

CURRICULUM VITAE: Claire L. McLeod (she/her)

Dept. Geology and Environmental Earth Science, Miami University Oxford, OH, 45056

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▪ PROFESSIONAL PREPARATION

The University of Edinburgh	Scotland, UK	Geology	BSc (Hons, 1 st class) 2004-2008
Durham University	England, UK	Petrology and Geochemistry	Ph.D. 2008-2012
The University of Houston	Texas, USA	Isotope Geochemistry (Postdoctoral researcher)	2012-2015

▪ APPOINTMENTS

Assistant Professor	Miami University, OH	2015-2021
Associate Professor	Miami University, OH	2021-present
Naus Family Faculty Scholar	Miami University, OH	July 2021-present

▪ PEER REVIEWED JOURNAL ARTICLES AND BOOK CHAPTERS

(*undergraduate student, graduate student)

- 2023 Krekeler, M. P. S., Burke, M., Allen, S., Sather, B., Chappell, C., **McLeod, C. L.**, Loertscher, C., Loertscher, S., *Dawson, C., Brum, J., Fackey, D. A novel hyperspectral remote sensing tool for detecting and analyzing human materials in the environment. *Environmental Earth Sciences*, 82:109. <https://doi.org/10.1007/s12665-023-10761-1>
- 2022 **McLeod, C. L.**, Benson, S. Mentoring for success: Best Practices to Support our Students and Colleagues. *Journal on Excellence in College Teaching*, v. 33(4). Available online [here](#).
- 2022 Johnston, S., Brandon, A., **McLeod, C. L.**, Rankenburg, K., Becker, H., Copeland, P. Nd isotope variation between the Earth-Moon system and enstatite chondrites. *Nature*, v. 611; 501-506. <https://doi.org/10.1038/s41586-022-05265-0>
- 2022 **McLeod, C. L.**, Gawronska, A. J. Mantle. In: Encyclopedia of Lunar Science, ed. Cudnik, B. Springer, 1000pp. https://doi.org/10.1007/978-3-319-05546-6_213-1
- 2022 Gawronska, A. J., **McLeod, C. L.**, Blumenfeld, E. H., Hanna, R. D., Zeigler, R. A. New Interpretations of lunar mare basalt flow emplacement from XCT analysis of Apollo samples. *Icarus*, v. 388; 115216. <https://doi.org/10.1016/j.icarus.2022.115216>
- 2022 Arora, B., Currin, A., Dwivedi, D., Fru, M., Kumar, N., **McLeod, C. L.**, Roman, D. Volcanology, Geochemistry, and Petrology Perspectives on Integrated, Coordinated, Open, Networked (ICON) Science Commentary. In: The Power of Many: Opportunities and Challenges of Integrated, Coordinated, Open, Networked (ICON) Science to Advance Geosciences. *Earth and Space Science*, v. 9, e2021EA002120. <https://doi.org/10.1029/2021EA002120>
- 2022 Gawronska, A. J., **McLeod, C. L.** Basalt. In: Encyclopedia of Lunar Science, ed. Cudnik, B. Springer, 1000pp. https://doi.org/10.1007/978-3-319-05546-6_135-1
- 2022 Gawronska, A. J., **McLeod, C. L.** Moon, Overall Geology. In: Encyclopedia of Lunar Science, ed. Cudnik, B. Springer, 1000pp. https://doi.org/10.1007/978-3-319-05546-6_145-1
- 2021 Flett, L., **McLeod, C. L.**, McCarty, J. L., Shaulis, B. J., Fain, J. J., Krekeler, M. P. S. Monitoring Uranium Mine pollution on Native American lands: Insights from Tree Bark Particulate Matter on the Spokane Reservation, WA. *Environmental Research*, v. 194, 110619. <https://doi.org/10.1016/j.envres.2020.110619>
- 2020 **McLeod, C. L.**, and Brown, K. L. Strategies for Preparing and Delivering an Effective Online Presentation. *GSA Today*, v. 30(9). <https://www.geosociety.org/gsatoday/archive/30/9/flip/mobile/index.html>
- 2020 Velázquez Santana, L. C., **McLeod, C. L.**, Blakemore, D., Shaulis, B., Hill, T. Bolivian Hornblendite Cumulates: Insights into the Depths of Central Andean Arc Magmatic Systems. *Lithos*, 370-371; 105618. <https://doi.org/10.1016/j.lithos.2020.105618>
- 2020 *Lindeman, C., *Oglesbee, T., **McLeod, C. L.**, Krekeler, M. P. S. Mineralogy and Geochemistry of the Kinnikinic Quartzite at the Arco Hills Silica and Gold Project in Butte County, Idaho: Results of an Ore Quality Spot Check and Implications for Potential Plasma Furnace Processing. *Minerals*, 10(6); 523. <https://doi.org/10.3390/min10060523>
- 2020 *Oglesbee, T., **McLeod, C. L.**, Chappell, C., *Vest, J., Sturmer, D., Krekeler, M. P. S. A Mineralogical and Geochemical Investigation of Modern Aeolian Sands near Tonopah, Nevada: Sources and Environmental Implications. *Catena*, v. 194; 104640. <https://doi.org/10.1016/j.catena.2020.104640>
- 2020 *Barnes, M., **McLeod, C. L.**, *Faraci, O., Chappell, C., Krekeler, M. P. S. Characterizing the geogenic background of the Midwest: A detailed mineralogical and geochemical investigation of a glacial till in southwestern Ohio. *Environmental Earth Sciences*, v. 79; 159.

- <https://doi.org/10.1007/s12665-020-8890-z>
- 2019 Crawford, I., Anand, M., Barber, S., Cowley, A., Crites, S., Fa, W., Flahaut, J., Gaddis, L. R., Greenhagen, B., Haruyama, J., Hurley, D., **McLeod, C. L.**, Morse, A., Neal, C. R., Sargeant, H., Sefton-Nash, R., and Tartèse, R. Lunar Resources In: *Reviews in Mineralogy and Geochemistry (RMG): New Views on the Moon II. Accepted 2019, RMG volume in production for 2022.*
- 2018 **McLeod, C. L.**, and Shaulis, B. J. Rare Earth Elements in Planetary Crusts: Insights from Chemically Evolved Igneous suites on Earth and the Moon. *Minerals*, v. 8. <https://doi.org/10.3390/min8100455>
- 2017 **McLeod, C. L.**, and Krekeler, M. P. S. Sources of Extraterrestrial Rare Earth Elements: To the Moon and Beyond. *Resources* v. 6; 1-28. <https://doi.org/10.3390/resources6030040>
- 2016 **McLeod, C. L.** Lunar Magma Ocean, Size. In: Encyclopedia of Lunar Science, ed: Cudnik, B. Springer, 1000pp. In print edition available 2021. https://doi.org/10.1007/978-3-319-05546-6_33-1
- 2016 **McLeod, C. L.**, Brandon, A. D., Fernandes, V. A., Peslier, A. H., Fritz, J., Lapen, T., Shafer, J. T., Butcher, A. R., and Irving, A. J. Constraints on formation and evolution of the lunar crust from feldspathic granulitic breccias NWA 3163 and 4881. *Geochimica et Cosmochimica Acta* v. 187; 350-374. <https://doi.org/10.1016/j.gca.2016.04.032>
- 2015 McGee, L. M., **McLeod, C. L.**, and Davidson, J. P. A spectrum of disequilibrium melting preserved in lava-hosted, partially melted crustal xenoliths from the Wudalianchi volcanic field, NE China. *Chemical Geology* v. 147; 184-199. <https://doi.org/10.1016/j.chemgeo.2015.09.023>
- 2014 **McLeod, C. L.**, Brandon, A. D., Armytage, R. M. G. Constraints on the formation age and evolution of the Moon from ¹⁴²Nd-¹⁴³Nd systematics of Apollo 12 basalts. *Earth and Planetary Science Letters*, v. 127; 179-189. <https://doi.org/10.1016/j.epsl.2014.04.007>
- 2014 Wanhainen, C., Nigatu, W., Selby, D., **McLeod, C. L.**, Nordin, R., Bolin N-J. The Distribution, Character and Rhenium Content of Molybdenite in the Atik Cu-Au-Ag-(Mo) Deposit and Its Southern Extension in the Northern Norrbotten Ore District, Northern Sweden. *Minerals*, 4; 788-814. <https://doi.org/10.3390/min4040788>
- 2013 **McLeod, C. L.**, Davidson, J. P., Nowell, G. M., de Silva, S. L., Schmitt, A. K. Characterizing the continental basement of the Central Andes: constraints from Bolivian crustal xenoliths. *Geological Society of America Bulletin*, v.125; 985-997. <https://doi.org/10.1130/B30721.1>
- 2013 Allen, M. B., Kheirikhah, M., Neill, I., Emami, M. H., **McLeod, C. L.** Generation of Arc and Within-plate Chemical Signatures in a Collision Zone: Quaternary lavas from Kurdistan Province, Iran. *Journal of Petrology*, v. 54; 887-911. <https://doi.org/10.1093/petrology/egs090>
- 2013 Jolis, E. M., Freda, C., Troll, V. R., Deegan, F. M., Blythe, L. S., **McLeod, C. L.**, Davidson, J. P. Experimental simulation of magma-carbonate interaction beneath Mt. Vesuvius, Italy. *Contributions to Mineralogy and Petrology*, v.166; 1335-1353. <https://doi.org/10.1007/s00410-013-0931-0>
- 2012 **McLeod, C. L.**, Davidson, J. P., Nowell, G. M., de Silva, S. L. Disequilibrium melting during crustal anatexis and implications for modeling open magmatic systems. *Geology*, v. 40; 435-438. <https://doi.org/10.1130/G333000.1>
- 2010 Deegan, F. M., Troll, V. R., Freda, C., Misti, V., Chadwick, J. P., **McLeod, C. L.**, and Davidson, J. P. Magma-Carbonate Interaction Processes and Associated CO₂ Release at Merapi Volcano, Indonesia: Insights from Experimental Petrology. *Journal of Petrology* v. 51; 1027-1051. <https://doi.org/10.1093/petrology/egq010>

o **In review/in revision (undergraduate student, graduate student)**

Gokey, K., Tella, K., Gillis, M., Fouh Mbindi, M., Krekeler, M. P. S., **McLeod, C. L.** Initial investigations of lead chromate road paint in the Midwest United States. *Transportation Research Part D*, manuscript#: TRD-D-22-02165. *Moderate revisions (Dec. 23).*

Velázquez Santana, L. C., **McLeod, C. L.**, Shaulis, B., Loocke, M., *Al Gbory, R.* Transcrustal magmatic processes as revealed by multiple amphibole crystal cargoes at the Quillacas volcanic center, Bolivia. *Contributions to Mineralogy and Petrology*, manuscript#: CTMP-D-22-00249.

Murchland, M., Elasmar, S., Viner, G., Zhou, X., Gillis, M., Almquist, C., Cymes, B., Bhowmick, M., **McLeod, C. L.**, Krekeler, M. P. S. The Effect of Shock Compression on the Crystal Structure of Cryptomelane (K-OMS-2). *Journal of Dynamic Behavior of Materials*, manuscript#: JDBM-D-22-00060.

▪ **EXTERNAL FUNDING** (total to date: \$1,345,086)

o National Science Foundation (NSF) ADVANCE Catalyst Award #2126030

\$299,947

Title: Equity in STEM at Miami University

Role: Co-PI; 05/15/22-04/30/24

- National Science Foundation (NSF) MRI Award #1919658 \$711,822
 Title: Acquisition of a Multi-Collector ICP-MS with Laser Ablation for Geochemical and Geochronological Applications
 Role: Co-PI; 08/01/19-07/30/22
- National Science Foundation (NSF) IUSE GEOPATHS Award #1801424 \$333,317
 Title: Advancing Undergraduate Geoscience through Integrated Training Experiences
 Role: PI; 08/01/18-07/30/23

• **Sample request proposals**

National Park Service (NPS)	
Project Title: Investigating the Composition of Earth's Lithosphere: Insights from the Xenoliths of the Absaroka Volcanic Units in East Yellowstone National Park. Role: Principal Investigator	
<i>Source of Support:</i> NPS	
<i>22 samples collected from Yellowstone National Park in June 2022</i>	<i>Award Period:</i> Permit granted until end of 2022
<i>Location of Project:</i> Miami University	
<i>Current use:</i> initial data collection in preparation for NSF proposal to Petrology and Geochemistry	

Meteorite Working Group (MWG)*	
Project Title (1): The evolution of lunar igneous lithologies as revealed through their 2-D and 3-D chemical, physical, and chronological characteristics. Role: Principal Investigator	
<i>Source of Support:</i> NASA	
<i>Award Amount:</i> 5 thin sections and accompanying rock chips of meteorites DOM 18262, 18509, 18543, 18666, 18678.	<i>Award Period:</i> 10/01/19 – 09/30/24
<i>Location of Project:</i> Miami University, University of Arkansas	
<i>Current use:</i> MS student thesis Alex Schweitzer (Fall 2021-present), ongoing research	
Project Title (2): U-Pb Crystallization age and impact history of ALHA 81005 and its clasts. Role: Co-Principal Investigator	
<i>Source of Support:</i> NASA	
<i>Total Award Amount:</i> 3 thin sections of lunar meteorite ALH A81005	<i>Award Period:</i> 08/01/18 – when research objectives are achieved
<i>Location of Project:</i> University of Arkansas, Miami University	
<i>Current use:</i> MS student thesis - Jared Brum (Fall 2020-Spring 2022), ongoing research	

*MWG sample request proposal deadlines occur twice a year (March and August, panel meets twice a year ~1 month following these proposal deadlines). Proposals are reviewed by a panel consisting of NASA sample curation scientists and scientists from throughout the lunar and planetary community. Proposals are similar in style to standard grant applications although shorter (4-6 pages): scientific objective must be clear and relevant to NASA Science Mission Directorate, proposed analytical methods must be justified and accompanied by letters of support from all collaborating institutions

Curation and Analysis Planning Team for Extraterrestrial Materials (CAPTEM)†	
Project Title: 2D and 3D Petrochemical and Petrophysical Investigations of Magmatic Differentiation on the Moon. Role: Principal Investigator	
<i>Source of Support:</i> NASA	
<i>Total Award Amount:</i> 8 thin sections and accompanying rock chips of Apollo 11 basalts	<i>Award Period:</i> 12/07/17 – when research objectives are achieved
<i>Location of Project:</i> Miami University, University of Arkansas, University of Texas Austin	
<i>Current use:</i> One PhD student dissertation – Aleksandra Gawronska (started Fall 2018)	

†CAPTEM sample request proposal deadlines occur twice a year (March and August, panel meets twice a year ~1 month following these proposal deadlines). Proposals are reviewed by a panel consisting of NASA sample curation scientists and external reviewers from throughout the lunar and planetary community. Proposals are similar in style to standard grant applications although shorter (3-6 pages): scientific objective must be clear and relevant to NASA science mission directorate, alignment of samples requested to these objectives must be clear and comprehensive, proposed analytical methods must be justified and accompanied by letters of support from all collaborating institutions.

▪ **INTERNAL FUNDING** (total to date: \$56,389)

- 2022 Miami University Committee on Faculty Research (CFR) – Faculty Research Grant (\$14,071)
- 2021 Miami University Student Technology Fee Award - Promoting Student Accessibility through the Digitization of Educational Resources: Acquisition of a Digital Thin Section Slide Scanner (\$2394)
- 2020 Undergraduate Summer Scholarship* awarded to Jessica Patrick (\$600 for faculty). **funding cancelled for summer 2020, modified program approved without funding*
- 2015-present Professional Development Funds from Faculty Learning Communities (\$6900)
New Faculty Teaching Enhancement Program 2015 (\$250); New Faculty Research Community 2016 (\$250); Alumni Teaching Scholars 2016-2017 (\$250); Diffusing STEM 2017 (\$400); Global Initiatives Faculty Collaborative 2017-2018 (\$2500); Experiential Learning 2018-2019 (\$500); Graduate Student Mentorship 2020-2021 (\$500); Diversity, Equity, and Inclusion 2021 (\$500); Evaluating Course Evaluations for Formative and Summative Improvement 2021-2022 (\$1000); Inclusive Teaching for Equitable Learning 2022 (\$250); Let's Play: Improved Instruction through Re-Experiencing Learning using Tabletop Games 2022-2023 (\$500)
- 2019 Center for Teaching Excellence (CTE) Minor Teaching Grant to support Game Based Learning Teaching Assignment in GLG 357 (\$295)
- 2019 Center for Career Exploration & Success, Miami Career Collaborative supported a 2-day field trip to the Department of Mineral Sciences, Smithsonian National Museum of Natural History (\$3000)
- 2019 Undergraduate Summer Scholarship awarded to Andrew Bollinger (\$600 for faculty)
- 2019 Undergraduate Summer Scholarship awarded Jared Brum (\$600 for faculty)
- 2018 Center for Teaching Excellence (CTE) Minor Teaching Grant to attend Early Career Geoscience Faculty Workshop at the University of Maryland (\$300)
- 2018 Council on Undergraduate Research: Education Division Award for Research (\$250)
- 2018 Deans Scholar awarded to undergraduate student Elizabeth O'Brien (\$750 for faculty)
- 2017 Center for Teaching Excellence (CTE) Minor Teaching Grant to attend Summer Institute on Scientific Teaching at the University of Minnesota (\$177)
- 2017 Undergraduate Summer Scholarship awarded to Elizabeth O'Brien (\$600 for faculty).
- 2017 College of Arts and Sciences Equipment Fund: Acquisition of a Hot Plate for Sample Preparation: Supporting Student Research in Geochemistry (\$650, Co-Principal Investigator)
- 2017 College of Arts and Sciences Equipment Fund: Acquisition of a Field Rock Drill in Support of Teaching and Student Research (\$3150, Principal Investigator)
- 2016 Committee on Faculty Research Grant for AY 2017-2018. (\$16,852 for MS student stipend, + \$2500 research costs)
- 2016 Center for Teaching Excellence (CTE) Major Teaching Grant (\$3000)
- 2015 Center for Teaching Excellence (CTE) Minor Teaching Grant (\$300)

▪ **RESEARCH FUNDING ACQUIRED BY STUDENTS**

- (*undergraduate student (*when italicized, student is a NSF GEOPATHS student*), graduate student)
- 2022 Future Investigators in NASA Earth and Space Science (FINESST) to Aleksandra Gawronska
- 2022 American Geophysical Union Lawrence A. Taylor Research Fund to Aleksandra Gawronska
- 2021 Miami Graduate School Dissertation Research Funding Award to Aleksandra Gawronska
- 2021 Miami Graduate School Thesis Research Funding Award to Jared Brum
- 2021 Departmental Research Award to Aleksandra Gawronska
- 2021 Departmental Research Award to *Jessica Patrick*
- 2020 (*Internal*) Miami University Office of Research for Undergraduates: Research Award for Spring 2021 awarded to Mitchell Duncan (\$400)
- 2020 (*Internal*) Miami University Office of Research for Undergraduates: Research Award for Fall 2020 awarded to **Raghad Algbory* (\$450)
- 2020 (*Internal*) Miami University Office of Research for Undergraduates: Research Award for Fall 2020 awarded to **Jordan Vest* (\$750). Project co-advised with GEOPATHS Co-PI Dr. Mark Krekeler
- 2020 (*Internal*) M.I.A.M.I WOMEN Giving Circle **Jordan Vest, *Claudia Dawson, *Jessica Patrick, *Lauren Doepke* (\$7200)
- 2020 (*Internal*) Miami University Office of Research for Undergraduates: Student Scholarship[†] awarded to **Jessica Patrick*. (\$1000 for research costs) [†]*program cancelled for summer 2020*
- 2019 (*External*) ExxonMobil/Geological Society of America Student Geoscience Research Grant awarded to Liannie Velázquez-Santana (\$5000)
- 2019 (*Internal*) Miami University Office of Research for Undergraduates: Undergraduate Student Scholarship (USS) awarded to **Andrew Bollinger* (\$1000 for research costs)

- 2019 (*Internal*) Miami University Office of Research for Undergraduates: Undergraduate Student Scholarship awarded to *Jared Brum (\$1000 for research costs)
- 2019 (*Internal*) Miami University Undergraduate Research Award (\$450) awarded to *Jared Brum
- 2018 (*Internal*) Miami University Office of Research for Undergraduates (ORU) Doctoral Undergraduate Opportunity Scholarship (DUOS) awarded to *Jared Brum and Aleksandra Gawronska (\$1000)
- 2018 (*External*) Evolving Earth Foundation awarded to Richard Brydon (\$3000)
- 2017 (*External*) Regional Geological Society of America Undergraduate Research Award awarded to *Elizabeth O'Brien (\$300)
- 2017 (*Internal*) Miami University Office of Research for Undergraduates: Undergraduate Student Scholarship (USS) awarded to Elizabeth O'Brien (\$1000 for research costs)
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▪ AWARDS TO STUDENTS

- (*undergraduate student, (*when italicized, student is a NSF GEOPATHS student*), graduate student)
- 2022 (*External*) Cernan-Schmitt-Evans Travel Award to Aleksandra Gawronska (\$1500)
- 2022 (*Internal*) Miami University Provost Student Academic Achievement Award to *Kinshuk Tella* (co-mentored with Dr. Krekeler)
- 2022 (*External*) National Association of Geoscience Teachers (NAGT) Outstanding Teaching Assistant Award to Aleksandra Gawronska
- 2022 (*External*) AIPG National Scholarship to *Ruthy Rutherford
- 2022 (*Internal*) Annual Departmental PhD Research Award to Liannie Velázquez-Santana
- 2022 (*Internal*) Annual Departmental MS Research Award to Jared Brum
- 2022 (*Internal*) Annual Departmental DEI Award to Liannie Velázquez-Santana
- 2022 (*Internal*) Annual Departmental Service Award to *Ruthy Rutherford
- 2022 (*External*) National Association of Geoscience Teachers (NAGT) Outstanding Teaching Assistant Award to Liannie Velázquez-Santana
- 2021 (*External*) American Geophysical Union Travel Grant to Liannie Velázquez-Santana
- 2021 (*External*) Geological Society of America Expanding Representation in Geosciences to *Ruthy Rutherford
- 2021 (*External*) Norman R. Tilford Field Study Scholarship to *Jessica Patrick*
- 2021 (*Internal*) Miami University Provost Student Academic Achievement Award to *Lauren Doepke* (co-mentored with Dr. Krekeler)
- 2021 (*Internal*) Miami University Provost Student Academic Achievement Award to *Ethan Klein* (co-mentored with Dr. Krekeler)
- 2021 (*External*) AIPG National Scholarship to *Jessica Patrick*
- 2021 (*External*) Lunar Planetary Institute Career Development Award to Aleksandra Gawronska
- 2021 (*External*) Goldwater Scholarship to *Ethan Klein* (co-mentored with Dr. Krekeler)
- 2021 (*External*) NASA Space Grant College Fellowship: Ohio Space Grant Consortium to Jared Brum
- 2021 (*External*) Lunar Planetary Institute Career Development Registration Award to Aleksandra Gawronska (to attend the 52nd Lunar and Planetary Science Conference, virtual, March 15th-19th)
- 2020 (*Internal*) Miami University Graduate Student Achievement Award to Liannie Velázquez-Santana
- 2020 (*External*) National Association of Geoscience Teachers (NAGT) Outstanding Teaching Assistant Award to Daniel Blakemore
- 2020 (*External*) Ohio Environmental Protection Agency (EPA) Scholarship to **Jessica Patrick* (\$5000)
- 2020 (*Internal*) 2021 College of Arts and Science Dean's Scholar to **Jessica Patrick* (\$500)
- 2020 (*External*) Student Academic Career Prep Fund Award awarded to Liannie Velázquez-Santana by NAGT to support registration and virtual attendance at the *Preparing for an Academic Career Workshop*, Earth Educators' Rendezvous
- 2020 (*Internal*) Provost's Student Academic Achievement Award awarded to **Jessica Patrick* (\$1000).
- 2020 (*Internal*) Senior Departmental Research Award to *Jared Brum (1 of 4 awarded to seniors)
- 2020 (*External*) Geological Society of America J. David Lowell Field Camp Scholarship (\$2000 – to be applied in summer 2021)
- 2020 (*Internal*) Miami University Family Fund awarded to **Jessica Patrick* (\$1000)
- 2020 (*External*) American Institute of Professional Geologists (AIPG) National 2020 Undergraduate Scholarship awarded to *Jennifer Davis (\$1000)
- 2020 (*Internal*) H. Van der Veer Hilker Memorial Scholarship awarded to **Jessica Patrick* (\$250, outstanding student of junior standing in Department of Geology and Environmental Earth Science)

- 2019 (External) Aleksandra Gawronska selected for 10-week, internationally competitive Exploration Science Summer Intern Program, at the Center for Lunar Science and Exploration, Lunar Planetary Institute, Houston, TX (1 of 9 interns from >100 applicants)
- 2019 (External) North Central GSA Travel Grant (\$100) awarded to Andrew Bollinger
- 2019 (External) GSA Mineralogy, Geochemistry, Petrology, & Volcanology Division, student travel grant awarded to Liannie Velázquez-Santana (\$500)
- 2019 (External) GSA Rocky Mountain Student Travel Grant to Liannie Velázquez-Santana (\$100).
- 2019 (External) GeoCUR Award for Excellence in Student Research awarded to *Jared Brum
- 2019 (Internal) Miami Graduate School Student Travel Grant to Liannie Velázquez-Santana (\$150)
- 2018 (External) Geological Society of America Student Professional Development Pathways Travel Award awarded to Liannie Velázquez-Santana (\$900)
- 2018 (External) Geological Society of America On To The Future (OTF) award awarded to *David Beka Binyam (\$600)
- 2018- (Internal) Miami University Graduate School Scholar Assistantship awarded to Liannie Velázquez-Santana
- 2018- (Internal) Miami University Graduate School Diversity Enhancement Pathway Graduate Assistantship awarded to Liannie Velázquez-Santana
- 2018 (External) Cincinnati Mineral Society Education Fund Scholarships awarded to *Ciara Childers and *David Beka Binyam (\$750 each)
- 2018 (External) Excellence in Student Research Award from Geoscience Division of Council on Undergraduate Research (15 awarded nationally) awarded to *Elizabeth Angi-O'Brien.
- 2018 (Internal) Deans Scholar Award awarded to *Elizabeth Angi-O'Brien (\$750)
- 2018 (Internal) Provost's Student Academic Achievement Award awarded to *Elizabeth Angi-O'Brien (\$1000).
- 2017 (External) Geological Society of America On To The Future (OTF) award awarded to *Elizabeth Angi-O'Brien (\$600)
- 2017 (External) American Geophysical Union Virtual Poster Showcase, Maureen Haley 2nd place

▪ STUDENT MENTORSHIP AND ADVISING

PhD students (n=3)

- **Azadeh Sedaghat** started Fall 2022.
Dissertation Title: Evaluating the nature of open magmatic systems in continental arc environments: a petrological and microgeochemical study of Andean and Cordilleran arc products
- **Aleksandra Gawronska** started Fall 2018, oral comprehensive exams passed Fall 2019, dissertation proposal passed Spring 2020. *Expected graduation:* May 2023
Dissertation Title: Investigating Extraterrestrial Magmatic Processes: New Insights from the Physical and Chemical Characteristics of Apollo Basalts
Undergraduate institution: University of Notre Dame. Advisor: Dr. Clive Neal
- **Liannie Velázquez-Santana** started Fall 2018, oral comprehensive exams passed Fall 2019, dissertation proposal passed Spring 2020. *Graduated:* Summer 2022
Dissertation Title: Transcrustal Arc Magmatic Systems: Mineralogical and Petrochronological Insights from Central Andean Cumulates and Crustal Xenoliths
Undergraduate institution: University of Puerto Rico, Mayagüez. Advisor: Dr. Tom Hudgins
Current position: Postdoctoral Research Fellow, University of Texas, Austin (Sept. 2022-present)

MS students (n=5)

- **Alex Schweitzer – current student**
Thesis title: New insights into the nature of the lunar crust: a petrophysical and petrochemical investigation of the DOM 18543 from the 2018 Dominion Range lunar meteorite suite
- **Jared Brum (Principal advisor)** graduated May 2022
Thesis title: Insights into the early evolution of the Moon: petrological and geochronological constraints from lunar meteorite (ALH) A81005
Current position: Project Manager at Layne, OH
- **Daniel Blakemore (co-advised with Dr. Mark Krekeler)** graduated Summer 2020
Thesis title: Tracing the Origins of Pyrite at the Round Mountain Gold Mine, Nevada
Current PhD student at the University of Michigan, advisor: Dr. Adam Simon
- **Richard Brydon (Principal advisor)** graduated January 2019
Thesis title: Tracing magmatic processes in plutonic environments: Insights from apatite and rift-related granites

- *Current position:* Geologist at Tetra Tech Consulting and Engineering Firm, WV (2019-)
 - **Maureen Haley** (*Principal advisor*) graduated January 2019
Thesis title: Mineralogical Perspectives: using Mineral Chemistry to Unravel the Magmatic Architecture of Granitic Batholiths
Current position: Materials Test Technician, Advanced Testing Laboratory, Inc., OH (2021-)
Former position: Environmental Analyst at SanAir Technologies Laboratory, OH (2019-2021)
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▪ **MEMBER OF GRADUATE STUDENT ORAL EXAM/DISSERTATION/THESIS COMMITTEES**

PhD students (n=11)

- **Mauro Mingo** (*oral comprehensive examination Spring 2023*)
 - **Jamshid Ahmadi** (*oral comprehensive examination Spring 2023*)
 - **Autumn Haagsma** (*oral comprehensive examination Fall 2022, proposal defense Fall 2022*)
Dissertation title: Development of a Geologic Complexity Ranking System for Carbon Dioxide Storage to Inform Site Selection
 - **Wilnelly Ventura-Valentín** (*oral comprehensive examination Spring 2022, proposal defense Fall 2022*)
Dissertation title: Investigating Time-Varying Relationships Between Swarms, MS-AS. Slow Slip, and Seismicity Along the Mexican Megathrust and Sliver Fault
 - **Nanci Reyes-Guzmán** (*comprehensive examination Fall 2021, proposal defense Spring 2022*)
Dissertation title: Unraveling the geochemical evolution of Holocene eruptions: Insights from single eruptions to monogenetic clusters in intra-plate and subduction settings
 - **Madeline Ess** (*oral comprehensive examination January 2021, proposal Spring 2021*)
Dissertation title: Changes in Phanerozoic Ecospace Utilization
 - **Alex Kugler** (*defended summer 2020*)
Dissertation title: Microbe Mineral Interactions: Cyanobacteria, Mineral Protection, and Banded Iron Formations
 - **Calvin Anderson** (*proposal Spring 2020*)
Dissertation title: A new Mechanism for Metal Isotope Fractionation Induced by Natural Solid-State Ion Conduction
 - **Brittany Cymes** (*Fall 2015 - Spring 2020*)
Dissertation title: Catalytic Properties of Novel Microporous Minerals
 - **Wladek Betkowski** (*Fall 2014 - Spring 2018*)
Dissertation title: A Study of Phosphate Accessory Minerals, their Reactivities, Replacements and Geochronology: Implications for the Llallagua Tin Porphyry Emplacement and Mineralization
 - **Elise Conte** (*Fall 2010 - Spring 2017*)
Dissertation title: Applications of Isotopes to Magmatic Processes, Eruption Ages, and Nuclear Forensics
-

MS students (n=20)

- **Jack Verbrugge** (*proposal defense Spring 2023, upcoming*)
- **Abigale O'Connor** (*proposal defense passed Spring 2022*)
Thesis title: Using soil geochemistry to map historic and late Holocene floodplains, Four Mile Creek, Ohio
- **Stephanie Mounce** (*proposal defense passed Spring 2022*)
Thesis title: Globular Fluorite and Calcite Inclusions in Apatite: Possible Evidence of Immiscible Fluoritic and Calcitic Magmas in Wilberforce-area Vein Dikes, Ontario, Canada
- **Derreck Gossett** (*proposal defense passed Spring 2022*)
Thesis title: Prevalence and Characteristics of Seismic Magnitude Clustering in Earthquake Catalogs
- **Justin Bank** (*proposal defense passed Spring 2022*)
Thesis title: Mineralogy and Textures of Talc Ore from the Willow Creek Mine, Montana: Investigating Origins and Hazards in a Historic Industrial Mineral Source
- **Nick Jenkins** (*proposal defense passed Spring 2022*)
Thesis title: Initial Characterization of Synthetic Goethite Post-Shock Compression using scanning electron microscopy indicates shock resistance
- **Kailee Gokey** (*proposal defense passed Spring 2021*)
Thesis title: The Nature and Distribution of Contaminants in Las Vegas, NV Street Sediments
- **Morgan Gillis** (*defended Summer 2022*)

- Thesis title:* Exploring naturally occurring asbestos in road sediment and possible links to mesothelioma
- **Noël Skocko** (*defended Summer 2022*)
 - Thesis title:* Tracing the Geochemical Evolution of the Tacámbaro Cluster in the Michoacán-Guanajuato Volcanic Field in Central Mexico.
- **Alexia Rojas** (*defended Winter 2022*)
 - Thesis title:* Investigating Sedimentologic and Structural Controls on the Deposition of the Triassic Ischigualasto Formation, San Juan Province, Argentina
- **Jennifer McClellan** (*defended Fall 2021*)
 - Thesis title:* Rhyolite Magmatism in the Context of Silver and Gold Mineralization in Tonopah, Nevada: Field, Geochemistry and Remote Sensing Approaches
- **Alex Ruley** (*defended Summer 2021*)
 - Thesis title:* Geochemistry of arsenian pyrite in the major ore units of Round Mountain Gold Mine and implications for extraction processes
- **Whitney Lopic** (*defended Spring 2021*)
 - Thesis title:* An Asynchronous Mesozoic Marine Revolution: Drilling Versus Durophagy in Post-Paleozoic Echinoids
- **Wilnelly Ventura-Valentín** (*defended Summer 2021*)
 - Thesis title:* Characterization of swarm and aftershock behavior in Puerto Rico
- **Chris Emproto** (*defended Summer 2020*)
 - Thesis title:* Anion and Trace Element Chemistry of Carbonate-Hosted Apatite in the Grenville Province
- **Lonnie Flett** (*defended Spring 2020*)
 - Thesis title:* Providing new environmental health contexts for native American populations: An investigation of airborne particulate from the Midnite Mine, Spokane Indian Reservation, WA
- **Jared Wink** (*defended Fall 2019*)
 - Thesis title:* Flexural partitioning of the Late Albian-Cenomanian Southern Cordilleran foreland-basin system, Utah, Wyoming, and Colorado
- **Caleb Chappell** (*defended Spring 2018*)
 - Thesis title:* Chemical and Structural Characterization of Fluorapatite from the Poudrette Pegmatite, Mont Saint-Hilaire, Québec, Canada
- **Hannah Kempf** (*defended Spring 2018, combined BS-MS degree*)
 - Thesis title:* Fossil Food Webs Reveal Consequences of Invasive Species
- **Mack Taylor** (*defended Fall 2017*)
 - Thesis title:* Gold from the Type 4 Ore of Round Mountain, Nevada: A Textural and Mineralogical Study of MacrocrySTALLINE and Disseminated Gold

▪ **UNDERGRADUATE RESEARCH (external to NSF GEOPATHS program)**

- **Drew Wolf**, current senior
- **Emily Mazurek**, current senior
- **Katie Caudill**, current senior
- **Zachary Ellia**, current junior
- **Kevin Woeste**, graduated May 2022; Indiana Geological & Water Survey, Indiana University
- **Ruthy Rutherford**, graduated May 2022; Environmental Specialist II at Ohio EPA
- **Mitchell Duncan**, graduated May 2022
- **Miguel Suarez Mejia**, graduated Jan 2021
- **Andrew Bollinger** graduated May 2020: current PhD student at Michigan State University, advisor: Dr. Tyrone Rooney
- **Jennifer Davis** graduated May 2020: current PhD student at the University of Colorado Boulder, advisor: Dr. Carolyn Crow
- **Ciara Childers** graduated May 2019: Environmental Field Technician-Groundwater Specialist, Institute of Ecconomics (2019-2022); Project Geologist, Jett Environmental Consulting (2022-)
- **David Beka Binyam** graduated December 2018: GIS technician, Duke Energy

▪ **INVITED TALKS**

- (*undergraduate student, graduate student)
- 2022 **McLeod, C. L.** What is the Moon made of? Evaluating Lunar Geological Processes through Petrology and Geochemistry. *Ohio State University Seminar Series, September.*
- 2020 **McLeod, C. L.**, *Brum, J., Shaulis, B. J. Extraterrestrial Mineralogy: Insights from 5 new Lunar

- Meteorites. 8th Annual Friends of Mineralogy Midwest Chapter Symposium*, Miami University, OH, March 9th. *Cancelled.
- 2020 **McLeod, C. L.**, Velazquez-Santana, L. C., Blakemore, D., Shaulis, B. J., Hill, T. Investigating the Depths of Continental Arc Magmatic Systems: Insights from Hornblendite Cumulates from the Bolivian Central Andes. *Ball State University Graduate Colloquium, February*.
- 2019 **McLeod, C. L.**, Gawronska, A. J., *Brum, J., Blakemore, D., Cronenberger, K., Hanna, R., Duley, M., Edelmann, R., Shaulis, B. J., Zeigler, R. Making Sense of the Moon: Insights from Lunar Mineralogy. Microscopy Society of the Ohio River Valley Fall meeting, Dayton, OH.
- 2018 **McLeod, C. L.**, Evans, D. Innovations in Curriculum and Pedagogy: Global Learning at Miami. 2018 MAC Academic Leadership Conference, Miami University.
- 2018 **McLeod, C. L.** Earth's Moon: Magmatism, Mare, Meteorites and More. *University of Cincinnati Seminar Series, March*.
- 2017 **McLeod, C. L.** Undergraduate Research in an upper-level course: An example from Igneous and Metamorphic Petrology. Council on Undergraduate Research (CUR) workshop: Establishing and Sustaining an Undergraduate Research Program. American Geophysical Union (AGU) Fall Meeting. New Orleans, Louisiana, USA.
- 2017 **McLeod, C. L.**, Davidson, J. P., de Silva, S. L., Nowell, G. M. Continental Arc Magmatism: Insights from monogenetic volcanism in the back-arc of the Bolivian Andes. *University of Arkansas Colloquium, November*.
- 2017 **McLeod, C. L.**, Davidson, J. P., and de Silva, S. L. Probing the depths of Continental Arc Magmatism: Insights from the Minor Volcanic Centers of the Bolivian Andes. IAVCEI (International Association of Volcanoes and Chemistry of the Earth's Interior), Portland, Oregon, USA.
- 2016 **McLeod, C. L.** New insights into the early evolution of the Moon from Apollo and meteorite samples. *University of Oslo Seminar Series, Norway, June*.
- 2014 **McLeod, C. L.**, Brandon, A. D., and Armitage, R. M. G. Investigating the early evolution of the Moon from ¹⁴²Nd-¹⁴³Nd systematics of Apollo Basalts. Lunar and Planetary Institute (LPI), Houston, TX.
- 2012 **McLeod, C. L.**, Davidson, J. D., Nowell, G. M., de Silva, S. L., Schmitt, A. L. Building Continental Crust at an Active Margin: Compositional and Age Constraints from the Central Andes. *University of Houston Seminar Series, November*.

▪ CONFERENCE CONTRIBUTIONS

- **Oral Presentations** (last 6 years *undergraduate student, graduate student)
- 2023 **McLeod, C. L.**, Brum, J. T., Loocke, M., Shaulis, B., Gawronska, A. J. Allan Hilla (ALHA) 81005 40 Years On: New Insights from Dunitic and Troctolitic Mg-suite Clasts. 54th Lunar and Planetary Science Conference, March 13th-17th, #2979.
<https://www.hou.usra.edu/meetings/lpsc2023/pdf/2979.pdf>
- 2022 Gawronska, A. J., **McLeod, C. L.**, Loocke, M., Shaulis, B. The evidence for Open Magmatic System Processes Recorded in the Crystal Cargoes of Lunar Basalts. American Geophysical Union Annual Meeting, Chicago, IL, Dec. 12th-16th.
- 2022 Velázquez Santana, L. C., **McLeod, C. L.**, Shaulis, B., Loocke, M., *Al Gbory, R. Trans Crustal Magmatic Processes as Revealed by Multiple Amphibole Crystal Cargoes at the Quillacas Volcanic Center, Bolivia. GSA Meeting, Oct. 9th-12th, Denver, CO.
<https://gsa.confex.com/gsa/2022AM/webprogram/Paper380402.html>
- 2022 **McLeod, C. L.**, Curl, A., Sellers, S. The Use of Course Evaluations for Formative and Summative Instructional Improvement. 41st annual Original Lilly Conference on College Teaching, Nov. 17th-19th, Miami University, Oxford, OH.
http://celt.miamioh.edu/lillycon/session_files/2022/McLeod_etal_proposal.pdf
- 2022 **McLeod, C. L.**, Krekeler, M. P. S. Supporting Student Professional Development in the (Geo)sciences: Observations, Reflections, and Recommendations from a NSF GEOPATHS program. Annual Geological Society of America Meeting, Denver, CO, Oct 9th-12th.
- 2022 *Ellia, Z., *Murchland, M., *Wolf, D., *Baldasare, A., **McLeod, C. L.**, Currie, B. S. Communicating Earth's Geological History Through Trail Guides: An Example from Torrey Canyon, Wyoming. Annual Geological Society of America Meeting, Denver, CO, Oct 9th-12th.
<https://gsa.confex.com/gsa/2022AM/webprogram/Paper382872.html>
- 2022 Scully, J. E. C., Ceretti, G., Viswanathan, A., Steckloff, J. F., Richey, C., Probst, A., Poh, G., Melwani Daswani, M., **McLeod, C. L.**, Moa, X., Lillis, R., Kumari, N., Kraus, H., Hoogenboom, T., Hay, H., Goudge, T. A., Fayolle, E. C., Elder, C. M., Diniega, S., Daftry, S., Byrne, P. K., Brooks, S. M., Blank, J. G., Becerra, P., Bandyopadhyay, S., Hughson, K. H. G. Foreign Nationals

- Employed and Studying in the Field of Planetary Research in the United States, and Recommendations for Supporting this Group. Advancing IDEA in Planetary Science, Lunar Planetary Institute (*virtual*) April 25th-29th; #2002.
<https://www.hou.usra.edu/meetings/advancingidea2022/pdf/2008.pdf>
- 2022 *Woeste, K., **McLeod, C. L.** A Petrographic Analysis of Shonkinites in the Adel Mountain Range. 28th Annual Miami Undergraduate Research Forum, (*virtual*), April 20th; #B20.
- 2022 Brown, K., Loocke, M., **McLeod, C. L.**, *Dewaelsche, P. Using Microanalytical Techniques to Unravel K-feldspar Megacryst Formation. Joint 56th annual North-Central/71st annual southeastern Geological Society of America Section Meeting. April 7th-8th, Cincinnati, OH.
<https://gsa.confex.com/gsa/2022NC/webprogram/Paper375266.html>
- 2022 *Rutherford, M., **McLeod, C. L.** Global Education Outreach for Diversifying the Earth Sciences (GEODES): Engaging High School Students with Geoscience Materials and Investigating Ohio High School Teachers Familiarity with the Earth Sciences. Joint 56th annual North-Central/71st annual southeastern Geological Society of America Section Meeting. April 7th-8th, Cincinnati, OH.
<https://gsa.confex.com/gsa/2022NC/webprogram/Paper375808.html>
- 2021 Velázquez Santana, L. C., **McLeod, C. L.**, Brown, K. Establishing the Continental Crust of the Central Andes: Insights from Zircons in Bolivian Crustal Xenoliths. American Geophysical Union Fall Meeting, December 13th-17th, New Orleans, LA.
- 2021 Gawronska, A. J., **McLeod, C. L.**, Gilmour, C. M. X-ray Computed Tomography for the Analysis of the Materials Collected at the Lunar South Pole. Annual Meeting of the Lunar Exploration Analysis Group (LEAG), August 31st-September 2nd (*virtual*).
<https://www.hou.usra.edu/meetings/leag2021/pdf/5012.pdf>
- 2021 Gawronska, A. J., **McLeod, C. L.**, Blumenfeld, E. H., Hanna, R., Zeigler, R. A. New Insights into Lunar Basalt Flow Morphologies from X-Ray Computed Tomography of Apollo Basalt Samples. Tomography for Scientific Advancement - North America (ToScANA). May 24th-26th.
- 2021 *Duncan, M., **McLeod, C. L.**, Velázquez Santana, L. C. Evaluating Magma Ascent Rates Beneath Central Andean Monogenetic Volcanoes. National Conference on Undergraduate Research (NCUR), April 12th-14th. https://apps.cur.org/ncur2021/search/Display_NCUR.aspx?id=112415
- 2021 Gawronska, A. J., **McLeod, C. L.**, Blumenfeld, E. H., Hanna, R., Zeigler, R. A. A New Dimension to Lunar Magmatism: New Interpretations of Apollo Basalt Petrogenesis from X-Ray Computed Tomography. 52nd Lunar and Planetary Science Conference, March 15th-19th, #1090
<https://www.hou.usra.edu/meetings/lpsc2021/pdf/1090.pdf>
- 2021 Ireland, S. M., **McLeod, C. L.**, Gawronska, A. J., Brum, J., Shaulis, B. New Insights into the Geological Evolution of the Moon via Petrologic Investigation of Lunar Basaltic Meteorites Dominion Range (DOM) 18262 and 18666. 52nd Lunar and Planetary Science Conference, March 15th-19th, #2646 <https://www.hou.usra.edu/meetings/lpsc2021/pdf/2646.pdf>
- 2020 Gawronska, A. J., **McLeod, C. L.**, Blumenfeld, E., Hanna, R., Zeigler, R. CT scans of lunar rocks: New interpretations and insights into sample preservation. Annual Graduate Student Research Forum, Miami University, Ohio.
- 2020 Brum, J. T., **McLeod, C. L.**, Shaulis, B., Loocke, M. From the Moon to Miami: New Geological Insights from the First Lunar Meteorite. Annual Graduate Student Research Forum, Miami University, Ohio.
- 2020 Schelin, I., **McLeod, C. L.**, Shaulis, B. New Insights into the Early Geological Evolution of our Solar System via Recently Discovered Lunar Meteorites from Antarctica. Annual Graduate Student Research Forum, Miami University, Ohio.
- 2020 Velázquez-Santana, L. C., McLeod, C. L., Bucholz, C. E. Initial Characterization of Sulfides in Central Andean Arc Hornblendite Cumulates via Scanning Electron Microscopy (SEM). Annual Geological Society of America Meeting, GSA 2020 Connects online: October 26th-30th.
<https://gsa.confex.com/gsa/2020AM/webprogram/Paper356694.html>
- 2020 Gawronska, A. J., Hughes, M. R., **McLeod, C. L.** Comparison of select major elements within the Apollo basalt suite via cluster analysis. Goldschmidt Virtual Meeting.
<https://goldschmidtabstracts.info/abstracts/abstractView?id=2020001295>
- 2020 Velázquez-Santana, L. C., **McLeod, C. L.**, Shaulis, B., Brown, K. Bolivian Crustal Xenoliths: Petrochronological Constraints on the history of the Central Andean Continental Crust. Goldschmidt Virtual Meeting.
<https://goldschmidt.info/2020/abstracts/abstractView?id=2020001243>
- 2020 *Lindeman, C., Flett, L., Ruley, A., **McLeod, C. L.**, Krekeler, M. P. S. Initial Investigation of samples of the Virtue Mine, Oregon: A study in the Textural, Mineralogical, and Geochemical Properties of

- Gold Bearing Quartz Vein Deposits. 54th GSA North-Central Section Meeting, Duluth, MN.
<https://gsa.confex.com/gsa/2020NC/webprogram/Paper347811.html>
- 2020 Ruley, A., McLeod, C. L., *Lindeman, C., *Oglesbee, T., *Klein, E., *Patrick, J., *Fouh Mbindi, M., Taylor, M., Blakemore, D., Krekeler, M. P. S. A review of recent progress in understanding gold mineralization and petrology at the Round Mountain Gold Mine, Central Nevada. 54th GSA North-Central Section Meeting, Duluth, MN.
<https://gsa.confex.com/gsa/2020NC/webprogram/Paper347845.html>
- 2019 Blakemore, D., Krekeler, M. P. S., McLeod, C. L. The Hidden Value of Fool's Gold: A Search for "Invisible" Gold at the Round Mountain Mine, Nevada. Annual Graduate Student Research Forum, Miami University, Ohio, USA.
- 2019 *Dawson, C., *Ord, S., Sturmer, D. M., Chappell, J. C., McLeod, C. L., Krekeler, M. P. S. An initial X-ray Fluorescence, X-ray diffraction, and reflective spectroscopy investigation of mine waste from Tonopah, Nevada. Annual Geological Society of America Meeting, Phoenix, AZ.
<https://gsa.confex.com/gsa/2019AM/webprogram/Paper338361.html>
- 2019 Velázquez-Santana, L. C., McLeod, C. L., Blakemore, D., Shaulis B. J. Bolivian Cumulate Hornblendite Enclaves: Insights into the Depths of Central Andean Arc Magmatic Systems. Annual Geological Society of America Meeting, Phoenix, AZ.
<https://gsa.confex.com/gsa/2019AM/webprogram/Paper332475.html>
- 2019 McLeod, C. L., Davidson, J. P., de Silva, S. L., Velázquez-Santana, L. C. Insights into Transcrustal Processes Beneath Continental Monogenetic Volcanoes from Minor Centers on the Bolivian Altiplano. Annual Geological Society of America Meeting, Phoenix, AZ.
<https://gsa.confex.com/gsa/2019AM/webprogram/Paper341323.html>
- 2019 McLeod, C. L., and Stern, R. J. Game On! Enhancing Student Learning and Engagement in Petrology through Game Based Learning (GBL). Annual Geological Society of America Meeting, Phoenix, AZ. <https://gsa.confex.com/gsa/2019AM/meetingapp.cgi/Paper/332354>
- 2019 Velázquez-Santana, L. C., and McLeod, C. L. Mafic Enclaves from the Central Andes: Investigating the Magmatic Plumbing Systems of Continental Arcs. Joint 53rd South-Central/53rd North-Central/71st Rocky Mountain Section Geological Society of America Meeting, Manhattan, KS.
<https://gsa.confex.com/gsa/2019SC/webprogram/Paper326426.html>
- 2019 McLeod, C. L., Gawronska, A. J., *Brum, J., Blakemore, D., Cronenberger, K., Hanna, R., Duley, M., Edelman, R., Shaulis, B. J., Zeigler, R. Mineralogy of Meteorites: What is the Moon made of? 7th Annual Midwest Mineralogical Symposium, Miami University, OH, March 9th.
- 2018 Gawronska, A. J., McLeod, C. L., Zeigler, R. Analyzing Moon Rocks: Is 3D Better than 2D? Annual Graduate Student Research Forum, Miami University, Ohio, USA.
- 2018 Blakemore, D., McLeod, C. L., Krekeler, M. P. S. Unravelling the Evolution of the Round Mountain Gold Mine: Insights from the Mineral Zircon (ZrSiO₄). Annual Graduate Student Research Forum, Miami University, Ohio, USA.
- 2018 Brydon, R. J., McLeod, C. L., Haley, M., Shaulis, B. J., Trønnes, R. Accessory minerals as recorders of granitoid magma petrogenesis: Insights from Apatite. Geological Society of America (GSA) Annual Meeting, Indianapolis, Indiana, USA.
<https://gsa.confex.com/gsa/2018AM/webprogram/Paper320310.html>
- 2018 Krekeler, M. P. S., Burke, M., Allen, C. S., Loertscher, C., McLeod, C. L., *Dawson, C. Hyperspectral Remote Sensing Techniques for Crime Scene Investigation: Progress on Building a Novel Library and Remote Sensing Software Tool to Find Humans and Objects in the Environment. Midwestern Association of Forensic Scientists Meeting, Indianapolis, Indiana.
- 2018 Brandon, A. D., McLeod, C. L., Rankenburg, K., Becker, H. Evaluating Nd Nucleosynthetic Anomalies in Enstatite Chondrites. Annual Goldschmidt Meeting, Boston, USA.
<https://goldschmidtabstracts.info/2018/266.pdf>
- 2018 McLeod, C. L., and Krekeler, M. P. S. In Search of Extraterrestrial Resources: to the Earth's Moon and Beyond. Ohio Academy of Science Annual Meeting, Bowling Green State University, Ohio, USA.
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- **Poster presentations** (last 6 years; *undergraduate student, graduate student)
- 2022 Schweitzer, A. R., McLeod, C. L., Shaulis, B., Loocke, M. New Petrological Insights into a Lunar Basaltic Breccia Meteorite from the Dominion Range, Antarctica: DOM 18543. American Geophysical Union Annual Meeting, Chicago, IL, Dec. 12th-16th.
- 2022 Gawronska, A. J., McLeod, C. L., Loocke, M., Shaulis, B. Stories Told by Rocks from Other Worlds: Petrogenetic Histories of Lunar Magmatic Systems as Told by Apollo Basalt Crystal Cargoes. Annual Graduate Student Research Forum, Miami University, Nov. 4th.

- 2022 Sipola, M., **McLeod, C. L.**, Brudzinski, M., Krekeler, M. P. S., Tyler, C. Preparing Graduate Students for Success: Designing and Implementing an Onboarding Course. 41st Lilly Conference on College Teaching, Miami University, OH.
http://celt.miamioh.edu/lillycon/session_files/uploads/2022_no11063_Conference_poster.pdf
- 2022 *Wudke, H., Jenkins, N., Gillis, M., Bank, J., **McLeod, C. L.**, Krekeler, M. P. S. Initial Electron Microscopy Investigations of Historical Talc Ore Samples from the Yellowstone Mine, Montana. GSA Meeting, Oct. 9th-12th, Denver, CO.
<https://gsa.confex.com/gsa/2022AM/webprogram/Paper380206.html>
- 2022 *Wolfe, C., Brown, K., Loocke, M., **McLeod, C. L.** Megacrystic Potassium Feldspar Magmatism in the southern Mojave Desert, California. GSA Meeting, Oct. 9th-12th, Denver, CO.
<https://gsa.confex.com/gsa/2022AM/webprogram/Paper380460.html>
- 2022 *Stittle, L., *Curtis, J., **McLeod, C. L.**, Brown, K., Krekeler, M. P. S. A Petrographic Study of the Shoshone Granite, Central Nevada: New Insights into Mesozoic Arc Magmatism and Oligocene Mineralization at the Round Mountain Gold Mine. GSA Meeting, Oct. 9th-12th, Denver, CO.
<https://gsa.confex.com/gsa/2022AM/webprogram/Paper381262.html>
- 2022 *Sperry, M., *Beckham Pate, S., *Merz, M., Gillis, M., Gokey, K., Krekeler, M. P. S., **McLeod, C. L.** An Investigation of Patterned Ground in the Big Smokey Valley, South Central Nevada. Annual Geological Society of America Meeting, Denver, CO, Oct 9th-12th.
<https://gsa.confex.com/gsa/2022AM/webprogram/Paper379273.html>
- 2022 *Gorman, S., Gillis, M., Gokey, K., Fouh Mbindi, M., **McLeod, C. L.**, Krekeler, M. P. S. Scanning Electron Microscopy Investigation of Urban Soils in a Redeveloping Region of Hamilton, Ohio Shows Evidence of Legacy Pollution. Annual Geological Society of America Meeting, Denver, CO, Oct 9th-12th. <https://gsa.confex.com/gsa/2022AM/webprogram/Paper379173.html>
- 2022 Gillis, M., Gokey, K., Krekeler, M. P. S., **McLeod, C. L.** The Role of Graduate Student Mentors in Undergraduate Research: Reflections and Recommendations for Developing Supportive Research Group Environments and Student Professional Development. Geological Society of America Meeting, Oct. 9th-12th, Denver, CO.
<https://gsa.confex.com/gsa/2022AM/webprogram/Paper382903.html>
- 2022 *Curtis, J., *Stittle, L., **McLeod, C. L.**, Brown, K., Krekeler, M. P. S. Petrogenesis of Late-Stage Quartz-rich, Aplitic, and Pegmatitic Veins in the Shoshone Granite, Central Nevada: Insights into Mesozoic Arc Magmatism. Geological Society of America Meeting, Oct. 9th-12th, Denver, CO.
<https://gsa.confex.com/gsa/2022AM/webprogram/Paper381062.html>
- 2022 *Beckham Pate, S. B., *Sperry, M., *Merz, M., Gokey, K., Gillis, M., **McLeod, C. L.**, Krekeler, M. P. S. An Initial Investigation of Desert Soils in the Big Smoky Valley, South Central Nevada. GSA Meeting, Oct. 9th-12th, Denver, CO.
<https://gsa.confex.com/gsa/2022AM/webprogram/Paper381173.html>
- 2022 *Dewaelsche, P., Brown, K., Loocke, M., **McLeod, C. L.** Constraining K-Feldspar Megacryst Growth through Investigations of Plagioclase Inclusions. Joint 56th annual North-Central/71st annual southeastern Geological Society of America Section Meeting. April 7th-8th, Cincinnati, OH.
<https://gsa.confex.com/gsa/2022NC/webprogram/Paper375291.html>
- 2022 Brum, J. T., **McLeod, C. L.**, Shaulis, B., Loocke, M. 40 Years of Studying Allan Hills (ALHA) 81005: What else could we possibly learn? Plenty! 53rd Lunar and Planetary Science Conference, March 7th-11th, #2756. <https://www.hou.usra.edu/meetings/lpsc2022/pdf/2756.pdf>
- 2022 Gawronska, A. J., **McLeod, C. L.**, Loocke, M., Shaulis, B. The Petrogenetic Histories of Lunar Magmatic Systems as told by Apollo Basalt Crystal Cargoes. 53rd Lunar and Planetary Science Conference, March 7th-11th, #1152. <https://www.hou.usra.edu/meetings/lpsc2022/pdf/1125.pdf>
- 2022 Ireland, S. M., **McLeod, C. L.**, Gawronska, A. J., Loocke, M. P., Shaulis, B. J. Petrogenesis of Lunar Basaltic Meteorite Dominion (DOM) Range 18666. 53rd Lunar and Planetary Science Conference, March 7th-11th, #2909. <https://www.hou.usra.edu/meetings/lpsc2022/pdf/2909.pdf>
- 2022 Schweitzer, A. R., **McLeod, C. L.**, Shaulis, B. Geochemical and Petrologic Insights into a Lunar Basaltic Breccia: Dominion Range (DOM) 18543. 53rd Lunar and Planetary Science Conference, March 7th-11th, #2030. <https://www.hou.usra.edu/meetings/lpsc2022/pdf/2030.pdf>
- 2021 Gawronska, A. J., **McLeod, C. L.** New insights into lunar magmatism: Investigating open system processes in basaltic magma reservoirs on the Moon. American Geophysical Union Fall Meeting, December 13th-17th, New Orleans, LA.
- 2021 Ireland, S. M., **McLeod, C. L.**, Gawronska, A. J., Shaulis, B. Insights into the Petrogenesis of Lunar Basaltic Breccia Dominion Range (DOM) 18666. American Geophysical Union Fall Meeting, December 13th-17th, New Orleans, LA.

- 2021 *Duncan, M. P., **McLeod, C. L.**, Velázquez Santana, L. C. Insights into the Ascent Rates of Magmas Beneath Continental Arc Systems. GSA Meeting, Oct. 10th-13th, Portland, OR.
<https://gsa.confex.com/gsa/2021AM/webprogram/Paper371305.html>
- 2021 *Maglich, S., Krekeler, M. P. S., **McLeod, C. L.**, Shaulis, B., Gokey, K., Gillis, M. Scanning Electron Microscopy Investigations of Oxides and Sulfides from Mine Waste in Tonopah, Nevada. GSA Meeting, Oct. 10th-13th, Portland, OR.
<https://gsa.confex.com/gsa/2021AM/webprogram/Paper364973.html>
- 2021 *Tella, K., Krekeler, M. P. S., **McLeod, C. L.**, Gillis, M., Gokey, K. Initial Investigations of Lead Chromate Traffic Paint in the Midwest United States: Charting a path Forward for Investigating a Potential Source of Lead and Hexavalent Chromium Pollution. GSA Meeting, Oct. 10th-13th, Portland, OR. <https://gsa.confex.com/gsa/2021AM/webprogram/Paper368829.html>
- 2021 Gawronska, A. J., **McLeod, C. L.**, Gilmour, C. M. X-ray Computed Tomography for the Analysis of the Materials Collected at the Lunar South Pole. Annual Meeting of the Lunar Exploration Analysis Group (LEAG), August 31st-September 2nd (virtual).
<https://www.hou.usra.edu/meetings/leag2021/pdf/5012.pdf>
- 2021 *Al Gbory, R., **McLeod, C. L.**, Velázquez Santana, L. C., Shaulis, B. Geochemical insights into magma dynamics beneath monogenetic volcanoes at active continental margins: constraints from amphibole and apatite crystal populations. National Conference on Undergraduate Research (NCUR), April 12th-14th (virtual).
https://apps.cur.org/ncur2021/search/Display_NCUR.aspx?id=113025
- 2021 Ireland, S. M., **McLeod, C. L.**, Gawronska, A. J., Brum, J. T., Shaulis, B. J. New Insights into the Geological Evolution of the Moon via Petrologic Investigation of Lunar Basaltic Meteorites Dominion Range 18262 and Dominion Range 18666. LPSC, March 15th-19th (virtual).
<https://www.hou.usra.edu/meetings/lpsc2021/pdf/2646.pdf>
- 2021 Scully, J. E. C., Cerretti, G., Viswanathan, Steekloff, J. K., Richey, C., Probst, A., Poh, G., Melwani Daswani, M., **McLeod, C. L.**, Mao, X., Lillis, R., Kumari, N., Kraus, H., Hoogenboom, T., Hay, H., Goudge, T. A., Fayolle, Elder, C. M., Diniega, S., Daftry, S., Byrne, P. K., Brooks, S., M., Blank, J. G., Becerra, P., Bandyopadhyay, S., (reverse alphabetization of co-authors from third onwards). Foreign Nationals Employed and Studying in Planetary Research in the United States, and Recommendations for Supporting this Group. 52nd Lunar and Planetary Science Conference #1493, March 15th-21st. (virtual, poster presentation).
<https://www.hou.usra.edu/meetings/lpsc2021/pdf/1493.pdf>
- 2020 Patrick, J* Spasske, L., **McLeod, C. L.**, Shaulis, B., Brown, K. Megacrystals from Magma: Microanalytical Approach to Investigating Megacrystic Crystallization Processes. Annual Geological Society of America Meeting, GSA 2020 Connects online: October 26th-30th.
<https://gsa.confex.com/gsa/2020AM/webprogram/Paper357251.html>
- 2020 Patrick, J*, Vest, J*, Doepke, L*, Seibert, Z*, Dawson, C*, **McLeod, C. L.**, Krekeler, M. P. S. Forensic Mineralogy: Utilizing the Mineralogical, Textural, and Spectral Properties of Makeup in Criminal Investigations. Annual Geological Society of America Meeting, GSA 2020 Connects online: October 26th-30th. <https://gsa.confex.com/gsa/2020AM/webprogram/Paper356705.html>
- 2020 *Algbory, R., Velázquez-Santana, L. C., **McLeod, C. L.**, Shaulis, B. Tracking Amphibole Crystal Populations in Continental Arc Magmas through study of Andesites and Hornblendite Cumulates in the Central Andes, Bolivia. 54th GSA North-Central Section Meeting, Duluth, MN.
<https://gsa.confex.com/gsa/2020NC/webprogram/Paper347987.html>
- 2020 *Doepke, L., *Dawson, C., *Vest, J., *Oglesbee, T., Sturmer, D.M., Blakemore, D., **McLeod, C. L.**, Krekeler, M. P. S. A review of the current understanding of the mineralogy and geochemistry of mine waste from Tonopah, Nevada: Implications for recycling and environmental Health. 54th GSA North-Central Section Meeting, Duluth, MN.
<https://gsa.confex.com/gsa/2020NC/webprogram/Paper347964.html>
- 2020 *Oglesbee, T., *Brum, J., **McLeod, C. L.**, Krekeler, M. P. S. An SEM investigation of a native platinum crystal from Russia: Insight into variation, sourcing and compositional problems of a highly collectible mineral and important geologic resource. 54th GSA North-Central Section Meeting, Duluth, MN. <https://gsa.confex.com/gsa/2020NC/webprogram/Paper347961.html>
- 2020 *Vest, J., *Patrick, J., *Dawson, C., *Seibert, Z., **McLeod, C. L.**, Krekeler, M. P. S. Using Industrial Mineralogical Approaches to Combat Violence Against Women, Abductions and Human Trafficking: Preliminary Reflective Spectroscopy Investigations of Makeup. 54th GSA North-Central Section Meeting, Duluth, MN.
<https://gsa.confex.com/gsa/2020NC/webprogram/Paper347849.html>

- 2020 *Manning, K., **McLeod, C. L.**, Krekeler, M. P. S. Producing Ceramic Materials as an Alternative Recycling Method for Mine Waste Remediation. Annual Undergraduate Research Forum, Miami University, April 29th. <https://blogs.miamioh.edu/undergraduate-research-forum/producing-ceramic-materials-as-an-alternative-recycling-method-for-mine-waste-remediation/>
- 2020 *Algbory, R., Velázquez-Santana, L. C., **McLeod, C. L.**, Shaulis, B. Evaluating the Evolution of Magmatic Systems on Earth: Insights from Volcanoes and their Minerals on the Bolivian Altiplano, South America, Annual Undergraduate Research Forum, Miami University, April 29th. <https://blogs.miamioh.edu/undergraduate-research-forum/evaluating-the-evolution-of-magmatic-systems-on-earth-insights-from-volcanoes-and-their-minerals-on-the-bolivian-altiplano-south-america-2/>
- 2020 *McCreary, L., **McLeod, C. L.**, Krekeler, M. P. S. Searching for the Gold in Fool's Gold: An Investigation of Nevada Pyrites. Annual Undergraduate Research Forum, Miami University, April 29th. <https://blogs.miamioh.edu/undergraduate-research-forum/searching-for-gold-in-fools-gold-an-investigation-of-nevada-pyrites/>
- 2020 **McLeod, C. L.**, Shaulis, B., *Brum, J., Gawronska, A. J. More Meteorites, More Insights! Five New Lunar Basaltic Meteorites from the Dominion Range. 51st Lunar Planetary Science Conference. <https://www.hou.usra.edu/meetings/lpsc2020/eposter/2634.pdf>
- 2020 Gawronska, A. J., **McLeod, C. L.**, Blumenfeld, E. H., Hanna, R., Zeigler, R. A. Magma Dynamics on the Moon: A Computed Tomography Investigation of Apollo Basalt Vesicularity. 51st Lunar Planetary Science Conference. <https://www.hou.usra.edu/meetings/lpsc2020/eposter/1245.pdf>
- 2020 *Brum, J., **McLeod, C. L.**, Shaulis, B., Loocke, M. Investigating the History of Allan Hills (ALHA) 81005: What a Meteorite's Components Can Tell Us About Its Past. 51st Lunar Planetary Science Conference. <https://www.hou.usra.edu/meetings/lpsc2020/eposter/2919.pdf>
- 2019 Velázquez-Santana, L. C., **McLeod, C. L.**, Blakemore, D., Shaulis, B. J., Brown, K. Xenoliths and Cumulates: Insights into the Petrological, Geochemical, and Geochronological Stratigraphy of the Central Andean Arc Crust. American Geophysical Union (AGU) Meeting, San Francisco, CA, T23G-0518. <https://ui.adsabs.harvard.edu/abs/2019AGUFM.T23G0518V/abstract>
- 2019 **McLeod, C. L.** Game on! Enhancing Student Learning and Engagement Through Game Based Learning in STEM. 39th Lilly Conference on College Teaching, Miami University, OH.
- 2019 Gawronska, A. J., **McLeod, C. L.**, Blumenfeld, E. H., Hanna, R., Zeigler, R. A. Analysis of Apollo Samples via X-Ray Computed Tomography. Annual Graduate Student Research Forum, Miami University, Ohio.
- 2019 Krekeler, M. P. S., Burke, M., Chappell, J. C., *Dawson, C., *Brum, J., *Allen, C. S., **McLeod, C. L.**, Sturmer, D. M., Fackey, D., Tselepis Loertscher, C. Final phase of development for a hyperspectral search and discovery tool optimized for rescue, disaster management, and crime scene investigations. Annual Geological Society of America Meeting, Phoenix, AZ. <https://gsa.confex.com/gsa/2019AM/webprogram/Paper338443.html>
- 2019 Velázquez-Santana, L. C., **McLeod, C. L.**, Blakemore, D., Shaulis, B., Brown, K. Crustal Xenoliths, their Zircon and Apatites: Investigating the Continental Basement beneath the Central Andes. Annual Geological Society of America Meeting, Phoenix, AZ. <https://gsa.confex.com/gsa/2019AM/webprogram/Paper338072.html>
- 2019 Bollinger, A., McLeod, C. L., Blakemore, D., Shaulis, B., Brown, K., Currie, B. S. Zircon U-Pb Chronology of Western Wyoming Crustal Basement using LA-ICP-MS. Annual Geological Society of America Meeting, Phoenix, AZ. <https://gsa.confex.com/gsa/2019AM/meetingapp.cgi/Paper/338456>
- 2019 *Oglesbee, T., Sturmer, D. M., **McLeod, C. L.**, Chappell, J. C., Krekeler, M. P. S. Mineralogical and Geochemical characterization of sands from an active Dune system near Tonopah, Nevada: Characterization of an environmental reference material. Annual Geological Society of America Meeting, Phoenix, AZ. <https://gsa.confex.com/gsa/2019AM/webprogram/Paper338587.html>
- 2019 Doepke, L., **McLeod, C. L.**, Krekeler, M. P. S. Transmission electron microscopy investigation of mine waste samples from Tonopah, Nevada. Annual Geological Society of America Meeting, Phoenix, AZ. <https://gsa.confex.com/gsa/2019AM/webprogram/Paper338379.html>
- 2019 *Vest, J., Blakemore, D., Krekeler, M. P. S., **McLeod, C. L.** The mineralogical make-up of mine waste: Insights from abandoned silver mine waste piles. Annual Geological Society of America Meeting, Phoenix, AZ. <https://gsa.confex.com/gsa/2019AM/webprogram/Paper340947.html>
- 2019 Blakemore, D., **McLeod, C. L.**, Shaulis, B. J, Krekeler, M. P. S. Tracing the origins of pyrite at the Round Mountain Gold Mine, Nevada: A mineralogical and chemical investigation. Annual Geological Society of America Meeting, Phoenix, AZ.

- <https://gsa.confex.com/gsa/2019AM/webprogram/Paper338416.html>
- 2019 *Lindeman, C., *Fouh Mbindi, M., Blakemore, D., **McLeod, C. L.**, Krekeler, M. P. S. Petrographic analysis of pyrite mineralization in association with gold of the Type 3 gold ore in the Round Mountain Mine, Nevada. Annual Geological Society of America Meeting, Phoenix, AZ.
- <https://gsa.confex.com/gsa/2019AM/webprogram/Paper338534.html>
- 2019 *Patrick, J., *Klein, E., **McLeod, C. L.**, Blakemore, D., Krekeler, M. P. S., Shaulis, B. J. Petrogenesis of the Shoshone granite beneath the Round Mountain Gold Mine, Nevada. Annual Geological Society of America Meeting, Phoenix, AZ.
- <https://gsa.confex.com/gsa/2019AM/webprogram/Paper335476.html>
- 2019 *Snyder, J., *Oglesbee, T., **McLeod, C. L.**, Krekeler, M. P. S. Grain size analysis and geotechnical properties of mine waste from Tonopah, Nevada: Initial steps toward recycling and remediation. Annual Geological Society of America Meeting, Phoenix, AZ.
- <https://gsa.confex.com/gsa/2019AM/webprogram/Paper338634.html>
- 2019 *Seibert, Z., **McLeod, C. L.**, Blakemore, D., Krekeler, M. P. S. Volcanism associated with crustal extension in the basin and range. Annual Geological Society of America Meeting, Phoenix, AZ.
- <https://gsa.confex.com/gsa/2019AM/webprogram/Paper340873.html>
- 2019 Blakemore, D., **McLeod, C. L.**, Krekeler, M. P. S. An Investigation of Ore Mineral Associations from the Round Mountain Gold Mine, Geological Society of America Cordilleran Section Meeting, Portland, OR. <https://gsa.confex.com/gsa/2019CD/webprogram/Paper329117.html>
- 2019 *Bollinger, A., **McLeod, C. L.**, Currie, B. S., Blakemore, D. Wyoming Crustal Basement: Investigating the United States' Oldest Continental Crust with Zircon. Annual Undergraduate Research Forum, Miami University, April 24th.
- 2019 *Brum, J. T., **McLeod, C. L.**, Gawronska, A. J., Shaulis, B. J., Duley, M., Edelmann, R., and Loocke, M. R. Early Lunar Chronology: Insights from Allan Hills (ALHA) 81005 Meteorite. Annual Undergraduate Research Forum, Miami University, April 24th.
- 2019 *Dawson, C., *Ord, S., Blakemore, D., Chappell C. J., Krekeler, M. P. S., **McLeod, C. L.** New Investigations of the Variation of Mineralogy of Mine Waste from the town of Tonopah, Nevada. Annual Undergraduate Research Forum, Miami University, April 24th.
- 2019 *Doepke, L., **McLeod, C. L.**, Krekeler, M. P. S. Mineralogical and Chemical Characterization of Silver Mine Waste: A Case Study from Tonopah, Nevada. Annual Undergraduate Research Forum, Miami University, April 24th.
- 2019 *Klein, E., *Patrick, J., **McLeod, C. L.**, Krekeler, M. P. S. Granitic Magmas Beneath the Round Mountain Gold Mine, Nevada. Annual Undergraduate Research Forum, Miami University, April 24th.
- 2019 *Lindeman, C., *Fouh Mbindi, M., Krekeler, M. P. S., **McLeod, C. L.** An Initial Petrographic Investigation of the Type 3 Gold Ore at the Round Mountain Mine, Nevada. Annual Undergraduate Research Forum, Miami University, April 24th.
- 2019 *Seibert, Z., **McLeod, C. L.**, Krekeler, M. P. S. Volcanism Associated with Crustal Extension in the Basin and Range Province, Nevada. Annual Undergraduate Research Forum, Miami University, April 24th.
- 2019 *Vest, J., *Gerdes, L., **McLeod, C. L.**, Krekeler, M. P. S. Investigating the Components of Mine Waste: Insights from Tonopah, Nevada. Annual Undergraduate Research Forum, Miami University, April 24th.
- 2019 Gawronska, A. J., **McLeod, C. L.**, Blumenfeld, E. H., Hanna, R., Zeigler, R. A. Preliminary Analyses of Apollo 15 Sample 15085 via X-Ray Computed Tomography. 50th Lunar and Planetary Science Conference (LPSC), March 18th-22nd, TX, USA, #1660. <https://www.hou.usra.edu/meetings/lpsc2019/pdf/1660.pdf>
- 2019 Gawronska, A. J., and **McLeod, C. L.** Basalts: Insights into Planetary Magmatic Processes from the Moon and Earth. 50th Lunar and Planetary Science Conference (LPSC), March 18th-22nd, TX, USA, #3271. <https://www.hou.usra.edu/meetings/lpsc2019/pdf/3271.pdf>
- 2019 *Brum, J., **McLeod, C. L.**, Gawronska, A. J., Shaulis, B. J., Duley, M., Edelmann, R., and Loocke, M. R. Early Lunar Chronology: Insights from Allan Hills (ALHA) 81005 Meteorite. 50th Lunar and Planetary Science Conference (LPSC), March 18th-22nd, TX, USA, #2012. <https://www.hou.usra.edu/meetings/lpsc2019/pdf/2012.pdf>
- 2018 **McLeod, C. L.** Promoting Scientific CURE-iosity: Integrating a Course-based Undergraduate Research Experience (CURE) into an Upper-Level Geology Course. 38th Lilly Conference on College Teaching, Miami University, Oxford, Ohio, USA.
- 2018 Velázquez-Santana, L. C., **McLeod, C. L.** Crustal ARChitecture: Inputs and Outputs of Central

- Andean Magmatic Systems. Annual Graduate Student Research Forum, Miami University, Ohio, USA.
- 2018 **Flett, L., McLeod, C. L.,** Krekeler, M. P. S. The diversity of potentially toxic atmospheric particulate associated with the Midnite Uranium Mine, Spokane Indian Reservation: A scanning electron microscopy investigations of pinus ponderosa bark. Geological Society of America (GSA) Annual Meeting, Indianapolis, Indiana.
<https://gsa.confex.com/gsa/2018AM/webprogram/Paper318471.html>
- 2018 *Fouh Mbindi M., **McLeod, C. L.,** Krekeler, M.P.S. Initial steps in exploring unconventional rare earth element resources in the Unites States: Forays into glaciogenic, siliciclastic and volcanic sediments. Geological Society of America (GSA) Annual Meeting, Indianapolis, Indiana.
<https://gsa.confex.com/gsa/2018AM/webprogram/Paper318255.html>
- 2018 **Haley, M. Y., McLeod, C. L., Brydon, R. J.,** Wolfe, A., Shaulis, B., and Trønnes, R. Unravelling the Magmatic Architecture of Rift-Related Granitic Batholiths: Perspectives from Amphibole and Feldspar. Geological Society of America (GSA) Annual Meeting, Indianapolis, Indiana.
<https://gsa.confex.com/gsa/2018AM/webprogram/Paper322107.html>
- 2018 *Angi-O'Brien, E., **Haley, M. Y., McLeod, C. L.,** Shaulis, B., and **Brydon, R. J.** Unravelling the Interactions of Synplutonic Magmas During Granitoid Crystallization. Geological Society of America (GSA) Annual Meeting, Indianapolis, Indiana.
<https://gsa.confex.com/gsa/2018AM/webprogram/Paper321740.html>
- 2018 *Binyam, D. B., *Childers, C., **McLeod, C. L.,** Wolfe, A. Mafic Enclaves from the Quillacas Volcanic Centre in the Bolivian Andes: Insights into Arc Magmatic Systems. Geological Society of America (GSA) Annual Meeting, Indianapolis, Indiana.
<https://gsa.confex.com/gsa/2018AM/webprogram/Paper319857.html>
- 2018 **McLeod, C. L.,** Shaulis, B. J., **Brydon, R. J., Haley, M.,** *Angi-O'Brien, E., Trønnes, R. Assembly of Magmas in Earth's Upper Crust: Insights at the Micro and Macros Scale from Granitic Batholiths. Annual Goldschmidt Meeting, Boston, USA. <https://goldschmidtabstracts.info/2018/1739.pdf>
- 2018 *Angi-O'Brien, E., **McLeod, C. L., Haley, M. Y.,** and Shaulis, B. Magma Mingling: Unravelling Granite Crystallization One Crystal at a Time. Annual Undergraduate Research Forum, Miami University, Ohio, USA.
- 2018 *Childers, C., *Binyam, D. B., *Emrick, S., and **McLeod, C. L.** Unravelling the Magmatic Processes Beneath Arc Volcanoes: The Role of Amphibole and Feldspar. Annual Undergraduate Research Forum, Miami University, Ohio, USA.
- 2018 **McLeod, C. L.,** and Krekeler, M. P. S. On the Search for Rare Earth Element Resources: The Earth, Moon and Beyond. 49th Lunar Planetary Science Conference, The Woodlands, Texas, #1506. <https://www.hou.usra.edu/meetings/lpsc2018/pdf/1506.pdf>
- 2017 **McLeod, C. L.,** Brown, K, **Brydon, R. J., Haley, M.,** Hill, T., Shaulis, B., Trønnes, R. G. Crystal Cargo Characterization: Unravelling Granite Petrogenesis through Combined MicroXRF Imaging and In-Situ Analysis. American Geophysical Union (AGU) Fall Meeting. New Orleans, Louisiana, USA. <https://ui.adsabs.harvard.edu/abs/2017AGUFM.V43C0546M/abstract>
- 2017 **McLeod, C. L.,** and *Angi-O'Brien, E. Get Interactive! Evaluating the Influence of Different Teaching Delivery Methods on Student Learning in an Introductory Geology Course. Geological Society of America (GSA) Annual Meeting, Seattle, Washington, USA.
<https://gsa.confex.com/gsa/2017AM/meetingapp.cgi/Paper/294573>
- 2017 **McLeod, C. L.,** and Brandon, A. D. Insights into the Early Geological History of the Earth's Moon from Apollo Basalts and Meteorites. Annual Ohio Academy of Sciences Meeting, University of Cincinnati, Cincinnati, Ohio, USA.
- 2017 *Angi-O'Brien, E., **McLeod, C. L., Haley, M. Y., Brydon, R. J.,** Wolfe, A., and Shaulis, B. Magma Mingling: Unravelling Granite Crystallization One Crystal at a Time. Geological Society of America (GSA) Annual Meeting, Seattle, Washington, USA.
<https://gsa.confex.com/gsa/2017AM/webprogram/Paper298248.html>
- 2017 **Brydon, R. J., McLeod, C. L., Haley, M. Y.,** Wolfe, A., Brown, K., Shaulis, B., and Trønnes, R. Breaking Up a Continent: Timing and Sources of Granitoid Magmatism in the Oslo Rift, Norway. Geological Society of America (GSA) Annual Meeting, Seattle, Washington, USA.
<https://gsa.confex.com/gsa/2017AM/webprogram/Paper299150.html>
- 2017 **Haley, M. Y., McLeod, C. L., Brydon, R. J.,** Wolfe, A., Shaulis, B., and Trønnes, R. Constructing Continental Crust: Tracking Petrogenesis of Granitic Batholiths of the Oslo Rift, Norway. Geological Society of America (GSA) Annual Meeting, Seattle, Washington, USA.
<https://gsa.confex.com/gsa/2017AM/webprogram/Paper298989.html>

▪ CONFERENCE SESSIONS CONVENED

- 2023 (*upcoming*) Michelfelder, G., Brownlee, S., Girard, G., Kenderes, E., **McLeod, C. L.** Future Directions in Mineralogy and Petrology: A Session for Undergraduate and Graduate Researchers. NC Geological Society of America Annual Sectional Meeting, Grand Rapids, MI, May 4th-5th.
- 2023 (*upcoming*) Brown, K., **McLeod, C. L.**, Shuster, R. Undergraduate and Graduate Geoscience Student Showcase. NC Geological Society of America Annual Sectional Meeting, Grand Rapids, MI, May 4th-5th.
- 2022 **McLeod, C. L.**, Gawronska, A., Lytle, M., Schweitzer, A. Melt, Emplace, Mix, Erupt! (MEME) Investigating the Dynamics of Magmatic Systems via Microanalysis. Joint NC-SE Geological Society of America Annual Sectional Meeting, Cincinnati, *April 7th-8th*. Role: Convener and co-chair.
- 2022 **McLeod, C. L.**, Brown, K., MacDonald, J. Jr., Phillips, P., Ryan, J. Undergraduate and Graduate Geoscience Student Showcase. Joint NC-SE Geological Society of America Annual Sectional Meeting, Cincinnati, *April 7th-8th*. Role: Convener and co-chair.
- 2018 Brown, K., and **McLeod, C. L.** Magmas Assemble! Petrologic, Geochemical, Chronologic and Geophysical Insights into the Architecture and Timescales of Magmatic Systems. Geological Society of America Annual Meeting, Indianapolis, *November 4th-7th*. Role: Convener and co-chair.
- 2018 Wolfe, A., and **McLeod, C. L.** Analytical Advances in Non-Traditional Stable Isotope Geochemistry – Innovative Applications to Earth Science Systems. Geological Society of America Annual Meeting, Indianapolis, *November 4th-7th*. Role: Convener and co-chair.
- 2018 Fortner, S., Petersen, G., **McLeod, C. L.**, and Brown, K. Promoting Scientific CURE-iosity: Course-Based Undergraduate Research Experiences (CURES) in Introductory Courses at 2YCs and 4YCs. Geological Society of America Annual Meeting, Indianapolis, *November 4th-7th*. Role: Convener and co-chair.
- 2017 **McLeod, C. L.**, and Shaulis, B. J. From Macro to Micro and Back Again: Advances in the Understanding of Terrestrial and Extraterrestrial Magmatic Systems through Microanalysis, American Geophysical Union (AGU) Fall Meeting. New Orleans, Louisiana, USA (*oral and poster session*). Role: Convener and co-chair.
- 2017 Peterson, V. L., Morris, A. R., Haacker, R., Asher, P. M., and **McLeod, C. L.** Undergraduate Earth, Atmospheric, Ocean, and Space Science Research and Outreach, American Geophysical Union (AGU) Fall Meeting. New Orleans, Louisiana, USA (*poster session only*). Role: Co-chair.
- 2014 Rubie, D., and **McLeod, C. L.** Emerging Worlds: How to Make a Planet, 45th Lunar and Planetary Science Conference (LPSC), Houston, Texas, USA (*oral and poster session*). Role: Co-chair.
- 2010 Kent, A., Bergantz, G., Collins, S. J., and **McLeod, C. L.** Physical, Chemical and Petrographic Constraints on Magmatic Differentiation, American Geophysical Union (AGU) Meeting, San Francisco, CA (*oral and poster session*). Role: Convener and Co-chair.

▪ AWARDS AND RECOGNITIONS

- 2023 Miami University MAC Outstanding Faculty Award for Student Success nominee
- 2022 Pearson Excellence in Higher Education Award nominee
- 2022 Miami University Faculty Commendation (*comments submitted by graduating students*)
- 2021 Miami University Faculty Commendation (*comments submitted by graduating students*)
- 2020 Miami University Student Recognition of Teaching Excellence
- 2020 Miami University Faculty Commendation (*comments submitted by graduating students*)
- 2020 Outstanding Professor Award Nominee, Miami University
- 2019 Best Lilly Conference Poster Presentation (*peer-reviewed by conference attendees*)
- 2019 Miami University Faculty Commendation (*comments submitted by graduating students*)
- 2018 Exceptional Reviewer for the GSA peer-reviewed journal *Geology*
- 2018 Miami University Faculty Commendation (*comments submitted by graduating students*)
- 2017 Miami University Faculty Commendation (*comments submitted by graduating students*)
- 2014 Exceptional Reviewer for the GSA peer-reviewed journal *Geosphere*
- 2012 Bob Hunter Prize for Best Student Oral Presentation, Volcanic and Magmatic Studies Group Annual Meeting
- 2011 Durham University Teaching and Learning Award (Higher Education Academy, UK, accreditation)
- 2010 Best Graduate Student Oral Presentation, EurlSPET meeting, Padova, Italy
- 2009 Best Graduate Student Poster, Graduate Student Researchers Poster Competition, Durham University
- 2008 Mineralogical Society of Great Britain and Ireland Student Travel Grant

- 2008 Edinburgh Geological Society Undergraduate Award
 - 2008 Senior Undergraduate Geology Medal
 - 2007 Senior Undergraduate Field Notebook Award, Cyprus Fieldtrip
 - 2007 Junior Undergraduate Geology Medal
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▪ **PROFESSIONAL DEVELOPMENT**

- 2022- Faculty Learning Community: Let's Play - Improved Instruction through Re-Experiencing Learning using Tabletop Games
 - 2022 Faculty Learning Community: Inclusive Teaching for Equitable Learning (ITEL) (*includes Association of College and University Educators ITEL microcredential*)
 - 2022 Miami University online course (10 modules): Diversity, Equity, and Inclusion
 - 2022 Safe Zone 101 Training (offered through Miami University)
 - 2022 LGBTQ+ Terminology and Allyship (offered through Miami University)
 - 2021-22 Miami University Mentorship Program: Miami RED Women (role: mentee)
 - 2021-22 Miami Faculty Learning Community facilitator: [Evaluating the Effectiveness of Course Evaluations for Formative and Summative Instructional Improvement](#)
 - 2021 Faculty Learning Community: Diversity, Equity, and Inclusion in Graduate Education
 - 2020-21 Faculty Learning Community: Graduate Student Mentorship
 - 2020 National Academies of Sciences Engineering Medicine (NASEM) Imagining the Future of Undergraduate STEM Education Symposium, November 12th, 13th, 19th.
 - 2020 National Alliance for Partnerships in Equity (NAPE) faculty/staff mentoring workshop: Micromessaging to Reach and Teach Every Student, October 16th.
 - 2020 Miami English Language Learner Writing Center workshop: Designing Effective Writing Assignments for International (ELL) Students Enrolled in Courses Across the Disciplines
 - 2020 Online course: The Dynamic Earth – a Course for Educators. American Museum of Natural History (*audited*) <https://www.coursera.org/learn/earth-amnh>
 - Online course: Foundations for Excellence on Online Teaching. Arizona State University (*audited*) <https://courses.edx.org/courses/course-v1:ASUx+FETO101x+2T2020/course/>
 - Online course: Learning to Teach Online. University of New South Wales, Australia (*audited*) <https://www.coursera.org/learn/teach-online>
 - 2020 NAGT workshop: Learning Objectives and Assessment in Field Experiences, April 11th products integrated: https://nagt.org/nagt/teaching_resources/field/designing_remote_field_experie.html
 - 2019 NSF GEOPATHS PI workshop April 25th-26th, Alexandria, VA
 - 2019 Center for Teaching Excellence 2-day workshop: Publishing in the Scholarship of Teaching Learning
 - 2018 NAGT-NSF Early Career Geoscience Faculty Workshop at University of Maryland (July 22nd-26th)
 - 2018-19 Faculty Learning Community: Experiential Learning (Aug. 2018 – May 2019)
 - 2017-18 Faculty Learning Community: Global Initiatives Faculty Collaborative (Aug 2017 – May 2018)
 - 2017 Faculty Learning Community: Diffusing STEM Innovations (Fall 2017)
Product: <https://www.miamioh.edu/cte/resources/experiential-learning/>
 - 2016-17 Faculty Learning Community: Alumni Teaching Scholars (year-long faculty development program that enhances undergraduate education, June 2016 – May 2017)
 - 2016-17 Faculty Learning Community: New Faculty Research Community (Sept 2016 – May 2017)
 - 2016 Establishing and Sustaining an Undergraduate Research Program, American Geophysical Union (AGU) Meeting, San Francisco, CA
 - 2016 Broadening Participation in the Geosciences, AGU Fall Meeting, New Orleans, LA
 - 2016 Online course: Advanced Learning Through Evidence-Based STEM Teaching, Boston University <https://www.edx.org/course/advancing-learning-through-evidence-based-stem-tea>
 - 2015- Original Lilly Conference on College Teaching (attended annually, presented 5 times)
 - 2015 Faculty Learning Community: New Faculty Teaching Enhancement Program (Fall, 2015)
 - 2012 GSA Thompson Field Forum, Formation of the Sierra Nevada Batholith: Magmatic and Tectonic Processes and Their Tempos, September 1st-8th, Sierra Nevada, CA
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▪ **COURSES TAUGHT (n=6)**

- GLG 111:** The Dynamic Earth (taught 6 times; Fall 2016, 2018-2022)
Introductory-level course taught to majors and non-majors. This course provides an introduction to physical geology. Key topics that are addressed include the formation of Earth, Earth's internal

structure, plate tectonic settings, the generation of rocks and their minerals, natural hazards, geological time, landscape evolution, and climate change.

GLG 357: Igneous and Metamorphic Petrology (taught 7 times; Spring 2016-2022)

This is an integrated classroom, laboratory, and field-based course which introduces students to the petrogenesis of Igneous and Metamorphic rocks from different tectonic settings on Earth. This course integrates scientific communication and writing skills and is purposefully designed so that students develop their analytical, critical thinking, research and writing skills. This course involves a 4-day field trip to SE Missouri and a 6-week Course-based Undergraduate Research Experience both of which I developed.

GLG 427/527: Isotope Geochemistry (taught 6 times, Fall 2015; Spring 2017, Fall 2018-2020, 2022)

This upper-level undergraduate and graduate-level course focuses on the chemical composition and evolution of Earth and extraterrestrial objects. Students are expected to be able to comprehensively discuss the application of high-temperature isotope geochemistry in the field of Earth and Planetary Sciences. The course requires students to develop scientific literacy through abstract writing, scientific paper writing, oral presentations, and grant writing skills through numerous structured exercises and assignments.

GLG 411/511: Field Camp (Summer 2017- 2019, 2021-2022; *2017-2019 first 3 weeks only*)

The Miami University Field Geology course is run by the course Director Dr. Brian Currie for 5 weeks during the summer throughout June and July with field locations in Idaho, Wyoming, and Montana, and has a base at the Miami University Geology Field Station in Dubois, WY. The aim of this field course is to engage the students in authentic field-based experiences. Throughout this course, students are required to integrate content knowledge with their own observation-based evidence and interpretations, and to communicate that knowledge through writing and the production of geologically accurate field maps.

GLG 647: Graduate Student Onboarding (taught 2 times; Fall 2021, 2022)

Fall 2021 was the first offering of this course. All new graduate students in the MA, MS, and PhD programs were enrolled. This course focuses on the informal “hidden curriculum” of graduate school that works to complement formal student learning such that all individuals feel supported and have the necessary skill set with which to lead successful graduate careers. The course was offered once every two weeks with a synchronous option via Zoom offered each time. A total of 7 sessions were held and started during Week 1 of the semester. Topics in this first offering were informed by feedback from our own graduate student cohort in the Spring of 2020, in addition to feedback from departmental faculty, materials available online for a graduate geoscience onboarding course, and discussions during a National Association of Geoscience Teachers webinar. The second offering in Fall 2022 was revised based on feedback and included revisions to all offered sessions including a new session on Science Communication. Community-building activities were integrated into weeks in-between sessions and included visits to Miami’s Center for Teaching Excellence and the formal gardens (among others).

GLG 657: Geology of our Solar System (taught 1 time; Fall 2021)

Fall 2021 was the first offering of this graduate-level course. This course discussed the geological history of the rocky objects in our Solar System through analysis and evaluation of data and relevant peer reviewed literature. This includes differentiated planets, moons, asteroids, meteorites (including chondritic materials). The geologic processes which have shaped these objects over billions of years (e.g., volcanism, impacts, tectonics, sedimentology) were discussed alongside the observations which are used to interpret their histories (e.g., remote sensing and sample-based science). Discussion of past, present, and upcoming missions was integrated throughout the course, in addition to discussion of space policy and ethics.

▪ **MIAMI-ISSUED COURSE EVALUATIONS (Likert scale: 0-4)**

Content presented clearly (q1); Instructor Effectiveness (q2); Concern for learning demonstrated (q3)

Course	Semester	n	response	q1 (median)	q2 (median)	q3 (median)
GLG 427/527	Fall 2022	19	63%	4.00 (4)	4.00 (4)	4.00 (4)
GLG 111	Fall 2022	79	51%	3.72 (4)	3.75 (4)	3.67 (4)
GLG 357	Spring 2022	17	53%	4.00 (4)	4.00 (4)	4.00 (4)
GLG 657	Fall 2021	14	14%	4.00 (4)	4.00 (4)	4.00 (4)
GLG 111	Fall 2021	87	62%	3.80 (4)	3.72 (4)	3.83 (4)
GLG 357	Spring 2021	14	86%	3.60 (4)	3.90 (4)	4.00 (4)
GLG 427/527	Fall 2020	15	67%	3.70 (4)	3.80 (4)	3.70 (4)

GLG 111	Fall 2020	86	58%	3.36 (4)	3.50 (4)	3.46 (4)
GLG 357	Spring 2020	12	83%	3.60 (4)	3.90 (4)	4.00 (4)
GLG 427/527	Fall 2019	17	94%	3.81 (4)	3.94 (4)	3.94 (4)
GLG 111	Fall 2019	79	91%	3.70 (4)	3.37 (4)	3.66 (4)
GLG 357	Spring 2019	18	100%	3.94 (4)	3.94 (4)	4.00 (4)
GLG 427/527	Fall 2018	14	92%	4.00 (4)	4.00 (4)	4.00 (4)
GLG 111	Fall 2018	29	85%	3.31 (4)	3.38 (4)	3.53 (4)
GLG 357	Spring 2018	13	100%	3.85 (4)	4.00 (4)	3.92 (4)
GLG 427/527	Spring 2017	8	100%	3.75 (4)	3.75 (4)	4.00 (4)
GLG 357	Spring 2017	7	86%	4.00 (4)	4.00 (4)	4.00 (4)
GLG 111	Fall 2016	83	65%	3.48 (4)	3.65 (4)	3.85 (4)
GLG 357	Spring 2016	16	86%	3.50 (4)	3.57 (4)	3.71 (4)
GLG 427/527	Fall 2015	11	91%	3.80 (4)	3.70 (4)	3.90 (4)

**due to low response rate, a course survey was issued via Google Forms. Results available upon request.*

Geology Field-based Capstone Course (5 weeks in Idaho, Wyoming, and Montana)

Scale: 0-4. Instructor enthusiasm (q1) Instructor attitude (q2) Overall effort and performance (q3).

Course	Semester	n	response	q1	q2	q3
Field Camp	Summer 2022	14	100%	3.79	3.93	3.86
Field Camp	Summer 2021	24	100%	4.00	4.00	3.96
Field Camp	Summer 2019	13	100%	3.92	4.00	3.92
Field Camp	Summer 2018	20	100%	4.00	4.00	4.00
Field Camp	Summer 2017	18	100%	3.80	3.80	3.70

▪ PROFESSIONAL MEMBERSHIPS

Association for Women Geoscientists
 Council on Undergraduate Research
 Geological Society of America
 National Association of Geoscience Teachers
 Ohio Academy of Science
 Phi Kappa Phi Honor Society

▪ SERVICE TO STUDENTS

2022 "Classroom Connections" – participated in semester-long Mental Health initiative from Miami University Student Counseling Services in upper-level course (GLG 427/527)

2022- Faculty co-founder and representative on Miami University Graduate School Student Rights and Responsibilities Committee

2021- Faculty Mentor: Miami University Graduate School Cross-Cultural Mentoring Program

2018- Faculty Academic Advisor for Phi Mu Fraternity, Beta Eta chapter

2016- Letters of recommendation (>120 written to date) for university, regional, and national student scholarships, fellowships, and graduate school applications

2015- 4 PhD student thesis defense committees, 7 PhD student thesis proposal committees, 7 PhD students comprehensive exam committees, 13 MS student thesis defenses, 19 MS student thesis proposal committees

2017 Co-led 1-week field trip to San Salvador, the Bahamas, Miami Undergraduate Geological Society

2016 Co-led 1-week field trip to Joshua Tree National Park, Miami Undergraduate Geological Society <https://geologymiamioh.wordpress.com/2016/03/29/spring-break-2016-joshua-tree-national-park/>

2015-18 Student abstract peer reviewer, Council on Undergraduate Research, Posters on the Hill, Washington DC

2014-18 Student poster and oral presentation judge: Dwornik Student Presentation Award (LPSC, 2018, 2014), Student Presentation Award (IAVCEI, 2017), Outstanding Student Paper Award at American Geophysical Union (AGU) Conference (2014-2017)

▪ SERVICE TO THE DEPARTMENT AND MIAMI UNIVERSITY

2022- Search Committee: Chair (internal), Department of Geology and Environmental Earth Science

2022 Search Committee: Tenure Track Assistant Professor (Mineralogist)

- 2022- Department Promotion Committee for Teaching, Clinical Professors and Lecturers (TCPLs) faculty
 2021 Online course: [The Inclusive STEM Teaching Project](#) (audited)
 2021- Chair of the Center for Teaching Excellence (CTE) Senate Committee
 2021 Co-led summer book club: Designing Effective Teaching and Significant Learning
 2021 Virtual Miami University Undergraduate Research Forum Session Moderator
 2021 Graduate School Faculty Learning Community (FLC) on Diversity, Equity, and Inclusion
 2021 3 Minute Thesis Competition preliminary round judge (February 9th, 11th)
 2020- Faculty Learning Community (FLC) on Graduate Student Mentoring (Oct 2020 – present)
 2020- Center for Teaching Excellence, Faculty Teaching Associate (FTA)
 2020- Diversity, Equity, and Inclusion (DEI) Departmental committee (co-founder, July 2020)
 2020 Miami University Office of Research for Undergraduates Faculty Panelist: Disciplinary Approaches to Research
 2020 Virtual Miami University Undergraduate Research Forum Session Moderator
 2019- Center for Teaching Excellence, Departmental Liaison
 2019- Chapter officer for Miami University's Chapter of Phi Kappa Phi (*Public Relations*)
 2018-20 Member for the Center for Teaching Excellence Committee, Miami University Senate
 2018-19 Faculty Learning Community (FLC) on Experiential Learning (Aug. 2018–May 2019): developing an online resource on Experiential Learning for Miami faculty and staff accessible through the CTE website: <https://miamioh.edu/cte/resources/experiential-learning/index.html>
 2017- Department Curriculum Committee: Developing Learning Outcomes for Introductory Courses
 2016- Graduate Admissions Committee, Department of Geology and Environmental Earth Science (re-appointed Spring 2021)
 2019-20 Search Committee: Teaching Assistant Professor
 2019 Search Committee: Geochemistry Lab Manager
 2016- Make It Miami: undergraduate recruitment events during Spring semesters (8 events total)
 2016-18 Graduate Student Achievement Fund Committee Member
 2016 Search Committee: Geochemistry Lab Manager
 2016 Admissions panel: Junior Preview Day
 2015- Social Media Coordinator for Department of Geology and Environmental Earth Science

▪ **SERVICE TO THE (GEO)SCIENCE DISCIPLINE**

- 2021- Geoscience Division editor for Council on Undergraduate Research (CUR) peer-reviewed journal: [Scholarship and Practice of Undergraduate Research](#) (SPUR)
 2021- [Unlearning Racism in the GEosciences](#) (URGE Miami pod, program participant)
 2021 Co-facilitated CUR workshop: Undergraduate Student Summer Research Programs April 5th
 2021- Appointed to the National Science Teaching Association (NSTA) Post-Secondary Science Teaching Committee (3-year term began June 1st)
 2021- Division Editor (Geoscience Division) on the Editorial Board of the journal [Scholarship and Practice of Undergraduate Research](#) (SPUR)
 2020- Appointed to the National Association of Geoscience Teachers (NAGT) Field Camp Scholarship Committee (4-person committee, 3-year appointment, review 60-80 applications/year)
 2020- Appointed to the Geological Society of America (GSA) Joint Technical Program Committee (JTPC) as a Member-at-Large. Tasked with assisting in finalizing the technical program of the GSA Annual Meeting (2-year term began December 1st 2020)
 2020- Ohio Academy of Science (OAS) Publications Committee
 2020- Ohio Academy of Science (OAS) Annual Meeting Committee
 2020- Council on Undergraduate Research (CUR) Student Programs Task Force
 2020 Geological Society of America (GSA) STILL CARES reviewer (GSA COVID-19 Assistance and Relief Effort for Students, reviewed 50 student applications)
 2020 Geoscience in the Time of COVID-19 Study (3-week Experience Sampling Method/Daily Diary Survey designed to better understand the experience of faculty members during COVID-19), SERC
 2018-20 Member of the Editorial Board – Geological Society of America journal *Geology*
 2018- Member of the Board of Trustees, Ohio Academy of Science (Academia at Large)
 2017 Undergraduate Student Mentor, annual American Geophysical Union meeting, New Orleans, LA.
 2016- Women in Geology Faculty Mentor - annual Women in Geology workshop at GSA Annual Meeting
 2016- Elected Councilor for Geoscience Division of the Council on Undergraduate Research, re-elected in 2019
 2016- Ohio Department of Education, member of Content Advisory Committee for Grade 8 Science

- 2014- Panelist and reviewer for NSF (panelist n = 6, non-panelist n = 3) and NASA (panelist n = 6, non-panelist n = 1)
- 2013- Reviewer for peer-reviewed journals: *Geochimica et Cosmochimica Acta*, *GSA Bulletin*, *Geological Society of London*, *Geology*, *Geoscience Frontiers*, *Geosphere*, *Lithos*, *Lithosphere*, *Journal of Petrology*, *Journal on Excellence in College Teaching*.
- 2018 Onto the Future Mentor, GSA Annual Meeting, Indianapolis
- 2018 Graduate Student Recruitment at the annual Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) conference, San Antonio, TX (11th-13th Oct.)
- 2017-19 Conference abstract peer review, Ohio Academy of Science Annual Meeting
- 2017-19 Ohio Department of Education, member of review committee for revision of K-8 Science Content Standards

▪ **SCIENCE OUTREACH**

- 2022 Organizer - Midwest Mineralogy and Petrology networking event at Joint NC-SE Geological Society of America Annual Sectional Meeting, Cincinnati, April 8th.
- 2021 Participating scientist in the Earth Science Women's Network 2021 Science-A-Thon. Documenting a day in the life of a scientist through social media (Twitter). Full participant list available here: <https://www.scienceathon.org/science-a-thon-2021>
- 2021 Ohio State Science Day Judge
- 2021 Ohio District Science Day Judge
- 2020 Outreach collaboration with Biology/Environmental Science High School teacher Angela McMurry at Arcanum High School, OH. Two virtual events: "*Geoscience is for Everyone*" as part of Earth Science Week 2020 (Oct. 15th) and "*Doing Research*" (Nov. 9th)
- 2020 Participating scientist in the Earth Science Women's Network 2020 Science-A-Thon https://www.scienceathon.org/scientists?pgid=k8izuh3u-claire_0
- 2020- Contributing writer to the American Geophysical Unions (AGU) science communication portal *Geobites* (5 articles posted in 2020 <https://geobites.org/author/cmcleod/>)
- 2018-20 6th grade "*What does a Geologist do?*" workshops at Piqua Central Intermediate School, OH (one/semester)
- 2018 Smith Elementary School Career Day, Spring Independent School District, (SISD), Houston, TX
- 2016-17 Discover STEM Conference, Butler County Education Service Center. Day-long STEM-focused workshops for middle school students at Miami University, Middletown Campus
- 2016 Careers in Quantitative Skills (CIQS) small group leader during day-long event discussing career paths in STEM to female high school students
- 2014-15 Houston Independent School District (HISD) 5th-6th grade Rock and Minerals workshops (co-led with PhD student from University of Houston), Houston, TX (2-3/semester)