Drones in Geology - Unmanned Aerial Vehicles for Site Assessment and Characterization

Drones are a tool that is giving the earth science industry a whole new capacity to evaluate a variety of geologic conditions and processes. If you haven’t added this to your geologist toolbox, then join us and jumpstart your effort by incorporating Unmanned Aerial Vehicles (UAVs) as a method for assessing and monitoring conditions across the landscape, spatially and temporally. This course will familiarize the participant with environmental and risk assessment applications of UAVs, and will provide an overview of the regulations governing their commercial use. We want to make it as easy as possible for you to begin using UAVs. This course will introduce remediation, assessment, and site characterization applications of this tool. Topics will include the analysis of imagery from various types of sensors, including multispectral and thermal cameras, as well as photogrammetric measurements, magnetometer analysis, and the use of UAVs for sampling the physical environment (i.e., water, vapor). The regulatory landscape governing the commercial use of UAVs will also be covered, as well as the range of available platforms and UAV tools. The course is intended for students with limited background in the use of UAVs, who wish to begin using them, or who want to learn about considerations when hiring a contractor for UAV work. If time and conditions permit, registrants will have the opportunity to fly a small UAV.