Title: Hidden Histories: Tales of Stones and Irons
Dr. McGary will present two projects that began as undergraduate research projects and matured into meaningful geophysical collaborations. His most recent work has focused on the use of near surface geophysics to study Civil War and antebellum historical cemeteries where African Americans are buried. At multiple burial sites, his team used ground penetrating radar to identify 128 previously likely gravesites of enslaved persons. Dr. McGary will focus on the challenges associated with differentiating between human remains and the large number of environmental obstacles. Beyond the science, Dr. McGary will share his approach to engaging the local community of persons who are potentially decedent from the identified graves. The second project Dr. McGary will present uses what we know about crater size-frequency distribution on the moon to potential cratering impacts that would be observed on Venus given a similar projectile population. This allows for the modeling of crater density and size as a function of time. By comparing the time required to generate a crater surface similar to what we observe on Venus Dr. McGary and his students have developed additional constraints for crustal resurfacing age.