

Cara J. Poor, Ph.D., P.E.

5000 North Willamette Blvd.
Portland, OR 97203-5798
poor@up.edu

Work: 503-943-8743
Mobile: 971-409-0625

ACADEMIC APPOINTMENTS

Professor, University of Portland 8/25 – present

Associate Professor, University of Portland 7/21 – 8/25

Assistant Professor, University of Portland, 8/15 – 7/21

Senior Instructor II, Portland State University, 9/14 – 7/15

Clinical Associate Professor, Washington State University, 8/12 – 6/13

Clinical Assistant Professor, Washington State University, 8/06 – 8/12

Research Assistant, Oregon State University, 3/04 - 6/06

Instructor and Teaching Assistant, Oregon State University, 9/01 - 3/04

Research Assistant, University of California at Davis, 7/97 - 10/98

EDUCATION

Oregon State University, Corvallis, OR

PhD in Civil Engineering with an emphasis in Water Resources, 2006
The Effects of Land Use on Stream Nitrate Concentrations

University of California at Davis, Davis, CA

Master of Science in Environmental Engineering, 1999
Methods for Measuring Desorption Rates of Phenanthrene in Soil

Oregon State University, Corvallis, OR

Bachelor of Science in Civil Engineering, Magna Cum Laude, 1997

COURSES TAUGHT

University of Portland

- Capstone Design, CE 483/484
- Open Channel Flow, CE 465/565
- Introduction to Environmental Engineering, CE 367
- Environmental Engineering Laboratory, CE 376
- Water and Wastewater Design, CE 466/566
- Hydraulics, CE 362

- Fluid Mechanics, EGR 311
- Sustainable Design, CE 462/562
- Civil Engineering Seminar, CE 200
- Introduction to Engineering, EGR 110
- Statics, EGR 211
- Imagining our Futures, ENV/BIO/ECN/CST/ED/NRS/POL/PSY 391
- Access to Clean Drinking Water, HON 391

Portland State University

- Fluid Mechanics, CE 361
- Environmental Engineering Laboratory, CE 399II and III
- Project Management and Design, CE 484 and 494
- Hydraulics, CE 362
- Environmental Engineering, CE 371

Washington State University

- Interdisciplinary Design Experience, ENGR 420/421
- Introduction to Environmental Engineering, CE 341
- Water Resources Engineering, CE 351
- Hydraulic Engineering Laboratory, CE 416
- Open Channel Flow, CE 451/551
- Integrated Civil Engineering Design, CE 465
- Ethics and Professionalism in Engineering, CE 480
- Mechanics of Materials, CE 215

Oregon State University

- Statics, CE 211
- Field Hydrology, FE 550

STUDENTS ADVISED

- Undergraduate Research Students:
 - 2025: Ethan Furuya, Julia Hettinger, Cass Neuman, Payton Fischer, Courage Ughweri, Momo Scarboro-Ford, Nick Mibach
 - 2024: Jackson Kaye, Bella Small, Ethan Furuya, David Padilla, Asher Gonzalez, Julia Hettinger, Cass Neuman, Payton Fischer
 - 2023: Jackson Kaye, Maya Struzak
 - 2022: Jackson Kaye, Dagny Battaglino, Abby Radke, Maya Struzak
 - 2021: Nick Kanno, Jared Miyasato, Troy Membrere, Sean Yoshishige, Jacob Yoshino, Elizabeth Diaz-Gunning, Mary Stone, Olivia Helinski
 - 2020: Taylor Marumoto, Nick Kanno, Jared Miyasato, Troy Membrere
 - 2019: Kyla Burrill, Mason Jarvis, Rachel Anderson, Davey Robeck
 - 2018: Lesley Martinez, Mustaf Mohamed, Natalie Muth, Camille Morgan, Mason Jarvis, Audrey Beattie, Kyla Burrill

- 2017: Jocelle Tade, Connor Mansberger, Antonia Molina, Jenna Kube, Katie Conkle, Sadie Schroeter, Mustaf Mohamed, Abby Chase, Sam Schwisow, Lesley Martinez
- 2016: Ashley Martinez, Casey Balmes, Jarrett Okita, Jocelle Tade, Sean Gestson, Clayton Stahnke, Teresa Condon, Connor Mansberger, Antonia Molina, Michael Freudenthaler (Austrian Exchange Student, Marshall Fellowship)
- Senior Capstone Projects:
 - City of Portland North Crawford Road Low Impact Design, Morgan Bridges, Ashley Garcia Sandoval, Payton Fischer, Avery Mahoe, 2025-2026 *
 - The Nature Conservancy Trail Realignment, Daniela Bolanos, David McClain, Brandon Nakamura, Zev Walia, 2022-2023
 - Indian Health Services Water Reuse System, Bobby Hodgins, Cassidy Hamamoto, Kimi Sheppard, Jake Niiyama, 2022-2023
 - City of Milwaukie Green Infrastructure Design, Aidan Reilly, Isabella Graziani, Ethan Asano, Joshua Phelan, Jarron Carter, 2021-2022
 - Multnomah County Drainage District Pump Station Design, Jacob Yoshino, Shane Yasunaga, Alex Morales Vidal, Cade Yonamine, 2021-2022
 - Multnomah County Drainage District Culvert Design, Hunter Cuaresma, Jarron Carter, Wade Reynolds, Desly Amurao, 2020-2021
 - Port of Portland Subsurface Wetland Design, Taylor Marumoto, Erin Jenkins, Alex Junge, and Julia Kimoto, 2019-2020*
 - Port of Portland Stormwater Pump Station Design, Brad Hyashi, Aaron Madden, Camille Morgan, Dylan Tran, and Madeline Tuff, 2018-2019
 - The Nature Conservancy Salmon River Estuary Restoration, Shea Chun, Alyssa Lau, Mustaf Mohamed, Bailey Smithline, and Sean Urabe, 2018-2019*
 - Lake Oswego Bioretention Retrofit Design, Lloyd Filbert, Tristan Rowley, Sam Schwisow, Erin Yamamoto, 2017-2018
 - Ultraviolet Light Water Disinfection System, Jocelle Tade, Eric Domek, Parker Liebe, Delaney Ralph, Austin Pato, DJ Werner, 2017-2018
 - Combined Hydropower and Stormwater Treatment System, Casey Balmes, Crysta Ross, Anthony Carvalho, Jonathon Bierek, 2016-2017
 - City of Gresham Culvert Replacement, Andy Huang, Will Mafnas, Jacob Whitfield, Garrett Lewellen, 2016-2017
 - Tualatin Valley Water District Water Tank Design, Joey Urness, Will Gleason, Noah Durr, Trace Webster, Jacob Brown, 2015-2016

*Best CE Project

- Evan Miller, project M.S. 3/2013, topic: Developing methods for increasing student exploratory learning during lab experiments
- Jerin Tilson, thesis M.S. 4/2013, topic: Evaluation of metals removal from stormwater in pervious pavement
- Dan Wagner, project M.S. 11/2013, topic: Evaluation of soil mix design and plant presence in bioretention cells for optimum metals removal

- Agathe Thomas, thesis M.S. 11/2013, topic: Evaluation of longevity of metals removal in media filter drains and proposed rehabilitation method
- Maxwell Freimund, thesis M.S. 11/2013, topic: Comparison of metals removal from two media filter mix specifications
- Eric Palmer, thesis M.S. 5/2012, topic: Effects of soil amendments in bioretention cells for removing nutrients
- Marc La Vanway, coursework only M.S. 12/2012

PROFESSIONAL EXPERIENCE

Project Engineer, Geosyntec Consultants, 6/13 – 3/16

Engineer, DJH Engineering, 6/02 - 9/02

- Project Manager, timber-lined tunnel rehabilitation
- Evaluated El Dorado Irrigation District's flumes, some of which were built by miners in the 1800s
- Conducted landslide risk assessment

Associate Engineer, Montgomery Watson Harza, 10/98 - 9/01

- Full pipeline design
- Intake and pump station design
- Hydraulic modeling and master planning
- Project setup: scheduling and budgeting
- Resident engineer for WTP Construction

Engineering Aide, Willamette Industries, Inc., 6/95 - 9/95 and 6/96 - 9/96

- Insured compliance with state and federal environmental regulations
- Processed environmental discharge permits for Willamette Valley mills

SCHOLARLY WORK

Number of citations according to Google Scholar: 1149

Number of reads on ResearchGate: 5675

Work published before joining UP is shown in gray. Asterisk (*) indicates UP undergraduate student co-author. On all published works, I was a major contributor to experimentation design, student advising, and manuscript writing.

Peer-Reviewed Journal Publications:

Holzer, K. and Poor, C. (in review). Beaver Activity Improves Pollutant Reduction in a Constructed Stormwater Wetland. *Ecological Engineering*.

Poor, C., Kaye, J.*, and Barner, M. (in review). Service Learning Through Rehabilitating a Green Roof. *Journal of Civil Engineering Education*.

Koucka, M., Poor, C., Wolfand, J., Chang, H., Shandas, V., Aiona, A., Stevens, H., Kurtz, T., Hedin, S., Fancher, S. Lighthipe, J., and Zucker, A. (2025). The First Thirty Years of Green

Stormwater Infrastructure in Portland, Oregon. *Sustainability*, 17(15): 7159.

Holzer, K., and Poor, C. (2024). Reduction of Runoff Pollutants from Major Arterial Roads Using Porous Pavement. *Sustainability*, 16:7506.

Struzak, M.*, Poor, C., Wolfand, J., and Radke, A.* (2024). Evaluation of Biochar as an Amendment for the Removal of Metals, Nutrients, and Microplastics Removal in Bioretention Systems. *Journal of Environmental Engineering*, 150: 04024007.

Poor, C., Kaye, J.*, Struck, R., and Gonzalez, R. (2023). Permeable Pavement in the Northwest: Pollution Source or Treatment Option? *Sustainability*, 15: 12926.

Wolfand, J., Poor, C.J., Taylor, B.L.H., Morrow, E.*, Radke, A.*, and Diaz-Gunning, E.* (2023). Microplastics: The Occurrence in Stormwater Runoff and the Effectiveness of Bioretention Systems for Removal. *Journal of Environmental Engineering*, 150: 04024007.

Poor, C., Kanno, N.*, and Marumoto, T.* (2022). Evaluation of a Green Roof Retrofit using Water Treatment Residuals to Reduce Leaching of Phosphorus. *Journal of Green Building*, 17(3): 129-139.

Poor, C., Membrere, T.*, and Miyasato, J.* (2021). Impact of Green Stormwater Infrastructure Age and Type on Water Quality. *Sustainability*, 13:10484.

Kohlsmith, E., Morse, J., and Poor, C. (2021). Stormwater Treatment Effectiveness of Established Lined Bioretention Facilities in Portland Oregon. *Journal of Sustainable Water in the Built Environment*, 7: 05021002.

Helinski, O.K.*, Poor, C., and Wolfand, J.M. (2021). Ridding Our Rivers of Plastic: A Framework for Plastic Pollution Reduction Device Selection. *Marine Pollution Bulletin*, 165:112095.

Morgan, C.*, Poor, C., Guidice, B., and Bibb, J. (2020). Evaluation of agricultural byproducts as amendments in bioretention systems for metal and nutrient removal. *Journal of Environmental Engineering*, 146: 04020029.

Poor, C.J., Dillon, H.E., Chabert, A.*, Bastida de Jesus, J.* (2020). Design of a small scale hydrology experiment. *ASCE Journal of Civil Engineering Education*, 146: 04020002.

Beattie, A.*, Dillon, H., Poor, C., and Kenton, R. (2019). Solar water disinfection with parabolic and flat reflectors. *Journal of Water and Health*, 17: 921-929.

Poor, C.J., Conkle, K.*, MacDonald, A., and Duncan, K. (2019). Water treatment residuals in bioretention planters to reduce phosphorus levels in stormwater. *Environmental Engineering Science*, 36: 265-272.

Okita, J.*, Poor, C., Kleiss, J., and Eckmann, T. (2018). Effect of green roof age on runoff water

quality in Portland, Oregon. *Journal of Green Building*, 13: 42-54.

Poor, C., Balmes, C.*, Freudenthaler, M., Martinez, A.* (2018). The role of mycelium in bioretention systems: evaluation of nutrient retention in mycorrhizae-inoculated mesocosms. *Journal of Environmental Engineering*, 144: 04018034.

Stahnke, C.* and Poor, C. (2017). Implications of using different water sources when hydrologically compacting bioretention columns. *Water Environment Research*, 89: 451-455.

Thomas, A.R.P., Haselbach, L., Poor, C., and Freimund, M.R.J. (2015). Long-term Performance of Media Filter Drains for Stormwater Management. *Sustainability*, 7: 3721-3733.

Brown, S., Easley, A., Montfort, D., Adam, J., Van Wie, B., Olusola, A., Poor, C., Tobin, C., and Flatt, A. (2014). The Effectiveness of a Physical Model Demonstrating Open Channel Concepts. *American Society of Civil Engineers Journal of Professional Issues in Engineering Education and Practice*, 140: 04014001.

Alam, A., Haselbach, L., Derooy, G., Poor, C., and Wolcott, M. (2014). Green Rating Integration Platform – A Decision Making Tool for Multi-Modal Facilities: Credit Harmonization and a Sustainable Water & Material Practices Case Study. *Journal of Green Building*, 9: 161-173.

Palmer, E.T., Poor, C.J., Hinman, C., and Stark, J.D. (2013). Nitrate and Phosphate Removal through an Enhanced Bioretention System: Mesocosms. *Water Environment Research*, 85: 823-832.

Haselbach, L., Poor, C., and Tilson, J. (2013). Dissolved Zinc and Copper Retention from Stormwater Runoff in Ordinary Portland Cement Pervious Concrete. *Construction and Building Materials*, 53: 652-657.

Poor, C.J., and Brown, S. (2013). Increasing Retention of Women in Engineering at WSU: A Model for a Women's Mentoring Program, *College Student Journal*, 47: 421-428.

Thompson, M., Haselbach, L., Poor, C., and Wolcott, M. (2013). Integrating Green Rating Systems: A Case Study for Ferry Terminals. *Journal of Green Building*, 8:136-150.

Poor, C.J., and Ullman, J. (2010). Using Regression Tree Analysis to Improve Predictions of Low-Flow Nitrate and Chloride in Willamette River Basin Watersheds. *Environmental Management*, 46: 771-780.

Brown, S. and Poor, C. (2010). In-Class Peer Tutoring: A Model for Engineering Instruction. *International Journal of Engineering Education*, 26: 1111-1119.

Poor, C.J., McDonnell, J.J., and Bolte, J. (2008). Testing the Hydrological Landscape Unit Classification System and Other Terrain Analysis Measures for Predicting Lowflow Nitrate and Chloride in Watersheds. *Environmental Management*, 42:877-893.

Poor, C.J. and McDonnell, J.J. (2007). The Effects of Land Use on Nitrate Dynamics. *Journal of Hydrology*, 332: 54-68.

Peer-Reviewed Conference Publications:

Poor, C. (2024). Expansion of Peer Tutoring Program to In-Class Sessions in Multiple Disciplines. Proceedings of the 2024 Annual Conference of the American Society of Engineering Education, Paper ID #40991, Portland, OR.

Poor, C. and Kaye, J.* (2024). Green Roof Rehabilitation: Creating Community in the School of Engineering. Proceedings of the 2024 Annual Conference of the American Society of Engineering Education, Paper ID #40990, Portland, OR.

Poor, C., Burrill, K.*, and Jarvis, M.* (2022). Development of a Low-Cost Constructed Wetlands Experiment. Proceedings of the 2022 American Society of Engineering Education Conference, Paper ID #36427, Minneapolis, MN.

Poor C.J., Anderson, R.*, and Dillon, H.E. (2021). Evaluation of Wave Energy on the Willamette River. Proceedings of the American Society of Mechanical Engineering International Mechanical Engineering Congress and Exposition, IMECE2021-71796, Virtual Conference.

Poor, C. and Mohamed, M.* (2020). Effect of Biochar on Metals and Nutrient Removal in Bioretention Systems. Proceedings of the 2020 Environmental and Water Resources Institute World Environmental and Water Resources Congress: Water, Wastewater, and Stormwater and Water Desalination and Reuse, p.73-83, Henderson, NV.

Poor, C., Burrill, K.*, and Jarvis, M.* (2020). Efficiency of Constructed Wetlands for Nutrient Removal. Proceedings of the 2020 Environmental and Water Resources Institute World Environmental and Water Resources Congress: Groundwater, Sustainability, Hydro-Climate/Climate Change, and Environmental Engineering, p. 1-9, Henderson, NV.

Poor, C., Dillon, H., Welch, J.*, and Ralston, N. (2020). Implementation of Real-World Class Activities in an Introduction to Environmental Engineering Class. Proceedings of the 2020 Annual Conference of the American Society of Engineering Education, Paper ID #28779, Montreal, Quebec.

Poor, C.J. and Kube, J.* (2019). Variation in Nutrient and Metal Retention in Bioretention Systems with Mycorrhizae-Inoculated Soil. Proceedings of the EWRI World Environmental and Water Resources Congress: Water, Wastewater, and Stormwater; Urban Water Resources; and Municipal Water Infrastructure, p. 71-79, Pittsburgh, PA.

Poor, C.J., Chase, A.*, and Inan, M. (2019). Integrating Ethics Across the Civil Engineering Curriculum. Proceedings of the 2019 PNW American Society of Engineering Education, Corvallis, OR.

Poor, C. and Wagner, D. (2017). Evaluation of soil mixes in shallow bioretention systems. Proceedings of the Environmental and Water Resources Institute World Environmental and

Water Resources Congress, Paper ID # 237461, Sacramento, CA.

Poor, C. and Miller, E. (2016). Hydrology experiment design: an open-ended lab to foster student engagement and critical thinking. Proceedings of the 2016 Annual Conference of the American Society of Engineering Education, Paper ID #14671, New Orleans, LA.

Freimund, M.R.J., Haselbach, L., Poor, C., and Thomas, A. (2015). Modified Media Filter Drain Mix with Alternate Aggregate Grading. American Society of Civil Engineers Construction Institute: Innovative Materials and Design for Sustainable Transportation Infrastructure, p. 143-153.

Haselbach, L., Poor, C., and Tilson, J. (2014). Longterm Metal Sorption in Pervious Concrete with Ordinary Portland Cement and Fly Ash, Pavement Life Cycle Assessment Conference Proceedings.

Thompson, M., Haselbach, L., and Poor, C. (2014). A Stormwater Treatment Strategy for Port Pavement Runoff, Transportation Research Board 2014 Annual Meeting Compendium.

Brown, S.A., Montfort, D.B., and Poor, C.J. (2013). Collaboratively Developing Research-Based Curricular Materials to Improve Conceptual Understanding in Engineering Education. Proceedings of the 2013 Annual Conference of the American Society of Engineering Education, Paper ID #6177, Atlanta, GA.

Brown, S. and Poor, C. (2009). In-Class Peer Tutoring: A Cost Effective Model for Engineering Instruction. Proceedings of the 2009 Annual Conference of the American Society of Engineering Education, Austin, TX.

Yurt-Beyenal, N., Poor, C., Golter, P., Brown G., Thiessen, D., and Van Wie, B. (2009). Miniature Open Channel-Weir for the Standard Classroom, Implementation and Assessment. Proceedings of the 2009 Annual Conference of the American Society of Engineering Education, Austin, TX.

Presentations:

Fischer, P.*, Newman, C.*, Poor, C., and Wolfand, J. (2025). Evaluating Stormwater Biofilters for Pollutant Removal from Roof Runoff. SETAC North America 46th Annual Meeting, Portland, OR, November 2025.

Baird, KR, Granek, E., Poor, C., Brander, S.M., Doerr, A., Navab-Daneshmand, T., Goodwin, C., and Crews, T. (2025). How Effectively do Filters Reduce the Release of Microplastics in Stormwater in Oregon? SETAC North America 46th Annual Meeting, Portland, OR, November 2025.

Fisher, P.*, Newman, C.*, Poor, C., and Wolfand, J. (2025). Evaluating Stormwater Biofilters for Pollutant Removal from Roof Runoff. ASCE EWRG Stormwater Symposium, Portland, OR, September 2025.

Holzer, K., and Poor, C. (2025). Reduction of Runoff Pollutants from Major Arterial Roads Using Porous Pavement. Oregon Association of Clean Water Agencies invited talk, Portland, OR, January 2025.

Struzak, M.*, Poor, C., and Wolfand, J. (2024). Evaluation of Biochar as an Amendment for the Removal of Metals, Nutrients, and Microplastics Removal in Bioretention Systems. Oregon Association of Clean Water Agencies invited talk, Portland, OR, April 2024.

Kaye, J.* and Poor, C. (2023). Removal of Stormwater Contaminants through Pervious Pavements. ASCE EWRG Stormwater Symposium, Portland, OR, September 2023.

Struzak, M.*, Wolfand, J., and Poor, C.J. (2023). Biochar Amended Bioretention Systems for Pollution Removal. ASCE EWRG Stormwater Symposium, Portland, OR, September 2023.

Wolfand, J., Poor, C.J., Taylor, L.H., Chang, H., Granek, E., and Brahney, J. (2023). Microplastics pathways in the Portland, OR region: Results from stormwater and atmospheric sampling. American Chemistry Society (ACS) Fall Meeting, San Francisco, CA, August 2023.

Granek, E., Baechler, B., Traylor, S., Talbot, R., Wolfand, J.M., Poor, C.J., Taylor, B.L.H., Morrow, E., Radke, A., Diaz-Gunning, E. (2023). Microplastics and Municipal Stormwater. Oregon Association of Clean Water Agencies invited talk, Eugene, OR, May 2023.

Poor, C. (2023). Permeable Pavement in the Northwest: Pollution Source or Treatment Option? City of Portland Bureau of Environmental Services invited talk, Portland, OR, May 2023.

Helinski, O.*, Tinoco, A.*, Membrere, T.*, Wolfand, J.M., Poor, C.J. (2020). Remote Undergraduate Engineering Research: Pros, Cons, and Tips. American Geophysical Union Fall Meeting. San Francisco, CA, December 2020.

Poor, C., Dillon, H., Anderson, R.*, and Robeck, D.* (2019). Impacts of Wake Surfing on the Willamette River Project Description. Invited talk at the O.H. Hinsdale Wave Research Laboratory to State Lawmakers and Agency Representatives. Oregon State University, Corvallis, OR, July 2019.

Poor, C., Burrill, K.*, and Jarvis, M.* (2019). Efficiency of Constructed Wetlands for Nutrient Removal. Society of Women Engineers WE Local Conference. Bellevue, WA, April 2019.

Poor, C., Burrill, K.*, and Jarvis, M.* (2018). Efficiency of Constructed Wetlands for Nutrient Removal. Oregon State Board of Examiners for Engineering and Land Surveying Symposium. Salem, OR, September 2018.

Conkle, K.* and Poor, C. (2018). Evaluation of Water Treatment Residuals in Bioretention Systems to Reduce Phosphorus Levels in Stormwater. City of Lake Oswego invited talk, Lake Oswego, OR, April 2018.

Poor, C. (2017). Bioretention in the Northwest: Current Issues and Possible Solutions. City of

Portland Bureau of Environmental Services invited talk, Portland, OR, October 2017.

Poor, C., Conkle, K.*, Kube, J.*, Mohamed, M.*, MacDonald, A., and Duncam, K. (2017). Evaluating the Effects of Water Treatment Residuals in Bioretention Soil Mixes. American Society of Civil Engineers Environment and Water Resources Group Sustainable Stormwater Symposium, September 2017.

Poor, C., Mansberger, C.*, Tade, J.*, Conkle, K.*, MacDonald, A., and Duncan, K. (2017). Evaluating the Effects of Water Treatment Residuals in Bioretention Soil Mixes. American Water Works Association Pacific Northwest Section Conference. May 2017.

Poor, C., Mansberger, C.*, Tade, J.*, Conkle, K.*, MacDonald, A., and Duncan, K. (2017). Evaluating the Effects of Water Treatment Residuals in Bioretention Soil Mixes. Association of Clean Water Administrators Stormwater Summit. May 2017.

Martinez, A.*, Balmes, C.*, and Poor, C. (2017). The role of mycelium in bioretention systems: evaluation of nutrient retention in mesocosms inoculated with mycorrhizal fungi. Association for Environmental Health and Sciences 27th Annual International Conference on Soil, Water, Energy, and Air. March 2017.

Poor, C., Okita, J.*, and Tade, J.*, Kleiss, J., and Eckmann, T. (2017). Evaluation of water retention and water quality from ecoroofs from the Portland area. Association for Environmental Health and Sciences 27th Annual International Conference on Soil, Water, Energy, and Air. March 2017.

Poor, C. (2016). Bioretention in the Northwest: Current Issues and Possible Solutions. United States Geological Survey invited talk, Portland, Oregon, March 2016.

Bacon, R., Mahjoob, L., Duey, J., Poor, C. (2015). Potential of Ecoroof Media to Leach Phosphorus and Nitrogen. Poster presentation. American Society of Civil Engineers Environment and Water Resources Group Sustainable Stormwater Symposium, September 2015.

External Grants:

Oregon Alliance of Independent Colleges and Universities (\$8,000): Low-cost Solutions for Treating Roof Runoff: Long Term Monitoring. 2025-2026.

Oregon Sea Grant (\$240,000): Microplastics Science Optimizing Solutions (MP-SOS): Testing Strategies for Oregon. In collaboration with Oregon State University and Portland State University (UP portion: \$5,827). 2024-2026.

Oregon Alliance of Independent Colleges and Universities (\$11,000): Low-cost Solutions for Treating Roof Runoff. 2024-2025.

Oregon Community Foundation (\$12,000): Sustainable stormwater practices. 2023-2024.
Anonymous Donor

Oregon Community Foundation (\$11,000): Water quality benefits of pervious pavements. 2022-2023. *Anonymous Donor*

Oregon Sea Grant (\$50,000): Reducing microplastic pollution from runoff in urban watersheds. 2021-2022. *Awarded January 2021*

Oregon Community Foundation (\$11,000): Quantification of microplastics in stormwater in Portland, OR. 2020-2021. *Anonymous Donor*

Oregon Community Foundation (\$9,000): Rehabilitation methods for reducing phosphorus export from existing green roofs and bioretention systems. 2019-2020. *Anonymous Donor*

US Environmental Protection Agency (PI, \$80,000): Promoting Sustainable Practices: Education Students on the Local Energy and Water Nexus. 2018-2021. *Not Funded*

Oregon Community Foundation (\$8,000): Evaluation of biochar in bioretention systems to reduce metals in stormwater. 2018-2019. *Anonymous Donor*

Oregon Alliance of Independent Colleges Foundation (PI, \$10,000): Evaluation of Nutrient and Metals Removal Using Agricultural Byproducts in Bioretention Systems. 2018-2019. *Awarded November 2017.*

UP Arthur Butine Award (PI, \$5,000): Evaluation of plant species and residence time for nutrient removal in constructed wetlands. 2018-2019. *Awarded November 2017*

Oregon Community Foundation (PI, \$8,000): Evaluating the use of biochar in bioretention systems to reduce phosphorus, zinc, and copper levels in stormwater. 2017-2018. *Anonymous Donor*

Dundon-Berchtold Institute Internal Grant (PI, \$10,000): Development of ethics case studies throughout the civil engineering curriculum focused on situations where inaction led to serious consequences. 2017-2018. *Awarded April 2017*

City of Lake Oswego (PI, \$21,350): Evaluation of water treatment residuals in bioretention systems to reduce phosphorus levels in stormwater. 2016-2017. *Unsolicited Grant*

Oregon Community Foundation (PI, \$6000): Evaluation of sand layer as polishing filter in bioretention systems. 2016-2017. *Anonymous Donor*

Dundon-Berchtold Institute Internal Grant (PI, \$5,000): Development of ethics case studies in environmental engineering focused on situations where inaction led to serious consequences. 2017-2018. *Awarded June 2016*

Oregon Alliance of Independent Colleges Foundation (PI, \$15,000): Evaluation of the Cooling Effect, Water Retention, and Water Quality from Ecoroofs in the Portland Area. 2015-2016. *Awarded December 2015*

UP Arthur Butine Award (PI, \$5000): The role of mycelium in bioretention systems: evaluation of nutrient retention, hydraulic conductivity, and water holding capacity. 2016. *Awarded December 2015*

National Science Foundation (PI, \$61,000): Collaborative Research: Effects of facility age and antecedent hydrologic conditions on performance variability in urban bioretention cells under current and future climate scenarios. 2017-2020. *Not Funded*

National Science Foundation (PI, \$38,165): Collaborative Research: Water quality tradeoffs in urban bioretention cells under contrasting regional climates. 2016-2019. *Not funded*

US Environmental Protection Agency (co-PI, \$89,000): Promoting Sustainable Practices: A Demonstration Project Promoting Local Hydropower and Stormwater Treatment. 2016-2019. *Not Funded*

Textbooks:

Poor, C. (*in review*). Sustainable Design for Civil Engineers

Brown, S., and Poor, C. (2011). Ranking Tasks for Mechanics of Materials. Prentice Hall, Upper Saddle River, New Jersey.

Reports:

Leisenring, M., Sahu, S., Poor, C., Zell, C., Mansell, S., and Venner, M (2014). National Cooperative Highway Research Program 25-25 Task 85 Nutrient (Nitrogen/Phosphorus) Management and Source Control, prepared for the National Cooperative Highway Research Program.

SERVICE

University:

- Ad-Hoc Review Committee for Faculty Appeal, 2026
- Dean Search Committee, 2025
- President Search Committee, 2021-2022
- Committee on Curricular and Academic Regulations, 2021-2022
- Advisory Committee for Contingency Instructional Planning, May 2020-September 2020
- Dean Search Committee, 2019-2020
- Faculty Development Day Workshop, Compassionate Listening through Peer Observation of Teaching, May 2019
- Undergraduate Research Advisory Board, 2019-present
- Innovation Plaza Steering Committee, 2018-2022
- Honors Program Mentor, 2016-2020
- President's Advisory Committee on Sustainability, 2016-2018
- Advised Austrian student on research project, Marshall Plan, Aug 2016-Dec 2016

- Provided tour of Shiley for honors students, Honors Program, Aug 2016 and Aug 2019
- Advisor for Society of Women Engineers Student Group (Washington State University), 2006-2012
- Director of the Washington State University women's mentoring program, 2009-2012

Shiley School of Engineering:

- Chair of CEE Program, 2022-present
- Scholarship Dinner, February 2026
- Provided tour of Civil Engineering Labs to Roosevelt High School students, February 2026
- Provided tour of Civil Engineering Labs to De La Salle High School students, April 2026
- Provided tour of Civil Engineering Labs to Moreau Pathway Counselors, May 2026
- Environmental Engineering B.S. Development, 2022-2024
- ME Faculty Search Committee, 2024-2025
- Shiley Graduate Program Taskforce, 2024
- New Faculty Mentor, 2022-2023
- Shiley Grants Committee, 2023-2025
- Shiley Grants Committee Chair, 2024-2025
- Co-Chair of CE Faculty Search Committee, 2021-2022
- American Society of Civil Engineers (ASCE) Student Chapter Advisor, 2020-2023
- Shiley Green Roof Rehabilitation, 2022-2025
- Capstone Committee, 2021-2023
- Undergraduate Research Recruiting Video, November 2020
- Developed Environmental Engineering Minor, 2019
- CE Faculty Search Committee, Jan-May 2019
- Lab Equipment Committee, Aug 2016-present
- Engineering Computing Committee, Aug 2017-Aug 2021
- Provide tours of Fluids and Environmental Labs, Weekend on the Bluff, April 2017-present
- Energy and Environment Graduate Program Committee, Aug 2017-2018
- Provided tour of Environmental Lab, Engineering Open House/Preview Day, November 2016-present
- Committee on Enrollment Caps, January 2016-March 2016

Professional:

- Fulbright Scholar Host, 2024-2025
- Editorial Board Member for Journal of Green Building, 2023-present
- Assistant Editor for Journal of Civil Engineering Education, 2024-2025
- Proposal Reviewer, National Science Foundation, 2022-present
- Special Topic Editor for Sustainability, 2020-2025
- Associate Editor for Sage Open, 2018-2019
- Peer Reviewer:

- Environmental Science and Technology: Water
- Urban Sustainability
- Journal of Green Building
- Journal of Materials in Civil Engineering
- Frontiers in Environmental Science
- Journal of Sustainable Water in the Built Environment
- Journal of Environmental Management
- Environmental Science and Pollution Research
- Environmental Pollution
- Journal of Hydrology
- Sustainability
- Journal of Environmental Quality
- Journal of Environmental Engineering
- Journal of the American Water Resources Association
- American Society of Engineering Education Conference Proceedings
- Water Research
- Environmental Management
- Environmental Earth Sciences
- Environmental Engineering Science
- Water
- PLOS ONE
- Forest Ecology and Management
- Estuaries and Coasts
- Second Edition of Mays' Water Resources Engineering text
- Proposal Reviewer, NCSU Water Resources Research Institute, 2023
- External Reviewer for Tenure and Promotion, University of Auburn, 2022
- Committee Member, M.S. Graduate Committee for Emma Kohlsmith, Portland State University, 2018-2019
- Citizen Member, Columbia Boulevard Wastewater Facility Citizens Advisory Committee, 2016-2022
- Led an activity for sixth grade students, Saturday Academy, July 2016-2018.

FELLOWSHIPS AND AWARDS

- First place in ASCE student sustainable design competition (UP students Payton Fischer, Sarah Cayabyab, Ainsley Henry, Julia Hettinger, Grace Ireland, and Shauna Sundberg), 2026
- Margaret M. and Vincent P. Aquino Endowed Professor of Engineering, 2025-2028
- Outstanding Researcher Award, Sigma Xi, 2025
- Outstanding Scholarship Award, University of Portland, 2024
- UN Sustainable Development Goals Showcase of Microplastics Research, 2024
- Audience Favorite in ASCE EWRG Stormwater Symposium student poster competition (UP student Maya Struzak), 2023
- Best Poster in ASCE EWRG Stormwater Symposium student poster competition (UP student Jackson Kaye), 2023
- Third place in ASCE student sustainable design competition (UP students Austin Boyle, Angelo Ramirez, Will Bush, and Nedim Cimic), 2023

- Honorable mention in EPA Rainworks Challenge (UP students Liz Diaz-Gunning, Melissa Hamling, Sean Yoshishige, and Bryson Tamaye), 2022
- Second place in ASCE student sustainable design competition (UP students Austin Boyle, Angelo Ramirez, Will Bush, and Nedim Cimic), 2022
- Second place in ASCE student environmental competition (UP students Liz Diaz-Gunning, Grace Wallace, Capra Williams, and Melissa Hamling), 2022
- Second place in ASCE student environmental competition (UP students Liz Diaz-Gunning, Troy Membrere, Brianna Leible, Charlie Myers, Haley Davis), 2021
- Second place in American Water Works Association Pacific Northwest Section Conference student poster competition (UP student Jocelle Tade), 2017
- Best Paper in Division of Experimentation and Laboratory-Oriented Studies, American Society of Engineering Education Annual Conference, 2016
- Leon Luck Faculty Award, WSU Department of Civil and Environmental Engineering, 2013
- Outstanding Advisor, WSU Department of Civil and Environmental Engineering, 2012
- Outstanding Faculty Teacher, WSU Department of Civil and Environmental Engineering, 2010
- Best Zone Paper, American Society of Engineering Education Pacific Northwest Regional Conference, 2009
- US Environmental Protection Agency Cooperative Program, 2004-2006
- Professional Performance Award, Montgomery Watson Harza, 1999
- National Science Scholar, 1993-1996

LICENSES

Professional Engineer, Oregon, No. 56443

Professional Engineer, California, No. C62400

Professional Engineer, Washington, No. 51443

PROFESSIONAL MEMBERSHIPS

American Society of Civil Engineers

American Society of Engineering Education

Society of Women Engineers

PROFESSIONAL MEETINGS ATTENDED

- American Society of Civil Engineers Environment and Water Resources Group Sustainable Stormwater Symposium, 2025
- American Society of Civil Engineers Environment and Water Resources Group Sustainable Stormwater Symposium, 2023
- ASCE Department Heads Conference, 2022
- Annual Conference of the American Society of Engineering Education, 2022
- Environmental and Water Resources Institute World Environmental and Water Resources Congress, 2020
- American Society of Civil Engineers Environment and Water Resources Group Sustainable Stormwater Symposium, 2019
- Environmental and Water Resources Institute World Environmental and Water Resources Congress, 2019

- Pacific Northwest American Society of Engineering Education Conference, 2019
- Environmental and Water Resources Institute World Environmental and Water Resources Congress, 2017
- Association of Clean Water Administrators Stormwater Summit, 2017
- Association for Environmental Health and Sciences 27th Annual International Conference on Soil, Water, Energy, and Air, 2017
- Kern Entrepreneurial Engineering Network Innovating Curriculum with Entrepreneurial Mindset Workshop, 2017
- Annual Conference of the American Society of Engineering Education, 2016
- American Society of Engineering Education National Effective Teaching Workshop, 2016
- Mechanics of Materials Workshop, 2015 and 2016
- American Society of Civil Engineers Environment and Water Resources Group Sustainable Stormwater Symposium, 2015
- Annual Conference of the American Society of Engineering Education, 2009