CURRICULUM VITAE: Claire L. McLeod (she/her)
Dept. Geology and Environmental Earth Science, Miami University, Oxford, OH, 45056
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Professional Summary

Geoscientist and academic leader with expertise in geomaterials characterization, specializing in mineralogy, petrology, and geochemistry. Skilled in designing and managing impactful undergraduate and graduate programs, leading and managing projects, and mentoring students for career success. A highly collaborative scientist and nationally recognized mentor, committed to integrating student professional growth and workforce readiness throughout education, research, and service.

Academic Appointments and Education

• **Graduate Program Director**	Dept. Geology and Environmental Earth Science Miami University, OH	2023-
• **Associate Professor**	Dept. Geology and Environmental Earth Science Miami University, OH	2021-
• **Assistant Professor**	Dept. Geology and Environmental Earth Science Miami University, OH	2015-2021
• **Postdoctoral Researcher**	Dept. of Earth and Atmospheric Science University of Houston, TX	2012-2015
• **PhD**, **Geology**	Dept. of Earth Sciences Durham University, England	2008-2012
• **BSc (Hons, 1st)**, **Geology**	School of GeoSciences University of Edinburgh, Scotland	2004-2008

Academic Awards and Honors

- Roger & Joyce Howe Award for Excellence in Disciplinary Writing Instruction 2026
- Distinguished Teaching Award for Excellence in Graduate Instruction and Mentoring 2025
- Associated Student Government Outstanding Professor, top-25 finalist & top-10 awardee 2025
- Early Career Undergraduate Mentor Award, Council on Undergraduate Research (CUR), Geoscience Division 2024
- College of Arts and Science (CAS) Outstanding Educator Award 2023

Summary of Leadership Experience

- Principal Investigator (PI): NSF REU Site, award #2548098 2026-
- Principal Investigator (PI): NASA COMPASS, award #80NSSC26K1360 2026-
- Workshop series leader: Graduate Student Teaching Development (Fall) 2026-
- Chair of the North-Central section of the Geological Society of America 2026-
- Elected Council Member, Council on Undergraduate Research 2025-
- Graduate Program Director, Dept. Geology and Environmental Earth Science 2023-
- Chair of the Center for Teaching Excellence Senate Committee, Miami University 2021-2025
- Elected Board of Trustees member, Ohio Academy of Science 2018-2022; 2025-
- Faculty Learning Community lead: Evaluating the Effectiveness of Course Evaluations 2021-2022
- Principal Investigator (PI): NSF GEOPAths award #1801424 2018-2023
- Elected Representative, Geoscience Division, Council on Undergraduate Research 2016-2025

External Funding: $2,576,981

- National Aeronautics Space Administration (NASA) Collaborative Opportunities for Mentorship, Partnership, and Academic Success in Science (COMPASS) $373,922
  Title: Integrated Mentorship in Planetary Analysis and Career Training (IMPACT)
  Role: PI; 08/01/26-07/31/28
- National Science Foundation (NSF) Research Experiences for Undergraduates $417,353
  Title: REU Site: Research and Education Supporting Opportunities for Undergraduate Readiness for Careers in Earth Systems (RESOURCES)

Role: PI; 03/01/27-02/28/29

- Fulbright Scholar-in-Residence (S-I-R) Program, 2026-2027 $50,000*
  **funding estimated based on anticipated Fulbright stipend and professional expenses*
  Award: to host Dr. Tasneem Hyarat, University of Jordan, at Miami University for AY 26-27
  Role: Co-PI; 08/01/26-05/30/27

- 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

- National Aeronautics and Space Administration (NASA) Emerging Worlds $390,620
  Title: The Search for Nebular Heterogeneity and the Compositions of Terrestrial Planetary Materials Using Nd, Sm and Os Isotopes
  Role: Co-PI; 08/01/16-07/30/19

Manuscripts *in review* / *in revision* (n=4) *undergraduate student, graduate student

Velázquez Santana, L. C., **McLeod, C. L**., Brown, K. Deep crustal recycling of supracrustal material beneath the Bolivian Altiplano: zircon U-Pb-Hf constraints from crustal xenoliths. *Geological Society of America Bulletin, manuscript ID: B39726*. *Submitted 08.01.26*.

McLeod, C. L., Gawronska, A., Shaulis, B. J., Loocke, M., Schweitzer, A. Petrological and Geochemical Characterization of Lunar Meteorite Dominion (DOM) Range 18666. *Journal of Petrology. Manuscript ID: JPET-Apr-26-0076, reviews received 08.02.26.*

McLeod, C. L., Lytle, M. L., Shaulis, B., *Patrick, J., *Klein, E. Cretaceous Arc Magmatism and Oligocene Mineralization in the SW USA: Insights from the Shoshone Granite at Round Mountain, NV. *Lithos, manuscript ID: LITHOS14034*, *reviews received 07.06.26.*

Sedaghat, A., **McLeod, C. L**., Loocke, M. P. Translithospheric Magmatic Processes Recorded by Multiple Crystal Cargoes at the Quillacas Monogenetic Volcano, Bolivia. *Journal of Volcanology and Geothermal Research*, *manuscript ID: VOLGEO-D-26-00059*, *reviews received 05.18.26.*

Peer Reviewed Publications (n=42) *undergraduate student, graduate student

2027 Sedaghat, A., **McLeod, C. L**., Loocke, M. P., Shaulis, B. J. Fayalite-Pyroxene-Silica (Fa-Px-Si) symplectite formation in extraterrestrial materials: new insights from lunar meteorites. *Icarus.*

2026 Snell, S., **McLeod, C. L**., Lytle, M., Almquist, C. B., Shaulis, B., Krekeler, M. P. S. Mineralogy, Geochemistry, and Thermal Properties of Historic Clay-Rich Mine Tailings from Tonopah, Nevada. *Mining, Metallurgy, & Exploration*.

2026 Gawronska, A. J., **McLeod, C. L**., Loocke, M., Shaulis, B. Evidence for open magmatic system processes recorded in crystal cargoes of lunar basalts. *Geological Society, London, Special Publications*, v. 562.

2026 Schweitzer, A., **McLeod, C. L**., Gawronska, A. J., Sedaghat, A., Lytle, M. L., Shaulis, B., Loocke, M. Insights into the Petrogenesis of Lunar Basaltic Breccias from Dominion Range (DOM) 18543. *Geological Society, London, Special Publications*, v. 562.

2026 Gokey, K., Gillis, M., Brown, K., *Renkes, N., **McLeod, C. L**., Krekeler, M. P. S. The Nature and Distribution of Road Sediment Contaminants in the Greater Las Vegas, Nevada Area. *Environmental Monitoring and Assessment*. v. 198(5).

2026 **McLeod, C. L**., Lytle, M., Cracas, T. J., Brown, K., Shaulis, B., Loocke, M. Insights into Shonkinite Petrogenesis from the Adel Hill Volcanic Field, Montana. *Journal of Volcanology and Geothermal Research*, v. 469; 108496.

2025 Gokey, K., **McLeod, C. L**., *Tella, K., Gillis, M., *Fouh Mbindi, M., Krekeler, M. P. S. Initial Investigations of Lead Chromate Road Paint in the Midwest, United States. *Transportation Research Part D*, v. 148; 105013.

2025 **McLeod, C. L**., Almquist, C., Ess, M., Zhang, J., *Schultz, H., *Nguyen, T., *Tran, K., Hughes, M. Graduate Student Teaching Assistants: Roles, Perspectives, and Opportunities. *Education Sciences*, v. 15(7); 838.

2025 Velázquez Santana, L. C., **McLeod, C. L**., Shaulis, B., Loocke, M., *Al Gbory, R. Trans-crustal magmatic processes revealed by amphibole breakdown textures at the Quillacas monogenetic volcanic center, Bolivia. *Lithos*, v. 494-495; 107891.

2025 *Allen, A., **McLeod, C. L**., Velázquez Santana, L. C., *Zimmerer, M., Lytle, M., et al. Mineralogy and geochemistry of sands from Playa las Golondrinas, Puerto Rico: Establishing a Regional Geogenic Background. *Environmental Earth Sciences*, v. 84(31).

2024 Jenkins, N. J., Zhou, X., Bhowmick, M., **McLeod, C. L**., Krekeler, M. P. S. Investigation into the Stability of Synthetic Goethite after Dynamic Shock Compression. *Physics and Chemistry of Minerals*, v. 51(22).

2024 *Allen, A., Dietrich, M., **McLeod, C. L**., Gillis, M., Gokey, K., Fouh Mbindi, M., Krekeler, M. P. S. Investigating Mercury in Road Sediment in Michigan City, Indiana: A New Type of Environmental Pollution Record. *Environmental Advances*, v. 15; 100483.

2024 *Wudke, H., Brown, K., *Murchland, M., Gillis, M., Gokey, K., Bank, J., Lytle, M., **McLeod, C. L**., Krekeler, M. P. S. Mineralogical and Geochemical Characterization of Johnson's Baby Powder from 1985: Evidence of contamination. *Applied Clay Science*, v. 250; 107252.

2024 *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*, v. 10; 223-236.

2023 *Curtis, J., *Stitle, L., *Certain, J., *Murchland, M., *Piszel, C., *Vest, J., **McLeod, C. L**., Krekeler, M. P. S. A Reflective Spectroscopy and Mineralogical Investigation of Cosmetic Blush (Wet'N'Wild) Potentially for Forensic Investigations Related to Interpersonal Violence – An Experimental Feasibility Study. *Forensic Sciences*, 3(4), 544-559.

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*, v. 82:109.

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).

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.

2022 **McLeod, C. L**., Gawronska, A. J. Mantle. *In*: *Encyclopedia of Lunar Science*, *ed*: Cudnik, B. Springer, 1-8pp.

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.

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.

2022 Gawronska, A. J., **McLeod, C. L**. Basalt. *In*: *Encyclopedia of Lunar Science,* ed: Cudnik, B. Springer, 1-11pp.

2022 Gawronska, A. J., **McLeod, C. L**. Moon, Overall Geology. *In*: *Encyclopedia of Lunar Science*, *ed*: Cudnik, B. Springer, 1-10pp.

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.

2020 **McLeod C. L**., Brown, K. L. Strategies for Preparing and Delivering an Effective Online Presentation. *GSA Today*, v. 30(9).

Pre-tenure

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.

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.

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.

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.

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* (in print 2023).

2018 **McLeod, C. L.**, Shaulis, B. J. Rare Earth Elements in Planetary Crusts: Insights from Chemically Evolved Igneous suites on Earth and the Moon. *Minerals,* v. 8.

2017 **McLeod, C. L.**, Krekeler, M. P. S. Sources of Extraterrestrial Rare Earth Elements: To the Moon and Beyond. *Resources* v. 6; 1-28.

2016 **McLeod, C. L**. Lunar Magma Ocean, Size. In: *Encyclopedia of Lunar Science*, *ed*: Cudnik, B. Springer, 1-15pp.

2016 **McLeod, C. L.**, Brandon, A. D., Fernandes, V. A., Peslier, A. H., Fritz, J., Lapen, T., Shafer, J. T., Butcher, A. R., 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.

2015 McGee, L. M., **McLeod, C. L.**, 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.

2014 **McLeod, C. L.**, Brandon, A. D., Armytage, R. M. G. Constraints on the formation age and evolution of the Moon from ^{142}Nd-^{143}Nd systematics of Apollo 12 basalts. *Earth and Planetary Science Letters*, v. 127; 179-189.

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 Norrbotten Ore District, Northern Sweden. *Minerals,* 4; 788-814.

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.

2013 Allen, M. B., Kheirkhah, 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.

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.

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.

2010 Deegan, F. M., Troll, V. R., Freda, C., Misti, V., Chadwick, J. P., **McLeod, C. L.**, Davidson, J. P. Magma-Carbonate Interaction Processes and Associated CO_2 Release at Merapi Volcano, Indonesia: Insights from Experimental Petrology. *Journal of Petrology*, v. 51; 1027-1051.

- **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	
Source of Support: NPS	
22 samples collected from Yellowstone National Park in June 2022	*Award Period:* Sample permit granted for 1 year
Location of Project: Miami University, University of Arkansas	
Current use: MS student thesis – Danielly Aguirre	

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	
Source of Support: NASA	
Award Amount: 5 thin sections and accompanying rock chips of meteorites DOM 18262, 18509, 18543, 18666, 18678.	*Award Period:* 10/01/19 – when research objectives are achieved

Location of Project: Miami University, University of Arkansas, Louisiana State University	
Current use: MS student thesis Alex Schweitzer (Fall 2021-Summer 2023), MS student thesis Emily Medema (Fall 2025-), MS student thesis Jordan Bell (Fall 2025-)	
Project Title (2): U-Pb Crystallization age and impact history of ALHA 81005 and its clasts. **Role**: Co-Principal Investigator	
Source of Support: NASA	
Total Award Amount: 3 thin sections of lunar meteorite ALH A81005	*Award Period:* 08/01/18 – when research objectives are achieved
Location of Project: University of Arkansas, Miami University	
Current use: MS student thesis - Jared Brum (Fall 2020-Spring 2022), ongoing research	

NASA Astromaterials Allocation Review Board (AARB), formerly CAPTEM	
Project Title (1): 2D and 3D Petrochemical and Petrophysical Investigations of Magmatic Differentiation on the Moon. **Role**: Principal Investigator	
Source of Support: NASA	
Total Award Amount: 8 thin sections and accompanying rock chips of select Apollo basalts	*Award Period:* 12/07/17 – when research objectives are achieved
Location of Project: Miami University, Louisiana State University, University of Arkansas, University of Texas Austin	
Current use: PhD student dissertation – Aleksandra Gawronska (2018-2023), ongoing research	
Project Title (2)*:* Quantification of the petrophysical and petrochemical characteristics of Apollo 11 high potassium basalts. **Role**: Co-Principal Investigator	
Source of Support: NASA	
Total Award Amount: 7 thin sections of Apollo 11 high potassium basalts	*Award Period:* 13/07/22 – when research objectives are achieved
Location of Project: Miami University, Louisiana State University, University of Arkansas	
Current use: PhD student dissertation – Aleksandra Gawronska (2018-2023), ongoing research	
Project Title (3)*:* Lunar Magmatic System Processes Recorded in Olivine Grains and Their Impacts on Melt Volatile Contents. **Role**: Co-Principal Investigator	
Source of Support: NASA	
Total Award Amount: 8 thin sections and accompanying rock chips of Apollo 15 basalts	*Award Period:* 06/12/25 – when research objectives are achieved
Location of Project: NASA Goddard	
Current use: ongoing collaboration with Dr. Aleksandra Gawronska, NASA Goddard	

- **INTERNAL FUNDING/SUPPORT** (Miami University, total to date: $114,050)

2015- Professional Development Funds from Faculty Learning Communities ($9900)
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); New Graduate Directors 2023-2024 ($500); Teaching STEM: Strategies to Support Faculty Development and Enhance Teaching Effectiveness 2023-2024 ($1000); Discipline-Based Education Research (DBER) Associates 2024-2025 ($1000); Exploring Best Practices in Preparing Doctoral Students for Success 2024-2025 ($500).

2026 College of Arts and Science Dean's Research Fund Award ($801)

2026 Center for Teaching Excellence (CTE) Minor Teaching Grant to support attendance at the Triple joint 75th Southeastern / 60th North-Central / 60th South-Central Annual Geological Society of America Section Meeting, March 8th-11th, Memphis, TN ($225)

2025 CTE Minor Teaching Grant to support attendance at Continuing C-ChaGe: Cultural Change in Geoscience, Carleton College ($254)

2025 Mentoring Graduate Students for Success, Miami University Graduate School Fall series ($500)

2024 Center for Career Exploration & Success Career Grant - Preparing the Future Workforce by Increasing Access to Geoscience Professional Development Opportunities (*$9860)

2024 Center for Career Exploration & Success Career Grant to support an honorarium for 3-day department visit (including a dept. seminar) by The Groovy Geologist, Cate Larsen ($1000)
2023 Student Technology Fee Award – Size Matters: Acquisition of Laser Particle Size Analyzer to Facilitate Student Professional Development and Career-Relevant Training (Lead: Dr. Jason Rech, $33,621)
2023 M.I.A.M.I WOMEN Giving Circle – Establishing a Formal Mentoring Program for STEM Faculty and Graduate Students (lead: Dr. Cathy Almquist, $8400)
2022 Committee on Faculty Research (CFR) – Faculty Research Grant ($14,071)
2021 Student Technology Fee Award – Promoting Student Accessibility through the Digitization of Educational Resources: Acquisition of a Digital Thin Section Slide Scanner ($2394)
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 Career Grant 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 CAS Dean's 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 2017-2018. ($16,852 MS 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 STUDENT MENTEES (*undergraduate student, graduate student)

- **External** ($58,926)

2026 Geological Society of America Graduate Student Research Grant (*Lipman Research Award from the Howard and Jean Lipman Foundation*) to Danielly Aguirre ($2400)
2026 Geological Society of America Graduate Student Research Grant to Emily Medema ($761)
2023 Geological Society of America Graduate Student Research Grant to Kailee Gokey ($2500)
2023 Geological Society of America Graduate Student Research Grant to Azadeh Sedaghat ($2500)
2022 Future Investigators in NASA Earth and Space Science (FINESST) scholarship to Aleksandra Gawronska ($36,365)
2022 American Geophysical Union Lawrence A. Taylor Research Fund to Aleksandra Gawronska ($4000)
2021 Geological Society of America Graduate Student Research Grant to Aleksandra Gawronska ($2100)
2019 ExxonMobil/Geological Society of America Graduate Student Research Grant to Liannie Velázquez-Santana ($5000)
2018 Evolving Earth Foundation grant to Richard Brydon ($3000)
2017 Geological Society of America North Central Undergraduate Research Award to *Elizabeth O'Brien ($300)

- **Internal** (Miami University, $18,400)

2025 Graduate School Thesis Research Funding Award to Emily Medema ($300)
2025 Graduate School Thesis Research Funding Award to Jordan Bell ($300)
2025 Graduate School Thesis Research Funding Award to Danielly Aguirre ($300)
2024 Graduate School Thesis Research Funding Award to Emily Waterhouse ($300)
2023 Office of Research for Undergraduates (ORU): Undergraduate Student Scholarship (USS) awarded to *Landon Stitle ($1000 for research costs)
2023 Office of Research for Undergraduates (ORU): Undergraduate Student Scholarship (USS) awarded to *Juliana Curtis ($1000 for research costs)
2023 Graduate School Dissertation Research Funding Award to Azadeh Sedaghat ($600)
2021 Graduate School Dissertation Research Funding Award to Aleksandra Gawronska ($600)
2021 Graduate School Thesis Research Funding Award to Jared Brum ($300)
2020 Office of Research for Undergraduates (ORU) Undergraduate Research Award to *Mitchell Duncan

($400)
2020 Office of Research for Undergraduates (ORU) Undergraduate Research Award to *Raghad Algbory ($450)
2020 Office of Research for Undergraduates: Undergraduate Research Award to *Jordan Vest ($750).
2020 M.I.A.M.I WOMEN Giving Circle *Jordan Vest, *Claudia Dawson, *Jessica Patrick, *Lauren Doepke ($7200)
2020 Office of Research for Undergraduates (ORU): Undergraduate Student Scholarship (USS) awarded to *Jessica Patrick. ($1000 for research costs - program cancelled for summer 2020)
2019 Office of Research for Undergraduates (ORU): Undergraduate Student Scholarship (USS) awarded to *Andrew Bollinger ($1000 for research costs)
2019 Office of Research for Undergraduates (ORU): Undergraduate Student Scholarship (USS) awarded to *Jared Brum ($1000 for research costs)
2018 Office of Research for Undergraduates (ORU) Doctoral Undergraduate Opportunity Scholarship (DUOS) awarded to *Jared Brum and Aleksandra Gawronska ($1000)
2017 Office of Research for Undergraduates (ORU): Undergraduate Student Scholarship (USS) awarded to *Elizabeth O'Brien ($1000 for research costs)

- **STUDENT MENTEE AWARDS AND ACCOMPLISHMENTS** (*undergraduate student, graduate student)
- **External** ($90,540)

2026 Geological Society of America North Central Section travel grant to (Fall) Danielly Aguirre ($275)
2026 Geological Society of America Planetary Science Division travel grant awarded to Jordan Bell ($500)
2026 Geological Society of America Mineralogy, Geochemistry, Petrology, & Volcanology Division, student travel grant awarded to Danielly Aguirre ($500)
2026 Geological Society of America North Central Section travel grant to (Spring) Emily Medema ($200)
2026 Geological Society of America North Central Section travel grant to (Spring) Danielly Aguirre ($200)
2026 Geological Society of America North Central Section travel grant (Spring) to Jordan Bell ($200)
2025 Ohio Environmental Protection Agency (EPA) Scholarship to *April Sanders ($5000)
2025 National Association of Geoscience Teachers (NAGT) Outstanding Teaching Assistant Award to Kailee Gokey
2025 Geological Society of America North Central Section travel grant to Emily Waterhouse ($125)
2025 Geological Society of America North Central Section travel grant to Azadeh Sedaghat ($125)
2024 National Association of Geoscience Teachers (NAGT) Outstanding Teaching Assistant Award to Madeline Ess
2024 Barry M. Goldwater Scholarship to *Audrey Allen ($7500)
2024 NSF GRFP awarded to *Hannah Wudke: Duke University PhD program, Fall 2024
2024 NSF GRFP Honorable Mention to *Zach Ellia: Idaho State University MS program, Fall 2024
2023 Geological Society of America (GSA) Mineralogy, Geochemistry, Petrology, & Volcanology Division, student travel grant awarded to *Juliana Curtis ($500)
2023 L. Austin Weeks Undergraduate Grant, American Association of Petroleum Geologists (AAPG), to *Landon Stitle ($500)
2023 National Association of Geoscience Teachers (NAGT) Outstanding Teaching Assistant Award to Alex Schweitzer
2023 American Institute of Professional Geologists (AIPG) National Scholarship to *Juliana Curtis ($1500)
2023 Geological Society of America North Central Section travel grant to Azadeh Sedaghat ($125)
2023 Astronaut Scholarship to *Hannah Wudke ($15,000)
2023 Barry M. Goldwater Scholarship to *Hannah Wudke ($7500)
2022 Cernan-Schmitt-Evans Travel Award, Lunar and Planetary Institute (LPI), to Aleksandra Gawronska ($1500)
2022 American Institute of Professional Geologists (AIPG) National Scholarship to *Ruthy Rutherford ($1500)
2022 National Association of Geoscience Teachers (NAGT) Outstanding Teaching Assistant Award to Aleksandra Gawronska
2022 National Association of Geoscience Teachers (NAGT) Outstanding Teaching Assistant Award to Liannie Velázquez-Santana
2021 American Geophysical Union Travel Grant to Liannie Velázquez-Santana ($1000)
2021 Geological Society of America Expanding Representation in Geosciences to *Ruthy Rutherford ($1500)
2021 Norman R. Tilford Field Study Scholarship to *Jessica Patrick ($1500)
2021 American Institute of Professional Geologists (AIPG) National Scholarship to *Jessica Patrick ($1500)
2021 Ohio Environmental Protection Agency (EPA) Scholarship to *Ruthy Rutherford ($5000)

2021 Annual Departmental Graduate Research Award to Aleksandra Gawronska ($250)
2021 Annual Departmental Undergraduate Research Award to Jessica Patrick ($250)
2021 Lunar and Planetary Institute Career Development Award to Aleksandra Gawronska ($290)
2021 Barry M. Goldwater Scholarship to *Ethan Klein ($7500)
2021 NASA Space Grant College Fellowship: Ohio Space Grant Consortium to Jared Brum ($17,000)
2021 Lunar and Planetary Institute Career Development Registration Award to Aleksandra Gawronska (to attend the 52nd Lunar and Planetary Science Conference, virtual, March 15th-19th)
2020 National Association of Geoscience Teachers (NAGT) Outstanding Teaching Assistant Award to Daniel Blakemore
2020 Ohio Environmental Protection Agency (EPA) Scholarship to *Jessica Patrick ($5000)
2020 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 Geological Society of America J. David Lowell Field Camp Scholarship to *Jessica Patrick ($2000 – for summer 2021)
2020 American Institute of Professional Geologists (AIPG) National Scholarship to *Jennifer Davis ($1000)
2019 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 Geological Society of America (GSA) North Central Section travel grant ($100) to *Andrew Bollinger
2019 Geological Society of America (GSA) Mineralogy, Geochemistry, Petrology, & Volcanology Division, student travel grant awarded to Liannie Velázquez-Santana ($500)
2019 Annual Departmental Undergraduate Research Award to *Jared Brum ($450)
2019 Geological Society of America (GSA) Rocky Mountain Student Travel Grant to Liannie Velázquez-Santana ($100).
2019 GeoCUR Award for Excellence in Student Research awarded to *Jared Brum
2018 Geological Society of America (GSA) Student Professional Development Pathways Travel Award awarded to Liannie Velázquez-Santana ($900)
2018 Geological Society of America (GSA) On To The Future award to *David Beka Binyam ($600)
2018 Cincinnati Mineral Society Education Fund Scholarships awarded to *Ciara Childers and *David Beka Binyam ($750 each)
2018 Excellence in Student Research Award from Geoscience Division of Council on Undergraduate Research awarded to *Elizabeth Angi-O'Brien
2017 Geological Society of America (GSA) On To The Future award to *Elizabeth Angi-O'Brien ($600)
2017 American Geophysical Union (AGU) Virtual Poster Showcase, Maureen Haley (2nd place)

- **Internal** (Miami University, $14,260)

2026 Graduate School Student Travel Grant (Fall) to Emily Medema ($200)
2026 Graduate School Student Travel Grant (Spring) to Jordan Bell ($200)
2026 Graduate School Student Travel Grant (Spring) to Danielly Aguirre ($100)
2026 Graduate School Student Travel Grant (Spring) to Emily Medema ($100)
2025 Top 3 Poster Presentation at Graduate Research Forum to Emily Medema ($300)
2025 Provost Student Academic Achievement Award to *April Sanders ($1000)
2025 Graduate School Student Travel Grant to Emily Waterhouse ($100)
2024 Provost Student Academic Achievement Award to *Audrey Allen ($1000)
2023 Annual Departmental PhD Research Award to Aleksandra Gawronska ($250)
2023 Graduate School Student Travel Grant to Azadeh Sedaghat ($110)
2023 College of Arts and Science Dean's Scholar to *Juliana Curtis ($500)
2023 College of Arts and Science Dean's Scholar to *Hannah Wudke ($500)
2023 Provost Student Academic Achievement Award to *Juliana Curtis ($1000)
2023 Provost Student Academic Achievement Award to *Landon Stitle ($1000)
2023 Provost Student Academic Achievement Award to *Hannah Wudke ($1000)
2022 Provost Student Academic Achievement Award to *Kinshuk Tella ($1000)
2022 President's Distinguished Service Award to *Ruthy Rutherford
2022 Annual Departmental PhD Research Award to Liannie Velázquez-Santana ($250)
2022 Annual Departmental MS Research Award to Jared Brum ($250)
2022 Annual Departmental DEI Award to Liannie Velázquez-Santana
2022 Annual Departmental Service Award to *Ruthy Rutherford
2021 Provost Student Academic Achievement Award to *Lauren Doepke ($1000)

2021 Provost Student Academic Achievement Award to *Ethan Klein ($1000)
2020 Graduate Student Achievement Award to Liannie Velázquez-Santana ($500)
2020 College of Arts and Science Dean's Scholar to *Jessica Patrick ($500)
2020 Provost's Student Academic Achievement Award awarded to *Jessica Patrick ($1000).
2020 Annual Departmental Undergraduate Research Award to *Jared Brum ($250)
2020 H. Van der Veer Hilker Memorial Scholarship awarded to *Jessica Patrick ($250)
2019 Graduate School Student Travel Grant to Liannie Velazquez-Santana ($150)
2018 College of Arts and Science Dean's Scholar to *Elizabeth Angi-O'Brien ($750)
2018 Provost Student Academic Achievement Award to *Elizabeth Angi-O'Brien ($1000)

▪ GRADUATE STUDENT MENTORSHIP AND ADVISING

PhD students, role: primary advisor (n=5)

- **Emma Mroz** started Fall 2026
  Undergraduate institution: Texas A&M, Kingsville. Advisor: Dr. Veronica Sanchez
- **Azadeh Sedaghat** started Fall 2022, written & oral comprehensive exam passed Fall 2023, defended summer 2026. *Graduated*: August 2026.
  Dissertation Title: Mineral Assemblages as Records of Terrestrial and Extraterrestrial Processes
- **Kailee Gokey** started Fall 2020, written & oral comprehensive exam passed Fall 2023, defended Spring 2025. *Graduated*: May 2025.
  Dissertation Title: Metals in the Environment
  Current position: Geologist at Barrick Mining Corporation, Elko, NV (June 2026-)
  Former position: Geologist at Nevada Gold Mines, Elko, NV (Oct 2025-June 2026)
  Undergraduate institution: West Virginia University. Advisor: Dr. Ken Brown
- **Aleksandra Gawronska** started Fall 2018, written & oral comprehensive exam passed Fall 2019, dissertation proposal passed Spring 2020, defended Spring 2023. *Graduated*: 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
  Current position: Postdoctoral Researcher University of Maryland, Baltimore County - NASA Goddard Space Flight Center (June 2026-)
  Former positions: Postdoctoral Researcher Catholic University of America and NASA Goddard Space Flight Center (June 2023-2026)
- **Liannie Velázquez-Santana** started Fall 2018, written & oral comprehensive exams passed Fall 2019, dissertation proposal passed Spring 2020, defended Spring 2022. *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: Assistant Professor, Baylor University, TX (Aug 2026-)
  Former positions: Postdoctoral Research Fellow, University of Texas, Austin (2022-2023); Postdoctoral Research Fellow, University of Colorado, CO (Aug 2023-July 2026)

MS students, role: primary advisor (n=10)

- **Emily Medema** – started Fall 2025, MS thesis proposal passed Spring 2026
  Preliminary Thesis title: Investigating the Moon's Geological History via Petrological Analysis of Lunar Meteorite Dominion Range (DOM) 18262
- **Jordan Bell** – started Fall 2025, MS thesis proposal passed Spring 2026
  Preliminary Thesis title: From the Moon to Antarctica: Petrological Characterization of Meteorite Dominion Range (DOM) 18678 Provides Insights into Lunar Magmatism and Impact History
- **Danielly Aguirre** - started Fall 2025, MS thesis proposal passed Spring 2026
  Preliminary Thesis title: Investigating the Tectonomagmatic History of the Eocene Absaroka Supergroup, Wyoming, through a Petrological Investigation of Intrusives and their Entrained Xenoliths.
- **Emily Waterhouse** – January 2024 - August 2025
  Thesis title: Precambrian evolution of the Wyoming Craton: Geochronology of South Pass and Torrey Canyon, Wyoming.
  Current position: Staff Geologist I, Verdantas, NH (August 2025 – present)
- **TJ Cracas** – August 2023 - May 2025
  Thesis title: Insights into Shonkinite Petrogenesis from the Adel Mountains Volcanic Field, Montana
  Current position: Construction Materials Testing Field Technician, UES, KY (April 2026 – present)
  Former position: Adjunct instructor, Miami University Middletown (Aug 2025 – Dec 2025)

- **Alex Schweitzer** – January 2022 - August 2023
  Thesis title: New insights into the nature of the lunar crust: a petrophysical and petrochemical investigation of lunar meteorite DOM 18543
  Current position: Contract Geologist at I80 Gold Corp, Reno, NV (2025 – present)
  Former positions: Field Geologist I at AECOM, Cincinnati, OH (2024-2025); Research Scientist, Ohio Environmental Protection Agency (EPA) (2023-2024)
- **Jared Brum** – August 2020 - 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 (May 2022 – present)
- **Daniel Blakemore** – August 2018 - August 2020
  Thesis title: Tracing the Origins of Pyrite at the Round Mountain Gold Mine, Nevada
  Current position: Gemological Institute of America (GIA), CA (May 2024 – present)
  Former position: PhD student at the University of Michigan (2020-2024, advisor Dr Adam Simon)
- **Richard Brydon** – August 2017 - January 2019
  Thesis title: Tracing magmatic processes in plutonic environments: Insights from apatite and rift-related granites
  Current position: Geologist, Tetra Tech Consulting and Engineering, WV (March 2019 – present)
- **Maureen Haley** – August 2017 - January 2019
  Thesis title: Mineralogical Perspectives: using Mineral Chemistry to Unravel the Magmatic Architecture of Granitic Batholiths
  Current position: Materials Technician, Advanced Testing Laboratory, Inc., OH (2021 – present)
  Former position: Environmental Analyst at SanAir Technologies Laboratory, OH (2019-2021)

- **MEMBER OF GRADUATE ORAL COMPREHENSIVE EXAM / DISSERTATION COMMITTEES**
  PhD students (n=14)
  - **Mehrnaz Khalkhali** (*comprehensive exam Spring 2024, proposal defense Fall 2024)*
    Dissertation title: Improved characterization of earthquake sequence patterns in subduction zones using seismogram correlation to enhance detection of smaller seismicity
  - **Abigale O'Connor** (*comprehensive exam passed Spring 2024)*
  - **Morgan Gillis** (*comprehensive exam Fall 2023, proposal defense Spring 2024)*
    Dissertation title: Recruitment and Retention: Geoscience Majors and Shocked Minerals
  - **Mauro Mingo** (*oral comprehensive exam Spring 2023, proposal defense Fall 2023)*
    Dissertation title: Unveiling the Genesis and Magmatic Origins: A Comprehensive Study of Two Distinct Shield Volcanoes in Different Tectonic Settings
  - **Jamshid Ahmadi** (*comprehensive exam Spring 2023, proposal defense Fall 2023)*
    Dissertation title: Applications of Isotopes to Processes in Monogenetic Volcanism and Hydrothermal Systems
  - **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
  - **Wilnelly Ventura-Valentín** (*Fall 2021 – Spring 2025)*
    Dissertation title: Investigating Time-Varying Relationships Between Swarms, MS-AS. Slow Slip, and Seismicity Along the Mexican Megathrust and Sliver Fault
  - **Madeline Ess** (*Fall 2020 – Spring 2025*)
    Dissertation title: Functional Diversity Through Time In Ancient Shallow Marine Ecosystem: Invasions, Revolutions, and Methodologies
  - **Calvin Anderson** (*Fall 2018 – Spring 2023*)
    Dissertation title: A New Mechanism for Metal Isotope Fractionation Induced by Natural Solid-State Ion Conduction
  - **Autumn Haagsma** (*Fall 2020 – Fall 2023)*
    Dissertation title: Development of a Geologic Complexity Ranking System for Carbon Dioxide Storage to Inform Site Selection
  - **Alex Kugler** (*Fall 2014 - Summer 2020*)
    Dissertation title: Microbe Mineral Interactions: Cyanobacteria, Mineral Protection, and Banded Iron Formations
  - **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

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MS students (n=23)

- **Mayme Kalmer** (*Fall 2025 – Spring 2026*)
  Thesis title: Relationships between vitrinite reflectance and pyrolysis T-max temperatures in Pennsylvanian rocks of the central and northern Appalachian Basin
- **Sharif Coker** (*Spring 2024 – Fall 2025*)
  Thesis title: Exploring Strategies for Improving Earthquake Forecasting and Early Warning Systems
- **Omar Nuruzade** (*Fall 2023 – Summer 2025*)
  Thesis title: The Influence of Clay Minerals on the Formation and Stability of Proto-Proteins
- **Spencer Snell** (*Fall 2022 – Spring 2024*)
  Thesis title: Investigation of Physical and Chemical Properties of Clay-Rich Mine Tailings from Tonopah, Nevada: Evaluating Recycling Potential
- **Jack Verbrugge** (*Fall 2022 – Summer 2024*)
  Thesis title: Mineral-bound trace metals as cofactors for biological nitrogen fixation by methanogens
- **Abigale O'Connor** (*Fall 2021 – Spring 2023*)
  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** (*Fall 2021 – Summer 2023*)
  Thesis title: Prevalence and Characteristics of Seismic Magnitude Clustering in Earthquake Catalogs
- **Nick Jenkins** (*Fall 2021 – Summer 2023*)
  Thesis title: Initial Characterization of Synthetic Goethite Post-Shock Compression using scanning electron microscopy indicates shock resistance
- **Kailee Gokey** (*proposal defense passed Spring 2021, switched to PhD program*)
  Thesis title: The Nature and Distribution of Contaminants in Las Vegas, NV Street Sediments
- **Morgan Gillis** (*Fall 2020 – Summer 2022*)
  Thesis title: Exploring naturally occurring asbestos in road sediment and possible links to mesothelioma
- **Noël Skocko** (*Fall 2020 – Summer 2022*)
  Thesis title: Tracing the Geochemical Evolution of the Tacámbaro Cluster in the Michoacán-Guanajuato Volcanic Field in Central Mexico.
- **Alexia Rojas** (*Fall 2019 - Winter 2022*)
  Thesis title: Investigating Sedimentologic and Structural Controls on the Deposition of the Triassic Ischigualasto Formation, San Juan Province, Argentina
- **Jennifer McClellan** (*Fall 2019 – 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** (*Fall 2019 – Summer 2021*)
  Thesis title: Geochemistry of arsenian pyrite in the major ore units of Round Mountain Gold Mine and implications for extraction processes
- **Whitney Lapic** (*Fall 2019 - Spring 2021*)
  Thesis title: An Asynchronous Mesozoic Marine Revolution: Drilling Versus Durophagy in Post-Paleozoic Echinoids
- **Wilnelly Ventura-Valentín** (*Fall 2019 - Spring 2021*)
  Thesis title: Characterization of swarm and aftershock behavior in Puerto Rico
- **Chris Emproto** (*Fall 2018 – Summer 2020*)
  Thesis title: Anion and Trace Element Chemistry of Carbonate-Hosted Apatite in the Grenville Province
- **Lonnie Flett** (*Fall 2017 – Summer 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** (*Fall 2017 – Fall 2019*)
  Thesis title: Flexural partitioning of the Late Albian-Cenomanian Southern Cordilleran foreland-basin system, Utah, Wyoming, and Colorado
- **Caleb Chappell** (*Fall 2016 – Spring 2018*)

Thesis title: Chemical and Structural Characterization of Fluorapatite from the Poudrette Pegmatite, Mont Saint-Hilaire, Québec, Canada

- **Hannah Kempf** (*defended MS thesis Spring 2018*, *combined BS-MS degree*)
  Thesis title: Fossil Food Webs Reveal Consequences of Invasive Species
- **Mack Taylor** (*Fall 2015 – Fall 2017*)
  Thesis title: Gold from the Type 4 Ore of Round Mountain, Nevada: A Textural and Mineralogical Study of Macrocrystalline and Disseminated Gold

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▪ **UNDERGRADUATE STUDENT RESEARCH MENTEES (n=30)**

Name	Graduation	Former and Current Positions
Audrey Allen	May 2025	M.S. student, Pennsylvania State University (PA)
Lucas Orth	-	Sophomore Research Experience (Fall 24')
Devante Harris	-	First-Year Research Experience CAS STEMM Scholars (Spr. 24')
Juliana Curtis	May 2024	M.S. student, Colorado State University (CO)
Zachary Ellia	May 2024	M.S. student, Idaho State University (ID)
Jack Gugino	May 2024	Research Associate, Miami University (OH)
Abbey Stoltzfus	May 2024	J.D. Candidate, Charleston School of Law (SC)
Hannah Wudke	May 2024	M.S. student, Duke University (NC)
Landon Stitle	Dec 2023	Project Geologist, Jacobs (OH)
Kinshuk Tella	May 2023	Intern, American Association of People with Disabilities (Washington, DC)
Drew Wolf	May 2023	Geological Technician, Virginia Department of Energy (VA)
Emily Mazurek	May 2023	Environmental Field Technician, Montrose Environmental Group (IL)
Katie Caudill	May 2023	Science Teacher, Marshall High School; Bankers Life Insurance (OH)
Simeon Maglich	Dec 2022	Environmental Consultant, Trihydro Corporation; Horticulture Program Manager, Christian Hills Academy (OH)
Lauren Doepke	May 2022	Policy Analyst, Ferox Strategies (Washington, DC)
Ethan Klein	May 2022	Geologist, Nevada Gold Mines (NV); Data Analyst, Parsons Corporation (CA)
Kevin Woeste	May 2022	Hydrogeologist, Eagon & Associates Inc (OH)
Ruthy Rutherford	May 2022	Environmental Specialist II, Ohio EPA; PhD student starting Fall 2026, University of Missouri Kansas City
Mitchell Duncan	May 2022	Geologist, SMEUSA (OH)
Luke McCreary	May 2021	M.S., Purdue University; Hydrogeologist, Verdantas (OH)
Raghad Al Gbory	May 2021	Wellsite Geologist, Columbine Corporation (TX); Project Geologist, Nevada Gold Mines (NV)
Kali Manning	May 2021	Quality Assurance Supervisor, Diversey (OH)
Jessica Patrick	May 2021	M.S. Student, Auburn University (AL); groundwater consultant, Thomas Harder & Co. (CA
Jordan Vest	May 2021	Research Analyst, Cortex Sustainability Intelligence; Ph.D. Student, University of Hawai'i at Mānoa (Fall 2025-)
Andrew Bollinger	May 2020	Ph.D. Student, Michigan State University (MI)
Jared Brum	May 2020	M.S., Miami University; Project Manager, Layne Christensen Water Technologies Division (OH)
Claudia Dawson	May 2020	M.S., Baylor University (TX); Geologist, POWER Engineers (OH)
Jennifer Davis	May 2020	Ph.D. Student, University of Colorado Boulder (CO)
Ciara Childers	May 2019	Environmental Field Technician Institute of Ecolonomics (2019-2022); Geologist Jett Environmental Consulting (OH)
David Beka Binyam	Dec 2018	GIS Technician, Duke Energy; Oracle Database Administrator, Cardinal Health (OH)

▪ **CAREER-RELATED MENTORING (n=14),** *if not listed above*

Name	Graduation	Current Position / Outcome
James Kirchenwitz	May 2026	PhD Student, University of St. Louis
Dr. Dongyi Guo	May 2026	Post-doc, Princeton University
Jaela Allen	May 2025	PhD Student, University of Wisconsin Madison, WI

Nina Azadi Ardekani	May 2025	Staff Scientist, Civil & Environmental Consultants, OH
Sophia Ioli	May 2025	MS Student, Western Washington University, WA
Charlie Johnstone	May 2025	MS Student, Texas Tech University, TX
Conor Cahill	May 2025	MS Student, University of Houston, TX
Maddy Zimmerer	May 2024	Library Portfolio Specialist, ZoomEssence, OH
Samuel Kerr	May 2024	Community Building Coordinator, Grange Insurance Audubon Center, OH (formerly Naturalist Teacher, Glen Helen Outdoor Education Center, OH)
Jessica Certain	May 2024	Senior Quality Control Specialist, Sutro Biopharma, OH
Savanna Beckham Pate	May 2024	Environmental Scientist, Environmental Quality Management, Inc., OH
Sarah Gorman	May 2023	MS, University of Michigan (2025); Customs & Logistics Analyst, TriMass Corporation, MI
Emma Palko	May 2021	MS, Northern Arizona University (2023); Hydrologic Technician, USGS, AZ
Haley Thoresen	May 2019	PhD, University of Idaho (2024); Geologist, ExxonMobil, TX

▪ **INVITED TALKS** (n=14, *undergraduate student, graduate student)

2026 **McLeod, C. L**. Reaching for the Moon: Lunar Geology, Human Exploration, and Ohio's Legacy. *Cincinnati Observatory, OH, October.*

2025 **McLeod, C. L**. Exploring the Earth's Moon: Past, Present, Future. *Wharton County Junior College Seminar Series, TX, October.*

2025 **McLeod, C. L**. Microscopic Clues: Investigating Magmatic Processes on Earth and the Moon Through Igneous Petrology. *Ohio University Seminar Series*, *March*.

2024 **McLeod, C. L**. Stories from Space: Toward an Understanding of Lunar Geology: Humanity's Role and Ohio's Legacy, Past and Future. *Annual meeting of the American Institute of Professional Geologists (AIPG) Ohio section*, *October*.

2023 **McLeod, C. L**. Insights into the Geological Evolution of the Moon from Apollo Basalts and Lunar Meteorites. *Wharton County Junior College Seminar Series, TX, April*.

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**., 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 form 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*.

▪ **CONFERENCE CONTRIBUTIONS** (last 10 years)

○ **Oral Presentations, n=52**

Lead author	Graduate student lead authorships	Undergraduate student lead authorships	*Graduate student co-authors*	*Undergraduate student co-authors*

17	18	11	*16**	*15**

**numbers represent the total number of individual students, not the total number of abstracts they are on*

(*undergraduate student, graduate student)

2026 (*upcoming*) Kar, A., Brudzinski, M., **McLeod, C. L**., Malin, J. Establishing the Geo-PAD Consortium: Scaling Successful Undergraduate-to-Graduate Pathways in the Geosciences. Annual Geological Society of America (GSA) Meeting, Oct. 11th-14th, Denver, CO.

2026 (*upcoming*) Velázquez Santana, L. C., **McLeod, C. L**., Brown, K. Establishing the Central Andean Arc Crust via Recycling of Supracrustal Materials. Annual GSA Meeting, Oct. 11th-14th, Denver, CO.

2025 **McLeod, C. L**., Schweitzer, A., Gawronska, A., Lytle, M., Shaulis, B., Loocke, M. Insights into Lunar Evolution from Basaltic Breccias: the Mineralogy and Petrology of Dominion Range (DOM) lunar meteorite 18543. Annual GSA Meeting, Oct. 19th-22nd, San Antonio, TX.

2025 **McLeod, C. L**., Sipola, M. Student Success Pathways: Curricula Strategies that Support College and Workforce Readiness. Joint Meeting of the Ohio Academy of Science (OAS) and Project Kaleidoscope (PKAL). April 12th, Miami University, OH.

2025 **McLeod, C. L**., Sipola, M. Student Success Pathways: Curricula Strategies that Support College and Workforce Readiness. Joint 59th annual North-Central/60th annual Northeastern GSA Section Meeting. March 27th-30th, Erie, PA.

2025 **McLeod, C. L**., Sedaghat, A., Shaulis, B. Insights into Planetary Processes from Enigmatic 3-phase Symplectites (Olivine-Clinopyroxene-Silica) in Basaltic Lunar Breccias. Joint 59th annual North-Central/60th annual Northeastern GSA Section Meeting. March 27th-30th, Erie, PA.

2024 **McLeod, C. L**., Shaulis, B., Gawronska, A., Schweitzer, A., Loocke, M. Meteorite Forensics: Petrological and Geochemical Characterization of Lunar Meteorite Dominion Range (DOM) Range 18666. Annual GSA Meeting, Sept. 22nd-25th, Anaheim, CA.

2024 *Gugino, J., **McLeod, C. L**., Sedaghat, A., Schweitzer, A., Shaulis, B. Petrography and Chemistry of Lunar Impact Glasses from Dominion (DOM) Range Lunar Meteorites DOM 18543 and 18666: Constraining Lunar Geology and Impact Flux. Joint 58th Annual North-Central/58th Annual South-Central GSA Section Meeting. Springfield, MO, April 21st-23rd.

2023 **McLeod, C. L**., Sipola, M. Navigating the Hidden Curriculum in a First Semester Graduate Program Onboarding Course. 42nd annual Original Lilly Conference on College Teaching, Nov. 17th-19th, Miami University, Oxford, OH.

2023 *Curtis, J., *Stitle, L., Sedaghat, A., **McLeod, C. L**., Shaulis, B. J., Brown, K., Krekeler, M. P. S. An Integrated Petrological, Geochemical, and Geochronological Study of Megacrystic K-Feldspars from Cretaceous-Ages Intrusions, Central Nevada: Insights into Earth's Magmatic Record Keepers. Annual GSA Meeting, Pittsburgh, PA, Oct 15th-18th.

2023 *Stitle, L., *Curtis, J., Sedaghat, A., **McLeod, C. L**., Krekeler, M. P. S., Brown K. Insights into Mafic Magma Contributions Through the Study of Amphibole-rich Mafic Enclaves in Mesozoic Granite Intrusions, Nevada. Annual GSA Meeting, Pittsburgh, PA, Oct 15th-18th.

2023 **McLeod, C. L**., Sipola, M., Brudzinski, M., Krekeler, M. P. S. Supporting Student Success in Graduate Geoscience Programs Through a First Semester Onboarding Course. 57th North-Central GSA Section Meeting. May 4th-5th, Grand Rapids, MI.

2023 Sedaghat, A., **McLeod, C. L**. Insights into the Source of Continental Arc Magmatism: A Study of Mafic Mineral Clusters from the Central Andes. 57th North-Central GSA Section Meeting. May 4th-5th, Grand Rapids, MI.

2023 Sipola, M., Ventura-Valentín, W., O'Connor, A., **McLeod, C. L**., Brudzinski, M. Working Together Toward Equity: Goals, Projects, and Next Steps of the Miami University URGE Pod and Department DEI Committee. 57th North-Central GSA Section Meeting. May 4th-5th, Grand Rapids, MI.

2023 *Stoltzfus, A., Bank, J., Jenkins, N., *Wudke, H., **McLeod, C. L**., Krekeler, M. P. S. A Mineralogical Investigation of a Historical Silicare Consumer Talc Product: Initial Electron Microscopy Reveals Particles of Concern. 57th North-Central GSA Section Meeting. May 4th-5th, Grand Rapids, MI.

2023 *Wudke, H., Bank, J., Gillis, M., *Curtis, J., **McLeod, C. L**., Krekeler, M. P. S. Initial Electron Microscopy Investigations of Historical Talc Ore Samples from the Yellowstone Mine, Montana. 57th North-Central GSA Section Meeting. May 4th-5th, Grand Rapids, MI.

2023 **McLeod, C. L**., Brum, J. T., Loocke, M., Shaulis, B., Gawronska, A. J. Allan Hills (ALHA) 81005 40 Years On: New Insights from Dunitic and Troctolitic Mg-suite Clasts. 54th Lunar and Planetary Science Conference, March 13th-17th, #2979.

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. Annual GSA Meeting, Oct. 9th-12th, Denver, CO.

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.

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 GSA 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 GSA Meeting, Denver, CO, Oct 9th-12th.

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. *Abstract available upon request*.

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 GSA Section Meeting. April 7th-8th, Cincinnati, OH.

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 GSA Section Meeting. April 7th-8th, Cincinnati, OH.

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).

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.

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

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

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 GSA Meeting, GSA Connects online: October 26th-30th.

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, June 21st-26th, online.

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, June 21st-26th, online.

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 North-Central GSA Section Meeting, Duluth, MN.

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.

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, Nov. 1st.

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 GSA Meeting, Phoenix, AZ.

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 GSA Meeting, Phoenix, AZ.

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 GSA Meeting, Phoenix, AZ.

2019 **McLeod, C. L.**, Stern, R. J. Game On! Enhancing Student Learning and GSA Society of America Meeting, Phoenix, AZ.

2019 Velázquez-Santana, L. C., **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 GSA Section Meeting, Manhattan, KS.

2019 **McLeod, C. L.**, Gawronska, A. J., *Brum, J., Blakemore, D., Cronenberger, K., Hanna, R., Duley, M., Edelmann, 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, Nov. 9th.

2018 Blakemore, D., **McLeod, C. L.**, Krekeler, M. P. S. Unravelling the Evolution of the Round Mountain Gold Mine: Insights from the Mineral Zircon ($ZrSiO_4$). Annual Graduate Student Research Forum, Miami University, Nov. 9th.

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. Annual GSA Meeting, Indianapolis, IN.

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.

2018 **McLeod, C. L.**, 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.

2017 **McLeod C. L.**, *Angi-O'Brien, E. How do Teaching Styles Influence Student Learning? 37th Lilly Conference on College Teaching, Miami University, Oxford, Ohio, USA.

2017 **McLeod, C. L.**, Davidson, J. P., de Silva, S. L., Nowell, G. M. Central Andean Architecture: Constraints from crustal xenoliths and minor volcanic centers. Geological Society of America (GSA) Annual Meeting, Seattle, Washington, USA (*talk given in place of a cancelled talk*).

○ **Poster presentations, n=119** (last 10 years)

Lead author	Graduate student lead authorships	Undergraduate student lead authorships	Graduate student co-authors*	Undergraduate student co-authors*
13	45	57	*17*	*28*

**numbers represent the total number of individual students, not the total number of abstracts they are on*

(*undergraduate student, graduate student)

2026 (*upcoming*) Aguirre, D., **McLeod, C. L.**, Shaulis, B., Loocke, M. What Lies Beneath? Yellowstone's Ancient Magmatic Story. Annual Graduate Research Forum, Miami University, Nov. 6th.

2026 (*upcoming*) Bell, J., **McLeod, C. L.**, Shaulis, B. From the Moon to Antarctica: Advancing Understanding of Lunar Volcanism via Study of the Dominion (DOM) Range 18678 Meteorite. Annual Graduate Research Forum, Miami University, Nov. 6th.

2026 (*upcoming*) Medema, E., **McLeod, C. L**., Shaulis, B. Supporting the Future of Space Exploration: New Constraints on the Moon's Surface Environment from a Lunar Meteorite. Annual Graduate Research Forum, Miami University, Nov. 6th.

2026 (*upcoming*) Mroz, E., **McLeod, C. L**. Blast from the Past: Lunar Meteorites as Fragments of the Moon's Geological Archives. Annual Graduate Research Forum, Miami University, Nov. 6th.

2026 (*upcoming*) Aguirre, D., **McLeod, C. L**., Shaulis, B., Loocke, M. Insights into Arc-Related Magmatism During Petrogenesis of the Eocene Absaroka Supergroup, WY. Annual GSA Meeting, Oct. 11th-14th, Denver, CO.

2026 (*upcoming*) Bell, J., **McLeod, C. L**., Shaulis, B. Insights into Lunar Basaltic Regolith Breccia Petrogenesis from the Dominion (DOM) Range 18678 Meteorite. Annual GSA Meeting, Oct. 11th-14th, Denver, CO.

2026 (*upcoming*) Medema, E., **McLeod, C. L**., Shaulis, B. Insights into Lunar Basaltic Magmatism and Regolith Composition. From Dominion Range (DOM) Meteorite 18262. Annual GSA Meeting, Oct. 11th-14th, Denver, CO,

2026 *Boettcher, A., **McLeod, C. L**., Shaulis, B. Application of Zircon Petrochronology to Oxford's Oldest Rocks: Insights from Peffer Park. Miami University Undergraduate Research Forum, April 24th.

2026 **McLeod, C. L**., Lytle, M., Cracas, T. J., Brown, K. L., Shaulis, B., Loocke, M. Shonkinite Magma Petrogenesis in the Adel Hills Volcanic Field, Montana. Triple joint 75th Southeastern / 60th North-Central / 60th South-Central Annual GSA Section Meeting, March 8th-11th, Memphis, TN.

2026 Medema, E., **McLeod, C. L**., Shaulis, B. Lunar Meteoritic Petrology: Investigating the Moon's Geological History via Petrological Analysis of a Meteoritic Polymict Regolith Basaltic Breccia. Triple joint 75th Southeastern / 60th North-Central / 60th South-Central Annual GSA Section Meeting, March 8th-11th, Memphis, TN.

2026 Bell, J., **McLeod, C. L**., Shaulis, B. From the Moon to Antarctica: Petrological Characterization of Meteorite Dominion Range (DOM) 18678 Provides Insights into Lunar Magmatism and Impact History. Triple joint 75th Southeastern / 60th North-Central / 60th South-Central Annual GSA Section Meeting, March 8th-11th, Memphis, TN.

2026 Aguirre, D., **McLeod, C. L**., Shaulis, B. Investigating the Tectonomagmatic History of the Eocene Absaroka Supergroup, Wyoming, through a Petrological Investigation of Intrusives and their Entrained Xenoliths. Triple joint 75th Southeastern / 60th North-Central / 60th South-Central GSA Section Meeting, March 8th-11th, Memphis, TN.

2025 **McLeod, C. L**., Almquist, C. Graduate Teaching Assistant Training: Prioritizing Professional Development. 44th Lilly Conference on College Teaching, Miami University, OH.

2025 Medema, E., **McLeod, C. L**., Shaulis, B. The Moon's Return: A Geologic Investigation of Dominion Range (DOM) Lunar Meteorite 18262. Annual Graduate Research Forum, Miami University, Nov. 7th.

2025 Bell, J., **McLeod, C. L**., Shaulis, B. From the Moon to Antarctica: The 2018-2019 Dominion Range (DOM) Lunar Meteorites. Annual Graduate Research Forum, Miami University, Nov. 7th.

2025 Aguirre, D., **McLeod, C. L**., Shaulis, B. Looking inside the Earth through Xenoliths from Yellowstone National Park. Annual Graduate Research Forum, Miami University, Nov. 7th.

2025 Waterhouse, E., **McLeod. C. L**., Brown, K., Shaulis, B. Precambrian Crustal Evolution as Preserved in the Wyoming Craton: Insights from Torrey Canyon and South Pass. Joint 59th annual North-Central/60th annual Northeastern GSA Section Meeting. March 27th-30th, Erie, PA.

2025 Sedaghat, A., **McLeod, C. L**., Loocke, M. Deciphering Translithospheric Magmatic Processes Through a Detailed Textural and Mineralogical Study of a Monogenetic Volcano Crystal Cargo. Joint 59th annual North-Central/60th annual Northeastern GSA Section Meeting. March 27th-30th, Erie, PA.

2024 **McLeod, C. L**., Almquist, C., Boone, M., Borror, K., Daly, G., Ess, M., Inclezan, D., Sevkli, Z., Vaughn, A., Zhang, J. Teaching STEM: Faculty and Graduate Student Development. An FLC reports out. 43rd Lilly Conference on College Teaching, Miami University, OH.

2024 Cracas, T. J., **McLeod, C. L**., Sedaghat, A., Shaulis, B., Krekeler, M. P. S. Preliminary Petrological Insights into Shonkinite Magmatism from the Adel Hills Volcanic Field, Montana. Annual GSA Meeting, Sept. 22nd-25th, Anaheim, CA.

2024 **McLeod, C. L**., Almquist, C., Boone, M., Borror, K., Daly, G., Ess, M., Inclezan, D., Sevkli, Z., Vaughn, A., Zhang, J. Supporting Professional Development and Enhancing Teaching Effectiveness: What Exists, What is Needed, What Next? 2024 ADVANCE Equity in STEM Community Convening (EiSCC), June 2nd-5th, Baltimore, MD.

2024 *Law, B., Rech, J., Sedaghat, A., **McLeod. C. L**. Characterizing a Neolithic Game Piece from the Black Desert, Jordan. Miami Undergraduate Research Forum, April 26th.

2024 *Harris, D., **McLeod, C. L**., Lytle, M. What is it made of? Using X-ray Diffraction (XRD) to investigate the composition of materials. Miami Undergraduate Research Forum, April 26th.

2024 Cracas, T. J., **McLeod, C. L**., Sedaghat, A., Shaulis, B., Krekeler, M. P. S. Preliminary Petrological Insights into Shonkinite Magmatism from the Adel Hills Volcanic Field, Montana. 73rd Southeastern GSA Section Meeting, April 15th-16th, Asheville, NC.

2024 *Zimmerer, M., *Hoover, A., *Stoltzfus, A., *Wudke. H., Lytle, M., Shaulis, B., **McLeod, C. L**., Krekeler, M. P. S. Characterization of Selected Blush, Bronzer and Foundation Cosmetic Products in the Context of Consumer Health & Safety and Forensics. 73rd Southeastern GSA Section Meeting, April 15th-16th, Asheville, NC.

2024 *Belak, E., *Wudke, H., Lytle, M., Shaulis, B., **McLeod, C. L**., Krekeler, M. P. S. initial mineralogical and geochemical evaluation of talc crayons from China. 73rd Southeastern GSA Section Meeting, April 15th-16th, Asheville, NC.

2024 *Gugino, J., **McLeod, C. L**., Sedaghat, A., Schweitzer A, R., Shaulis, B. Insights into the Lunar Impact Glass Record from Dominion (DOM) Range Lunar Meteorites DOM 18543 and 18666. 55th Lunar and Planetary Science Conference, The Woodlands, TX, Mar. 11-15th.

2023 *Allen, A., *Zimmerer, M., *Amick, D., Velázquez Santana, L. C., O'Connor, A., Ventura-Valentín, W., Vest, J., *Krekeler, E., **McLeod, C. L**., Krekeler, M. P. S., Lytle, M. Characterization of sands from Playa Las Golondrinas in Isabela, Puerto Rico for Applications in Environmental Geotechnologies. Annual GSA Meeting, Pittsburgh, PA, Oct 15th-18th.

2023 *Ellia, Z., **McLeod, C. L**., Krekeler, M. P. S. SEM analysis and U-Pb detrital zircon dating of sand from an active dune system near Tonopah, Nevada. Annual GSA Meeting, Pittsburgh, PA, Oct 15th-18th.

2023 Snell, S., *Belak, E., **McLeod, C. L**., Krekeler, M. P. S. Physical and chemical properties of clay-rich mine tailings from Tonopah, Nevada: Evaluating recycling potential. Annual GSA Meeting, Pittsburgh, PA, Oct 15th-18th.

2023 Almquist, C., **McLeod, C. L**., Coates, R., Boone, M., Brown, J. S., Davis, A., Inclezan, D., Qiu, X., Vaughn, A., Yousefi, A., Zhang, J. ESTEAM: Equity in STEM at Miami University. 2023 ADVANCE Equity in STEM Community Convening (EiSCC), Durham, NC.

2023 *Fierman, A., Gillis, M., Gokey, K., **McLeod, C. L**., Krekeler, M. P. S. Initial Investigation of Road Sediment as a Tracer of Pollution in the Local Environment, near a Vacant Property in Hamilton, Ohio. 57th North-Central GSA Section Meeting. May 4th-5th, Grand Rapids, MI.

2023 **McLeod, C. L**., Schweitzer, A., Gawronska, A. J., Brum, J., Loocke, M., Shaulis, B. J. Petrological Characterization of Dominion Range (DOM) Lunar Meteorites 18666 and 18543. 57th North-Central GSA Section Meeting. May 4th-5th, Grand Rapids, MI.

2023 *Zimmerer, M., Morgan G., Gokey, K., Argyilan, E. P., **McLeod, C. L**., Krekeler, M. P. S. Characterization of Technogenic Magnetic Particles (TMPS) Within the Context of Urban Pollution in Gary, Indiana. 57th North-Central GSA Section Meeting. May 4th-5th, Grand Rapids, MI.

2023 *Mazurek, E., **McLeod, C. L**., Currie, B. S., Sedaghat, A. Igneous and Metamorphic Petrology of the Precambrian Basement at South Pass, Wyoming. Geoscience Student Research Symposium, April 24th, Miami University, OH.

2023 *Wolf, D., **McLeod, C. L**., Currie, B. S., Sedaghat, A. Petrology of Archean Basement Rocks: Insights from Torrey Canyon, WY. Geoscience Student Research Symposium, April 24th, Miami University, OH.

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.

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. Annual GSA Meeting, Oct. 9th-12th, Denver, CO.

2022 *Wolfe, C., Brown, K., Loocke, M., **McLeod. C. L**. Megacrystic Potassium Feldspar Magmatism in the southern Mojave Desert, California. Annual GSA Meeting, Oct. 9th-12th, Denver, CO.

2022 *Stitle, 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. Annual GSA Meeting, Oct. 9th-12th, Denver, CO.

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 GSA Meeting, Denver, CO, Oct 9th-12th.

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 GSA Meeting, Denver, CO, Oct 9th-12th.

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. Annual GSA Meeting, Oct. 9th-12th, Denver, CO.

2022 *Curtis, J., *Stitle, 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. Annual GSA Meeting, Oct. 9th-12th, Denver, CO.

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. Annual GSA Meeting, Oct. 9th-12th, Denver, CO.

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 GSA Section Meeting. April 7th-8th, Cincinnati, OH.

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.

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.

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.

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.

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. Annual GSA Meeting, Oct. 10th-13th, Portland, OR.

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. Annual GSA Meeting, Oct. 10th-13th, Portland, OR.

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. Annual GSA Meeting, Oct. 10th-13th, Portland, OR.

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).

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).

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).

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., Bandyyopadhyay, 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). *Abstract available upon request*.

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, Nov. 6th.

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, Nov. 6th.

2020 Ireland, S. M., **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, Nov. 6th.

2020 *Patrick, J *Spasske, L., **Mcleod, C. L**., Shaulis, B., Brown, K. Megacrystals from Magma: Microanalytical Approach to Investigating Megacrystic Crystallization Processes. Annual GSA Meeting, GSA 2020 Connects online: October 26th-30th.

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 GSA Meeting, GSA 2020 Connects online: October 26th-30th.

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 North-Central GSA Section Meeting, Duluth, MN.

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 North-Central GSA Section Meeting, Duluth, MN.

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 North-Central GSA Section Meeting, Duluth, MN.

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 North-Central GSA Section Meeting, Duluth, MN.

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.

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.

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.

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.

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.

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.

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.

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, Nov. 4th.

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 GSA Meeting, Phoenix, AZ.

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 GSA Meeting, Phoenix, AZ.

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 GSA Meeting, Phoenix, AZ.

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 GSA Meeting, Phoenix, AZ.

2019 *Doepke, L., **McLeod, C. L**., Krekeler, M. P. S. Transmission electron microscopy investigation of mine waste samples from Tonopah, Nevada. Annual GSA Meeting, Phoenix, AZ.

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 GSA Meeting, Phoenix, AZ.

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 GSA Meeting, Phoenix, AZ.

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 GSA Meeting, Phoenix, AZ.

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 GSA Meeting, Phoenix, AZ.

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 GSA Meeting, Phoenix, AZ.

2019 *Seibert, Z., **McLeod, C. L**, Blakemore, D., Krekeler, M. P. S. Volcanism associated with crustal extension in the basin and range. Annual GSA Meeting, Phoenix, AZ.

2019 Blakemore, D., **McLeod, C. L**., Krekeler, M. P. S. An Investigation of Ore Mineral Associations from the Round Mountain Gold Mine, 115th Cordilleran GSA Section Meeting, Portland, OR.

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., 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.

2019 Gawronska, A. J., **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.

2019 *Brum, J., **McLeod, C. L**., Gawronska, A. J., Shaulis, B. J., Duley, M., Edelmann, R., 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.

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, OH.

2018 Velázquez-Santana, L. C., **McLeod, C. L**. Crustal ARChitecture: Inputs and Outputs of Andean Magmatic Systems. Annual Graduate Student Research Forum, Miami University, Nov. 9th.

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. Annual GSA Meeting, Indianapolis, IN.

2018 *Fouh Mbindi M., **McLeod, C. L.,** Krekeler, M.P.S. Initial steps in exploring unconventional rare earth element resources in the United States: Forays into glaciogenic, siliciclastic and volcanic sediments. Annual GSA Meeting, Indianapolis, IN.

2018 Haley, M. Y., **McLeod, C. L**., Brydon, R. J., Wolfe, A., Shaulis, B., Trønnes, R. Unravelling the Magmatic Architecture of Rift-Related Granitic Batholiths: Perspectives from Amphibole and Feldspar. Annual GSA Meeting, Indianapolis, IN.

2018 *Angi-O'Brien, E., Haley, M. Y., **McLeod, C. L**., Shaulis, B., Brydon, R. J. Unravelling the Interactions of Synplutonic Magmas During Granitoid Crystallization. Annual GSA Meeting, Indianapolis, IN.

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. Annual GSA Meeting, Indianapolis, IN.

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, MA.

2018 *Angi-O'Brien, E., **McLeod, C. L**., Haley, M. Y., Shaulis, B. Magma Mingling: Unravelling Granite Crystallization One Crystal at a Time. Annual Undergraduate Research Forum, Miami University, OH.

2018 *Childers, C., *Binyam, D. B., *Emrick, S., **McLeod, C. L**. Unravelling the Magmatic Processes Beneath Arc Volcanoes: The Role of Amphibole and Feldspar. Annual Undergraduate Research Forum, Miami University, OH.

2018 **McLeod, C. L**., 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.

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, LA.

2017 **McLeod, C, L**., *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, WA.

2017 **McLeod, C. L**., 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, OH.

2017 *Angi-O'Brien, E., **McLeod, C. L**., Haley, M. Y., Brydon, R. J., Wolfe, A., Shaulis, B. Magma Mingling: Unravelling Granite Crystallization One Crystal at a Time. Annual GSA Meeting, Seattle, WA.

2017 Brydon, R. J., **McLeod, C. L**., Haley, M. Y., Wolfe, A., Brown, K., Shaulis, B., Trønnes, R. Breaking Up a Continent: Timing and Sources of Granitoid Magmatism in the Oslo Rift, Norway. Annual GSA Meeting, Seattle, WA.

2017 Haley, M. Y., **McLeod, C. L**., Brydon, R. J., Wolfe, A., Shaulis, B., Trønnes, R. Constructing Continental Crust: Tracking Petrogenesis of Granitic Batholiths of the Oslo Rift, Norway. Annual GSA Meeting, Seattle, WA.

▪ **CONFERENCE SESSIONS CONVENED** (last 10 years, n=17)

2026 (*upcoming*) Brown, K., **McLeod, C. L**., MacDonald, J. Undergraduate & Graduate Geoscience Student Research Showcase. GSA Annual Meeting, Oct. 11th-14th, Denver, CO.

2026 **McLeod, C. L**., Aguirre, D., Bell, J., Brown, K. Applications of Igneous Petrology, Geochemistry, and Geochronology to Understanding Earth and Other Planetary Systems**.** Triple joint 75th Southeastern / 60th North-Central / 60th South-Central Annual GSA Section Meeting, March 8th-11th, Memphis, TN.

2026 **McLeod, C. L**., Brown, K.**,** MacDonald, J. Undergraduate and Graduate Geoscience Research Showcase (Lightning Talks and Posters). Triple joint 75th Southeastern / 60th North-Central / 60th South-Central Annual GSA Section Meeting, March 8th-11th, Memphis, TN.

2025 **McLeod, C. L**., Brown, K., MacDonald, J. Undergraduate and Graduate Geoscience Research Showcase (Lightning Talks and Posters). GSA Annual Meeting, Oct. 19th-22nd, San Antonio, TX.

2025 Clarke, A. B., Lackey, J. S., **McLeod, C. L**., Whittington, A., Widom, E. Petrology and Volcanology of Earth and Other Planets. GSA Annual Meeting, Oct. 19th-22nd, San Antonio, TX.

2025 **McLeod, C. L**., Brown, K. Undergraduate and Graduate Geoscience Student Showcase. Joint 60th

Northeastern / 59th North-Central Annual GSA Section Meeting, Erie, PA, March 27th-30th.

2024 Clarke, A. B., Lackey, J. S., **McLeod, C. L**., Whittington, A., Widom, E. Petrology and Volcanology of Earth and Other Planets. GSA Annual Meeting, Sept. 22nd-25th, Anaheim, CA.

2024 **McLeod. C. L**., Brown, K., Petersen, V., Shuster. R. Undergraduate and Graduate Geoscience Student Showcase. Joint 58th North-Central / 58th South-Central Annual GSA Section Meeting Springfield, MO, April 21st-23rd.

2023 Michelfelder, G., Brownlee, S., Girard, G., Kenderes, E., **McLeod, C. L**. Future Directions in Mineralogy and Petrology: A Session for Undergraduate and Graduate Researchers. 57th North-Central GSA Annual Sectional Meeting, Grand Rapids, MI, May 4th-5th.

2023 Brown, K., **McLeod. C. L**., Shuster. R. Undergraduate and Graduate Geoscience Student Showcase. 57th North-Central GSA 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 56th North-Central / 71st Southeastern Annual GSA Section Meeting, Cincinnati, April 7th-8th.

2022 **McLeod, C. L**., Brown, K., MacDonald, J. Jr., Phillips, P., Ryan, J. Undergraduate and Graduate Geoscience Student Showcase. Joint 56th North-Central / 71st Southeastern Annual GSA Section Meeting, Cincinnati, April 7th-8th.

2018 Brown, K., **McLeod, C. L**. Magmas Assemble! Petrologic, Geochemical, Chronologic and Geophysical Insights into the Architecture and Timescales of Magmatic Systems. GSA Annual Meeting, Indianapolis, Nov. 4th-7th.

2018 Wolfe, A., **McLeod, C. L**. Analytical Advances in Non-Traditional Stable Isotope Geochemistry – Innovative Applications to Earth Science Systems. GSA Annual Meeting, Indianapolis, Nov. 4th-7th.

2018 Fortner, S., Petersen, G., **McLeod, C. L**., Brown, K. Promoting Scientific CURE-iosity: Course-Based Undergraduate Research Experiences (CURES) in Introductory Courses at 2YCs and 4YCs. GSA Annual Meeting, Indianapolis, Nov. 4th-7th.

2017 **McLeod, C. L**., 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, LA, Dec. 11th-15th.

2017 Peterson, V. L., Morris, A. R., Haacker, R., Asher, P. M., **McLeod, C. L**. Undergraduate Earth, Atmospheric, Ocean, and Space Science Research and Outreach, AGU Fall Meeting. New Orleans, LA, Dec. 11th-15th.

▪ **AWARDS AND RECOGNITIONS** (not previously stated)

2023 Miami University MAC Outstanding Faculty Award for Student Success nominee
2022 Pearson Excellence in Higher Education Award nominee
2022 Miami University Faculty Commendations
2021 Miami University Faculty Commendations
2020 Miami University Student Recognition of Teaching Excellence
2020 Miami University Faculty Commendations
2020 Nominee - Miami University Associated Student Government (ASG) Outstanding Professor
2019 Best Lilly Conference Poster Presentation
2019 Miami University Faculty Commendations
2018 Exceptional Reviewer for the GSA peer-reviewed journal Geology
2018 Miami University Faculty Commendations
2017 Miami University Faculty Commendations
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, EurISPET 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

▪ **PROFESSIONAL DEVELOPMENT**

2026 Leadership for Purposeful Change: Creating Public Value, Harvard University through HarvardX (*in progress, course audited*)
2026 Exercising Leadership: Foundational Principles, Harvard University through HarvardX (12 hours online, *course audited*)
2026 National Association of Geoscience Teachers (NAGT) Workshop co-leader (1 of 6) - Preparing for an Academic Career in the Geosciences, Earth Educators' Rendezvous (July 20th-23rd)
2026 Geochemical Society webinar leader - Teaching Statements That Tell Your Story: From Philosophy to Practice (February 26th)
2025 National Association of Geoscience Teachers (NAGT) Workshop co-leader (1 of 7) - Preparing for an Academic Career in the Geosciences (August 4th-8th)
2025 AI-Informed Writing Pedagogy Certificate, Howe Center for Writing Excellence, Miami University
2025 Researcher Management and Leadership Training, University of Colorado (30 hours online)
2024-25 Faculty Learning Community: Discipline-Based Education Research (DBER) Associates
2024-25 Faculty Learning Community: Exploring Best Practices in Preparing Doctoral Students for Success
2024 Finding Your Professional Voice: Confidence & Impact, University of London (6 hours online)
2024 Leading Diverse Teams & Organizations, University of Michigan (22 hours online)
2024 Fundamentals of Leadership with Goldman Sachs 10,000 Women (5 hours online)
2023-24 Faculty Learning Community: New Graduate Directors
2023-24 Faculty Learning Community: Teaching STEM – Strategies to Support Faculty Development and Enhance Teaching Effectiveness
2023 Miami University Howe Writing Center Certificate Program: Supporting Graduate Learning through Writing (Fall 2023)
2023 Journal on Excellence in College Teaching (JECT): Mentoring for Success webinar (co-host, May 16th, 43 attendees).
2023 AAAS Improving Undergraduate STEM Education: Transform Your Department Culture – Helpful Examples for Inspiring Change (webinar, May 9th)
2023 National Association of Diversity Officers in Higher Education (NADOHE): In the Face of Resistance – Advancing Equity in Higher Education (webinar, April 10th)
2023 National Academies of Sciences, Engineering, Medicine (NASEM): Advancing Antiracism, Diversity, Equity, and Inclusion in STEMM Organizations (webinar, February 14th)
2023 Lunar and Planetary Institute Development for Planetary Scientists: Managing Stress Fatigue (workshop, January 5th)
2022-23 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 (ACUE) ITEL microcredential*)
2022 Miami University online course (10 modules): Diversity, Equity, and Inclusion
2022 Safe Zone 101 Training (Miami University)
2022 LGBTQ+ Terminology and Allyship (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 on Coursera*)
Online course: Foundations for Excellence on Online Teaching. Arizona State University (*audited on edX*)
Online course: Learning to Teach Online. University of New South Wales (*audited on Coursera*)
2020 NAGT workshop: Learning Objectives and Assessment in Field Experiences, April 11th
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)
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
2015- Original Lilly Conference on College Teaching (attended annually, presented 8 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

- **COURSES TAUGHT (n=10, *new courses developed at Miami, n=4)**
  On Assigned Research Leave (sabbatical) Fall 2017 and Spring 2026

GLG 111: **The Dynamic Earth** (fall 2016, 2018-2023; 3-credit hours)
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 347: Professional Development & Geoscience Career Readiness** (fall 2024, 2026; 1-credit hour)
This course supports undergraduate students as they navigate their degree programs and prepare for a career in the geosciences post-graduation. This course focuses on discipline-specific student professional development and career readiness. This includes a visit to the Miami University Center for Career Exploration and Success; CV and resume design as informed by alumni in the geoscience profession; finding and applying for internships, interview preparation and, analysis and review of national geoscience workforce trends.

GLG 357: Igneous and Metamorphic Petrology (spring 2016-2025; 4-credit hours)
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 which I developed and wrote the accompanying field guide for.

GLG 411/511: **Field Camp** (2017-2019, 2021-2022, 2024: 6-credit hours; 2025, 2026; 3-credit hours)
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 Colorado, Idaho, Montana, Wyoming, and Utah, and had a base at the Miami University Geology Field Station in Dubois, WY until 2023. 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 427/527: Isotope Geochemistry (fall 2015, 2018-2020, 2022, 2024, 2026; spr. 2017; 3-credit hours)
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 457/557**: **Planetary Geology** (fall 2023, 2025; 3-credit hours, taught as GLG 657 in Fall 2021)
This course discussed how fundamental geological principles can be applied to understanding the evolution of other planets, moons, asteroids, and comets. Past, present, and future exploration of space (including space tourism) was explored alongside the ethics of space travel and future plans for permanent human bases on the Moon and Mars (and beyond). Past, current, and the future need for international space policies was also discussed in addition to planetary defense programs. Enrolled students completed multiple writing assignments aimed at a range of audiences from the general public

to the scientific expert. Students completed 2 oral presentation assignments based on the 3-minute thesis (3MT®).

GSC 601: College Teaching Enhancement Program (fall 2023-2025; 1-credit hour, 2 sections taught)

This course is available to all graduate students at Miami University and can be taken as part of the College Teaching Certificate, or as a stand-alone course. Each section of the course meets 6 times for 1 hour throughout the semester. This course orients graduate students to practical issues related to college teaching, scholarship and service, and how these faculty roles are affected by institutional context. For Fall 2023, this included academic institutional types and expectations; classroom assessment techniques; writing teaching philosophy statements; course, syllabus, and backwards design; and learner-centered classrooms.

GSC 602: College Teaching (fall 2023-2025; 1-credit hour, 1 section taught)

This course is available to all graduate students at Miami University and can be taken as part of the College Teaching Certificate (GSC 601 as a pre-requisite or co-requisite). Course met 6 times for 2 hours throughout the semester. The course orients graduate students to the theory and research associated with college pedagogy, and a variety of evidence-based teaching approaches. This included best teaching practices; inclusive course design and syllabi; designing learning outcomes and assessments; ethics in higher education; and academic integrity.

***GLG 647**: **Graduate Student Onboarding** (fall 2021-2023, spring 2023, fall 2025, 2026 1-credit hour)

Fall 2021 was the first offering of this course. All new graduate students in the MA, MS, and PhD programs enroll. 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). The third offering in Fall 2023 was revised based on feedback from the Fall 2022 student cohort with more time during class sessions reserved for open discussion and reflection, and two visits to the Miami University Makerspace.

***GLG 647**: **Graduate Student Writing** (spring 2024, 1-credit hour)

The Spring 2024 version of the GLG 647 course was offered as a graduate-level writing course following completion of the Howe Writing Center Certificate Program - Supporting Graduate Learning through Writing, in Fall 2023 at Miami University. The course was also designed based on feedback from current graduate students and GLG graduate program alumni. The following topics formed the basis of weekly discussions and writing activities: setting achievable and measurable writing goals, abstract writing, grant writing, thesis & dissertation writing, manuscript & cover letter writing, CVs & resumes, poster and figure design, writing for non-discipline experts.

- **SERVICE TO STUDENTS**

2025 Community of Practice: Teaching GLG 111 (The Dynamic Earth) – mentored 4 PhD students through their first semester teaching a 3-credit hour course as the instructor of record (Fall)
2025 3 Minute Thesis (3MT®) Competition – preliminary round judge (Oct. 7th)
2025 Departmental Graduate Student Welcome Night with Trivia (August 19th)
2025 Applying to Graduate School in the Geosciences Workshop (April 23rd)
2025 3 Minute Thesis (3MT®) Competition – preliminary round judge (Feb. 7th)
2024- Departmental Student Nights, for undergraduates and graduates (Nov. 20th, Feb. 7th, Sept. 5th, Nov. 4th)
2024 Faculty Panelist: Women's Voices and Perspectives at Miami – Moving Toward a More Inclusive STEM Field - part of Women's History at Miami University Office of Transformational and Inclusive Excellence (March 19th)
2024 3 Minute Thesis (3MT®) Competition - judge for final round (Feb. 26th)
2023-25 Faculty advisor to Miami University Chapter of the Association for Women Geoscientists (AWG)
2023 Mentored four undergraduate students through NSF GRFP process: application process, review and feedback on personal statement and research proposal (all four submitted Oct. 20th)
2023 PhD oral comprehensive exam practice sessions (August 1st, 11st, 31st)

2023- Graduate student (re)orientation sessions (August, part of departmental graduate orientation)
2023 Center for Teaching Excellence seminar: Inclusive Teaching for Equitable Learning – Insights for Practice, panelist (April 20th)
2023 Worked with the Office of the Provost, and the Rinella Learning Center, to establish a majors-only section of GLG 115L and a Supplemental Instruction program in GLG 111A (for Fall semester)
2023 Mental Health in the College Classroom, Greater Cincinnati Collegiate Connection (GC3), 3-part webinar series, participant (attendee: February 8th, 15th, March 1st)
2023 3 Minute Thesis (3MT) Competition preliminary round judge (Feb. 1st)
2022- Faculty co-founder and representative on Miami University Graduate School Student Rights and Responsibilities Committee
2022 "Classroom Connections" – participated in semester-long Mental Health initiative from Miami University Student Counseling Services in upper-level course (Fall 2022, GLG 427/527)
2021-23 Faculty Mentor: Miami University Graduate School Cross-Cultural Mentoring Program
2021 3 Minute Thesis Competition preliminary round judge (Feb. 9th, 11th)
2018- Faculty Academic Advisor for Phi Mu Fraternity, Beta Eta chapter
2016- Letters of recommendation (>140 written to date) for university, regional, and national student scholarships, fellowships, and graduate school applications
2015- 8 PhD student dissertation defense committees, 15 PhD student dissertation proposal committees, 18 PhD student comprehensive exam committees, 25 MS student thesis defenses, 22 MS student thesis proposal committees, 1 MA student committee
2017 Co-led field trip to San Salvador, the Bahamas, Miami Undergraduate Geological Society
2016 Co-led 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 Abstract 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**

2026-27 Search Committee member: Dean of the Graduate School, Miami University
2026-27 Search Committee member: Karl E. Limper Geology Museum Director
2026 Redhawk Preview Day: Earth, Environmental and Beyond: Environmental Science & Sustainable Futures (Sept. 26th) - building tour and program overview for high school juniors and families
2026 Miami University Senate's Department Planning & Improvement Process Committee (3-year term)
2026 Miami University Scholars Showcase: on-campus interviews with high school students who are being considered for Presidential Fellow Scholarships, class of 2030 (Feb. 15th)
2025 Miami University College of Arts and Science open house faculty panel (April 12th)
2025 Miami University Scholars Showcase: on-campus interviews with high school students who are being considered for Presidential Fellow Scholarships, class of 2029 (Feb. 16th)
2024- Associate Editor, Journal on Excellence in College Teaching (JECT)
2024-25 Search Committee member: Tenure Track Assistant Professor (Paleontologist)
2024 Miami University Graduate Research Forum judge (Nov. 1st)
2024 Miami University, College of Arts and Science - Open House (panel and tours, Apr. 20th)
2024 Miami University Scholars Showcase: on-campus interviews with high school students who were being considered for Presidential Fellow Scholarships, class of 2028 (Feb. 18th)
2023 Miami University Discover the Sciences faculty panelist and department tour liaison (Sept. 28th)
2023 Miami University Student Technology Fee proposal reviewer and faculty lead (Sep. 30th)
2023- Graduate Program Director, Department of Geology and Environmental Earth Science
2023- Miami University College Teaching Certificate (CTC) Steering Committee
2023 Centre for Teaching Excellence Alumni Teaching Scholar FLC panelist (May 11th)
2023 Geoscience Student Research Symposium organizing committee (Spring semester)
2023 Miami University Scholars Showcase: on-campus interviews with high school students who were being considered for Presidential Fellow Scholarships, class of 2027 (Feb. 19th).
2022-23 Search Committee member: Chair, Department of Geology and Environmental Earth Science
2022 Search Committee member: 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 Center for Teaching Excellence seminar (co-led with Dr. Maija Sipola) – Addressing DFW Rates in Introductory-Level Courses: Strategies for Fostering Student Success
2021-25 Chair of the Center for Teaching Excellence (CTE) Senate Committee
2021 Co-led summer book club: Designing Effective Teaching and Significant Learning
2021 Miami University Undergraduate Research Forum Session Moderator (virtual)
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 Miami University Undergraduate Research Forum Session Moderator (virtual)
2019- Center for Teaching Excellence, Departmental Liaison
2019-21 Chapter officer for Miami University's Chapter of Phi Kappa Phi (*Public Relations*)
2018-20 Member of the Center for Teaching Excellence Senate Committee
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 – Spring 2023)
2019-20 Search Committee: Teaching Assistant Professor
2019 Search Committee: Geochemistry Lab Manager
2016- Make It Miami: undergraduate recruitment events during Spring semesters (every year except 20')
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

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

2025- Board of Trustees Member (Academia at Large), Ohio Academy of Science (OAS)
- Serve on the 5-person personnel committee, oversee annual review of the OAS CEO
- Serve on the 4-person OAS Annual Meeting Organizing Committee

2025- Elected vice-chair of the North-Central section of the Geological Society of America.
2025- Elected to Councilor (1 of 2 for the Geoscience Division), Council on Undergraduate Research
2025-26 Technical Program Co-Chair, local organizing committee: triple joint 75th Southeastern / 60th North-Central / 60th South-Central Annual Geological Society of America Section Meeting
2025 Workshop co-leader: National Association of Geoscience Teachers (NAGT) – Preparing for an Academic Career (Aug. 4th-8th)
2025 NSF ad-hoc proposal reviewer (n=2)
2024-26 Re-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 (third 2-year term began December 1^{st,} 2024)
2024- Elected to the Geological Society of America Penrose Conferences and Thompson Field Forum Committee (3-yr term)
2024- Elected to NASA's Astromaterials Allocation Review Board (AARB): panel reviews proposals for the use of Apollo samples (meets twice a year for 2-day panel, ~20 proposals reviewed per panel)
2023-26 Re-appointed to the National Association of Geoscience Teachers (NAGT) Field Camp Scholarship Committee (4-person committee, 3-year appointment, review ~50 applications/year)
2022-24 Re-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 (second 2-year term began December 1st 2022)
2022 Field trip co-chair – Joint North-Central & Southeastern Section Meeting of the Geological Society of America (GSA), Cincinnati, OH, April 7th-8th
2021-24 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, active program participant)
2021 Co-facilitated CUR workshop: Undergraduate Student Summer Research Programs April 5th
2021-24 Appointed to the National Science Teaching Association (NSTA) Post-Secondary Science Teaching Committee (3-year term began June 1st)
2020-23 Appointed to the National Association of Geoscience Teachers (NAGT) Field Camp Scholarship Committee (4-person committee, 3-year appointment, review ~50 applications/year)
2020-22 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)

2020-22 Ohio Academy of Science (OAS) Publications Committee

2020-22 Ohio Academy of Science (OAS) Annual Meeting Committee

2020-22 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*

2018-22 Board of Trustees Member (Academia at Large), Ohio Academy of Science

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

2016-25 Divisional Representative for the Geoscience Division of the Council on Undergraduate Research, re-elected in 2019 and in 2022

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, Journal of Petrology, Journal on Excellence in College Teaching, Lithos, Lithosphere, Nature, Scholarship and Practice of Undergraduate Research.

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

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- **SCIENCE OUTREACH**

2026 (*upcoming*) Meet-A-Meteorite Night at the Cincinnati Observatory, Cincinnati, Oct. 3rd

2023 Careers in Quantitative Skills (CIQS) Day: The Geosciences – It's not just Rock n' Roll (Oct. 13th)

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)

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

2020-22 Contributing writer to the American Geophysical Unions (AGU) science communication portal Geobites (5 articles posted in 2020)

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)