

American University Sustainability Research AY2022-23

School	Academic Department	Faculty Name	Research Topic	Description
CAS	Anthropology	Buck Woodard	Ongoing field research with Native American communities	Every community has different needs / situation, some are working with environmental clean up, others are making linkages to environment stewardship with language revitalization, some are concerned with cane restoration, others on river clean up and working on placing lands in conservation easements, others on oyster restoration, some on fish productivity.
CAS	AU Core	David Salgado	N/A	N/A
CAS	Chemistry	Shouzhong Zou	Analytical/Materials Chemistry	<p>Focus: Synthesis, characterization, and catalytic applications of noble metal nanomaterials with controlled structures. Current projects include: 1) developing Pt-based alloy nanocrystals as catalysts for polymer membrane electrolyte fuel cells; 2) noble metal nanocrystals for gas sensing in ionic liquids; 3) studying electrocatalysis on a nanoparticle level; 4) developing high performance catalysts for the conversion of CO₂ to organic fuels.</p> <p>Research Project Name: Developing electrocatalysts for various energy and chemical applications</p> <p>Research Project Description: In this project, we develop catalysts for fuel cells and for converting organic compounds to value added compounds. Green and sustainable processes are being developed for preparing these catalysts.</p>
CAS	Chemistry	Monika Konaklieva	Synthesis of novel potentially bioactive compounds.	Developing methods for preparation of novel compounds by using as much as possible green chemistry approaches.
CAS	Chemistry	Douglas Fox	Green Chemistry & Polymer Chemistry	Focus: Measurement of the physical, chemical and thermal properties of green solutions and polymer nanocomposites. Current projects include: 1) developing flame-retardant coatings using natural materials; 2) polymer-cellulose nanocrystal composites; and 3) thermodynamics and kinetics of ion exchange resins.
CAS	Chemistry	Stefano Costanzi	Biochemistry	Focus: The analysis of gaps in current policies and practices that allow the proliferation of chemical weapons and the conceptualization of solutions and tools to narrow them.
CAS	Chemistry	Matt Hartings	Inorganic Chemistry	Focus: Explore polymer-inorganic composite systems and the interesting chemistry that these materials facilitate. Current projects include: 1) Development of new materials for 3D printing; 2) Fiber optic-based sensors for biological systems; and 3) Studying biomineralization.
CAS	Chemistry	Santiago Toledo	Bioinorganic Chemistry	Focus: We are also interested in the design of bioinspired catalysts for chemical bond activation, including Development of new high-valent first row transition metal-based catalysts for bond functionalization.
CAS	Critical RGC Studies	David Vazquez	Latinx Environmentalisms: Place, Justice, and the Decolonial	The first book dedicated to literary and cultural representations of environmentalism within and between Latinx cultures.
CAS	Economics	Alan Isaac	Determinants of Wealth Inequality	Agent-based models of the evolution of wealth inequality and possible policy responses.
CAS	Economics	Bernhard Gunter	Income Inequality after Episodes of Globalization and Marginalization: Global Evidence from 1980 to 2018	Research on inequality related to globalization and marginalization at the global level
CAS	Economics	Claire Brunel	Green technologies / Climate migration / Global supply chains and pollution	Many projects about the different drivers of climate-related technologies to either mitigate or adapt to climate change / projects on how households may use migration as a way to adapt to the changing climate / impact of global supply chains on the distribution of production and pollution across the globe.
CAS	Economics	Mahmud Yesuf	Climate change perceptions, adaptations and impacts on food security	These are micro level studies focusing on Sub-Saharan Africa
CAS	Economics	Robert Koopman	Environmental goods trade and developing countries SDG and Paris goals - case studies on Kenya and Nigeria.	We examine trade and tariffs on selected environmental goods that could help these countries meet their SDG and Paris commitments.

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CAS	Economics	Walter Park	Plant Variety Protection	How IPRs affect food security
CAS	Environmental Science	Valentina Aquila	Pollution	Focus: 1. Air pollution: measurements of particulate matter in urban communities in DC 2. Aerosol and climate: impacts of particulate matter on the climate using climate models and satellite observations
CAS	Environmental Science	Barbara Balestra	1) Microplastics and 2) Paleoclimate studies	1) Microplastic research in the Anacostia and Potomac watershed --> the goal is to assess the quantity of microplastic in different environments in the DC area --> microplastic assessment --> to suggest how regulations should be focused to promote innovation of sustainable materials and promote environmental health and safety. 2) Paleoclimate studies --> how we can learn from the past about climate-human-environment interactions at the present time, and in the future --> understanding the earth system changes through the past geological periods can come only through the most rigorous reconstructions of climate, human activities, and earth processes, and their interactions, in every environment and at different scales.
CAS	Environmental Science	Karen Knee	Research on global methane cycle, water quality, extractive industries	Virtually all my research relates to sustainability in some way.
CAS	Environmental Science	Kristine Beran	RECIPIES Grant	https://www.american.edu/news/au-nsf-grant-food-waste-sustainable.cfm
CAS	Environmental Science	Stephen MacAvoy	Siloxanes+PAHs in the Potomac and Anacostia Rivers. Climate resilience in amphipods and isopods	One project studies how organic contaminants are influenced by land use. The other is how small invertebrates will respond to climate change warming up their habitat.
CAS	History	Anna Kaplan	Black Women's Labors as Roots of Oral History Methods and Practices at US Institutions	This project moves the narrative about the history of oral history in academia and US institutions away from a White and male focus. By centering the work of Black women, which has frequently been unrecognized in the field, this project highlights individuals who have shaped the field in crucial ways and contributed methods, practices, and frameworks from which stem current discourses about sustainability and inclusivity in oral history.
CAS	Literature	Melissa Scholes Young	The Hive, Flood	I am a climate fiction novelist.
CAS	Mathematics & Statistics	Alexandra Kapatou	Cost effective experiments	Performing experiments with the least cost and expense on human effort and environmental destruction.
CAS	Neuroscience	Anthony Riley	EcoHIV and drug use	Assesing the effects of HIV on the escalation of drug use and abuse
CAS	Performing Arts	Nancy Snider	Music work in informal settlements of Kibera and Korogocho in Nairobi, Kenya	Music work in informal settlements in Nairobi, Kenya.
CAS	Philosophy & Religion	Joseph Harroff	Greening Philosophy &/of Religion	Thinking of ways to make philosophy &/of religion more green in theory and practice.
CAS	Physics	Babak Salehi Kasmaei	lithium-ion batteries	Estimating the useful lifetime of rechargeable batteries.
CAS	Psychology	Gregory Neimeyer	Dr. Greg Neimeyer has over 200 peer review articles that qualify with new ones in the works.	I have a 30 plus year history of doing research in multi-culturalism.
CAS	Psychology	Meghan Flannery	Psychology	Research interests include obsessive-compulsive and related disorders, body-focused repetitive disorders, pediatric psychology, and self-identification with mental health disorders.
CAS	snafe	David Pike	Slum Lore: A Cultural History of Modern Urban Poverty	Slum Lore: A Cultural History of Modern Urban Poverty
CAS	Sociology	Chenyang Xiao	public cocnern for the environment in China	This research uses survey data to monitor public support for environmetnalism and environmental protection.
CAS	Sociology	Jerri Husch	Edible Campus; access to healthy food, land use	Assessment of local land use and options for food security and community engagement.
CAS	University Honors	Kara Kokernak	Decarbonization	Decarbonization

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CAS	University Honors	Mark Laubach	The OpenBehavior Project	OpenBehavior is an NSF funded project that supports a repository of cutting edge, open source tools for advancing behavioral neuroscience research. We are dedicated to accelerating research through the promotion of collaboration and open source projects. We aim to foster a community of sharing by providing a resource for researchers around the globe.
CAS	University Honors	Michael Alonzo	Urban tree response to heat	How does the urban forest cool cities? Which trees planted in which sites are most sensitive to urban heat and related conditions of the urban environment (e.g., lots of impervious cover)?
CAS	World Languages and Cultures	Gorky Cruz	Value of metacognition in interactions between L2 learners and native speakers	We are looking into issues of equity and accessibility in the acquisition of World Languages at AU.
Center for Latin Studies	University Honors	Robert Albro	Climate change, climate equity, indigenous and minority communities	Research focused on the unequal impacts of climate change upon vulnerable indigenous and minority communities, the nature of loss and damage, and ways to approach equity as part of climate resilience.
Kogod	Kogod: Accounting & Taxation	Ajay Adhikari	Determinants of Integrated Reporting	The value reporting paradigm has emerged formalized now as "Integrated Reporting" (IR), a framework that integrates financial and non-financial information within a unique corporate report. This study explores firm and industry level determinants of IR quality in a mandatory setting (South Africa) for the period 2013-2019.
Kogod	Kogod: Accounting & Taxation	James Potepa	Are hurricanes extraordinary or convenient for politicians? Reporting nonrecurring items in the government setting	We examine how governments treat unusual events, including natural disasters and issues related to climate change, are reported in local government's financial reports.
Kogod	Kogod: Accounting & Taxation	Tharindra Ranasinghe	Firm-level economic consequences of Carbon emissions	2 working papers examining how firm-level carbon emissions impact earnings management and executive compensation.
Kogod	Kogod: Finance & Real Estate	Ericka Simmons	Green Valuation	These are in my private practice, not related to AU. Two examples from the past 18 months: feasibility of micro apartments and conversion of low-occupancy offices to residential with a minimum affordable component.
Kogod	Kogod: Finance & Real Estate	H Baker	Sustainable Investing: What Everyone Needs to Know	Oxford University Press published this book in 2022. It focuses on various issues involving investing in sustainable companies and funds.
Kogod	Kogod: Finance & Real Estate	Ioannis Spyridopoulos	The effect of bank mergers on consumer financing	We show that the acquisition of small regional banks is associated with a reduction in mortgagors' cost of lending, especially minorities. Our results suggest that standardized practices of large lenders that reduce personal interactions and biases lead to improved lending outcomes and improve access to minorities.
Kogod	Kogod: Finance & Real Estate	Kimberly Luchtenberg	Equity in housing and finance	We investigate the impact of home ownership in low income household and investigate its ability to reduce racial disparities. We also investigate equity in municipal borrowing costs for.
Kogod	Kogod: Finance & Real Estate	Randolph Nordby	ESG Materiality and Firm Performance	Do firms with high ESG scores outperform firms that have low ESG scores.
Kogod	Kogod: Finance & Real Estate	Valentina Bruno	Financial globalization	My work identifies macroprudential policies aimed at dampening the volatility of capital flows, reducing agents, risk-taking, and elevating the socio-economic welfare both inside the US and in emerging economies. Focus is on the social good that today's economists and financial leaders must consider when crafting policy.
Kogod	Kogod: Info Tech & Analytics	Gwanhoo Lee	Government use of AI for improving social welfare	This research investigates how governments may use AI/ML to identify people who are eligible for receiving social welfare benefits but not current recipients.

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Kogod	Kogod: Info Tech & Analytics	Jay Simon	Self-Sustaining Supply Chains	This stream of work models and analyzes supply in situations where one or more resources needed for logistics are not locally available and must be transported via the supply chain itself. Such situations includes humanitarian aid and disaster relief, remote oil and gas exploration, and expeditionary military operations. Cost and resource consumption behave very differently in these settings as compared to traditional supply chains.
Kogod	Kogod: International Business	Ayman Omar	A Behavioral Theory of Sustainable Supply Chain Management Decision Making in Non-exemplar Firms	Examining challenges faced by supply chain managers to implement sustainability initiatives throughout their global operations.
Kogod	Kogod: International Business	David Bartlett	Electric Vehicles and Sustainability	Examination of sustainable sourcing in global EV value chain
Kogod	Kogod: International Business	Fabian Koss	Sustainability Metrics	Students selected an industry and provided an analysis of what the most important sustainability metrics are in that industry and why (backed up with solid research)
Kogod	Kogod: International Business	Jennifer Oetzel	Business Adaptation to Climate Change	Social sustainability
Kogod	Kogod: Management	Anna Fung	Chief sustainability officers	Antecedents and effects of having CSOs on firm strategy
Kogod	Kogod: Management	David Jacobs	A Differentiated Model of Workplace Governance	I explore the profound differences in labor standards across the United States, focusing on pockets of exploitation.
Kogod	Kogod: Management	Hayley Blunden	Inconspicuous Incentives	A paper I published investigates how we may be able to improve wellbeing by making available incentives (e.g., policies intended to promote wellbeing through incentives) more conspicuous.
Kogod	Kogod: Marketing	Ronald Hill	Various papers and presentations	How sustainability impacts diversity, equity, and inclusion.
Kogod	Kogod: Marketing	Wendy Boland	-	-
Off Global Studies	Off Global & Immersive Studies	Rosa Castillo-Krewson	Pursuing Justice Online to Demand Social Accountability Using #BlackLivesMatter on Twitter	The use of the hashtag #BlackLivesMatter exploded on Twitter after a grand jury failed to indict Officer Darren Wilson for the murder of Michael Brown in 2014. This paper follows Twitter activity of six high profile cases and examines the correlation between the use of #BlackLivesMatter and the judicial process involving the officers in each case: Michael Brown; Sandra Bland; Philando Castile; Atatiana Jefferson; Breonna Taylor; and George Floyd. These cases provide insight as to why the increased online pursuit of justice rarely materializes in real life. In many situations the police act as surrogates for all forms of government which are then reinterpreted and projected to other government actions. Therefore, understanding the relationship between the public and police as agents of the state is salient to how people from highly policed communities construct their political and social identities and respond according to their understanding of their relationship with the state. When the state fails to hold police accountable for their misconduct, the Black Lives Matter movement has found a forum on Twitter to mobilize support for justice and accountability.
SIS	AU Core	Jeffrey Sosland	Israeli water politics	focus on Israeli water politics as relates to sustainable development
SIS	AU Core	Scott Freeman	Land grabs, land use change, and climate change in Northern Haiti	Examines the issues with land grabs and demands of climate change that affect agriculturalists in northern haiti.
SIS	School of International Service	Alexandria Wilson-McDonald	My research focuses on social equity, broadly speaking, and gender equality specifically.	Research focuses on the politics of gender in Central Eastern Europe. She examines the gendered elements of de-democratization and social movement activism in the region. Her current project examines the contemporary framing of gender-based violence by gender equality activists in Central Eastern Europe.
SIS	School of International Service	Angela Pashayan	Settling the Informal Settlements	Sustainability for Slums and Slum-dwellers.
SIS	School of International Service	Charles Kelly	environment and disaster management	incorporating environmental issues to improving humanitarian assistance and reducing disaster risk.

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SIS	School of International Service	Daniel Gerstein	Vaccine Research	Looked at how various racial demographics accept medical countermeasures such as vaccines.
SIS	School of International Service	James Goldgeier	The nature of Great Power Competition	The project is looking at how the great powers compete for influence around the world, and environmental issues are a key component of this competition.
SIS	School of International Service	Jesse Ribot	Climate of Anxiety	Looking at how Climate Change Narratives are making African Farmers Anxious -- causing migration.
SIS	School of International Service	Judith Shapiro	China's Environmental Challenges	book on sustainability
SIS	School of International Service	Kenneth Conca	water politics	book project on the politics of flood resilience.
SIS	School of International Service	Louis Goodman	Jeju Korean Cherry Trees and World Peace: International Peace and Understanding through Bio-Diplomacy	Historical Research on Asian Cherry Trees.
SIS	School of International Service	Malini Ranganathan	Climate Justice in Washington, DC	Focuses on communities vulnerable to climate events east of the Anacostia.
SIS	School of International Service	Michael Gibbons	systems thinking for social change and human ecology rebalancing	examples of human ecology education, social change education and processes of systems analysis.
SIS	School of International Service	Patrick Hakizimana	Environmental Displacement and Conflict Resolution	A new course should focus on understanding global displacement due to both civil conflict and climate change. In addition to material on conflict and conflict resolution it should also examine climate change impacts and how those may exacerbate or create conflict. For example, sovereignty concerns created by rising sea levels in Small Islands Developing Nations. How is the existing conflict in Africa's Sahel Region exacerbated by climate change? To what extent is global migration due to increase of global climate change? The new course should focus on how international relations will resolve the compounding impacts of climate change while providing skills for conflict resolution to students.
SIS	School of International Service	Philip Brenner	Contemporary Cuba	Completing edited volume that includes articles about sustainability in Cuba.
SIS	School of International Service	Robin Broad	Water Defenders	How front-line communities build social movements with the power to change government policies to just and sustainable ones.
SIS	School of International Service	Victoria Kiechel	Green building consulting for Arlington County	Developing an adaptation alternative path for Arlington County's Green Building Incentive Policy.
SIS	School of International Service	Ken Konkka	Policy and Environmental Peace Building	<ol style="list-style-type: none"> 1. Charting new pathways to peace. A comparative analysis of peacebuilding conditions, mechanisms, and outcomes in the work of EcoPeace Middle East. Grant funded by the US Institute of peace. 2. Environmental peacebuilding theory and practice. Book project on the origins, growth, diffusion and controversies in the field of environmental peacebuilding.
SOC	School of Communication	Leena Jayaswal	Leena Jayaswal	Did a project on the Spotted Latern Fly and a small documentary about climate justice and black and brown communities.
SOC	School of Communication	Margaret Stogner	Impact Media Research	How environmental, conservation, science communication can engage and influence the public to take sustainable actions.
SOC	School of Communication	Maya Livio	Research on environmental media and networked natures	My research centers questions about multispecies ethics and environmental justice at the overlaps of media and the environment.
SOE	SOE School of Education	Dia Jones	Examining Social and Emotional Supports Black Girls Need to Remain Motivated to Pursue STEM Careers	My dissertation study researched the social and emotional learning needs of Black girls in STEM spaces to help them continue on their STEM paths through college and careers. My research created a curriculum schools can use to focus on increasing the participation of Black girls in STEM.

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SOE	SOE School of Education	Hannah Jardine	Multiscale RECIPES for Sustainable Food Systems - Education Cluster	I am developing and researching the impact of an undergraduate course about wasted food challenges and solutions.
SOE	SOE School of Education	Marla Hunter	Culturally relevant teaching and pedagogy in and out of the urban setting.	CRT in all aspect.
SPA	Public Affairs, School of	Daniel Fiorino	The Future of Environmental Protection	This project considered how to move the US toward a more equitable system of environmental protection in the future.
SPA	SPA Justice, Law & Criminology	Brad Bartholomew	Police Body-Worn Cameras	My research focuses on how certain technologies used in policing affect the quality and substance of the interaction between police and community members across various demographics, including but not limited to race.
SPA	SPA Justice, Law & Criminology	Lallen Johnson-Hart	Policing the Post-Chocolate City: Order Maintenance in Gentrifying Washington, DC	The postindustrial policing thesis suggests that cities undergoing revitalization increasingly rely on order maintenance policing to control behaviors and populations that invoke fear and disorder in the middle-class imagination. This study applies the postindustrial policing thesis to examine how urban renewal shapes social control in one of the most rapidly gentrifying cities in the United States, Washington DC. We test this hypothesis by examining whether order maintenance policing increases as DC neighborhoods gentrify. To answer this question, we analyze three years of arrest and crime incident data from the DC's Metropolitan Police Department and demographic data over a 16-year period from the 2000 decennial census and the American Community Survey. Our results align with the postindustrial policing thesis. We find that gentrification is associated with an increase in order maintenance policing arrests, and this effect remains relevant even when controlling for racial composition and the prevalence of crime.
SPA	SPA Justice, Law & Criminology	Richard Bennett	The Effects of Body-Worn Cameras on Police Operations and Behavior	The effects of body-worn cameras on police proactive responses and their effect upon members within the communities policed.
SPA	SPA: Government	Barbara Soares Lima Dos Santos	Climate lobby	How the lobby of climate focused organizations lead to different policy outcomes.
SPA	SPA: Public Administration	Marquise McGraw	Equity Implications of Lead Service Line Location in NYC	Project to examine lead service line location in NYC and implications for policy.
SPA	SPA: Public Administration	Sonja Walti	Preventing breakdowns in the adaptive governance of fire-retardant chemicals	This research examines the introduction and subsequent attempts at rolling back the ubiquitous use of fire retardant chemicals in everyday materials and furnishings. It does so with an eye toward their (adaptive) governance and our policies' ability to adapt and learn new ways of addressing the problem of flammability and fire hazards.