

# *The National Academies of* SCIENCES • ENGINEERING • MEDICINE

## **Workshop on Service Learning in Undergraduate Geosciences** **April 20-21, 2016**

### Speaker Biographies

**AMY COHEN** is the Executive Director of the Honey W. Nashman Center for Civic Engagement and Public Service at The George Washington University. Previously, she served as the director of the federal service-learning program, Learn and Serve America at the Corporation for National and Community Service, which is also the parent agency for AmeriCorps and Senior Corps. She has also served as Associate Vice President for US Programs at Save the Children. She also worked at the University of Pennsylvania Netter Center for Community Partnerships, where she was an international leader in university-community partnerships.

**BENJAMIN CUKER** is Professor of Marine and Environmental Studies at Hampton University. He created the American Society of Limnology and Oceanography (ASLO) Multicultural Program, the Multicultural Students at Sea Together (MAST), and the Hall-Bonner Program for Minority Doctoral Scholars in the Oceans Sciences. His current research includes limnology of turbid lakes, estuarine ecology and hypoxia. He studies the depletion of oxygen in the Chesapeake Bay. He also studies the interaction between suspended sediments and nutrients in controlling community structure, general limnology, estuarine ecology, benthic ecology, and evolutionary ecology of aquatic communities. He received his Ph.D. in Zoology with a minor in Ecology from North Carolina State.

**JOHN GIERKE** is a Professor and Chair of the Geological and Mining Engineering and Sciences Department at Michigan Technological University. His current teaching and research interests include hydrogeology, ground water engineering, containment transport, and subsurface remediation. His approach to learning is to not rely on knowledge transfer through lectures, reading and rote practice. He places greater importance on providing students opportunities in both the classroom and in research settings to develop their own problem-solving skills by attempting to solve problems independently. He is a member of the Association of Environmental Engineering and Science Professors, the American Geophysical Union, the National Ground Water Association, the American Society of Civil Engineers, and the Society of Mining, metallurgy and Exploration. He received his Ph.D. in Environmental Engineering from Michigan Technological University.

**SUZANNE O'CONNELL** is a Professor of Earth and Environmental Sciences at Wesleyan University. She teaches geosciences with a strong emphasis on hands-on-research with undergraduates. She uses research to encourage students from diverse backgrounds to consider careers in the geosciences. Her current research focuses on Antarctic climate change using sediment cores from the Weddell Sea Ocean Drilling Program Leg 113. Previously she has spent a year at the Massachusetts Institute of Technology on a National Science Foundation Visiting Professorship for Women. She is a member of the American Geophysical Union, the American Association for the Advancement of Science, the Association for Women Geoscientists and the Geological Society of America. She received her Ph.D. on Submarine Depositional Systems from Columbia University.

**ERIC RIGGS** is Associate Dean and Professor in the College of Geosciences at Texas A&M University. His research focuses on related aspects of teaching, learning and cognition in the geosciences. His primary education research is on how to maximize the effectiveness of earth science education in critical areas for undergraduates, graduates and professionals, and for underrepresented groups and communities with specific geoscientific needs. His primary research is in understanding how people learn, visualize and solve geologic problems in complex geological settings, include petroleum and sedimentary systems, structural geology, and geoscience education in international or cross-cultural learning solutions. He previously served as president of the National Association of Geoscience Teachers and president of the American Geosciences Institute. He received his PhD in Geological Sciences from University of California at Riverside.

**GAIL ROBINSON** is Principal and Lead Consultant of Gail Robinson Consulting, an organization that helps develop strategies and trainings for colleges, universities, and nonprofit organizations to strengthen and institutionalize service learning programs. Previously she served as the director of service learning for the American Association of Community Colleges where she built a national network of community colleges that offer teaching and learning strategies. She has directed national data collection, evaluation, and research on community college service learning initiatives. She currently serves on the national advisory panel for the Carnegie Community Engagement Classification. She served on the board of directors of the National Society for Experiential Education and convened a Service Learning in Higher Education group that comprised over 50 associations, organizations, and institutions in the Washington, DC area.

**SUZANNE SAVANICK HANSEN** is the Sustainability Manager at Macalester College. She also teaches classes for the Department of Environmental Studies. Her current research includes urban ecology, sustainability, and sustainability education. She previously has developed the Sustainable Campus Initiative at the University of Minnesota and worked for the Science Education Resource Center and as a visiting professor at Carleton College. She worked for the Minnesota Office of Environmental Assistance and as an elected supervisor of the Dakota County Soil and Water Conservation District. She currently serves on the Forum of Women in the Environmental Fields' Board of Directors. She received her Ph.D. in Conservation Biology from the University of Minnesota.

**LINDA SILKA** is Senior Fellow at the Senator George J. Mitchell Center for Sustainability Solutions at the University of Maine. She has experience in leading community-university research partnerships on environmental and environmental health issues. She has written extensively on the challenges and opportunities of building research partnerships between communities and universities. She is a member of SSI's Knowledge-to-Action Collaborative, a group that studies how to better align university research with community needs. They are investigating ways to overcome the barriers between knowledge and action and build partnerships between Maine's academic institutions and diverse stakeholders in order to better solve sustainability challenges. She is a member of the American Psychological Association and the Society for the Psychological Study of Social Issues. She received her Ph.D. in Social Psychology from the University of Kansas.

**DAVID SZYMANSKI**, is Associate Professor of Natural and Applied Sciences at Bentley University. He is a geologist with research interests ranging from the chemical evolution of magmas to environmental impacts of human and natural processes on surface waters. His research interests include college-level science teaching and learning for non-scientists, origin and evolution of magmas, and mass balance and scales of element recycling in earth processes. He is also a forensic chemist, specializing the examination of glass as trace evidence, and has testified in a number of criminal cases. As a former Congressional Science Fellow in the U.S. Senate, Szymanski now involves students in research for nonpartisan policy development on issues of energy, climate and natural resources. As a science communicator and science educator, he conducts pedagogical research on how to teach non-scientists the business of applying scientific concepts to real-world problems. He received his Ph.D. from Michigan State University.