

2018 Savannah River Site Summer Scholarships in Environmental Engineering

We would like to extend an offer to your students to participate in a two-term summer program, which includes course work, field experiences, and laboratory work related to environment management. The program provides *a stipend of \$2,250 a month, tuition and fees, and dormitory accommodation* at the University of South Carolina, Aiken. All course credits and tuition will be directed back to your institution.

First term (May 25-June 20)

- **ENCP361 – Instrumentation, Measurements, and Statistics (3)** (Prerequisites include Introduction to Statistics, Introduction to Mechanics, and Physics I & II or an equivalence.) Principles of measurement, analysis of data, experimental planning. Correlations of experimental data, experimental variance, and uncertainty analysis. Lab and lecture.
- **ENCP371 – Engineering Materials (3)** (Prerequisite Introduction to Mechanics) Structure and properties of engineering metals, ceramics, and polymers; atomic bonding, crystalline structures and microstructures; mechanical behavior and deformation mechanisms; processes for controlling structures and properties; corrosion.

Second term (June 22-July 26)

- **ENCP 492 – Topics in Engineering - Robotics (3)** (Prerequisites: Introduction to Circuits and Introduction to Mechanics) Fundamentals of robotic and tele-operated devices of both fixed and mobile configuration. Design concepts, perception, sensors, computer vision, navigation, position sensing, actuation, manipulation, mobility (e.g., walk, swim, roll, crawl, fly), and intelligence) e.g., control, planning, autonomy, and mission execution) will be covered. Review and discussion of these various robotics techniques. May include guest lecturers from various DOE laboratories and other leaders in the robotics community. Includes a significant laboratory component.
- **ENCP 492 – Topics in Engineering - Engineering Research Methods in Environmental Management (3)** (Prerequisite: Junior Standing) This course is designed for undergraduate students who are interested in enrolling in a graduate engineering program in Environmental Management. Research design, collection and analysis of data, scientific writing, literature review, methods for presenting findings and an overview of research methods including experimental and non-experimental.

Eligible applicants must be raising Juniors or Seniors, and they must be enrolled in a Minority Serving Institution with a grade point average of 2.5 or better.

Interested students can email copies their transcripts with social security numbers and addresses omitted to rcraigwilliamson@scuref.org for an initial review. Full applications and additional information can be found at <http://sresfs.scsu.edu/application/>

