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 Memphis, TN 38152-3340
 Office: 901.678.2310
 Toll Free: 866.670.6147
 Fax: 901.678.4257
www.memphis.edu/crep

Dear Middle School Teacher,

You are invited to participate in an exciting opportunity to not only be among the first teachers to experience a new online graduate course, "Global Climate Change Education for Middle School (GCC Course)," but to also help evaluate the effectiveness of the course. As an incentive, the course tuition is waived and you will receive \$100 stipend for completing the evaluation. The Research Study and the GCC Course is being developed by PBS TeacherLine with a grant from NASA.

Please see course and research study details below. If you are interested in participating, please complete and return the **Teacher Consent Form** on Pages 2 and 3.

We hope you join us for this important opportunity!

The GCC Course

GCC is a PBS TeacherLine online course that introduces innovative ways for you and your students to gain a deeper understanding of how human and natural factors contribute to climate change and the lasting impact of those changes. The course provides guidance for using effective STEM instructional techniques that integrate student exploration of NASA's climate data from satellites, air-borne sensors, balloons, and rockets, as well as use of NASA models and other web-based resources.

PBS TeacherLine's high quality, standards-based courses offer professional development opportunities in an accessible online format that makes learning fun, flexible and collaborative. PBS TeacherLine courses are facilitated and are six weeks long. You can earn graduate credit, PDPs, or CEUs while gaining strategies and resources to bring directly to your classroom. The GCC Course is a 45-hr graduate level course.

Research Pilot Study

The Center for Research in Educational Policy (CREP) at The University of Memphis and Interactive Educational Systems Design, Inc. are conducting the research study, which will address the following research questions.

To what extent has participation in the GCC Course:

- Strengthened teacher knowledge of the science of climate change?
- Increased teacher awareness of relevant, available NASA resources?
- Led to actual integration of NASA data and resources into classroom instruction?
- Fostered greater use of interdisciplinary approaches in GCC instruction?
- Led to increased adoption of effective STEM teaching techniques?

Data Collection: Teacher participants will complete a pre-post assessment, a two-part Classroom Practices Survey, and be eligible for a classroom observation and phone interview.

Study Participation

The study is open to grade 5-8 science, technology, engineering, or mathematics teachers who agree to enroll in and complete the online GCC course and participate in the data collection procedures. The Research Pilot Study will take place during the fall of 2010. The GCC six-week Course will be offered in October 2010 with other data collection activities to follow upon completion of the Course.

If you have questions, please contact Crissy Cox, the research associate for the study, by phone: 901-678-1399 or email: clcox2@memphis.edu

Sincerely,



Deborah Lowther, Ph.D.

Senior Associate Director, Center for Research in Educational Policy

**PBS/NASA Teaching Climate Change Project
Research Pilot Study
Teacher Consent Form: Page 1 of 2**

You are invited to participate in a research study conducted by the Center for Research in Educational Policy (CREP) at The University of Memphis* and Interactive Educational Systems Design, Inc., which is funded by NASA's Global Climate Change Education initiative and Public Broadcasting Service (PBS).

Purpose of Study

The purpose of the study is to evaluate the PBS TeacherLine course, "Global Climate Change Education for Middle School" (GCC Course), regarding the extent to which the course: 1) strengthened teacher knowledge of the science of climate change, 2) increased their awareness of NASA resources, 3) led to the integration of these resources in classroom instruction, 4) fostered interdisciplinary approaches to global climate change education, and 5) led to increased adoption of effective STEM teaching techniques.

Participant Activities

The Research Study will take place during fall of 2010. To participate in the GCC Research Study teachers must:

- Teach grade 5-8 science, technology, engineering, and/or mathematics
- Sign, complete, and return this Teacher Consent Form
- Enroll in and complete the online GCC six-week course that will be offered in Fall 2010. Course is eligible for 45-hr graduate credits.
- Participate in the following data collection procedures:
 - Pre-Teacher Climate Change Assessment at start of course
 - Post-Teacher Climate Change Assessment at end of course
 - Classroom Practices Survey Part 1 at start of course.
 - Classroom Practices Survey Part 2 at end of course.
 - Phone Interview – if randomly selected
 - Classroom observation of GCC lesson during the fall of 2010 – if randomly selected

Study Incentive

Participation in this study includes two incentives:

- GCC Course tuition is waived
- \$100 stipend for completing the data collection procedures listed in the Participant Activities above.
- GCC Course is eligible for 45-hr graduate credits. However, the Research Study does not cover the costs for the graduate credit.

Participant Information

Your participation in this study is voluntary. You may discontinue at any time without penalty or loss of benefits to which you are otherwise entitled.

For specific questions regarding this study, please contact CREP's Research Associate for this study, Crissy Cox at (901) 678-1399. If you have questions regarding your rights as a research subject, please contact the Chair of the Institutional Review Board for the Protection of Human Subjects at the University of Memphis at (901) 678-2533.

*Note: The University of Memphis does not have any funds budgeted for compensation for injury, damages, or other related expenses.

**PBS/NASA Teaching Climate Change Project
Research Pilot Study
Teacher Consent Form: Page 2 of 2**

If you agree to participate in the study, please:

1. Sign and PRINT your name
2. Complete the Contact Information section
3. Make a copy for your records
4. Return the Teacher Consent Form using the provided Return Information.

I understand the purpose of the study and the potential uses of the data I am providing. I understand that participation in the study is voluntary and that refusal to participate will involve no penalty or loss of benefits to which I am otherwise entitled.

Teacher Signature

Teacher Name (Please PRINT)

Date

Teacher Information

School Name

Street

State

Zip

Teacher Phone

Teacher Email

Grade level you primarily teach: ___ Middle School ___ High School

STEM* subject areas you teach: ___ Science ___ Technology ___ Engineering ___ Mathematics

Return Information

Please return your signed Consent Form to:

Crissy Cox, Research Associate

- Fax: 901-678-4257 (preferred)
- Scan and email to: clcox2@memphis.edu
- Mail to: Crissy Cox, Research Associate
Center for Research in Educational Policy
The University of Memphis
325 Browning
Memphis, TN 38152

Please contact Crissy if you have any questions:

Phone: 901-678-1399 or email: clcox2@memphis.edu