

Education

- Expected 2028. **Ph.D. in Biological Oceanography**, Massachusetts Institute of Technology - Woods Hole Oceanographic Institute Joint Program
 - MIT Graduate Certificate in Science, Technology & Policy
 - 2023. **B.S. in Bioinformatics**, *summa cum laude*, Utah Valley University
 - Minor in Biology
 - 2018. **B.S. in Integrated Studies**, *summa cum laude*, Utah Valley University
 - Emphasis in **Earth Science**
 - Emphasis in **Peace & Justice Studies**
 - 2018. **B.A. in Philosophy**, *summa cum laude*, Utah Valley University
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Publications

- Wainwright, B. J., Millar, T., Bowen, L., **Hickman, K. J. E.**, Lee, J. N., Yeo, Z. Y., & Zahn, G. (2023). "The core mangrove microbiome reveals shared taxa potentially involved in nutrient cycling and promoting host survival." *Environmental Microbiome* **18**, 47. <https://doi.org/10.1186/s40793-023-00499-5>
 - (in prep for *Environmental Earth Sciences*) **Hickman, K. J. E.**, Christlieb, D., Rawson, C., Batte, L., Seawolf, S., Larsen, T., Cadet, E. (2023). "Trace Metal Concentrations in Upland and Wetland Sediments of Utah Lake." *National Science Foundation, Utah Lake Project*.
 - (in prep for *Journal of Biogeography*) Wainwright, B. J., Leon, J., **Hickman K. J. E.**, Vilela, E., Caldwell, E., Aimone, B., Bischoff, P., Morelli, M. (2023). "Cryptic dispersal barriers affect some host-associated marine bacteria across Wallace's Line."
 - **Hickman, K. J. E.**, Leon, J. (2023). "Metagenomic Tools for Microbiome Analyses in Non-Model Systems". [*Honors Thesis, Utah Valley University*].
 - **Hickman, K. J. E.** (2022) "The Integral Role of the Coastal Microbiome in Mangrove Conservation", *United Nations' First Academic Conference on the Sustainable Development Goals "Why It Matters"*. Orem, Utah, 5-7 October, 2022, pp. 475 - 493. <https://www.uvu.edu/global/docs/wim22/wim22-publication-v2.pdf>
 - **Hickman, K. J. E.** (2018). "Agriculture in Guinea-Bissau: The Viability of Agroforestry with Cacao and Cashew". [*Honors Thesis, Utah Valley University*].
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Unpublished Research Projects

- Bingham, C., **Hickman, K. J. E.**, Leon, J., Pimentel, I., Garcia, J., Rawson, C. (2022) *A Toxic Legacy: Nuclear Pollution in the Navajo Nation*. University of Oxford, Map the System.
- Cadet, E., **Hickman, K. J. E.** (2022). *Trace Metal Concentrations in Fish and Water of Utah Lake*. National Science Foundation, Utah Lake Project.
- DeVynck, D., **Hickman, K. J. E.** (2019). *Permaculture Plant Guilds in Traditional Furrows*. Orem Permaculture Project.
- Emerman, S. H., **Hickman, K. J. E.**, Pacheco, W., Patterson, C., and Tolman, A.

(2018). *Estimation of the Stream Water Quality Baseline in the Henry Mountains, Utah*. Utah Valley University.

- **Hickman, K. J. E.**, Minch, M. (2017). *PeaceTech and the Future of Peacebuilding and Sustainable Development*. Utah Valley University.
- Hansen, J., **Hickman, K. J. E.** (2017). *Tracking Intuition on the Trolley Problem*. Utah Valley University.

Teaching Experience

- November 2022. Microbiome Metagenome Pipeline Workshop, Washington State University
- November 2022. “Map the System” Workshop Series, Utah Valley University
- 2018 – 2020. ELL Teacher, Macote Entrepreneur Center, Bissau, Guinea-Bissau
 - ENG Level 0, ENG Level 1, ENG Advanced Literature
- 2017 – 2018. Instructional Assistant, Utah Valley University, Orem, UT
 - PHIL 1250: Introduction to Logic and Critical Thinking
- 2016 – 2018. Instructional Assistant, Utah Valley University, Orem, UT
 - PHIL 2050: Ethics & Values

Work Experience

- 2023–Present. Graduate Research Fellow, Massachusetts Institute of Technology, Boston MA
- 2021–2023. Library Supervisor, Fulton Library, Orem UT
- 2022. Lab Assistant, National Science Foundation, Utah Lake Project
- 2022. Formal Logic and Discrete Mathematics Tutor, Utah Valley University, Orem, UT
- 2021. Research Assistant, National Science Foundation, Utah Lake Project
- 2018. Pedology Consultant, Summit Knowledge and Action Network. Orem, UT
 - Designed, researched and conducted soil testing for agroforestry potential
- 2017. Student Fellow for the Center for the Study of Ethics, Utah Valley University, Orem, UT
 - Research, administrative organization, event planning
- 2016–2017. Geology & Logic Tutor, Utah Valley University. Orem, UT
 - Tutor for Earth Science and Formal Logic
- 2014–2016. Senior Sales Coach & Recruiting Administrator, Clearlink, Orem, UT
 - Training, interviewing, and disciplinary action

Honors and Awards

- 2023. Graduate Research Fellowship Program, National Science Foundation
- 2023. Biology Student Excellence Award for Research, Utah Valley University
- 2022. Excellence in Undergraduate Research, University of Oxford
- 2022. President’s Scholarship Ball “Outstanding Student” Highlight, Utah Valley University
- 2022. Biology Department “Student of the Year” nominee, Utah Valley University
- 2018. College of Humanities and Social Science “Dean’s Choice” award, Utah Valley University
- 2018. Philosophy Department “Student of the Year” award, Utah Valley University

- 2017–2023. Honors Program, Utah Valley University
 - 2016–2023. Dean’s List, Utah Valley University
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Grants

- 2023. MSA Mentor Travel Award, Mycological Society of America
 - \$750 for conference travel
 - 2022 – 2023. Center for Social Impact Systems & Design Fellowship, Utah Valley University
 - \$5,200 for tuition
 - 2022 – 2023. L.E.A.D. Program Leader, Utah Valley University
 - \$1,500 for lodging
 - 2022. URSCA Dissemination Grant. Utah Valley University
 - \$1,200 for travel and dissemination
 - 2021-2022. UVU Review Executive News Director, Utah Valley University
 - \$5,200 for tuition
 - 2021. URSCA Dissemination Grant. Utah Valley University
 - \$1,500 for travel and dissemination
 - 2018. Bill and Margaret Pope Scholarship. Privately Funded
 - \$1,259 for tuition and books
 - 2018. Honors Tuition Scholarship. Utah Valley University
 - \$1,500 for tuition and books
 - 2018. Honors Housing Scholarship. Utah Valley University
 - \$1,500 for housing
 - 2017. Grants for Engaged Learning. Utah Valley University
 - \$2,500 for research to and travel to “Transforming Education Conference for Humanity (TECH)” in Visakhapatnam, India
 - 2017 – 2018. Student Fellow at the Center for the Study of Ethics. Utah Valley University
 - \$3,360 for term stipend and research
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Languages & Tools

- Programming Languages:
 - R, Python, Bash, SQL, Julia
 - Computational Tools & Proficiencies:
 - Supercomputing cluster (SLURM system)
 - Database management systems (MySQL, Oracle, NoSQL)
 - Mapping & graphic design (ArcGIS, Adobe)
 - Natural Languages:
 - Spanish, Portuguese-based Kriol, Portuguese
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Presentations

- **Hickman, K. J. E.**, Leon, J. (August 2023). *Comparing Metagenomic Methods Between Model vs Non-model Systems*. Poster presented at the Mycological Society of America.
- **Hickman, K. J. E.** (October 2022). *The Integral Role of the Coastal Microbiome in Mangrove Conservation*. Published paper in United Nations’ “Why it Matters” conference proceedings.
- **Hickman, K. J. E.**, Semon, L., Zahn, G. (July 2022). *Microbial Interactions in Mangroves: An R Analysis*. Poster presented at the Mycological Society of America.
- **Hickman, K. J. E.** (June, 2022). *The Social Impact of Radioactive Waste in the Navajo Nation*. Systems maps presented at the University of Oxford Map the System competition.
 - Global Finalists
- **Hickman, K. J. E.** (February, 2022). *Trace Metal Concentrations in Utah Lake*. Findings presented at Utah’s Conference on Undergraduate Research.
- **Hickman, K. J. E.** (November, 2021). *The Social Impact of Radioactive Waste in the Navajo*

Nation. Map the System competition, Utah Valley University.

- 1st Place Winners
 - **Hickman, K. J. E.** (September, 2021). *Trace Metal Concentrations in Utah Lake*. Findings presented at the Geological Society of America's annual conference.
 - **Hickman, K. J. E.** (October 2018). *Men and Meat: The Patriarchy of Human-Animal Relations*. Paper presented at the UVU Conference on Writing for Social Change.
 - **Hickman, K. J. E.** (April 2018). *Considering Sustainability: Farming and Agriculture*. Paper presented in "Human Exceptionalism: Shifting Toward Biocentrism" discussion panel at the Student Ethics Symposium.
 - **Hickman, K. J. E.** (February 2018). *My Vagina Was My Village*. The Vagina Monologues at Utah Valley University.
 - **Hickman, K. J. E.,** Garber, N., Van Dyke, C. (October 2017). *The Polarization in Partisan Politics*. Poster presented at the Student Conference on Religion in the Public Sphere. Brigham Young University.
 - **Hickman, K. J. E.** (April 2017). *Resolving the Binary*. Paper presented at the UVU Student Ethics Symposium.
 - **Hickman, K. J. E.** (February 2017). *The Paradox of Patriotism*. Paper presented at the Annual J. Bonner Ritchie Dialogue on Peace and Justice.
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Service Activities

- 2022 – 2023. Treasurer, Women in Physical Science Club
- 2022. Candidate for Student Body President, UVU Student Association
- 2021 – 2023. Volunteer & Participant, Girls Who Code Chapter
- 2021 – 2023. Volunteer & Participant, Black Student Union
- 2021 – 2022. Volunteer, Conserve Utah Valley
- 2020 – 2022. Ambassador, Learn, Engage, Acquire, Discover (L.E.A.D.) Program
- 2020 – 2021. News Reporter, The UVU Review
- 2019 – 2022. Volunteer Bike Mechanic, Provo Bicycle Collective
- 2020. Pollinator Project Volunteer, Wild Utah Project
- 2019. Research Intern, Orem Permaculture Project
- 2018. Integrated Studies Department Representative, UVU Student Association
- 2018. Alternative Break Conservation Volunteer, UVU Center for Social Impact
- 2017 – Present. Volunteer, Citizens Climate Lobby
- 2017 – 2019. Editor-in-Chief, Sophia: Undergraduate Journal of Philosophy
- 2017 – 2018. President, Animal Allies Veg Club
- 2017. Philosophy Department Representative, UVU Student Association
- 2017. President, UVU Peace and Justice Club
- 2017. Vice President, Phi Sigma Tau, Utah Gamma Chapter
- 2017. Organizing Volunteer, Society for Phenomenology and Existential Philosophy