

Darryl Reano

Tempe, AZ, USA

Education

Ph.D., 2019, Geology & Geoscience Education, Purdue University, West Lafayette, Indiana

M.S., 2014, Geology, Purdue University, West Lafayette, Indiana

B.S., 2010, Geology, New Mexico State University, Las Cruces, New Mexico

Work Experience

2021-present, Assistant Professor, School of Earth and Space Exploration (SESE), Arizona State University, Tempe, Arizona, USA

2019-2021, Postdoctoral Associate, STEM Transformation Institute, Florida International University, Miami, Florida, USA

Recent Teaching Experience

GLG 101: Introduction to Physical Geology (4 semesters, 240 students)

SES 122/124: History of the Earth and Solar System with Lab (2 semesters, 30 students)

SES 480/598: Teaching Earth & Space Science (1 semester, 10 students)

SES/HUL 494/598: Avanzando: Education Pathways (co-taught, 1 semester, 30 students)

SES 598: SESE Prison Education Program (10 semesters, 10 students)

Graduate Student Research Supervisees:

Primary Advisor: Eric Chaides* (MS, expected 2026)

Second Project Main Advisor: Hailey Nelson (PhD, expected 2030)

Graduate Student Committees: Jackie Giblin (PhD Candidate, ASU, expected 2027), Talia Saeid (PhD candidate, ASU, expected 2027), Elishua Shepherd (MS, Purdue University, expected 2028)

Research Narrative:

My work as a geologist and geoscience education researcher is focused on understanding how people from different backgrounds experience geology and develop a geoscience identity in order to broaden participation in geoscience and enhance geoscience education curricula. The goals of my research also include building awareness of educational design factors that improve inclusivity for non-majority students in the geosciences, especially those from Indigenous, LGBTQ+, and religious backgrounds. The most innovative aspect of my research so far, has been my ability to transfer Indigenous community cultural values (e.g., respect, relationality, multilogicality) into higher education contexts such as mentoring, teaching, and evaluation. My research efforts have also resulted in opportunities for diverse undergraduate students to gain fieldwork experience. Across several semesters, I have embedded research components into my course design, using introductory geoscience courses as a context for studying curriculum effectiveness and the impacts of in-person/virtual field experiences in relation to the development geoscience identity among STEM and non-STEM majors enrolled in undergraduate degree programs.

Selected Publications (# denotes student co-author)

#Pond, K. L., **Reano, D.**, & Whipple, K. (2025). An applied, field-based rock mass strength geomorphology education module (RMS GEM): Exploring fieldwork perceptions, self-efficacy, and career intent in geoscience. *Journal of Geoscience Education*, 1-15. <https://doi.org/10.1080/10899995.2025.2555255>

Reano, D., David-Chavez, D., Skillen, K., Ridgway, K., Dahlin, K., & Chong, R. (2025). Supporting the Next Generation of Indigenous STEM Scholars Demands Indigenous Leadership. *Journal of Geography*, 124(3), 62–72. <https://doi.org/10.1080/00221341.2025.2499822>

- Reano, D., & #Hasara, C.** (2024). Using Indigenous research frameworks to enhance connections between Traditional Knowledge and western science at Acoma Pueblo, NM. *Journal of Geoscience Education*, 72 (2), 134-145. DOI: <https://doi.org/10.1080/10899995.2023.2246344>
- Morales, N. & **Reano, D.** (2023). Critically assessing undergraduate field experiences: Understanding conceptualizations and opportunities for building inclusive programs. *Integrative & Comparative Biology*, icad008. DOI: <https://doi.org/10.1093/icb/icad008>
- Reano, D., #Gedz, C., Garcia, Jr., A., & Johnson, E. A.** (2023). Confluent identities in the geosciences. *Journal of Geoscience Education*, 71 (3), 288-300. DOI: <https://doi.org/10.1080/10899995.2022.2158434>
- Reano, D.** (2020). Using Indigenous research frameworks in the multiple contexts of research, teaching, mentoring, and leading. *The Qualitative Report*, 25 (11), 3902-3926. DOI: <https://doi.org/10.46743/2160-3715/2020.4317>
- Reano, D. & Ridgway, K. D.** (2015). Connecting geology and Native American culture on the reservation of Acoma Pueblo, New Mexico. *GSA Today*, 25 (8), 26-28.

Selected Service Positions

- 2024-present, Geological Society of America, GSA Council
- 2024-present, Science Educators for Equity, Diversity, and Social Justice (SEEDS), Social Action Committee Co-Chair
- 2023-present, Phoenix Indian Center, Two-Spirit Pow Wow Organizing Committee
- 2022-2025, American Association for the Advancement of Science (AAAS), Education (Section Q) Steering Group Early Career Member
- 2020-2025, American Geophysical Union, Indigenous Action Task Force
- 2022, American Geophysical Union, Geoscience Education Research Division Working Group
- 2020-2021, Geological Society of America (GSA), Culture Task Force
- 2015-2017, Geological Society of America, Geoscience Education Division Executive Board, Student Representative

Societal Affiliations

- American Geophysical Union (AGU)
- Geological Society of America (GSA)
- New Mexico Geological Society (NMGS)
- American Association for the Advancement of Science (AAAS)
- American Indian Science and Engineering Society (AISES)
- Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)
- National Association of Black Geoscientists (NABG)
- Science Educators for Equity, Diversity, and Social Justice (SEEDS)

Recent Honors and Awards

- 2025 ESIIL Innovation & Leadership Summit Travel Award
- 2023-2024 Indigenous Data Sovereignty and Ethics (DataSET) Fellow
- 2023 AISES Sequoyah Fellowship