

## Dalhousie 2013/2014 Faculty members engaged in sustainability research

social wellbeing, economic prosperity, and ecological health. It includes academic research that: explicitly addresses sustainability and/or furthers our understanding of the interconnectedness of social, economic and environmental issues; contributes directly toward solving one or more major sustainability challenge (e.g. contributes toward achieving principles outlined in the Earth Charter); and/or engages community members with the aim of combining knowledge and action to achieve positive social, economic and environmental outcomes (e.g. participatory and community-based research and engaged scholarship). The faculty members listed below are 2013/2014 instructors for courses that are either sustainability course or includes sustainability. The definition of sustainability course and course that includes sustainability was based off the STARS 2.0 manual. The identified faculty members list was sent to faculty and departmental

Faculty	Names of researchers	Departments	Research interests
Agriculture	Asiedu, S.K.	Plant and animal sciences	Abiotic Stress Management in Crops, Biotic and Abiotic Stress Management in Crops, Food Safety and Quality, Biostimulants in Plant Agriculture.
	Beyeler, G.		
	Brewster, G.R.	Environmental sciences	Understanding of natural soil processes and the effect of human impacts on these soil processes.
	Burton, D.	Environmental sciences	agricultural landscapes, sustainable manure management practices, bioremediation of hydrocarbon contaminated soil and the assessment of the quality of the soil biological environment and its influence on overall soil quality.
	Caldwell, C.	Plant and animal sciences	environmental stress effects on crops, Sustainable agriculture, Agroecology.
	Clark, S.	Business and social sciences	Several areas of economics and environmental problems
	Corscadden, K.	Engineering	Environmental management, Energy, Biomass, Biofuels, Energy efficiency, Sustainability
	Cutler, G.	Environmental sciences	hormesis.
	Dukeshire, S.	Business and social sciences	Food choice, Media framing of agriculture, Local and organic food, Rural health
	Dunlop, D.	Business and social sciences	policy, Food trade policy
	Duston, J.	Plant and animal sciences	Finfish aquaculture
	Duynisveld, J.		
	Fergus, F		
	Fernandez, S.		
	France, R.	Environmental sciences	lakes, ponds and wetlands to shoreline development, Implications of coastal marina construction on littoral ecology, Riparian processes and how they influence soil erosion, Instream and submerged lakeshore restoration practices, Aquatic remediation of disturbed sites and design of artificial lakes, and Wetland creation and restoration.
	Fraser, G.		
	Fredeen, A.	Plant and animal sciences	Ecological ruminant production, dairy systems design and analysis, Nutritional impact on milk quality, Pasture-based ruminant production in agriculture to mitigate greenhouse gas emission in agriculture and improve sustainability
	Gatti-Yorke, S.		
	Goodwin, C.D.	Environmental sciences	Cultivation practices that affect tree health and longevity, as well as propagation and production of native plant species
	Goodyear, N.	Plant and animal sciences	Organic horticulture
	Gordon, M.		
	Hammermeister, A.	Plant and animal sciences	
	Havard, P.	Engineering	Drainage, Water management and monitoring, Water quality
	He, Q.	Engineering	Energy, Energy efficiency, Sustainability, Biomass, Biofuels, Catalyst
	Hoyle, J.	Environmental sciences	GC-MS, Organic chemistry, Organosulphur chemistry, Environmental chemistry, River studies, Innovative teaching methods.
	Kernohan, A.		
	Kilfoil, M.		
Lada, R.	Environmental sciences	Plant Science, Plant, Tree, Seed and Ecophysiology, Environmental Stress physiology and Metabolism - Ecochemicals, Plant growth and development, Hormonal physiology and signals, Photosynthesis and water relations	
Landry, I			
MacCallum, D.			
MacKenzie, T.			

Main, M		
Mapplebeck, J.E.		
McLean, C.		
Morrigan, J.		
Murray, G.		
Nams, V.O.	Environmental sciences	Effects of different types of edges on animal dispersal, The spatial scale of habitat selection of animals.
Nicholson, F.		
Niu, H.	Engineering	Irrigation, Drainage, Organic contaminants, Water resources, Hydrology, Wastewater
Olson, A.R.	Environmental sciences	Religious world views and nature, Sexual reproduction of plants.
Papadopoulos, Y.		
Percival, D.	Environmental sciences	dynamics, Impact of environmental stresses on phytochemistry, growth and development, Plant growth regulation and the use of exogenous plant growth regulators, Soil fertility and plant nutrition dynamics and the subsequent impact on symbiotic relationships, plant growth, development, yield and fruit structure and composition.
Price, G.	Engineering	Biomass, Soil organic matter, Conservation, Soil nutrient dynamics, Waste management
Prithviraj, K	Environmental sciences	Marine bio-products in plant and animal health, Plant-microbe interactions, Natural anti-infective compounds.
Rouvinen-Watt, K.	Plant and animal sciences	Lipid and glucose metabolism, animal health and performance.
Sanderson, L.	Business and social sciences	Farm health and safety, Forest values, Farm adoption behavior
Sans, D.		
Semple, T.		
Stewart-Clark, S.	Plant and animal sciences	Stressors, Genetic Brood Stock enhancement in shellfish production, Population studies and phylogenetic analysis of invasive tunicates, Diagnostic assay development of invasive propagules in environmental water samples, Monitoring and screening for invasive propagules via high throughput molecular assays, Developing new molecular diagnostic tools for shellfish health
Tenessen, T.	Plant and animal sciences	Care farming, environmental education
Wang-Pruski, G.	Plant and animal sciences	control of potato tuber qualities, Genes involved in late blight resistance, Vitamin C and antioxidants in potatoes, Potatoes as healthy food alternatives
White, S.		
Yildiz, I	Engineering	Bioreactors, Bioinstrumentation, Biofuels, Controlled environments
Yiridoe, E.	Business and social sciences	of renewable energy systems
Zaman, Q.	Engineering	automation, Precision agriculture, GPS-GIS-VRT
<b>Architecture and Planning</b>		
Cavanagh, T.	Architecture	Interdisciplinary architectural research, community design, integrated resource management and spatial planning
Grant, J.	Planning	planning, neighbourhood planning, industrial park planning
Habib, M	Planning	behaviour and demand, travel surveys, GIS applications, and econometric modeling.
Hudson, R.	Architecture	
Kroeker, R.	Architecture	Ecological sustainability and usability of architectural designs
Lilley, B.	Architecture	
Macy, C.	Architecture	Architectural and natural systems, cultural communities, festival architecture and lightweight structures
Manuel, P.	Planning	community health.
Mannell, S.	Architecture	
Parsons, A.	Architecture	
Rapaport, E.	Planning	from traffic, and environmental policy
Savage, N.	Architecture	
Terashima, M.	Planning	Systems (GIS).
Thompson, K.	Planning	
Venart, C.	Architecture	

	Zuck, J.	Planning	landscape conservation.
<b>Arts and Social Sciences</b>	Bingham, J.	History	Modern German and European history, Urban, local government, Crime, Cultural exhibitions
	Black, D	Political science	Canada's role in Sub-Saharan Africa, Development assistance, Global governance, Human security, Politics of sport
	Boos, S.		
	Boutet, A.	International development studies	Environmental education and local environmental governance
	Cameron, J.	International development studies	Indigenous and peasant social movements, NGO aid agencies, Rural development policies
	Campbell, C.	Canadian studies	History and the environment
	Dieleman, S.	Philosophy	Feminist Philosophy, Philosophy of Public Policy, Pragmatism
	Fitting, E.	Sociology and social anthropology	Transnationalism, Development, Latin America
	Gazit, T.	Sociology and social anthropology	
	Hayden, A.	Political science	of climate change
	Levit, G.		
	McAllister, R.	Economics	
	Morris, K.		
	Oakley, R.	Sociology and social anthropology	expertise, Medical anthropology and CMA, Oral history and narrative, Social policy, India
	Schnurr, M.	International development studies	Environment and development, Political ecology, Agricultural biotechnology, Environmental justice
Whelan, E.	Sociology and social anthropology	Pain and chronic illness, Social theory	
<b>Engineering</b>	Ali, N.	Civil and resource engineering	and quality assurance.
	Allen, P.	Mechanical engineering	solar thermal energy utilization
	Amyotte, P.	science	Process safety, Risk management, Dust explosions, Inherent safety
	Brooks, S.	science	Bioprocess engineering, Fermentations, Encapsulation, Value-added products, Waste utilization and treatment
	Dominic, G.	Mechanical engineering	Phase change and multi-phase processes
	Fenton, G.	Engineering mathematics and internetworking	behaviour of shallow and deep foundations, earth retaining structures, and slopes, Effects of climate change on climatic loads, Risks associated with carbon capture and storage.
	Gagnon, G	Civil and resource engineering	environmental systems analysis
	Gentleman, W.	Engineering mathematics and internetworking	Improve understanding of how varying environmental conditions effect the structure and function of marine ecosystems and populations
	Gibson, M.	science	Population exposure assessment, Receptor modelling, Industrial hygiene
	Hansen, D.	Civil and resource engineering	
	Hill, J.	Civil and resource engineering	Geology, environmental impact, pit wall and crown pillar stability.
	Hughes, L.	Electrical and computer engineering	Energy systems, computer engineering
	Jamieson, R.	science	Hydrology, Ecological engineering, Contaminant transport, Watershed modeling, Alternative wastewater treatment
	Kermanshahipour, A.	science	contaminants, Bioremediation of contaminants
	Lea, K.	science	
	Molloy, S.	Mechanical engineering	Marine renewable energy, tidal power, ship propulsion, eco ship and electric ship
	Satish, M.	Civil and resource engineering	boundary element techniques for studying pollutant movement in the Halifax Harbour, and applications of Geographical Information Systems
	Swan, L.	Mechanical engineering	Renewable energy, energy storage and electric vechicles
	Truelstrup-Hansen, L.	science	Listeria monocytogenes, Food safety, Biofilms, Environmental microbiology, Water and wastewater
	Ugursal, V.	Mechanical engineering	Energy conservation, Advanced power generation cycles, Heat Pump Systems, Design and analysis of building thermal systems
Vanberkel, P.	Industrial engineering	Operations Research, Management Science, Operations Management, Industrial Engineering, Health care	
Walsh, M.	Civil and resource engineering	Drinking water treatment, water treatment plant residuals and waste water treatment	
<b>Health</b>	Chircop, A	School of nursing	Health equity, Public policy, Qualitative research methods, Sociocultural determinants of health, Environmental health

<b>Professions</b>	Martin, D.	Health and human performance	Aboriginal health, social determinants of health, food justice, oral health promotion, community based participatory research groups and new immigrants, people living in poverty, and people with disabilities and exploring social justice issues related to environmental sustainability.
	Tirone, S.	Health and human performance	
<b>Management</b>	Adams, M.	Resource and environmental studies	Sustainable development
	Barker, J.	School of business	The role of strategic behaviour in the development of ethical and sustainable knowledge, innovation and change initiatives – and the consequences of these initiatives on organizational governance systems, markets, and practices
	Baechler, J.	School of business	
	Beazley, K.	Resource and environmental studies	ecology, Environmental ethics, Biodiversity conservation
	Castleden, H.	Resource and environmental studies	Indigenous perspectives, Human health, Ecosystems , Community-based participatory research, Pathways to social, environmental, and health equity, Indigenous-settler relations, Arts-based methodologies, Ethics
	Cunningham, P.	School of business	ethics, corporate social responsibility and partnerships within the field of marketing.
	Dawkins, C.	School of business	Human resource management (HRM), Business and society, Business and the environment, Non-governmental organizations (NGOs), Transparency within and among MNEs and national states, Corporate social responsibility, Social issues
	Duinker, P.	Resource and environmental studies	Forest, Biodiversity, Public engagement, Environmental assessment, Resource management, Climate change, Urban forests
	Ng, E.	School of business	management (HRM), Cross-cultural management
	Sherren, K.	Resource and environmental studies	methods
	Sheehan, L.	School of business	Corporate governance, Corporate social responsibility, Travel and tourism, Socioeconomic studies, Sustainable development
	Sundararajan, B.	School of business	Organizational learning, Networking technologies
	Sur, S.	School of business	
	Tyedmers, P.	Resource and environmental studies	Ecosystem services
<b>Office of Sustainability-</b> not a faculty	Owen, R.		Sustainability in higher education, Management planning - waste, energy, climate change, natural resources
<b>Science</b>	Akbulut-Yuksel, M.	Economics	labour economics, development economics, health economics
	Andreas, H.	Chemistry	Biosensors
	Aporta, C.	Marine affairs	Northwest Passage history
	Apostle, R.	Marine affairs	theory, Atlantic Canada, Europe
	Bentzen, P.	Biology	Population genetics, evolutionary genetics, molecular ecology, conservation biology, fisheries, fish
	Boulatoff, C.	Economics	Applied microeconomics; environmental economics
	Burton, P.	Economics	Applied microeconomic theory, natural resource and environmental economics, economics of the family
	Cross, M.	Economics	Environmental and natural resource economics, history of economic thought
	Cyrus, T.	Economics	International trade, international finance, macroeconomics
	Dahn, J	Chemistry	Electrochemistry, Energy storage
	Dowd, M.	Mathematics and statistics	Marine Environmental Observations.
	Dunlap, R.	Physics and atmospheric science	Materials
	Fanning, L.	Marine affairs	Piracy, Ocean governance, Marine management, Ocean law and policy
	Field, C.	Mathematics and statistics	Saddlepoint approximations
	Forsdyke, R	Economics	economic methodology
	Frail-Gauthier, J.	Biology	
	Freedman, B.	Biology	environmental education.
	Gass, S.	Environmental sciences	Biology, ecology and conservation of cold-water corals, Biodiversity conservation
	Gibling, M.	Earth science	Earth surface processes
	Gosse, J.	Earth science	Tectonic processes, Earth surface processes, Geochronology
	Herbinger, C.	Biology	aquaculture genetics, QTL mapping, Marker Assisted Selection

Hill, I.	Physics and atmospheric science	Applied physics and materials
Hutchings, J.	Biology	Evolutionary ecology, behaviour and conservation biology of fishes
Joanna, M.F.	Mathematics and statistics	particular interest in the development and application of statistical methodology to the ecological, environmental and health sciences
Katja, F.	Oceanography	Chemical oceanography, Biological oceanography, Physical oceanography
Kienast, M.	Oceanography	Marine geology, Chemical oceanography, Geochemistry and geochronology
Leoanard, M.	Biology	Behavioural ecology - parent-offspring communication, sibling competition, passerine birds, signal design, communication errors, seabirds, and Avian Conservation - seabirds, passerines, environmental noise and communication, habitat protection.
Lane, P.A.	Biology	human impacts on ecosystems, and Sustainability design, assessment and management in the developing world, particularly Latin America using Cuba as a major case study.
Lesins, G.	Physics and atmospheric science	Atmospheric science and climate change
Lotze, H.K.	Biology	ecology, ecosystem structure and functioning, management and conservation
Martin, R.	Chemistry	cycling
Metaxas, A.	Oceanography	Oceanography, Biological oceanography, Evolution and ecology
Mushkat, P.	Environmental sciences	Environmental law.
Nedimovic, M.	Earth science	Marine seismology
Obrovac, M.	Chemistry	Sodium ion batteries, Electrochemistry, Energy storage
O'Dor, R.	Biology	Telemetric bioenergetics of cephalopods
Plug, L.	Earth science	Earth surface processes
Rainham, D.	Earth science	sensors and wearable sensors.
Rajaselvam, R.	Biology	
Rod, J.		
Romanuk, T.	Biology	Biodiversity loss, species invasions, food web structure and dynamics, ecosystem functioning
Ronald, P.	Marine affairs	physical fitness standards
Ross, T.	Oceanography	Oceanography, Physical oceanography, Biological oceanography
Rotermund, H.	Physics and atmospheric science	Surface science and materials
Ruzzante, D.	Biology	adaptation, fish, fisheries
Ryan, A.M.	Earth science	Earth surface processes, Petrology
Salah, M.		
Scheibling, B.	Biology	Benthic marine ecology, marine biology, invertebrate fisheries, aquaculture, subtidal ecosystems
Schmidt, A.	Biology	Introductory ecology
Smith, B.	Mathematics and statistics	Environmental statistics, Statistical genetics and bioinformatics
Staicer, C.	Biology	species conservation, vocal behaviour, wood-warblers
Sterling, S.	Earth science	Earth surface processes
Tae, K.		
Taggart, C.T.	Marine affairs	Fisheries oceanography
Thomas, H.	Oceanography	Chemical oceanography
Thompson, K.	Mathematics and statistics	assimilation with application to forecasting the coastal and deep ocean; Ocean downscaling.
Walde, S.	Biology	Population dynamics, arthropods, dispersal, species interactions
Wallace, D.	Oceanography	Oceanography, Chemical oceanography, Atmospheric science
Walls, C.	Earth science	Earth surface processes
Ward-Paige, C.	Economics	
Wells, P.	Marine affairs	marine environmental protection; intertidal ecology; marine ecosystem health/marine environmental quality; marine environmental protection; offshore oil and gas; produced water; role of science in environmental (coastal) management;

	Welsh, G.	Chemistry	molecules, Organic electronics, Solar cells
	White, M.	Chemistry	Physical chemistry, Materials, Energy, Thermal properties of materials, Materials science, Energy storage
	Whitehead, H.	Biology	Behaviour, ecology and conservation of whales
	Wimmer, T.	Biology	
	Worm, B.	Biology	Marine conservation biology, biodiversity science, community ecology, macroecology
	Wright, T.	Environmental sciences	
	Zwanziger, J.	Chemistry	magnetic resonance, Density functional theo
<b>Law</b>	Chircop, A.		Coastal zone management, Marine law, Ocean governance, Ocean law and policy, Seafarers' rights
	Doelle, M.		Climate change, Environmental law, International environmental law, Marine law, Energy law, Ocean governance
	Dunning, M.		
	Gibson, E.		Health care policy, Health law and policy, Medical malpractice, Negligence, Public health law
	Henley, D.		Fisheries law
	James, M.		Energy law
	Jessie, I.		Energy law
	Lahey, W.		Environmental regulation, Environmental law, Energy law
	MacIntosh, C.		Health law and policy, Aboriginal law, Immigration and refugee law
	McConnell, M.		law, Labour and employment law, Public law
	Miedema, R.		Business associations
	Rusell, D.		International and comparative law, Ocean law and policy, Corporate law, Business law, Securities law
	Saunders, P.		Oil and gas law
	Sean, F.		Business law, environmental law
	Simms, M.		Oil and gas law
	VanderZwaag, D.		Environmental law, International environmental law, Marine law, Public law, Boundary resource management, Law of the sea
	Wingam, G.		