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

**Apply by March 31**

**BIOL 7330 Section 002:** *Natural History and Ecology of Bad Creek Hydroelectric Station and Jocassee Gorges for Elementary School teachers*

**Credits:** 3 hours

**Dates:** Online July 9-13 (asynchronous) and on-site July 16-20

**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 at Clemson University, lunch on site each day, materials and graduate school 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. Barbara Speziale, Department of Biological Sciences and Patricia Whitener, Clemson Extension, Clemson University; Duke Energy staff; and local experts.

Learn how to teach topics in the SC Elementary School Science Standards, presented in the context of hydroelectric and nuclear facilities and the surrounding watershed, and become certified in Project Learning Tree (PLT). Standards topics to be addressed include: South Carolina’s ecoregions; the effects of human on environment; soils and geology; weather and climate; plant and animal characteristics and adaptations; life cycles; light; and energy production. Classes will be held at the Bad Creek Hydroelectric Facility Outdoor Classroom, near Lake Jocassee. Course activities are a mix of field trips, observations, collections, and hands-on PLT lessons. 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 learn the basics of how power is produced using a hydroelectric facility and how the local ecosystems impact and are impacted by power generation. You will visit the dam’s underground facilities and the World of Energy to learn about hydroelectric and nuclear power generation. A boat trip on Lake Jocassee will provide opportunities for water sampling and discussions of reservoirs and their watersheds. Using the Bad Creek area as an example, you will observe how basic principles and general practices of wildlife and land management ecology were used during construction of the Bad Creek reservoir to minimize and sometimes enhance species populations and diversity. You will observe and participate in ongoing research on the aquatic and forest sites.

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 that uses 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 counties with 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 7.