

Title: An Urban University's Approach to Broadening Participation in Geoscience Training Programs

Georgia State University's campus is situated in the heart of downtown Atlanta, adjacent to the state capital. GSU has an extremely diverse student body in terms of race, economic background, and academic preparation. We have the highest graduation rate of African American students of any university in the United States, including the HBCUs. By contrast, only a short drive out of Atlanta in any direction, Georgia becomes very rural, very quickly. All of this presents both challenges and opportunities for the Department of Geosciences.

The state of Georgia offers a wealth of geologic opportunities for our students to study. From the eastern coast to the northwestern Appalachian Mountains, our students can observe many different geologic processes all across the state. Our department is home to four student-body organizations (Geo Club, GTU, SGE, and AIPG student chapters), which all team together with state and local practitioners to provide practical field experiences for geoscience majors. Through these active clubs, students gain a broad understanding of the science away from faculty and course requirements. Many of our graduate students have developed research projects based on their involvement and experiences with the student organizations.

The Department of Geosciences at GSU is a combined department of Geology and Geography. As a result, many of our students are involved in using geospatial technologies across the disciplines. Aside from our undergraduate and graduate degrees in Geosciences focusing on geology and geography, we offer a GIS certificate that is becoming extremely sought-after by Atlanta-based geoscience companies, and beyond. Through these programs, we are able to provide distinct relevance to the geographic diversity we are situated in, focusing on the earth system in both urban and rural settings. Additionally, with most major cities in the United States, we are able to offer our students practical experience in the area of environmental impact as a result of major community development.

The academic programs and student organizations within the department provide a wealth of opportunities for our students to succeed in geoscience workforce. We work to prepare our students with faculty mentoring and several senior-level seminars that help prepare them for moving beyond the undergraduate programs into internships, graduate school and the workforce. Although we are well situated in a diverse university community, we struggle to attract a diverse student body to our programs. However we have several programs through which we try to improve our diversity. A few of these programs include:

The IAGD

Although more of a global network community, the International Association for Geoscience Diversity (IAGD) has a strong impact at GSU. The IAGD is charged with identifying current research opportunities and instructional best practices for underrepresented students with disabilities, while seeking to raise awareness of improving access and exposure to the geoscience disciplines for students and geoscientists with disabilities. The GSU Department of Geosciences has been home to several members of the IAGD, some of which are also involved in many campus-wide committees focused on access and inclusion. While the Department of Geosciences does not currently have any students with disabilities as geoscience majors, several courses have been directly impacted by the IAGD network, and benefit from the resources and experiences found within.

The REU site

Provides intensive, community-based research experiences for 12-15 students per year in Atlanta, including a specific aim to develop new researchers from underrepresented groups. It engages undergraduates in action-oriented, community-based research related to social and environmental disparities with neighborhood organizations and underrepresented populations in Atlanta neighborhoods.

GGA

The Georgia Geographic Alliance (GGA) is a non-profit organization of individuals who believe that geographic knowledge is essential to the success of our state and nation. Our mission is to enhance geographic education and research through the development and promotion of place-based learning opportunities for Georgia K-12 teachers and students across all disciplines especially in Science, Technology, Engineering, and Math (STEM) fields. With this mission, the GGA seeks to ensure that Georgia students, teachers, and community members are global thinkers, geographically-minded problem solvers, and internationally competitive workers.

To broaden participation, the organization's objectives are to:

- Emphasize the power of community geography and place-based learning in local settings to connect core geographic concepts with local/regional issues
- Broaden participation of underrepresented populations in geography and all related disciplines, especially STEM infused disciplines

ACMRC:

The Atlanta Community and Mapping Research Center (ACMRC) is dedicated to working with residents and other neighborhood level stakeholders in unique community-university partnerships to utilize spatial thinking and geographic methods (e.g. mapping, Geographic Information Systems or GIS, participatory action research, field data collection, focus groups, and interviews) to cooperatively address the needs and desires of community groups, neighborhood institutions, and residents.