GK-12 Teachers

- Jamie Church - Myrtle Beach High
- Patrice Hewett - North Myrtle Beach High
- Jack Hord - Loris Middle
- Aundrea Rue - Carolina Forest High
- Deborah Stone - Forestbrook Middle
- Billy Wilder - Carolina Forest High

Other Participants

- Fellow Advisors
  - Craig Gilman, Kevin Godwin, Rob Young
- HCSD/ CCU Liaison
  - Karen Fuss
- Internal Assessment
  - Sharon Gilman, Austin Hitt
- Outside Assessment
  - John & Charlie Carpenter
- Workshop Coordinator
  - Louis Keiner
NSF Graduate Teaching Fellows in K-12 Education
(GK-12 Program)

- NSF developed the GK-12 program recognizing that, in addition to being competent researchers, STEM graduate students must be able to communicate science and research to a variety of audiences.

The GK-12 Program

- GK-12 Fellows work in a team to transform their research into inquiry-based lesson plans for the K-12 classroom.
- When GK-12 Fellows bring their cutting-edge research into the K-12 classroom, they gain skills which enable them to explain science to people of all ages, ranging from students to teachers.
- The graduate students also inspire transformation in the K-12 learning environments and stimulate interest in science among students.
CCU’s GK-12 Program: Linking Marine and Wetland Research with Science Education in Coastal South Carolina Schools

• Six GK-12 teams have been established for AY 08/09, the 1st year of the 5 year program

• A CMWS student can be a GK-12 Fellow for a maximum of 2 years.

• There is no limit on number of years a teacher may be involved.

Benefits for the Fellows

• Financial Assistantship & Educational Expenses

• 200 hours of undergraduate research assistance

• Training and experience in incorporating scientific inquiry into classroom content
Educational Benefits

• GK-12 Fellows will be trained with the ability to effectively communicate science content, scientific methods and concepts, and the importance of science.

• Fellows will learn how to align science standards with research content

Educational Benefits

• By serving as a leader of a research team and co-leader of a lesson plan development effort, the fellows will learn vital collaboration skills

• Fellows will have the opportunity to influence students’ world view and scientific enthusiasm by serving as educator, mentor and role-model.

• Fellows will expand their own understanding of many STEM disciplines
GK-12 Responsibilities

• Fellows will work with G6-12 science teachers to plan, develop and deliver inquiry-based lesson plans in the G6-12 classroom. At least one lesson plan will be based on the Fellows thesis research.

• Fellows will serve as a scientific resource and classroom instructional assistant for their cooperating teacher. Fellows are expected to spend 15 hours a week on G6-12 educational activities, including at least 10 hours a week in the G6-12 classroom.

• Fellows and undergraduates will also deliver their research based lesson plan in CCU’s Univ. 110 program

GK-12 Responsibilities

• Fellows will meet weekly with their Fellows advisor. Fellows will meet bi-weekly with the other GK-12 teams.
  • Eric, Meredith: Dr. Gilman
  • Carrie, Justin: Dr. Godwin
  • Craig, Julia: Dr. Young
• Fellows will update electronic journal biweekly
• Fellows will attend a monthly science education workshop
  • Tuesdays 5-8pm on Sept 16, Oct 21, Nov 18, Dec 16
• Attend national GK-12 conference in Wash. D.C. in March
Things to Remember

- You are not to exceed 15 hrs/week in this project
- GK-12 is separate from your progress towards a Masters Degree. You must continue to make progress in your thesis research while being a GK-12 Fellow.

Benefits for Teachers

- NSF Stipend
  - Late August/Early Sept.
  - Mid December
  - Mid May

- $2,000 Classroom Materials

- Summer Researchers earned 3 credits of MSCI 599 -Directed Research for Teachers
Benefits for Teachers

- Researcher will assist in science education for 15 hours a week
  - Scientific resource
  - Lesson plan development
  - Equipment set-up
  - Field trips
  - Instruction
- Lesson plans & equipment may be used in future years
- Teachers will learn real world applications of science to the local coastal environment

Benefits for Teachers

- Satisfaction of providing a stronger science education to students
- Development of collegial partnerships with university faculty and graduate students
- Opportunity to attend national GK-12 conference in Washington, DC with travel funds from NSF
Teacher Responsibilities

• Set up schedule with Researcher to be in your classroom. Introduce researcher to other science teachers, students, and school officials.

• Meet with the Researcher each week to plan upcoming curriculum, lesson plans, and activities

• Be an effective mentor to the Researcher. Provide the researcher with opportunities to enhance his or her teaching skills (co-teaching, mentoring students, leading field trips, volunteering for school science activities)

• Provide scientist with feedback on his or her teaching and student interactions

• Once a semester attend a education workshop with the other GK-12 teachers and researchers
  - Tuesday, Oct 21 5:00-8:00 pm, CCU
GK-12 Researcher: The First Weeks

- Schedule
- Researcher Introduction to the Students
- Researcher’s “Hook” to immediately engage the students
- Researcher’s tasks the 1st week
- Researcher’s tasks the 3rd week
- Curriculum to be covered the first 3 weeks