“Merging Outdoor Adventure, Mapping Technology and Earth Science at the USGS - WVU Appalachian Geoscience GeoCamp to Promote Experiential GeoSTEM for High School Students”

The Appalachian Geoscience GeoCamp (AGG) is a partnership between West Virginia University (WVU), and the West Virginia Geological and Economic Survey (WVGES), and the U.S. Geological Survey’s National Cooperative Geologic Mapping Program. The goals of the AGG are to increase the knowledge of the teenaged campers about the geological formations and biodiversity in the region, to acquaint them with geologic mapping technology used by USGS, WVGES, and WVU, and to foster interest in GeoSTEM careers. Situated at WVU Outdoor Adventure’s Natural Resources Center (NRC) near Morgantown, this new GeoCamp provides a unique, hands-on, immersive academic experience where high school students learn about earth science while experiencing a range of outdoor activities (e.g., whitewater rafting, caving, rock climbing, mountain biking, zip-lining and geocaching). Following an inaugural session in June 2018, in summer 2019 the AGG was expanded to 8 days and served 18 high school students from multiple states whose post-evaluations were generally quite favorable.

Planning for the June 2019 session of the AGG included the development of a cohesive, reproducible curriculum and the inclusion of additional adventure activities. The curriculum now includes lessons which apply to one or more of the following educational modules: basic mapping techniques, basic geologic knowledge, geologic field mapping, historical geology of the Appalachian Mountains, hydrology and environmental geology. Moreover, the AGG has placed increasing focus on interactive learning and digital data collection, culminating in analyses using data collected in the field by campers. Recently the AGG welcomed new GeoCamp collaborations with the Friends of Decker’s Creek, the American Geosciences Institute, and the American Institute of Professional Geologists, and is exploring establishing a GeoCamp to expose veterans in transition to the civilian workforce to careers in the geosciences.