A Clemson University science graduate course available only to teachers at schools in Duke Energy service areas!

- Apply by March 31
- Apply early for best chance at being accepted.

**BIOL 7330 section 001: Natural History and Ecology of Bad Creek Hydroelectric Station and Jocassee Gorges**

**Credits:** 3 hours

**Dates:** Online June 17-21 (asynchronous) and on-site June 24-28

**Costs:** Personal daily transportation costs to Clemson University or course site, Clemson University graduate school application fee if not already enrolled (around $70), parking permit if boarding (around $10). A grant from the Duke Energy Foundation will subsidize costs for teachers from Duke Energy service areas to take this course, including: lodging, lunch on site each day, materials and tuition. A deposit of $75 will hold your spot and will be refunded at the conclusion of the course.

**Location:** Bad Creek Hydroelectric Station, Salem, SC. Transportation will be provided from the Clemson University campus.

**Instructors:** Dr. John Hains and Dr. Barbara Speziale, Clemson University Department of Biological Sciences; Skip Still, School of Agricultural, Forest, and Environmental Sciences at Clemson University; Patricia Whitener, Clemson Extension; Mr. Allan Boggs, Duke Energy engineer; and local experts.

Learn how to integrate STEM, energy and environment topics into your classroom as presented in the context of an upstate hydroelectric facility and the surrounding watershed. You will learn the basics of how power is produced using a hydroelectric facility and how the local aquatic ecosystems impact and are impacted by power generation. Course activities are a mix of field trips, observations, and collections. You will learn about South Carolina’s native plants, animals, and insects through field studies and activities that you can do in your classroom. Life cycles and adaptations will be illustrated through stories about local and invasive plants, animals and insects. You will observe and participate in ongoing research on the aquatic and forest sites. Classes will be held at the Bad Creek Hydroelectric Facility Outdoor Classroom, near Lake Jocassee and the Jocassee Gorges. Ecological principles will be demonstrated in the trails surrounding the Bad Creek site. You will visit the dam’s underground facilities and the World of Energy to learn about hydroelectric power generation. A boat trip on Lake Jocassee will provide opportunities for water sampling and discussions of reservoirs and their watersheds. Using Bad Creek as the example, you will observe how basic principles and general practices of wildlife and land management ecology were used during construction to minimize and sometimes enhance species populations and diversity.

Activities will require physical mobility and occasional exertion as the participants explore lakes, streams, forests, and wildlife. You will be expected to take part in all fieldwork and to produce a final project in which you create lesson plans using the new ideas and skills acquired during the course. You will be required to participate in a follow-up survey when you return to the classroom.

**Application Procedures**

Teachers at schools in Duke Energy service areas should submit a formal letter of application that includes:

- purpose for taking the course;
- A brief description of educational background and current teaching levels/subjects;
- Home and school contact info (MUST include email)
Email or mail to:

Ginger Foulk
Biological Sciences – Clemson University
132 Long Hall, Clemson, SC 29634-0314
864/656-4224, foulk@clemson.edu

Online enrollment is not available. Do not send the deposit until it is requested. The application deadline is March 31. Early applicants will receive priority for acceptance and applications will be accepted until the course is full. Applicants will be notified of acceptance beginning April 8.