

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 use in future years
- **Teachers will learn real world applications of science to the local coastal environment**

Benefits for Teachers

- **Satisfaction pf 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)

Teacher Responsibilities

- 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