# UVA ECONETWORK



## Professor/Staff Highlights

This document provides an overview of some distinguished professors and staff at the University involved in sustainability. These individuals offer excellent courses, research opportunities, or general opportunities to get involved in sustainability at UVA.

Tim Beatley: world-renowned author and School of Architecture Professor



- Professor Profile
- Email: tb6d@virginia.edu

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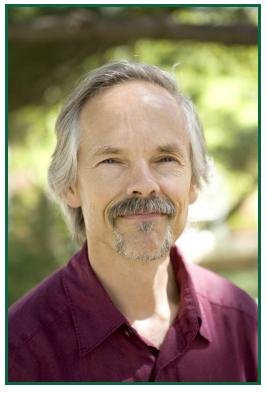
- Internationally recognized sustainable city researcher and author
- Taught courses for 25 years in the Department of Urban and Environmental Planning, School of Architecture.
- Currently teaches Introduction to Urban and Environmental Planning, Cities and Nature, a fall seminar on environmental ethics, and Coastal Resilience (offered every other year). He also teaches field courses and project courses that have a "community involvement" component.
- Although he teaches in the School of Architecture, he is connected to the College of Arts and Sciences through the Urban and Environmental Planning minor, which is offered in CLAS.
- Beatley's main focus is on sustainable, "biophilic" cities. He coined the term green urbanism.
  - He started work on Biophilic Cities a decade ago, which prompted a global network of cities in 2013. 22 cities have joined the association so far.
  - More information on Biophilic Cities can be found <u>here</u>.
  - Students can get involved with Beatley's Biophilic Cities. He usually has a group of around 10 undergraduate and graduate students who help him. Some are paid and others are not. These students help with the website, layout of the journal, write articles, etc.
- He has noted a growing interest in his courses, as well as in sustainable cities.

#### Phoebe Crisman: Global Studies Program Director



- Professor Profile
- Email: pc4v@virginia.edu
- Works out of the architecture school, directs the Global Studies program, and advises the Global Sustainability major
- A "goddess of sustainability"
- Sits on the Committee on Sustainability, and is always willing to meet with you to discuss sustainability stuff related to that or otherwise.
- Is more design and action oriented.
- Has been actively pushing for sustainability for a decade or two.
- Believes that energy storage is going to change the game for sustainability. Thinks it is going to have trickle effects into the transportation, construction, business sectors, etc.
- Her expertise and research is in sustainable urban design.
- Directs the Global Studies program at UVA and serves as a major advisor.
- Teaches GSVS 2150 "Global Sustainability" and GSVS 4559 "Global Sustainability Capstone Seminar".

Dana Elzey: Associate Professor of Engineering and Society, Director of the Rodman Scholars Program, and Director of Engineering International Programs



- Professor Profile
- Email: dme2j@virginia.edu
- Elzey is very focused on design thinking, and this applies to sustainability in particular when it comes to life cycle analysis.
- He helped to edit the Generation Green course and book to teach teenagers how to be environmentally conscious.
- He led the Global Technology Practice study abroad program in Germany, which featured a sustainability theme. On this trip, students visit companies from many different sectors within sustainability, such as hearing from a practicing engineer themself about how they were designing an off-shore wind turbine.
- He includes "Design for Environmental Sustainability" practices into his class ENGR 1410 and 1420 for Rodman students.
- He is advocating for the inclusion of similar design thinking practices in the redesign of the first year engineering experience.

- He sees UVA's main challenge being that the University is too risk averse. UVA has great potential to be a leader in the area and even state, but its tendency to be risk averse as an institution holds it back from being as progressive as it could be.
- Elzey emphasizes that no matter what you are working on (entrepreneurial project, student-lead project (capstones), etc), there is some way that it can become a platform/opportunity for sustainability and bringing together resources that the University has to offer.

#### Bevin Etienne: Assistant Professor in the McIntire School of Commerce and the Frank Batten School of Leadership and Public Policy



- Professor Profile
- Email: bevin@virginia.edu
- Areas of expertise include entrepreneurship, information technology, open source and innovation, and sustainability.
- Etienne focuses on how to use open source, a software program, to solve sustainability problems
  - This year they specifically focused on finance, energy, and agriculture.
  - Emphasizes the importance of capacity building in promoting sustainability and social entrepreneurship in developing countries and the role of open source in innovation and entrepreneurship.
- 13+ years of experience in renewable energy technologies development and deployment

- economics and financing of wind, biomass, geothermal, and solar PV power plants
- life cycle analysis and technology tradeoff for renewable energy systems
- optimization modeling of energy systems, with a focus on the supply and demand side management of energy
- impact of policy on the financing and development of renewable-energy and energy-efficiency projects
- He teaches an open source class is in the <u>entrepreneurship minor</u>, which is open to anyone.
- Courses:
  - COMM 1010 "Introduction to Entrepreneurship"
  - PPOL 4720 "Open Source for the Common Good"
  - SYS 4054 "Systems Design II"
- Started a wind energy company in Dominica, works with hydroponics in Charlottesville.

#### Cheryl Gomez: Director of Operations at UVA



- More information on Operations
- Email: clg9y@virginia.edu
- Playing a major hand in figuring out how UVA is going to achieve its carbon neutrality by 2030 and fossil fuel free by 2050 goals.
- Also figuring out how we are going to accomplish the other goals written into the 2020-2030 Sustainability Plan (nitrogen reductions, sustainable food, environmental and social justice, etc.).
- Says that she feels compelled to work on the issue of climate change because we are facing an existential crisis.
- Believes that having lofty goals, even if it is not clear how they are going to be achieved, is great for energizing people to find solutions. Akins it to how the U.S. government declared that they were going to put a man on the moon by the end of the decade in the 1960s without really knowing how they were going to accomplish it.
- Thinks of fossil fuels as the main target.
- Every decision that Facilities Management is making is driven by the ultimate goal of eliminating fossil fuels by 2050.
- Believes setting progressive, prescriptive performance goals for buildings at UVA is imperative.

- Achieving net zero takes:
  - Setting an aggressive limit on the amt of energy that a building can use
  - Adding renewable energy to offset usage
  - Acquiring more energy from utility scale solar and wind to make up for what cannot be produced on site
    - The electric grid itself is going to be getting greener and greener with Governor Northam's new goal to be 100% renewable by 2050.

#### James Groves: Associate Professor in the School of Engineering



- Professor Profile
- Email: jgroves@virginia.edu
- Teaches undergraduate courses in the multidisciplinary areas of engineering, sustainability, leadership, and design. He urges students in any discipline to take his course. He currently teaches 3 courses:
  - ENGR 2050 / GSVS 2050 "Introduction to Sustainable Energy Systems" (highly recommend for sustainability students wanting to learn about renewable energy and policy)
  - ENGR 2595 / GSVS 2559 "The Global Context of Clean Energy Materials"
  - ENGR 4010 & 4020 / GSVS 3010 & 3559 "Multidisciplinary Design Thinking I and II"
- Professor Groves urges students in any college or academic discipline to enroll in his courses. At UVA, it is difficult to get courses cross-listed in other colleges. For example, it is difficult to get an engineering course cross-listed in the College of Arts and Sciences with a GSVS pneumonic. Many liberal arts-oriented students are intimidated by ENGR courses and do not enroll in them. In our discussions with Prof. Groves, he stressed that his engineering courses are designed to be practical for any student in any college.

#### Willis Jenkins: Professor of Religion, Ethics, & Environment



- Professor Profile
- Email: willis.jenkins@virginia.edu
- Jenkins is the leading UVA professor in environmental ethics, justice, and religion.
- Broadly, his research and coursework focuses on the roles of cultural imagination and normative inquiry in confronting ecological challenges.
- He teaches RELG2210 "Religion, Ethics, and Global Environment," RELG 3820, "Global Ethics & Climate Change," as well as a number of graduate-level courses.
- He is author of two award-winning books, *Ecologies of Grace: Environmental Ethics & Christian Theology* (Oxford 2008) and *The Future of Ethics: Sustainability, Social Justice, & Religious Creativity* (Georgetown 2013), which won an American Academy of Religion Award for Excellence.
- He convenes <u>environmental humanities</u> at UVA, which "advances methods and knowledges of the humanities in support of collaborative, multi-disciplinary approaches to environmental research".
- He serves on the leadership team of the Environmental Resilience Institute, and co-directs three transdisciplinary environmental

humanities labs: <u>Coastal Futures Conservatory</u>, <u>Water Futures</u> <u>Initiative</u>, and a Sanctuary Lab. Robert Kelly: AT&T Professor of Engineering; Professor of Materials Science and Engineering; Co-Director, Center for Electrochemical Science and Engineering



- Professor Profile
- Email: rgk6y@virginia.edu
- Academic background
  - B.E.S./M.S./Ph.D. Materials Science and Engineering, Johns Hopkins University
  - Fulbright Scholar and NSF/NATO Post-doctoral Fellow at the Corrosion and Protection Centre at the University of Manchester (UK)
- His past research has included work on the corrosion of metals and alloys in marine environments, non-aqueous and mixed solvents as well as stress-corrosion cracking and other forms of localized corrosion.
- Professor Kelly has conducted research on corrosion for over 30 years, with his current research including studies of the electrochemical and chemical conditions inside localized corrosion sites in various alloy systems, corrosion in aging aircraft, development of embeddable corrosion microinstruments, microfabrication methods to probe the fundamentals of localized corrosion, and multi-scale modeling of corrosion processes.

- Courses
  - Materials That Shape Our Civilization (EVSC/MSE 2010)
  - $\circ~$  Corrosion Modeling of Aerospace Structures (ENGR 3501)
- He has earned many awards, some of which include the H.H. Uhlig Award of the Corrosion Division of the Electrochemical Society, Sigma Gamma Tau Outstanding Professor of Aerospace Engineering, and the Rodman Scholars Outstanding Professor Award.

#### Deborah Lawrence: Professor of Environmental Science



- Professor Profile
- Email: lawrence@virginia.edu
- Professor Lawrence is well-loved by all of her students at UVA. Her commitment to educating and inspiring others in climate change education has been impactful at the University and beyond.
- Prior to joining the University, Lawrence served as Science Advisor in the Office of Environment and Global Change and the Office of the Special Envoy for Climate Change at the US Department of State.
- Her research focuses on the ecological effects of tropical deforestation. Her work at the State Department, as well as her work in consulting, was focused on tropical forests and climate change.
  - Prof. Lawrence's research has earned her a Sustainability Science Award from the Ecological Society of America, a Guggenheim Fellowship, a Jefferson Science Fellowship from the National Academy of Sciences, and a Fulbright Scholarship.
- She teaches two courses at UVA, including EVSC 1559 "WriteClimate" and EVSC 1450 "Climate, You, and CO2".
- Professor Lawrence and her students conduct interdisciplinary research with partners in hydrology, atmospheric science, economics, anthropology, ethics, engineering, and law to understand the drivers and consequences of land use change.

• She did a TEDxCharlottesville talk on climate change in 2015, which can be found <u>here</u>.

#### Kathryn Quissell: Assistant Professor Department of Public Health Sciences



- Professor Profile
- Email: kq4ue@virginia.edu
- Political scientist with expertise in global health policy and governance.
- Teaches climate change and other environmental public health issues in her courses.
- Kathryn Quissell's research focuses on the intersection between political science and global health.
- Expertise: Qualitative and quantitative research methods, international relations, public administration in low and middle-income countries, global health policy analysis
- Courses:
  - PHS 4050 "Public Health Policy"
  - PHS 7100 "U.S. Healthcare Policy"

#### Victoria Shen: Assistant Professor in Department of Politics



- Professor Profile
- Link to her website
- Email: svs4m@virginia.edu
- Victoria Shen is in the Department of Politics and has been at the University since 2018. Prior to becoming a faculty member at UVA, she received her Ph.D. in Political Science and an M.S. in Civil & Environmental Engineering at Stanford University.
  - Her doctoral thesis, "The Political Pollution Cycle: An Inconvenient Truth and How To Break It," won the Best Dissertation Award from the Association for Public Policy Analysis & Management. She is currently in the process of expanding on this research to make a book.
- Her past research and courses she teaches at the University are centered on the intersection of sustainability and politics, specifically air pollution.
  - To learn more about her research engagements, click <u>here</u>.
- She is a member of the Environmental Resilience Institute (ERI), which promotes interdisciplinary research, giving money and resources to students to pursue environmental research.
- She teaches three courses:
  - PLCP 3500 "Environmental Politics in China"

- PLCP 4500 "Politics of Air Pollution"
- PLAP/PLCP/PLIR 5500/7500 "Approaches to Environmental Politics"
  - Approaches to Environmental Topics is a graduate-level course, but most students who enroll are undergraduate and find the course manageable.
- She encourages students interested in the intersection of policy and environmental studies to take her courses.
- She often recruits past students to become her research assistants.
- In the future, Shen hopes to see expanded research opportunities in environmental politics at the University.

Bill Shobe: Professor of Public Policy; Adjunct Professor of Economics; Director, Center for Economic and Policy Studies, Weldon Cooper Center for Public Service



- Professor Profile
- Email: shobe@virginia.edu
- Bill Shobe is among the leading UVa faculty involved in environmental economics. Shobe splits his time between the Batten School and UVa's Weldon Cooper Center for Public Service.
- As a professor in the Batten School, he teaches classes including Policy Analysis Research Methods and Environmental Economics.
- At the Weldon Cooper Center, he leads the Center for Economic and Policy Studies, which offers paid jobs to undergraduate and graduate students.
- His past students are currently working all over the renewable energy and sustainability sectors today.
- Currently, there are opportunities to get involved with energy policy and economics research through Professor Shobe's Center for Economic and Policy Studies at the Weldon Cooper Center for Public Service. At the Weldon Center, Shobe heads research on emissions markets, the Virginia Solar Initiative, and Virginia's 2050 carbon neutrality goals. Find more information <u>here</u>.
- Courses: ECON 3559 "Economics of Sustainability and the Environment"

- Research: carbon removal technologies and emissions markets, the Virginia Solar Initiative, and carbon neutrality goals in Virginia.
  - Virginia's carbon neutrality goals
  - Virginia Solar Initiative

#### Mark White: Associate Professor of Commerce, Director, McIntire Business Institute



- Professor Profile
- Email: markwhite@virginia.edu
- White's expertise is in the areas of corporate finance and sustainable business practices.
- Taught many courses at the McIntire School of Commerce and the Darden School of Business addressing business's relationship with the natural environment.
- Actively involved in several collaborative research projects related to sustainable business, including efforts to model the environmental and financial implications of manufacturing biodiesel from microalgae, and the UVA Bay Game, an interactive simulation of the Chesapeake Bay watershed.
- Teaches many courses, as well as a January Term course in Africa
  - COMM 3030 "Quantitative and Financial Analysis"
  - COMM 4822 "Investing in a Sustainable Future"
  - COMM 3040 "Strategic Value Creation"
  - COMM 4589/GSVS 4559 "UVA January Term In Kenya: Conservation Finance"

• Professor White has sailed twice with UVA's Semester at Sea program, serves on the Faculty Senate, and is a member of multiple sustainability-oriented committees and task forces.

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