

SUMMARY
Faculty Research Leaves (71)
2016-2017

Study Research Leave (15) (one-half salary for up to one year)

College of Agriculture and Life Sciences (0)

College of Architecture and Urban Studies (2)

College of Liberal Arts and Human Sciences (3)

College of Natural Resources and Environment (2)

College of Engineering (3)

College of Science (3)

Pamplin College of Business (2)

University Libraries (0)

Virginia-Maryland Regional College of Veterinary Medicine (0)

Research Assignment (56) (full salary for one semester)

College of Agriculture and Life Sciences (9)

College of Architecture and Urban Studies (2)

College of Liberal Arts and Human Sciences (14)

College of Natural Resources and Environment (3)

College of Engineering (16)

College of Science (9)

Pamplin College of Business (3)

Virginia-Maryland Regional College of Veterinary Medicine (0)

University Libraries (0)

FACULTY RESEARCH LEAVES 2016-17

Virginia Tech provides tenured faculty, and faculty on continued appointment, with opportunities that include paid leave for intensive study or research that advances the individual's profession and contributions to the university.

The following faculty members are requesting study-research leave (one-half salary for up to one year) for the purpose and period of time specified:

College of Agriculture & Life Sciences (0)

College of Architecture and Urban Studies (2)

Rothschild, Joyce, professor, Department of Government and International Affairs, School of Public and International Affairs, academic year 2016-17; to conduct a qualitative meta-analysis of manuscripts on selected workers co-operatives in an effort to identify the conditions that sustain (or defeat) these co-operatives. (Richmond, VA)

Wernstedt, Kris, associate professor, Department of Urban Affairs and Planning, School of Public and International Affairs, academic year 2016-17; to examine the social construction of risk preferences in the African context, and investigate risk and economic tradeoffs in household solid waste management in Africa's informal settlements. (Dar es Salaam, Tanzania)

College of Liberal Arts & Human Sciences (3)

Cennamo, Katherine, professor, School of Education, academic year 2016-17; to study ways to facilitate creative and critical thinking in classroom environments at the University and P-12 levels, including revising a textbook, outlining an extensive agenda for further research, and disseminating unpublished results from prior research. (Blacksburg, VA)

Johnson, David, associate professor, School of Performing Arts, academic year 2016-17; to develop a script and translation of *The Decameron* for production at Virginia Tech, continued study of classical guitar and exploration of opportunities to enhance acting classes taught at Virginia Tech. (Blacksburg, VA; Tuscany, Italy)

Schmid, Sonja, associate professor, Department of Science and Technology in Society, academic year 2016-17; to conduct research and craft a detailed writing plan for current NSF-funded project, "Globalizing Nuclear Emergency Response: Challenges for Interdisciplinary Engagement and International Expertise" (2014-2020). (Blacksburg, VA; National Capital Region, VA)

College of Natural Resources & Environment (2)

Stern, Marc, associate professor, Department of Forest Resources and Environmental Conservation, spring 2017; to complete a book (tentatively titled: *"Applying social science*

theory to environmental problems: a field guide for practitioners"), and to continue the development of a second book project. (Blacksburg, VA)

Strahm, Brian, associate professor, Department of Forest Resources and Environmental Conservation, spring 2017; to study patterns in land use change and associated changes in environmental quality and forest productivity using New Zealand forests as a model system with direct analogs to the US Pacific Northwest and southeast. (New Zealand)

College of Engineering (3)

Mueller, Rolf, associate professor, Department of Mechanical Engineering, academic year 2016-17; to integrate established research on the dynamics of bat biosonar with newly established research directions on bat flight and the neuroscience of bat biosonar. (Shandong, China)

North, Christopher, professor, Department of Computer Science, spring 2017; to serve as visiting professor at Monash University, establishing a long-term international research collaboration in the area of immersive big-data analytics, and to develop scholarship on data science. (Melbourne, Australia)

Vikesland, Peter, professor, Department of Civil and Environmental Engineering, academic year 2016-17; to serve as President of the Association of Environmental Engineering and Science Professors (AEESP), and to collaborate on research related to impacts of sunlight on environmental contaminants at ETH Zurich. (Zurich, Switzerland)

College of Science (3)

Arav, Nahum, associate professor, Department of Physics, academic year 2016-17; to serve as co-investigator on a large Hubble Space Telescope Research project at the Technion-Israel Institute of Technology. (Haifa, Israel)

Salehi-Isfahani, Djavad, professor, Department of Economics, academic year 2016-17; to complete a book project on the microeconomics of growth in the Islamic Republic of Iran. (Cambridge, Massachusetts)

Woodall, William, professor, Department of Statistics, fall 2016; to collaborate with several universities on risk-adjusted monitoring of medical outcomes, the monitoring of social networks, and other related topics. (California; Canada; Hong Kong; Netherlands)

Pamplin College of Business (2)

Gnyawali, Devi, professor, Department of Management, academic year 2016-17; to conduct research on senior manager knowledge management to enhance firm innovation and competitive advantage. (Michigan; Virginia; Finland; Sweden)

Singal, Ivlanisha, associate professor, Department of Hospitality and Tourism Management, academic year 2016-17; to research corporate social responsibility activities and firm performance and the effects of family control of firms on firms' strategic activities. (Virginia; Columbia; India; Italy).

The following faculty members are requesting research assignments (full salary for one semester) for the purpose and period of time specified:

College of Agriculture and Life Sciences (9)

Alwang, Jeffrey, professor, Department of Agricultural and Applied Economics, fall 2016; to conduct research on the impact of International Center for Dryland Agricultural Research (ICARDA) projects on poor and disadvantaged farmers in the Middle East and North Africa, and assist ICARDA in establishing a mechanism for conducting regular assessments of the impact of its research and development projects (Italy; Jordan; Kuwait; North Africa).

Barone, Justin, associate professor, Department of Biological Systems Engineering, fall 2016; to explore the emerging discipline of biomanufacturing and write a review paper. This will serve as the basis for a new research direction and as the initiation point for new scholarship at Virginia Tech. (Roanoke, VA).

Colla'kova', Eva, associate professor, Department of Plant Pathology, Physiology, and Weed Science, fall 2016; to initiate new collaborations and gain new skills in computational biology, metabolite imaging, and dynamic flux analysis to study regulation of metabolism in seeds and leaves and selected Arabidopsis thaliana mutants. (Iowa; Missouri; Germany; Slovak Republic).

Fike, John, associate professor, Department of Crop & Soil Environmental Sciences, spring 2017; to study the various measurements and the modeling techniques used in developing and testing temperate agroforestry systems; for learning European policies and how they drive agroforestry adoption; and to study the methods of technology transfer used to deliver this information to European producers and landowners. (Montpellier, France)

Li, Jiayong, professor, Department of Biochemistry, fall 2016; to facilitate collaborative efforts in vector biology research with a vector biology and control group at the Chinese Center for Disease Control and Prevention. (Beijing, China)

Ogejo, Jactone, associate professor and extension specialist, Department of Biological Systems Engineering, fall 2016; to study the traditional methods of nutrient management and implement systematic methods for improving quality, efficiency, and effectiveness of technologies for animal feeding operations. (Blacksburg, VA)

Petersson-Wolfe, Christina, associate professor, Department of Dairy Science, spring 2017; to collaborate on the management of a large multi-state USDA-funded grant, including authoring multiple peer-reviewed publications. (Blacksburg, VA)

Sharakhov, Igor, associate professor, Department of Entomology, fall 2016; to conduct collaborative research on phylogenetics of malaria mosquitoes at Tomsk State University, the leading institution in research on this area. (Tomsk, Russia)

Zhao, Bingyu, associate professor, Department of Horticulture, fall 2016; to research protein labeling techniques related to plant immunity research in collaboration with researchers at

the Max Planck institute for Plat Breeding Research and at the University of North Carolina, Chapel Hill. (Chapel Hill, North Carolina; Cologne, Germany)

College of Architecture and Urban Studies (2)

Breitschmid, Markus, professor, School of Architecture + Design, fall 2016; to write a manuscript for a new book on architecture which explores the question of how we can create buildings that still own a general validity in an extremely heterogeneous and multicultural world. (Massachusetts; Switzerland; Portugal)

Grant, Elizabeth, associate professor, School of Architecture + Design, fall 2016; to complete a manuscript about integrating design with building performance, and will investigate examples of integration in built work. (Blacksburg, VA)

College of Liberal Arts and Human Sciences (14)

Gudmestad, Aarnes, associate professor, Department of Foreign Languages and Literatures, spring 2017; to analyze the data for and write two journal articles that examine linguistic development that takes place with the gender agreement of nouns and modifiers with second-language learners of Spanish and French. (Blacksburg, VA)

Nelson, Amy, associate professor, Department of History, fall 2016; to complete a book the Soviet manned spaceflight program, examining space dogs' multiple roles as experimental organisms, human surrogates, and ultimately collaborators in the challenging effort to make manned space flight a reality at the height of the Cold War. (Blacksburg, VA)

Few-Demo, April, associate professor, Department of Human Development, spring 2017; to analyze a qualitative dataset of over 2000 student responses to open-ended questions concerning attitudes toward gender and sexuality with intent to submit for publication manuscripts and conference. (Blacksburg, VA)

Chandler-Smith, Gena, associate professor, Department of English, spring 2016; to develop a book proposal and journal articles on the work of poet Lucille Clifton. (Blacksburg, VA)

Tilley-Lubbs, Gresilda, associate professor, School of Education, spring 2017; to conduct research and to write a book that examines the conceptualization and implementation of critical pedagogy in Mexico, Spain, and the United States. (Mexico; Spain)

Klagge, James, professor, Department of Philosophy, academic year 2016-17; to write a book, "Wittgenstein's Artillery," that will use events in Wittgenstein's life to illuminate his philosophical methods. (Blacksburg, VA)

Eska, Joseph, professor, Department of English, fall 2016; to complete a book on the syntax of the Continental Celtic languages, which were spoken across much of Europe and Asia Minor from the early first millennium BCE to roughly the middle of the first millennium CE. (Blacksburg, VA)

Allen, Katherine, professor, Department of Human Development, spring 2017; to engage in project entitled, "Enduring Coupledness: A Cross-National Study of Relationship Quality in Long-Term Relationships". (Tokyo, Japan)

Barksdale, Mary Alice, associate professor, School of Education, fall 2016; to complete and submit the text of a book on primary education in the townships of South Africa and to complete and submit for publication papers. (Blacksburg, VA; Gothenburg, Sweden)

Gueye, Medoune, associate professor, Department of Foreign Languages and Literatures, spring 2017; to study the emergence of female novelists and the literary field in Senegal, and write chapters analyzing Nafissatou Niang Diallo's storytelling of the past as a legitimization of female cultural discourse. (Senegal)

Coburn, Melissa, associate professor, Department of Foreign Languages and Literatures, fall 2016; to begin writing a book examining the specific tropes, especially metaphors, used in both pro and anti-colonial rhetoric in Italian literature of the late 1800s. (Roanoke, VA)

Fisher, Patricia, associate professor, Department of Apparel, Housing, and Resource Management, spring 2017; to research gender differences in financial behaviors and to write a personal finance book. (Blacksburg, VA)

Raun, Patricia, professor, School of Performing Arts, spring 2017; to explore requirements and opportunities for the creation of additional scholarship at Virginia Tech through engagement with the Alan Alda Center for Communicating Science, the Center for Courage and Renewal, and the Center for Performance and Civic Practice. (Illinois; New York; Washington)

Seniors, Paula, associate professor, Department of Sociology, fall 2016; to write manuscript for book "*For Freedom Now: African American Women Radical Activists (1956-1987)*". (Charlottesville, VA)

College of Natural Resources and Environment (3)

Bolding, Chad, associate professor, Department of Forest Resources and Environmental Conversation, fall 2016; to research forest operations and business, complete manuscripts, prepare proposals, and further develop industrial research support through the Forest Operations and Business Research Cooperative and the Center for Natural Resources Assessment and Decision Support. (Blacksburg, VA)

Bond, Brian, professor, Department of Sustainable Biomaterials, spring 2017; to secure funding, publish, and develop scholarly activity in industrial history and wood processing, and submit a publication based on research conducted on the thermal modification of the yellow poplar. (Blacksburg, VA)

Hopkins, William, professor, Department of Fish and Wildlife Conservation, fall 2016; to conduct research at two biological stations, resulting in a grant proposal and several manuscripts, as well as educational relationships with partners in the Washington D.C. area. (Georgia; Virginia)

College of Engineering (16)

Athanas, Peter, professor, Department of Electrical and Computer Engineering, spring 2017; to participate in an academic/industry team under the auspices of Micron Inc., a global leader in the semiconductor memory industry, under the newly formed Advanced Computing Solutions division, with a goal of positioning Virginia Tech for a longer-term role in an emerging computing technology. (Blacksburg, VA; Seattle, WA)

Baker, Joseph, associate professor, Department of Electrical and Computer Engineering, spring 2017; to generate new lines of research using satellite data in conjunction with Super Dual Auroral Radar Network (SuperDARN) radar measurements. (Blacksburg, VA)

Dymond, Randy, associate professor, Department of Civil and Environmental Engineering, spring 2017; to develop research proposals related to the needs of local municipalities and state/federal governments with regards to stormwater quality. (Virginia)

Edwards, Marc, professor, Department of Civil and Environmental Engineering, spring 2017; to write a book on the Washington, D.C. (2001-2004) and Flint, MI (2015-present) water crises, as well as launch (contingent upon funding) the NSF Science and Technology Center proposal in collaboration with Howard University and North Carolina State University. (Virginia; North Carolina; Washington, D.C.)

Ferris, John, associate professor, Department of Mechanical Engineering, fall 2016; to develop, populate, and implement a database of pavement surfaces to improve the understanding of vehicle-pavement interactions to facilitate the study of autonomous land vehicles. (Blacksburg, VA)

Guido, Louis, associate professor, Department of Electrical and Computer Engineering, fall 2016; to develop and begin to execute, in collaboration with MicroLink Devices, Inc., a strategic plan that will lead to a sustainable research program at Virginia Tech in nitride semiconductor materials and devices for applications in power electronics. (Niles, Illinois)

Kleiner, Brian, professor, Department of Industrial and Systems Engineering, fall 2016; to visit prospective sponsors and collaborators with a goal of completing and publishing one textbook, planning a new edition of another, and developing and submitting at least one large research proposal. (Blacksburg, VA)

Mahajan, Roop, professor, Institute for Critical Technology and Applied Science (ICTAS), fall 2016; to develop new collaborations in areas of strategic interest to ICTAS, and to build a brand name for ICTAS as one of the leading institutes for transformative research for developing communities. (Canada; Germany; South Korea; Taiwan)

Park, Jung-Min (Jerry), professor, Department of Electrical and Computer Engineering, spring 2017; to conduct joint research, generate preliminary results, and coauthor collaborative research proposals in the areas of spectrum sharing, wireless systems, and cyber security. (Blacksburg, VA)

Safaai-Jazi, Ahmad, professor, Department of Electrical and Computer Engineering, spring 2017; to investigate synthesis of two-dimensional antenna arrays with a very large number of

radiating elements, as this synthesis technique has important applications in the next generation of wireless communication systems with very large data handling capacity. (Blacksburg, VA)

Taaffe, Michael, associate professor, Department of Industrial and Systems Engineering, fall 2016; to collaborate on joint, grant-funded research related to Stochastic Network Optimization, Dynamic System Modeling, and Monte Carlo Simulation Variance Reduction Methodology via Queueing Approximations. (Georgia; Indiana; Washington, D.C.)

Tafti, Danesh, professor, Department of Mechanical Engineering, fall 2016; to develop capabilities for existing software used in research collaborations with the National Energy Technology Lab, submit an NSF grant proposal, and to develop a research agenda related to commercial applications of big data and data mining. (Blacksburg, VA)

Tilevich, Eli, associate professor, Department of Computer Science, spring 2017; to explore the relevant literature on the Internet of Things (IoT), block-based programming languages as an educational tool, and music informatics, establish research collaborations with peer institutions and prepare funding proposals to support research in these areas. (Georgia; New York; France)

Trani, Antonio, professor, Department of Computer and Electrical Engineering, fall 2016; to create compiled and interactive computer modeling applications, and to continue research efforts with NASA, the FAA, and other universities. (Shanghai, China; Seoul, South Korea)

Van Aken, Eileen, professor, Department of Industrial and Systems Engineering, fall 2016; to participate in a collaborative research project with faculty in Production Engineering on a funded project to study the design and implementation of performance measurement systems in public sector and not-for-profit organizations. (Parana, Brazil)

Williams, Christopher, associate professor, Department of Mechanical Engineering, fall 2016; to conduct collaborative research at the EPSRC Centre for Innovative Manufacturing in Additive Manufacturing on the use of nanoparticle satellite powders in Binder Jetting to complement NSF CAREER award in 3D Printing copper. (Nottingham, England)

College of Science (9)

Bahel, Eric, associate professor, Department of Economics, fall 2016; to research the topics of cost sharing and mechanism design for congestion networks, and climate change and optimal development of alternatives to fossil fuels. (Yasoude, Cameroon; Montreal, Canada)

Ge, Sugin, associate professor, Department of Economics, fall 2016; to research the area of labor economics and the Chinese economy, to establish new research collaborations, work intensively with co-authors on ongoing projects, and develop and submit a research grant proposal to the NSF. (Charlottesville, Virginia; Hong Kong, China)

Li, Liwu, professor, Department of Biological Sciences, spring 2017; to serve as a visiting fellow at the Stanford University systems immunology group, conducting collaborative enquires into the emerging systems dynamics modulating innate leukocyte memory and the pathological relevance in chronic disease. (Palo Alto, California)

Moore, Robert, professor, Department of Chemistry, spring 2017; to research materials and energy, gaining expertise in the current state-of-the-art understanding in membrane synthesis and electrochemical characterization of membranes in fuel cell operations, and in the design and fabrication of systems for solar energy conversion and macromolecular electronics. (Burnaby, Canada)

Nilson, Erik, professor, Department of Biological Sciences, spring 2017; to collect data and secure funding through the NSF IOS program, to visit botanical gardens to expand datasets and collaborations with experts in plant biology, exploring further funding possibilities from NSF and the USDA Forest Service. (Iowa; Massachusetts; Virginia; West Virginia; Washington; Scotland)

Renardy, Michael, professor, Department of Mathematics, spring 2017; to research control theory for partial differential equations, and explore collaborations related to research on thixotropic yield stress fluids. (India; Canada)

Renardy, Yuriko, professor, Department of Mathematics, Spring 2017; to research algorithms, code development, implementation and numerical simulations of viscoelastic flows of two immiscible fluids with interfaces, and research modeling yield stress fluids that have complex microstructures. (Vancouver, Canada; Bangalore, India)

Riffle, Judy, professor, Department of Chemistry, fall 2016; to research on the design of polymeric drug delivery systems for delivering proteins and other drugs to the brain. (Chapel Hill, NC)

Xiao, Shuhai, professor, Department of Geosciences, fall 2016; to visit the South Australian Museum to examine Ediacaran fossils, attend the 35th International Geological Congress in Cape Town, South Africa, carry out field work in Namibia to study Ediacaran stratigraphy, and visit Peking University to collaborate on Ediacaran Earth history. (Australia, China, Namibia, South Africa)

Pamplin College of Business (4)

Coupey, Eloise, associate professor, Department of Marketing, fall 2016; to research innovation commercialization, including a project conducted in cooperation with the Institute for Creativity, Arts, and Technology (ICAT). (Blacksburg, VA)

Fan, Weiguo, professor, Department of Accounting and Information Systems, spring 2017; to research applications of automated textual analysis to predict firm performance, value, and success. (Blacksburg, VA)

Wang, Alan, associate professor, Department of Business Information Technology, spring 2017; to research text mining and social media analytics applications for customer-centric business decision making in product innovation, service quality, and customer relationship management. (Tianjin, China).

Virginia-Maryland Regional College of Veterinary Medicine (0)

University Libraries (0)

RECOMMENDATION:

That the above study-research and research assignment leaves be approved as requested.

March 21, 2016