



Pre-Proposal Announcement: RFP-13-003 Space Grant Consortium 2012 Innovative Pilot in STEM Education Solicitation

Faculty at the following institutions are invited to submit pre-proposals for the Space Grant 2012 Innovative Pilot in STEM Education Solicitation: Bellarmine University, Centre College, Eastern Kentucky University, Kentucky State University, Morehead State University, Murray State University, Northern Kentucky University, Thomas More College, Transylvania University, University of Kentucky, University of Louisville, and Western Kentucky University. NASA Kentucky must select a maximum of two proposals for submission to the national opportunity.

- The national NASA Space Grant program office anticipates selecting up to ten awardees total, with a **one-time** funding level of up to \$500,000 per total award. The period of performance for awarded proposals is 24 months starting no earlier than March 1, 2013.
- Cohorts of student participants are expected to be selected for participation in concert with the academic calendar.
- Each proposal **MUST** focus on either A) increased undergraduate retention in STEM; **or** B) increased number of qualified STEM educators. **Proposals that seek to serve both target areas will be deemed non-complaint and excluded from award consideration.**

Pre-Proposal RFP Release Date: **October 29, 2012**

Pre-Proposal Notices of Intent Due: **5pm EDT, November 2, 2012**

PIs are requested to submit an email Notice of Intent including PI complete contact information and specification of either type A or B proposal. This NOI is requested but is not required and is non-binding. Submit via email to: nasa@uky.edu

Pre-Proposal Partnering Interest: **5pm EDT, November 2, 2012**

Organizations or researchers interested in partnering for this opportunity are requested to submit an email including complete contact information, specification of proposal type A or B and a brief description of relevant expertise. Submit via email to: nasa@uky.edu

Pre-Proposals Due: **5pm EST, November 9, 2012**

Pre-proposals should not exceed two pages and include content requested in the instructions. Submit via email to: nasa@uky.edu

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Pre-Proposal Instructions

The two page pre-proposal should include the following:

1. Description of the project objectives and expected results for either A or B:
 - A. Undergraduate Retention in STEM Focus:**
 - Target First-Year and Sophomore STEM-interested students, or STEM majors (students most at-risk of STEM attrition)
 - Project should implement innovative practices that address STEM attrition in undergraduate students and encourage persistence toward graduation in STEM majors
 - Project may include: mentoring, hands-on activities, experiential learning opportunities, research engagement, challenges, competitions, and/or other academic and financial support
 - **Cite references for the proven methodologies to be proposed**
 - Eligible participants are limited to:
 - Rising first-year or sophomore undergraduate students
 - U.S. Citizens
 - Must be enrolled at an accredited college or university in the U.S. or U.S. Territory
 - B. Qualified STEM Educator Focus:**
 - Target Junior and Senior-level undergraduate students
 - Project may include: mentoring, STEM content incorporation in classroom setting, research engagement, and/or other academic and financial support
 - **Cite references for the proven methodologies to be proposed**
 - Recruited participants should be:
 - Rising junior or senior undergraduate students
 - U.S. Citizens
 - Must be enrolled at an accredited college or university in the U.S. or U.S. Territory
2. Description of the student participants:
 - Investments of a significant level for each participant (i.e. \geq \$5,000 of direct financial support and/or \geq 160 contact hours)
 - A target of at least 40% female participation and an underrepresented minority student participation target consistent with the STEM enrollment for the state
3. Description of Partnerships/Sustainability: How the selected partners will contribute to successfully achieving proposed objectives is clearly articulated.
4. Description of 1) Methodology to report intermediate results linked to skills, abilities, or attitude changes that enhance completion of STEM degrees or employment as STEM educators and 2) Plans to publish final studies of evaluation and assessment.
5. Estimated Budget Percentages for:
 $\% \text{Student Support} + \% \text{Faculty Support} + \% \text{Other Direct Costs} + \% \text{Indirect Costs} = 100\%$
Note that matching (cost share) is not required.

NASA Kentucky Director's Assessment of the Opportunity

This opportunity may have up to 104 total submitted proposals from the 52 NASA Space Grant jurisdictions from which ten (10) will be selected for funding. Therefore, to be competitive nationally the following should be strongly considered and addressed in the proposal planning process and in the proposal.

1) Student cohort:

- Should include 35-50 total students (minimum, a more competitive total will be 55-75).
- Should meet targets of 40% female
- Should meet target of 15% under-represented minority (based on KY NCES enrollment)

This program is supporting US 10-year STEM education goals of providing 100,000 new STEM educators and 1,000,000 STEM graduates. NASA Space Grant diversity targets for female and under-represented minority students are valued highly by the new NASA Space Grant Program Manager and will be seriously considered in review.

2) Proven methodologies:

Although proposals under this solicitation are for an “innovative pilot” program, evidence-based practices are expected. The proposal must reference and document these as justification for expected success.

3) Partnerships:

The reorganized NASA Office of Education has a new emphasis on leveraging partnerships which is seen in this solicitation. Therefore, securing a set of key state government, national agency/organization, academic, industry and other partners is essential, along with having a strong plan for involving each one in achieving the proposed objectives.

Although matching is not required, to be successful, the proposal will need to present a significant plan to leverage partnerships.

4) Results methodologies and metrics:

- Proven methodologies and metrics for assessing intermediate and final results should be proposed in detail. Specify target journal(s) for publication of final study results.
- All students in this program will be longitudinally tracked for 5 years, by NASA, via the Office of Education Performance Measurement System (OEPMS). NASA Kentucky has processes, system experience and pdf student information forms available for use.