Thanks to a grant through the National Science Foundation (NSF), candidates in the Master of Arts in Teaching (M.A.T.) program Molly Hopper and Lindsay Snowden have the outstanding opportunity to participate in an advanced research experience for teachers at Georgia Southern University.

The seven-week research experience is part of the “ENgaging Educators in Renewable enerGY” (ENERGY) program, an NSF-funded initiative aimed at bringing cutting-edge renewable energy research into high school and tech school classrooms of high-need rural areas in Georgia.

The experience will involve conducting solar water heater research under the direction of Allen E. Paulson College of Engineering and Information Technology (CEIT) faculty Valentin Soloiu, Ph.D.,
professor of mechanical engineering and Allen E. Paulson Distinguished Chair of Renewable Energy (PI), and David Calamas, Ph.D.

After working for three years to build the research program, ENERGY program founders Soloiu, professor of mechanical engineering and Rocio Alba-Flores, associate professor of electrical engineering (co-PI), were awarded a three-year grant by the NSF in Washington, D.C. The grant is part of the Research Experiences for Teachers (RET) program.

The grant includes that the goals of the RET program are to "help build long-term collaborative partnerships between K-12 STEM teachers, community college faculty and the NSF university research community by involving the teachers and community college faculty in advanced engineering and computer science research and helping them translate their research experiences and new knowledge into classroom activities."

After competing against some of the best teachers in the state, Hopper and Snowden, were among just 10 Georgia teachers selected for the summer research experience 2017.

“I am honored and excited to be selected to participate in the ENERGY program,” said Hopper. “I have always had a passion for environmental sustainability, and I feel like this program will show me real world applications for the importance of sustainability.”

Snowden also expressed her excitement in being a part of the program.

“It was an incredible feeling to be selected,” she said. “I am most looking forward to being able to apply what I learned to my classroom. I want my classes to be fun for students by trying to stay away from lectures and allow students to learn by doing.”

Hopper and Snowden are completing the M.A.T. Secondary Education program in the area of biology and both hold undergraduate degrees in biology from the University as well. Both conveyed the value this program can bring to their instruction in the classroom.

“This research will focus on renewable energy in the fields of wind, biofuels and solar power in advanced engineering labs around the Georgia Southern campus,” said Snowden. “This program will help assist me in becoming a stronger teacher because I will be able to take this experience into the classroom and pass it to my students in a hands-on learning approach.”

“Hands-on learning is extremely important for students,” said Hopper. “After completing this program I know I will have various experiences and information to share with my students, and even encourage them to explore sustainable solutions to problems they may see in their lifetime.”

CEIT is dedicated to increasing the level of STEM education throughout Georgia with projects like ENERGY. The grant program will be offered for the next three years.
“The success and cutting edge research taking place at CEIT at Georgia Southern will nurture engineering education at secondary schools in Georgia, and will help prepare students for outstanding careers in STEM,” said Soloiu.

Georgia Southern University, a public Carnegie Doctoral/Research University founded in 1906, offers 119 degree programs serving 20,673 students. Through eight colleges, the University offers bachelor’s, master’s and doctoral degree programs built on more than a century of academic achievement. Georgia Southern is recognized for its student-centered and hands-on approach to education. Visit GeorgiaSouthern.edu.