Promoting Partnerships with the College of Education

Dr. Sharon Schleigh
East Carolina University

2011 Fall Southeast Regional Space Grant Meeting
Raleigh, NC
ECU NC Space Grant program is a collaborative group involving multiple colleges and departments and industries.
Our mission is to increase the interest, awareness, and opportunities brought by ECU faculty to develop astrobiology, space science, planetary sciences, and exploration opportunities for university students and thereby reach K-12 teachers, students, and the public.

- Monthly Symposium /Visiting Talks
- Faculty & student involvement
- As a collaborative we are focusing on sharing and facilitating research interests and opportunities between colleges, departments and the community
  - Jan. 2011: Inaugural Event (Introducing the members and their research/mentoring opportunities)
  - Feb. 2011:
    - Voyages of Discovery (Neil deGrasse Tyson)
    - Regional Science & Engineering Fair
  - March 2011: Astrobiology
  - April 2011: Remote Sensing
  - May 2011: Informal & Formal STEM Education
  - Sept. 2011: Art & Science (Root-Berenstein), Sky as Frontier (Courtwright) & Extreme places in the SS (Baker).
http://www.ecu.edu/ncspacegrant/

North Carolina Space Grant Symposium
Informal and Formal STEM Education@ East Carolina University

A series of short talks by faculty and students about the opportunities for STEM education and collaboration between formal and informal education in NC Space Grant and the ECU Space Grant Collaborative.

Thursday, May 26th, 2011
The proposed effort focuses on Scientific Education and not research. This is not a research proposal but an excellent educational one. Project should create science interest in middle school children. Applicant is excited about science education and wrote an excellent proposal. Admirable and deserving project. Unfortunately, a research proposal is expected not an educational one.
So we started the RESTEP to STEM program (Research Engaged Strategies in Teacher Education Programs to improve STEM).

To promote STEM Education, North Carolina Space Grant is funding research projects for undergraduate and graduate pre-service teachers in research that develops their understanding of best practices and strategies of effective teaching in k-12 schools. Pre-service teachers in this program will build on and add to the current research, knowledge and curriculum that address and align with current NASA education themes and missions.

5 awards at $1500 for a semester
NC Space Grant

Research Engaged Strategies in Teacher Education Programs to Improve STEM (RESTEP to STEM)

Seeking Partnerships and Collaborators

The NCSG Research Engaged Strategies in Teacher Education Programs to improve STEM (RESTEP to STEM) will facilitate opportunities in which pre-service teachers will build on and add to the current research, knowledge and curriculum that address and align with current NASA education themes and missions. The objectives of this effort are:

- to accelerate the opportunities of undergraduate and graduate students to engage in educational research in STEM education.
- to promote science education in the k-12 classroom, focusing on the development of improving pre-college perceptions, understanding and interests in science.
- to promote science education in the k-12 classroom focusing on the development of improving pre-college interests in pursuit of science education and science careers.
- to assist in the preparation of teachers entering into the k-12 science classrooms.
NC Space Grant STEM Teacher Education Program

Student Grants Opportunities for 2011-2012

To promote STEM Education, North Carolina Space Grant is funding research projects for undergraduate and graduate pre-service teachers in research that develops their understanding of best practices and strategies of effective teaching in k-12 schools. Pre-service teachers in this program will build on and add to the current research, knowledge and curriculum that address and align with current NASA education themes and missions.

Criteria for student grant proposals:

- Projects must include a research component that builds on and/or adds to the current knowledge about curriculum, best practices, strategies, or assessments in science education in the k-12 classroom.
- Project must involve a classroom teacher and a learning scientist or science content expert advisor.
- Proposals must include:
  - a background literature section that addresses both inquiry and pedagogical issues;
  - well defined research questions and expected outcomes;
  - data collection methodology with assessment tools included or described;
  - a description of the population of students that will be involved;
  - time lines and costs (budget);
  - description of deliverables and their alignment to NASA mission/directorate;
  - letters of commitment for partnership from classroom teacher and faculty/expert;
  - references that support ideas for the project.
- Proposals should demonstrate of accuracy of content and an understanding of pedagogy/learning.
- Partnerships are encouraged with graduate students in science content areas.
- Deliverables (curricula, assessments or other products developed through this grant) should be justified and meet a wide audience.
- Project must be able to be completed by April 2012.
• Committee includes PD professionals, astronomy education professionals, middle grade teacher, high school teacher, science experts
  Sharon Schleigh: schleighs@ecu.edu
  Tim Slater: timslaterwyo@gmail.com
  Julia Plummer: PlummerJ@arcadia.edu
  Matt Schrenk: schrenkm@ecu.edu
  Hayden Griffin: Griffino@ecu.edu
  John Rummel: rummelj@ecu.edu
  Valerie Brown-Schild: valerie_schild@ncsu.edu
  Rob Greenberg: rgreen08@gmail.com
  Mandy Parfitt: mandy_parfitt@bellsouth.net

• Assess the impact of the RESTEP to STEM program in k-12 education (teacher education, k-12 students).

• Serve as a pilot /model
http://www.ecu.edu/ncspacegrant/

schleighs@ecu.edu
Sharon Schleigh
252.328.9683

rummelj@ecu.edu
John Rummel
252.328.1755