would support or contribute to diversity and inclusion in the Geosciences program? 250 words maximum.
5. **Review Criterion: Additional Experience and Self-Awareness.** Describe other experiences that help us understand who you are. These might include experiences gained through work, service, leadership, military, family background, or other individual challenges or experiences. 250 words maximum

Applicant evaluation
Evaluation Criteria for graduate student applicants to the Geosciences Department
Research experience
Excellent (1): student designed, conducted and analyzed an independent research project
Good (3): student significantly contributed to the design and analysis of an independent research project
Poor (5): student has no prior research experience or shows minimal understanding of their research project

Academic excellence
Excellent (1): excellent GPA, relevant coursework by discipline, math/statistics classes, upward trajectory
Good (3): good GPA, mostly relevant coursework, some math/statistics background
Poor (5): below average GPA, coursework not relevant, no math/statistics background

Diversity/Inclusion
Excellent (1): Built and/or worked on a diverse team, supports through action a diverse, equable, inclusive community or lab group.
Good (3): Recognizes the issue in the statement, is open to being in a diverse group
Poor (5): Does not demonstrate awareness, did not answer the question

Resilience/adaptability
Excellent (1): Describes past experiences with overcoming adversity in academia, describes how they got appropriate help or strategies for dealing with roadblocks

Good (3): Describes how they faced adversity in academia and how they attempted to overcome it but struggled
Poor (5): Does not describe any experience, quit when faced with adversity, or used inappropriate methods to overcome adversity

Motivation/ future goals:
Excellent (1): specifies research goals, did background research on PSU faculty, letters mention high motivation, shows goal-directed behavior, application carefully prepared
Good (3): has a general idea of research goals, has done some research on faculty, letters mention good motivation, application adequately prepared
Poor (5): does not identify a research goal, does not identify potential advisors, application is full of errors, letters mention poor motivation

Communication skills
Excellent (1): written statements use proper grammar, accurate spelling, logical flow, and tells a compelling story; shows good listening skills, and asks insightful questions (if interviewed)
Good (3): written statements mostly have good grammar and spelling, some logical flow, answers to questions are mostly well reasoned but lack some clarity
Poor (5): written statements use poor grammar, are not structured logically, lack clarity, does not ask questions

Decision-making process

- Faculty Graduate Admissions Committee is selected by the Associate Head for Graduate programs with an emphasis on representing the broad disciplinary areas in the department.
- This committee makes recommendations to the Associate Head, who makes the final decisions on admissions. Admissions decisions are made factoring in committee review of candidates, faculty interest (is there a good research/advising match?), and funding opportunities (departmental TA allocations, faculty RA opportunities, etc.)
- Any faculty can interact with applicants.

Process assessment

- There has been no formal external review, but the Associate Head is in contact with the Graduate School and other departments in EMS via the Associate Dean for Graduate Education and Research and considers formal and suggested changes in policies at these levels.
- Suggestions for changes to admissions policies and practices could be raised by contacting the Associate Head for Graduate Programs who will bring it to the Graduate Program Committee (GPC) for discussion.

Recruiting and hiring strategies

- In-person or virtual visits for admitted students, including meeting with current students
- University, Graduate School, and College fellowships and awards (e.g., https://www.ems.psu.edu/graduate/graduate-student-resources/diversity-resources-graduate-students)

Recommendations

- Expand efforts to build relationships with Minority Serving Institutions
- Develop and seek funding for more REU opportunities in the department; coordinate REU experiences for students working under different faculty
- Faculty and graduate students commit to attending meetings like SACNAS and NABG to broaden networks and visibility
- Update departmental web page to have more clearly highlighted DEI activities and resources
- Advertise on website and expand (fundraise) resources and support for underrepresented and minoritized students; clarification is needed about which awards students would apply for directly vs. awards and resources that are managed and distributed by the department or College.