

**Appendix 1 to Request for Proposals (RFP)**  
**SCOPE OF WORK AND PROPOSAL FORMAT**  
**Out-of-School Programs for Project-Based Learning**  
**in Engineering and Applied Science**

**Funding Goals:**

The following goals apply to this solicitation of proposals for Out-of School (OST) programs for project-based learning in engineering and applied science:

- To grow the availability of proven programs that deliver project-based learning experiences in engineering and applied science for fourth through ninth grade students.
- To recruit and engage growing numbers of students from diverse backgrounds and with diverse learning styles, interests and levels of achievement in a range of OST opportunities in order to prepare them for and retain them in college-level engineering and applied science programs.
- Increase collaboration between OST programs, and between such programs and school-time programs to increase effectiveness of these programs and their ability to serve target populations as well as maximize the use of limited resources and enhance the learning of the collaborating organizations.
- To enhance overall community support of and engagement in OST programs that emphasize engineering and applied science.

**Funding structure:**

- Up to \$325,000<sup>1</sup> will be allocated to projects to be performed during 24-month period from October 2009 to September 2011.
- Grants under this RFP are expected to be \$50,000 to \$100,000 each but may be somewhat higher or lower.
- The budget provided with a proposal should show no more than 50% of the expenditures being made during the 12 months ending September 30, 2010.

**Required Elements of the Proposal:**

**Project Elements**

- Deployment of high quality and effective OST programs that build greater participation in engineering and applied science careers. As much as possible these programs should:
  - Feature hands-on learning, project-based learning, and/or open-ended team projects.
  - Reach a diverse audience of Oregon students in grades four through nine, such diversity including gender, ethnicity, and geography.
  - Produce defined outcomes, sustained commitment, personalization, challenging content, and engaged adults.<sup>2</sup>

**Intended Results**

- **Outputs** anticipated for this segment include:

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<sup>1</sup> \$162,500 is subject to approval of the ETIC Budget for the fiscal year ending June 2010 by the Oregon State Board of Higher Education and \$162,500 is subject to approval of the ETIC Budget for the fiscal year ending June 2011 by the Oregon State Board of Higher Education.

<sup>2</sup> See Building Engineering and Science Talent (BEST), [http://www.pkal.org/documents/what\\_works\\_best1.pdf](http://www.pkal.org/documents/what_works_best1.pdf)

- Materials that will prove valuable past the project period to further the goals of the project.
- More students in grades 4 to 9 that have participated in OST programs that feature engineering and applied science.
- Family and community members who support students' participation in these OST programs.
- **Outcomes** anticipated for this segment include:
  - Students who plan to continue participating in OST programs that feature engineering and applied science.
  - Students who plan to take middle and high school pre-engineering and applied science classes as well as mathematics and science courses.
  - Students who understand key aspects of engineering and applied science including some of the careers associated with these fields.
  - Family and community members as well as professional educators that support OST programs and their connection to school-based STEM education and plan to stay involved.
- The main desired **impact** for this segment is increases in the number and diversity of students who are motivated to pursue college majors in engineering and applied science.

### **Evaluation Plans**

Formative and Summative Evaluation Plans with focus on proposed outputs and outcomes. See Proposal Content in Appendix 2 for general instructions on what your proposal should include regarding these plans.

Following are some specific suggestions that relate to this scope of work:

1. The formative evaluation could include things like quality of experience and outcome metrics that facilitate making improvements during the period of the project. Possibilities include:
  - a. Surveying student and adult participants on subjects like
    - i. Level of satisfaction
    - ii. Suggestions for improvement
    - iii. Inclination to recommend the program to their peers
  - b. Tracking attendance and persistence of participation.
  - c. Tracking increased knowledge, skills, confidence, and attitude towards subject matter.
2. The summative evaluation could include things like:
  - a. Number of students and adults that participated as well contact hours for each.
  - b. Demographic information on those that participated.
  - c. Summaries of pre- and post- surveys of participating students.
  - d. Summaries of evaluations of new materials.
  - e. Suggested improvements in recruitment, delivery, and curriculum,
  - f. A discussion of issues affecting the growth and sustainment of the program.