



## **Request for Proposals to Present a 2010-2011 STEM Teaching Institute and Participate in a STEM Professional Development Learning Community**

### **Purpose**

The Rochester Area Colleges Center for Excellence in Math and Science (RAC-CEMS) believes in the importance of providing high quality professional development and in establishing a professional learning community of providers of STEM professional development. The Center is inviting participation in a community of practice to promote collaboration and cooperation among those interested in improving the quality of STEM teaching for K-12 educators, including teachers and educational leaders. We are sponsoring several STEM Teaching Institutes, which will serve as a vehicle to promote best practices and focus discussion of the professional learning community.

### **Eligibility**

We invite participation from faculty at any of the Rochester Area Colleges with programs in mathematics and science (Alfred State College, Alfred University, Houghton College, Empire State College, Finger Lakes Community College, Genesee community College, Hobart and William Smith Colleges, Keuka College, Monroe Community College, Nazareth College, Roberts Wesleyan College, Rochester Institute of Technology, Saint John Fisher College, State University of New York College at Brockport, State University of New York College at Geneseo, University of Rochester, Wells College) as well as professional development providers at school districts, BOCES and other qualified educational organizations in Allegany, Cayuga, Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming or Yates counties.

### **Benefits of Participation**

#### **RAC-CEMS Sponsorship of your STEM Teaching Institute**

If you are planning to offer a workshop for K-12 teachers this summer, you may wish to consider sponsorship by the Rochester Area Colleges' Center for Excellence in Math and Science. We are seeking to sponsor a series of STEM Teaching Institutes covering a diverse range of topics, grade-levels and geographic locations within our eleven-county service area. Sponsored Institutes will receive the following benefits:

- Eligibility for funding from RAC-CEMS
- Assistance with publicity and recruitment
- Participation in a centralized online registration process
- Participation in a regional external evaluation of teacher professional development
- A channel of communication with all 87 school districts in the 11-county RAC service area
- An opportunity to collaborate with and learn from other Institute leaders in a professional learning community
- Increased visibility and credibility with K-12 teachers and administrators

## Professional Learning Community

As a member of the Professional Learning Community (PLC), you will join with other educators who share your interest in providing K-12 educators with high-quality STEM professional development opportunities. Our goal is to continually improve our knowledge, understanding and quality through a professional learning community of practice. PLC participants commit to meet monthly for one full year. Topics of discussion are determined by the members of the PLC and may include, but are not limited to addressing barriers to implementing changes in educational practice; working with the learning standards and other practical realities of K-12 education; integrating math, science and literacy; inquiry learning in practice and learning from our shared experience.

## Responsibilities of Sponsored Teaching Institute Project Directors

In order to ensure the quality of all sponsored STEM Teaching Institutes and to maximize learning from each institute, the following will be required of sponsored Institute Project Directors:

- Provide a high-quality professional development opportunity at no cost to participating teachers.
- Provide participating teachers with materials that will enable them to implement the activities developed during your institute in their classroom or on the job.
- Provide participating teachers with continuing follow-up and support for learning throughout the 2010-2011 school year
- Collaborate with participating teachers to share the lessons of your Institute with the broader community of educators through posters, demonstrations or other means of communication at a RAC-CEMS STEM Educators Collaboration Event.
- Work with the evaluator of the STEM Teaching Institutes to assess the effectiveness of your Institute.

## Sponsorship Application Process

We anticipate sponsoring 10-12 STEM Teaching Institutes in 2010. Sponsorship applications must be received by **Wednesday, January 13<sup>th</sup>**.

1. **Cover Page(s)** (1- 2 pages). The cover page(s) should include:
  - a. **Title of Institute** (as it should appear in the program-15 words or less)
  - b. **Point/s of contact** (Individual and Organization Name, Address, Phone Number, Fax Number, E-mail Address).
  - c. **Brief description of the content of your Institute as it should appear in the program.** (350 words or less).
  - d. **Duration of Institute** (number of days, hours per day, beginning/ending times).
  - e. **Proposed dates and location of Institute**
  - f. **Target Audience** (grade level and subject(s) taught).
  - g. **Target number of attendees.**
- If funding is requested from RAC-CEMS:**
  - h. **Proposed funding request**
  - i. **Proposed cost-sharing** (if any, as well as ratio of matching vs. requested funds). Note: cost-sharing is not required but will improve the chances of receiving funding from RAC-CEMS.
  - j. **Source(s) of cost sharing funds** (letters of commitment or other documentation of funding is requested).

2. **Narrative** (No more than five pages.) The proposal should include a description of the:

- a. **Goals and Objectives:** List most important goals of your Institute, what you expect attendees will gain from their participation, and how this will be measured. If you have received prior support from RAC-CEMS for a STEM Teaching Institute, provide the results of your previous project and describe how these results inform the current proposal.
- b. **Support of Learning Standards:** Describe how your Institute supports the NYS Math Science Technology Learning Standards. New York State Learning Standards are listed in appendix A and can be found at <http://www.emsc.nysed.gov/ciai/mst/mstls.html>.
- c. **Quality:** Describe the ways this Institute will incorporate components of high quality professional development. These include: how the Institute focuses on STEM content; is hands-on, involves active learning; aligns with standards, assessments, and curriculum; encourages professional collaboration, provides opportunities to analyze and apply research, incorporates knowledge of adult and child learning, provides a rich set of diverse activities, is intensive and sustained. (See attached for a brief reference list and [www.RACCEMS.org/prodev](http://www.RACCEMS.org/prodev) for additional references).
- d. **Follow-up:** Describe the additional follow-up and support for participants that will be provided for further learning throughout the 2010-2011 school year. Please describe the activities that will take place after the initial summer workshop, including the number of follow-up session and/or other types of interactions and the purpose of these activities.
- e. **Usefulness:** Describe the instructional activities the participating educators will develop in the Institute for use in their classrooms or on the job.
- f. **Qualifications:** Describe the expertise and experience of all program staff and the resources available to successfully achieve the goals of the proposed project. Including an experienced and effective current K-12 teacher on the instructional team is strongly encouraged.
- g. **Underserved populations:** Describe how your STEM Teaching Institute will address the needs of underserved populations, including women, people of color, people with disabilities and economically disadvantaged populations.

#### **If funding is requested from RAC-CEMS:**

In addition to the benefits described above, limited funds are available to sponsored Teaching Institutes to enable them to fulfill all responsibilities described above. A total of \$100,000 is available to fund sponsored Teaching Institutes to a maximum of \$15,000 each. Collaborative proposals must have a single lead organization. For Institutes requesting funding from RAC-CEMS, a demonstrated institutional commitment in the form of a cash or in-kind cost share is strongly encouraged. (Note: Institutional indirect costs may not be used in cost-sharing calculations).

#### **3. Budget (if funding is requested from RAC-CEMS).**

Proposal should include an itemized budget (presented by line item in a table format-see attachment) including both funds requested from the Rochester Area Colleges Center for Excellence in Math and Science **and all other sources of funding**. A detailed budget justification should also be included, with an explanation and rationale for all expenses in the budget.

#### **Allowable Expenses**

Funds may be used for the following:

1. Summer salary for university faculty or certified K-12 teachers.
2. Graduate student or other support staff.
3. Stipends for participants.
4. Meetings with teachers during the school year (stipends and/or substitute pay).
5. Teaching materials and supplies for the presenter and for the participants.

Funds may not be used for the following:

1. Meals and entertainment.
2. Room rental fees.
3. Travel and lodging.
4. Institutional indirect costs.

**Instructions for submitting sponsorship applications**

Proposals can be submitted electronically to: [grants@RACCEMS.org](mailto:grants@RACCEMS.org) or four copies may be mailed to:  
Rochester Area Colleges Center for Excellence in Math and Science  
4245 East Avenue  
Rochester, NY 14618

All proposals must be **received** no later than 5:00 pm on **Wednesday, January 13<sup>th</sup>, 2010**. Late proposals will not be considered for funding.

**Questions can be directed to:**

Dr. Sara Silverstone, Associate Director, Rochester Area Colleges' Center for Excellence in Math and Science: [ssilverstone@raccems.org](mailto:ssilverstone@raccems.org) (585) 389-2336.

## Literature References for High Quality Professional Development

Borasi, R., & Fonzi, J. (2002). *Foundations: Professional development that supports school mathematics reform*. [Vol. 3]. Arlington, VA: National Science Foundation.  
Chapter 2: What Does Effective Professional Development Look Like?  
[http://www.nsf.gov/pubs/2002/nsf02084/chap2\\_1.htm](http://www.nsf.gov/pubs/2002/nsf02084/chap2_1.htm)

Garet, M.S., Porter, A.C., Desimone, L., Birman, P.F., & Yoon, K.S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915-945.

National Staff Development Council Standards for Staff Development, 2001.  
<http://www.nsd.org/standards/>

Loucks-Horsley, S., Love, N., Stiles, K.E., Mundry, S., & Hewson, P.W. (2003). *Designing professional development for teachers of science and mathematics education* (2nd ed.). Thousand Oaks, CA.: Corwin.

Additional references can be found on our website at [www.RACCEMS.org/prodev](http://www.RACCEMS.org/prodev)

## Evaluation of Proposals:

Each proposal will be evaluated by a panel of STEM educators on the basis of its **merit** and **impact**:

**1. Merit:** completeness and overall quality of the proposal; does it support the NYS learning standards, the extent to which it meets the standards of high quality PD; will it be useful in the classroom; are the staff and resources adequate to successfully achieve the project goals?

**2. Impact:** how well does the proposal address the learning needs of students, including underserved populations; is there a rigorous and well-developed follow-up and support plan for teachers; is there a plan for sharing the lessons of the institute with the broader community of educators?

### **Other Considerations:**

Merit and Impact are the primary considerations for evaluation proposals, however the following are current priorities that may be taken into consideration when ranking proposals of equal merit and impact:

1. *Cost-sharing.* While the Center will consider funding Institutes in their entirety, cost-sharing is strongly encouraged and may positively impact ranking of proposals.
2. *Hiring current classroom teachers as instructors.* While a team of college or community educators, retired teachers or administrators may develop and deliver a high-quality Teaching Institute, experience shows that including experienced and successful *current* classroom teachers on the instructional team can improve the usefulness and relevance of the Institute to participants who are primarily current classroom teachers.

Each proposal will be rated as Excellent, Very Good, Good, Fair, or Poor according to the following scale:

<b>Excellent</b>	Outstanding proposal in all respects; deserves highest priority for support.
<b>Very Good</b>	High quality proposal in nearly all respects; should be supported if at all possible.
<b>Good</b>	A quality proposal, worthy of support.
<b>Fair</b>	Proposal lacking in one or more critical aspects; key issues need to be addressed.
<b>Poor</b>	Proposal has serious deficiencies.