

## [Use of the CDI Data Themes to Teach Applied GIS in the Earth Sciences](#) **[1]**

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### **Abstract:**

As a pedagogical tool, “real world” applications and datasets can provide a useful medium for instruction in scientific geospatial analysis and specifically GIS software. With a wide range of potential research areas that fall under the rubric of “Earth science”, thematic foci can help to structure a student’s understanding of the potential uses of GIS across sub-disciplines while at the same time communicating core data processing concepts. While various organizations such as the Group on Earth Observations (GEO) have developed a structure for general thematic areas in Earth science research, the Climate Data Initiative (CDI) is addressing the challenging goal of organizing such domestic datasets around core themes specifically related to climate change impacts. These thematic areas, which currently include coastal flooding, food resilience, ecosystem vulnerability, water, transportation, and human health, form the core of a new college course at the University of Alabama in Huntsville developed around real-world applications in the Earth sciences. The learning modules and use-case scenarios for this course are described in this poster and serve a dual purpose, in both the instruction of undergraduate and graduate Earth science students and in demonstrating the potential uses of the CDI data.

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