Purpose of Program: This program supports graduate fellowships and associated training that will enable graduate students in the sciences, mathematics, engineering, and technology to develop their research and communication skills, and serve as resources to participating teachers in K-12 schools, particularly at the upper elementary through high school level. It builds on prior programs involving Kansas State University and rural school systems within the state of Kansas. Science, technology, vocational, and physical education teachers are encouraged to apply. The focus of the program is on precision agriculture, cyber-physical systems and related fields. Participating teachers receive a stipend of $5,000 per year, plus some additional funding for related travel/housing expenses.

We expect Fellows to split their time between two teachers for lesson planning, classroom exercises, field trips, and regular meetings and workshops. Expected outcomes include improved communication and teaching skills for the Fellows, enriched learning by K-12 students, professional development opportunities for K-12 teachers, and strengthened partnerships between institutions of higher education and local school districts.

Fellowships are awarded for a 12-month period beginning 1 June. Each participating will receive a $5,000 stipend per year renewable for up to 2 years; that is, a total of $10,000 for 2 years. All teachers and Fellows are expected to attend an early summer training and orientation workshop that precedes the start of the K-12 academic school year. This workshop will be held on the K-State campus in the summer. Housing and transportation costs will be provided. For further details on GK-12 program activities, see: http://gk12.cis.ksu.edu.

Overall GK-12 Project Goals

National Science Foundation: To develop partnerships between schools and universities with Science, Technology, Engineering, and Mathematics (STEM) graduate students working with teacher colleagues to improve STEM education at the K-12 level.

Kansas State University: To promote the academic and professional development of K-12 and university-level participants by building long-term partnerships between K-12 school districts and Kansas State University researchers in Sciences, Technology, Engineering, and Mathematics (STEM).
Some Basic GK-12 STEM Fellow Responsibilities and Expectations

- An average of 15 hours/week dedicated to activities with K-12 students and teachers, including those listed below (about two-thirds of this time is spent in the classrooms or communicating remotely with teachers and students in the classroom). Thus, each fellow will spend an average of five hours per week with each teacher. Each fellow will be assigned to two teachers and each teacher will be assigned to one fellow.
- Work with K-12 teachers in their classroom to develop activities related to subject areas in your research discipline. Hold weekly 30-minute conferences with your K-12 teacher to exchange ideas and plan future lesson activities based on your written classroom/subject syllabus.
- Participate in meetings for planning of activities, communication with PI’s, and exchange of ideas and experiences. There will be opportunities to present the information developed to at least one group of colleagues and professionals at conferences, workshops, or symposia (travel expenses provided).
- Attend a two-week summer training workshop that precedes the start of the K-12 academic year (held on the K-State campus in Manhattan, KS). This workshop is tentatively scheduled for June 6-17, 2012.
- Spend one week working directly with teachers back in their schools preparing for the Fall semester. Each fellow will spend two days with each teacher, so each teacher will spend a total of two days with one fellow.
- Understand and appreciate the goals and objectives of this program.

Some Basic GK-12 Participating Teacher Responsibilities and Expectations

- Allow GK-12 Graduate STEM Fellows to work in your classroom for an average of up to 5 hours per week, allowing some extra time for planning and evaluation. The total time commitment by GK-12 STEM Fellows should average no more than 15 hours/week including some activities that they are responsible for back at K-State. Each fellow will be working with two teachers.
- Work with GK-12 STEM Fellows in your classroom to develop activities related to subject areas in your areas. Hold weekly 30-minute conferences with your GK-12 STEM Fellow to exchange ideas and plan future lesson activities based on your written classroom/subject syllabus.
- For teachers, there will be optional opportunities to present the information developed to at least one group of colleagues and professionals at conferences, workshops, or symposia (travel expenses provided).
- Attend a two-week summer training workshop June 4-15 that precedes the start of the K-12 academic year (held on the K-State campus in Manhattan, KS).
- Spend one week working directly with a GK-12 STEM Fellow back in your own school to prepare for the Fall semester.
- Understand and appreciate the goals and objectives of this program.
To apply, you should:

- Be a US Citizen or Permanent Resident
- Submit a completed, signed application form
- Submit a Statement of Purpose (described below)

Statement of Purpose

*Please write a one-page statement of interest that summarizes your educational and career objectives and why you should be considered for a GK-12 STEM Fellowship. As a guide, please address the questions listed below in your essay. Please indicate if you wish to be considered for a 1 or 2 year appointment.*

1. Why do you want to participate in the GK-12 STEM Fellowship program?
2. What qualities do you feel you possess that make you a good mentor for GK-12 STEM Fellows?
3. Do you have any experience working as a mentor for student teachers? Briefly describe those experiences.
4. What do you see as some of the challenges of effective K-12 science, engineering, and technology education?
5. What specific disciplines (e.g., physical education, robotics, vocational agriculture, physics, environmental science, etc.) and levels (upper elementary, middle school, and/or high school) do you currently teach and plan to teach in the Fall?
6. Review the section of the GK-12 website that includes activities and on-line materials. How might you contribute or facilitate innovative programs, ideas, or lessons?

FOR QUESTIONS CONCERNING ANY ASPECT OF THE GK-12 PROGRAM, CONTACT:

Mr. Nathan Bean, Program Coordinator, at 785-532-6350 or (nhb7817@k-state.edu), or
Dr. Mitchell Neilsen, Program Director at 785-532-7918 or (neilsen@k-state.edu).

Send completed application and supporting documentation to nhb7817@k-state.edu, or mail to:

**NSF GK-12 INSIGHT PROGRAM**  
Dept. of Computing and Info. Sciences  
234 Nichols Hall  
Manhattan, KS  66506-2302  
Ph: (785) 532-6350
GK-12 Participating Teacher 2012-2013 Application Form

Please Print Clearly or Type

Contact Information:

Name: _______________________________________ K-State EID ___________________

Mailing Address:

_________________________________________ Office Phone # ____________________________
Street/PO Box

_________________________________________ Cell/Home Phone # _____________________________
City, State  Zip

E-mail Address ________________________________________________________________

Residence and Citizenship Information:

___ Resident of Kansas
___ US Citizen
___ US National
___ Permanent Resident

Education:

Current Degree Sought: _______________________ Ultimate Degree Sought: ______________________

Educational Background:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Major</th>
<th>Degree</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How many hours of graduate work will you have completed at the time of the award? ____

Post High School Employment and Professional Experience:

<table>
<thead>
<tr>
<th>Employer</th>
<th>Occupation</th>
<th>City, State</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GK-12 Participating Teacher 2012-2013 Application Form

References:
Please include or request for two (2) reference letters from individuals who are able to discuss your qualifications. One of these letters should be from a direct supervising Principal or Superintendent. If letters will be sent separately, please indicate who will be writing those letters. Letters via e-mail are fine.

____________________________________   __________________________________  
Name, Position                                                                 
Address, City, State, Zip                                                      
Phone Number                          Email Address

____________________________________   __________________________________  
Name, Position                                                                 
Address, City, State, Zip                                                      
Phone Number                          Email Address

I certify that all general information given on this application is complete and correct. I also agree to the responsibilities of a GK-12 STEM Fellow as described in this application, including participation in required meetings, seminars, and workshops.

_______________________________________________________________            
Name                                                                                     
Address, City, State, Zip                                                             
Phone Number                          Email Address

Signature of Applicant                                                                 Date

No person shall be excluded from participation, denied the benefits of, or be subject to discrimination under any program or activity sponsored or conducted by Kansas State University on any basis prohibited by applicable laws, including, but not limited to, race, color, national origin, religion, sex or handicap. Underrepresented groups and women are especially encouraged to apply.