



**PCPG**

Pennsylvania Council of Professional Geologists  
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***PG Review Course for the Practicing Geologist & ASBOG® Exam Prep***

**February 2021**

Presented in conjunction with  
the Pittsburgh Geological Society



**About the Instructors**

***Kristin M. Carter, P.G. (PA Geological Survey)*** - Kristin serves as Assistant State Geologist of the Pennsylvania Geological Survey (PAGS) and manages the Survey's Economic Geology Division. Kristin has worked as a petroleum geologist for the Survey since 2001, and her current research efforts involve unconventional petroleum reservoir and storage reservoir characterization, subsurface stratigraphy and carbon capture utilization and storage. Prior to joining PAGS, Kristin worked as a consulting hydrogeologist in the private sector, managing projects throughout the Appalachian region. Kristin holds a Master of Science degree in Geological Sciences from Lehigh University and a Bachelor of Science degree in Geology/Environmental Science (double major) from Allegheny College. Kristin passed the Pennsylvania Professional Geologist test in 1998 and is acknowledged as a Certified Petroleum Geologist by the American Association of Petroleum Geologists.

***Kyle C. Fredrick, PhD (California University)*** - Kyle is a Professor of Geology at California University of PA. He is the Treasurer of the Pittsburgh Geological Society for which he has also served as Vice President. He has a Ph.D. in Geology from University at Buffalo ('08), and a B.A. in Geology from University of Wisconsin - River Falls ('00). He teaches a wide variety of courses, primarily related to Hydrology, Hydrogeology and Environmental Geology, and leads an annual field course through distant areas of geologic interest in the US. His research focuses on stream/groundwater interactions and modeling groundwater flow in regional aquifers. His current research includes surface water pollution and surface/groundwater interactions in streams in southwestern PA, and flooding of wetlands and lowland areas in Wisconsin. Other research interests include fluvial geomorphologic response to natural and anthropogenic flow changes and landslide susceptibility modeling.

***Kurt Frieauf, PhD, P.G. (Kutztown University)*** - Dr. Kurt Frieauf is an economic geologist and professor at Kutztown University of Pennsylvania. Dr. Frieauf earned a B.Sc. in geology from Colorado State University, a Ph.D. in geology from Stanford University, and is a registered Professional Geologist in the Commonwealth of Pennsylvania. He has worked as a gold exploration geologist (AK, CO, NM, NV) and as an underground mine geologist (AZ). His research focuses on integrating detailed surface and underground geologic mapping and core logging with petrographic/geochemical analyses in the lab to understand ore-forming processes and develop practical exploration methods for finding ore deposits (Namibia Cu, China REE+Mo, West Papua Indonesia Cu+Au, Pennsylvania Fe, Arizona Cu+Au).

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**Daniel Harris, PhD (California University)** - Daniel is an Associate Professor of Geology at California University of PA. He received his M.S. in Geochemistry from WVU in 2008 and his Ph.D. in Structural Geology from WVU in 2011. Before coming to California University of PA, Daniel worked as an adjunct lecturer at Bethany College, WV and WVU for several years. Daniel teaches a number of courses with a heavy emphasis on field work, including Mineralogy, Petrology, Structural Geology, Tectonics, Field Methods in Geology, Field Camp, Computer Applications in Geology, Earth Resources, Introductory Geology, Geochemistry, and Petroleum Geology. His research focuses on Mesozoic tectonic reconstructions of Arctic Basins using field mapping and geochronologic sample analysis. Other research involves new methods in apatite geochronology and 24-hour fluctuations of heavy metal concentrations in acid mine-impacted streams.

**Martin F. Helmke, PhD, P.G. (West Chester University)** - Dr. Martin Helmke is a Professor of Geoscience and former Department Chair of the Department of Earth and Space Sciences at West Chester University of Pennsylvania. Dr. Helmke holds a PhD in Geology and Water Resources from Iowa State University and is a PA Registered P.G. by ASBOG. He teaches Physical Geology, Field Geology, Hydrogeology, Geophysics, and Soils at WCU. His research interests include groundwater contaminant fate, transport, and remediation; performance of large-scale ground-source heat pump systems; application of drones to geologic and geophysical investigations; and emergency response to geologic disasters. Previously, he worked as a Hydrologic Technician at USGS National Headquarters in Reston, VA, as a Senior Hydrogeologist at Versar, Inc., and as Director of the Iowa State University/University of Nebraska-Lincoln Geology Field Camp in Shell, Wyoming. Dr. Helmke continues to collaborate as an academic and consultant on research and applied geologic work in the Greater Philadelphia Metropolitan Region.

**Thomas E. Jordan, PhD, P.G. (Key Environmental, Inc.)** - Dr. Tom Jordan is part-time teaching and research faculty at Youngstown State University and a Supervising Geologist / Geophysicist with Key Environmental, Inc. located in Carnegie, Pennsylvania. He has a B.A. in geology from Alfred University, an MS in geology from SUNY at Fredonia, and a Ph.D. in geology / geophysics from the University at Buffalo. Dr. Jordan is a licensed PG in 10 states by ASBOG examination or reciprocity and has 34 years of professional experience working on geophysical projects for clients in the environmental, engineering, and resource exploration sectors.

**Gary M. B. Kribbs, P.G., President (AEON Geoscience, Inc.)** - Kribbs received a B.A. in geology and an M.S. in geology from the Univ. of Toledo. Registered as a P.G. in four states, he is structural geologist with 33 years' experience. Kribbs has conducted numerous watershed evaluations with a specialty in spring source water hydrogeologic investigations for the private sector with a focus on deep structural aquifers. Kribbs has conducted numerous landslide and slope failure investigations in landslide terrain on PennDOT, VDOT and commercial developments, and other large earth works projects throughout PA, OH, TX and VA. He has provided technical expertise for excavation, grading, and geologic hazard mitigations of sink holes and karst features, and has conducted deep mine investigations for commercial, highway, and solid waste projects. Also, channel and sediment evaluations for dredge disposal for ACOE and local port authorities.

**Matthew Morris, P.G. (Gannett Fleming, Inc.)** - Matt is the Geotechnical Practice Leader with Gannett Fleming, Inc. located in Pittsburgh, PA. Matt holds a M.S. in Geology from Kent State University, B.S. in Geology and Earth Science from Clarion University, and obtained his P.G. via ASBOG examination in 2005. Matt is Past President of the Association of Environmental and Engineering Geologists. Since joining Gannett Fleming in 1999, Matt has worked on a variety of transportation, dam, and other infrastructure projects across the United States. Matt has project experience in most engineering geology and geotechnical engineering subject areas, but specializes in rock and soil slope stability evaluation and mitigative design. He has been integrally involved in rock slope and landslide stabilization projects for various Departments of Transportation, Transit Authorities, Private Utility Agencies and the Army Corps of Engineers.

**Christopher Mulry, P.G., Vice President (GES, Inc.)** - Mr. Mulry is a Vice President and Principal Hydrogeologist for GES, Inc. He has a diverse background in environmental investigations, risk management and the design, operation and maintenance of soil and groundwater remediation and management programs - primarily at petroleum facilities. He has served with GES in various technical and managerial capacities since 1986 and has worked at project sites in the US and internationally. Mr. Mulry has been responsible for completing investigative and remediation programs in a wide range of site settings with an emphasis on Conceptual Site Model development. He has experience with direct sensing and geophysical tools and techniques as well as hydrogeologic evaluations in complex and fractured rock settings. Mr. Mulry has presented technical topics on a wide range of subjects including fractured rock characterization, LNAPL behavior, natural source zone depletion, mass flux and petroleum vapor intrusion. He also leads an internal group of hydrogeologists at GES that focuses on technical innovation, quality and training. Mr. Mulry is a licensed professional geologist in the states of Delaware, Pennsylvania, Virginia and New York. Mr. Mulry has a BS in Geology from the University of Delaware and an MS in Geology from the University of Maine.

**Tamra A. Schiappa, PhD (Slippery Rock University)** - Tamra is a Professor of Geology at Slippery Rock University. She specializes in Stratigraphy and Paleontology. She currently serves as President of the Pittsburgh Geological Society for which she has also served as Vice President. Dr. Schiappa received a B.S. in geology from SUNY Plattsburgh, a MS in Earth Science from Boise State Univ. and a Ph.D. in Geology from Univ. of Idaho. Her research involves Upper Paleozoic conodont and ammonoid biostratigraphy of northern Pangaea; development of the Cisuralian time scale; and stratigraphy and carbonate sedimentology. She is actively involved in an international effort to refine the Permian time scale and serves as one of 13 voting members on the International commission on Permian Stratigraphy. Working with a team of Permian scientists, she is assisting in understanding the tectonic development of the western margin of North America during the Upper Paleozoic and how climate change affected life during this time.