

Center for Student Research

FACULTY SCHOLARSHIP HIGHLIGHTS

Environmental Science and Environmental Studies

randolphcollege.edu/environmentalstudies/

Faculty

Sarah Sojka, Assistant Professor of Environmental Science and Physics, B.A., Eckerd College; M.S., Ph.D., University of Virginia

Dr. Sojka began her research career studying physical-biological interactions in shallow coastal systems, focusing on how seagrass and algae affect nutrient cycling and sediment transport. She has recently added a focus on rainwater harvesting systems, in which water is collected from the roofs of buildings and used for irrigation, toilet flushing, laundry and other demands. She studies controls on water quality in these systems and the environmental impacts of them.

Dugan, J.E., Emery, K.A., Alber, M., Alexander, C.R., Byers, J.E., Gehman, A.M., McLenaghan, N. and Sojka, S.E. 2018. Generalizing ecological effects of shoreline armoring across soft sediment environments. *Estuaries and Coasts.* 41 (S1):180-196.

Life cycle assessment of a commercial rainwater harvesting system compared with a municipal water supply system with Santosh R. Ghimire, John M. Johnston[,] Wesley W. Ingwersen, *Journal of Cleaner Production*, 151, 10 May 2017

Sustainable Water Management in Urban Environments in <u>Modern Urban Rainwater Harvesting Systems:</u> <u>Design, Case Studies, and Impacts</u> with Younos, Tamim; Crawford, David, 2016. Springer Science & Business Media B.V

Karin Warren, Herzog Family Professor of Environmental Studies Science, Chair of Environmental Studies & Science Department. B.S., Cornell University; M.S., Ph.D., University of California at Berkeley

Dr. Warren's areas of interest include energy and community resilience, climate change, and quantitative environmental methods. She has served on the Landscape Ordinance and the Stormwater Ordinance committees for the City of Lynchburg, the City of Lynchburg's Natural Resources Advisory Committee, and is currently a member of the Community Resilience Task Force in the Lynchburg VA region. She is co-chair of Randolph College's Sustainability Council, a faculty adviser for the student environmental club, and the campus liaison for the President's Climate Commitments and Bee Campus.

- Berger, K. and Warren, K. (2018) "Why calculate when I can Google? Quantitative tools for assessing the Sustainable Development Goals", Association for the Advancement of Sustainability in Higher Education conference, October 2-5, 2018.
- Henry-Stone, L. and Warren, K. (2018) "Building climate resilience with a collaborative community forum", Association for Environmental Studies and Science conference, June 20-23, 2018.
- Pradhan, K. and K. Warren (2013) "Assessing the Impact of a Combined Sewer Separation Project on Water Quality in Blackwater Creek, Virginia", American Geophysical Union, Dec 11, 2013.

The goals of Randolph's environmental

studies program are to develop scholars, thinkers, teachers, and activists who back up their passion for the environment with a strong grasp of the underlying science and policy and a comfortable ability to work with numbers. Since these problems lie at the nexus of natural sciences, social sciences, and humanities, we provide a rigorous, interdisciplinary course of study, enriched with practical experiences and equipping students with transferable knowledge and skills.

The Bachelor of Arts (B.A.) degree is a

flexible, interdisciplinary program focusing on the relationships between human society and the environment. The B.A. program provides a solid grounding in the natural sciences as well as economics, political science, and humanities. Students pursuing the B.A. complete an environmental internship during a semester or over a summer as part of their senior capstone experience. For information about the courses relating to the Environmental Studies major, click here

The Bachelor of Science (B.S.) degree is a

strong, science-oriented program focusing on the biogeochemical dynamics of the earth system, methods of environmental analysis, and the impacts of human activity on the environment. FMI http://www.randolphcollege.edu/environmentalstudies

The Bachelor's degrees in environmental studies and environmental science are diverse and challenging interdisciplinary programs and give students the knowledge base and practical skills and tools needed for graduate or professional school, private consulting, public advocacy or administration, and careers with government agencies and laboratories, as well as nongovernmental organizations.

The Minor in Environmental Studies is

appropriate for students in any major program who wish to add an environmental perspective to their chosen field.

What will Environmental Studies/Science do for me?

Environmental scientists and specialists need at least a bachelor's degree in a natural science or science-related field for most entry-level jobs.

What do Environmental Scientists and Specialists Do?

Environmental scientists and specialists use their knowledge of the natural sciences to protect the environment and human health. They may clean up polluted areas, advise policymakers, or work with industry to reduce waste.

What is their work environment like?

Environmental scientists and specialists work in offices and laboratories. Some may spend time in the field gathering data and monitoring environmental conditions firsthand. Most environmental scientists and specialists work full time.

Environmental Scientists and Specialists held about 89,500 jobs in 2016.

The largest employers were:

23% Management, scientific, and technical consulting services
23% State government, excluding education and hospitals
14% Local government, excluding education and hospitals
9% Engineering services
6% Federal government, excluding postal service

2017 Median Pay \$69,400 per year, \$33.37 per hour

Career data sourced from the

U.S. Bureau of Labor Statistics <u>bls.gov/ooh</u>