

Pennsylvania Council of Professional Geologists 116 Forest Drive • Camp Hill, PA 17011 Phone (717) 730-9745 • pcpg.org

## Back to Basics: Soils for Geologists and Environmental Professionals

<u>May 17, 2019</u>

Morning

WCU Department of Earth and Space Sciences\* Merion Science Center Room 220 750 South Church Street West Chester, PA 19383

\*Park at Sykes Union - K Lot south of the Sykes Student Union on Rosedale Avenue. Parking is free during the summer despite the signs. Merion Science Center is 1 block north across Rosedale Ave. We're on the second floor.

Afternoon:

WCU Gordon Natural Area. Park at R Lot

## Program Outline

- 7:30 to 8:00 Registration, Networking, Refreshments (Merion Science Center Room 220)
- 8:00 to 10:00 Introduction to Soils, Soil Applications, USDA and USCS Classification Systems, and Hands-On Soil Classification Exercises
- 10:00 to 10:15 Break
- 10:15 to 12:00 Soil Horizons, Soil Taxonomy, Methods of Soil Investigation, Soil Case Studies
- 12:00 to12:30 Lunch (Merion Science Center Room 220)
- 12:30 to12:45 Rotation to WCU Gordon Natural Area. Park at R Lot
- 12:45 to 2:15 Group Soil Description Classification in Soil Pit A
- 2:15 to 3:00 Break
- 3:00 to 3:45 Field Soil Classification Rotation 1
- 3:45 to 4:30 Field Soil Classification Rotation 2
- 4:30 R-Lot: Course evaluation, sign-out, and pick-up course certificate



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## About our Instructors

**Martin F. Helmke, Ph.D., P.G. (West Chester University)** – Dr. Martin Helmke is President of PCPG, Professor of Geology in the Department of Earth and Space Sciences at West Chester University, and President of Helmke Hydrogeologic, LLC. 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 Hydrogeology, Soils, Field Geology, and Physical Geology at WCU. His research interests include numerical simulations of groundwater contaminant fate, transport, and remediation; applications of drones for hydrogeologic and geophysical investigations; emergency response to geologic disasters; and groundwater-triggering mechanisms in sinkholes and ground subsidence. Previously, he worked for the USGS National Headquarters in Reston, VA, as a Senior Hydrogeologist at Versar, Inc. in Springfield, VA, 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.

**Russell L. Losco, M.A., P.G., C.P.S.S. (Lanchester Soil Consultants, Inc.)** - - Mr. Losco has over 32 years' experience in soil science. He received a B.A. in anthropology/archaeology from Indiana University of PA and an M.A. in Geoscience from West Chester University. He is a Certified Professional Soil Scientist, a Professional Geologist and an adjunct professor at Delaware County Community College and cofounder of Lanchester Soil Consultants, Inc. He served for nine years on the Board of Directors of the Pennsylvania Association of Professional Soil Scientists (PAPSS) and is the lead author of the PAPSS Manual for Soil Investigation in Pennsylvania and a number of other scientific publications. He also serves on the Board of Directors of the PCPG. Since 2010 he has been working in cooperation with the US Environmental Protection Agency on targeted urban soil surveys of Cleveland and Cincinnati, Ohio, Omaha, Nebraska and Detroit Michigan. In 2015 he was awarded the Scientific and Technological Achievement Award by the USEPA for his work in Urban Soils.