CU Boulder teams up with ADVANCEGeo Partnership to launch new online course to foster inclusive and safe field experiences for STEM students and professionals

The new course trains field researchers to develop codes of conduct, implement safety protocols, and more

The Cooperative Institute for Research In Environmental Sciences (CIRES) at the University of Colorado Boulder has teamed up with the ADVANCEGeo Partnership to develop ADVANCEing FieldSafety, a free online course that provides researchers with tools to promote safe and inclusive field environments.

Cal State LA Professor Allison Mattheis is a co-principal investigator on the ADVANCEGeo Partnership, an NSF-funded partnership that addresses harassment and exclusionary behaviors in the geosciences, and a collaborator on ADVANCEing FieldSafety.

“As a professor of educational leadership, I’m especially interested in how power dynamics impact the physical and psychological safety of those involved in field research, and am looking forward to learning about the impact of ADVANCEing FieldSafety on participants’ capacity to advocate for themselves and others,” said Mattheis, who is a professor in the Department of Applied and Advanced Studies in Education in the College of Education at Cal State LA.

ADVANCEing FieldSafety is offered by CU Boulder through Coursera, allowing anyone to take the course at any time: it’s not tied to the university’s academic calendar. The course launched this summer and is geared toward anyone who participates in geoscience fieldwork, including researchers, field coordinators, technicians, and students.

Problems like harassment and misconduct have plagued geoscience fieldwork for decades, and individuals who have experienced these issues often step back from fieldwork or leave the geosciences entirely. Alex Padilla, the ADVANCEing FieldSafety program manager at CIRES, hopes the course will change the culture of fieldwork and encourage those from underrepresented groups to continue doing geoscience research.

“Field work isn't always the most inclusive and safe environment, physically and also mentally and emotionally,” Padilla said. “It really is important to build these skills so that we can retain students and diverse individuals.”

The online course is one part of the ADVANCEing FieldSafety program, a collaboration between ADVANCEGeo and FieldSafe, a CIRES-led workshop for building safe and inclusive field teams that originally launched in 2020.

“I am very excited that ADVANCEing FieldSafety will now be widely available to the broad geoscience community, providing tools to develop inclusive field teams and reduce unsafe behavior to a bigger and more widespread group of researchers,” said Kristy Tiampo, director of the CIRES Earth Science & Observation Center who helped launch the FieldSafe program.

Topics covered by the new course include improving team culture and interpersonal communication, establishing mutually acceptable norms and standards for the fieldwork (including codes of conduct), and implementing field safety protocols and emergency response planning in field campaigns. The goals of the course include training field scientists to identify unsafe and harmful behaviors, respond appropriately to mitigate these behaviors, support those impacted by the behaviors, and proactively plan to reduce the likelihood and impact of these behaviors in the future.

The course also covers broader topics such as cultural inclusivity and mentorship. In addition to the course, ADVANCEing FieldSafety offers geoscientists resources and an accompanying tool kit they can use and tailor to their own field expeditions.

“There's just so much [that the course covers] that people can choose what's relevant for them,” said Anne Gold, the program’s principal investigator and director of the CIRES Center for Education, Engagement and Evaluation. Gold envisions the program website as a living portal where geoscience fieldwork community members can contribute their own content and perspectives on making fieldwork safe and inclusive.

“We are excited for other people to contribute and take the course materials and templates and make them their own,” Gold said.

Gold also said she’s received positive feedback from field researchers who have implemented some of the strategies laid out in the course; one researcher told her the strategies helped normalize some of the difficult conversations teams need to have in the field and changed the experience for the better.

With the support of recent Cal State LA M.A. in Environmental Science graduate Crystal Ramirez, Mattheis has been studying how geoscientists who have become trained facilitators through the ADVANCEGeo Program have carried their commitments to interrupt discrimination and harassment into different areas of their lives and work.

“It really makes me feel like we are headed towards this direction, where people are aware, willing, and want to change the landscape,” Padilla said. “And so it just makes me feel really hopeful and excited.”

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Banner image: Participants in the Juneau Icefield Research Program jump while overlooking the Taku Glacier in southeast Alaska. (Credit: Allen Pope)