



STEM PROFESSIONAL DEVELOPMENT PROGRAM GUIDELINES

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01.0 GENERAL INFORMATION

The Arkansas Science & Technology Authority was created by Act 859 of 1983 and given the mission to bring the benefits of science and advanced technology to the people and State of Arkansas. The Authority's enabling legislation (Arkansas Code Annotated, Section 15-3-101 et seq.) and governance require the Authority to adopt certain rules and guidelines for carrying out its mission.

1.1 PROJECT NAME

These guidelines govern the Arkansas Science & Technology Authority's *Science, Technology, Engineering and Mathematics (STEM) Professional Development Program*.

1.2 PURPOSE

The purpose of the STEM Professional Development Program is to promote and fund "special focus" workshops that will serve teachers in Arkansas school districts needing specialized STEM training. The workshops should be curriculum based in STEM subjects and utilize innovative teaching techniques that include hands-on activities. The participating STEM teachers should leave the workshop equipped to enhance classroom learning and to promote STEM career awareness. The workshop should offer training and/or resources that are currently not available to the targeted teachers. The program will also fund post-workshop activities such as, but not limited to, teacher fellowships for individual professional development support, follow-up activities in the participating school districts, or additional outreach efforts.

1.3 AUTHORIZATION

The STEM Professional Development and Fellowship Program is authorized by Arkansas Code Annotated Section 15-3-109 (a)(7). The Arkansas Science & Technology Authority shall have all the powers necessary to carry out programs which include, but are not limited to, engaging in innovative demonstration and pilot projects involving improved education and preparation of the future workforce in the areas of science, technology and mathematics.

2.0 PROJECT DESCRIPTION

The Arkansas Science & Technology Authority supports a competitive cash-matching grant project for the STEM Professional Development Program. The objectives of the grant program are to promote and support the delivery of professional development to science and mathematics teachers in Arkansas school districts needing training in both STEM

instructional techniques and improvement of STEM curriculum. The focal point of each workshop provided shall depend on the identified areas of special need in STEM curriculum requiring enhanced professional development services.

The goals of this program are to: 1) enhance significantly the capacity of teachers (schools) to provide a challenging curriculum for students, 2) encourage more relevant, inquiry-driven, hands-on activities and instructional methods, and 3) promote the development of a cadre of STEM teachers with the knowledge, skills, and resources to enhance STEM curriculum and STEM career awareness in public schools.

2.1. TYPE OF AWARD

2.1.1. The Board of Directors of the Arkansas Science & Technology Authority awards grants to qualified applicants.

2.1.2. The Authority will provide funds for a professional development workshop(s) in an amount up to \$10,000 and an additional amount up to \$2,000 in post-workshop expenses. The total will not exceed \$12,000. The direct workshop cost must have fifty percent (50%) matching funds by cash or in-kind services provided by the school districts participating and/or Arkansas college or university, the Arkansas Department of Education, or other educational organization collaborating in the project.

2.2. DEFINITIONS

2.2.1. For the purpose of the Authority's STEM Professional Development and Fellowship Program, the following words and phrases have the following definitions:

2.2.1.1. "In-kind services" shall mean scientific or technological equipment and/or supplies, release time, substitute teacher fees and indirect costs at fifty percent (50%) of the predetermined Health and Human Services rate.

2.2.1.2. "Officially submitted" shall mean a project proposal which has been submitted by an office of an Arkansas college, university, or public school, the Arkansas Department of Education, or other educational organization that is legally empowered to accept grants on behalf of a qualified applicant.

2.2.1.3. "Qualified applicant" shall mean a designated individual associated with an Arkansas college, university, or public school, the Arkansas Department of Education, or other educational organization.

3.0 ELIGIBILITY

3.1. **CRITERIA.** Applicant eligibility will be determined on the basis of the following criteria:

3.1.1. The proposed project must be for the purpose of providing workshops that will directly provide professional development for STEM teachers in an area that is uniquely needed and must promote the purpose of the Authority to provide the benefits of science and/or advanced technology to the State of Arkansas and its people.

3.1.2. All workshops planned must engage teachers in instructional methodologies and provide resources that teachers may retain for later use in their respective classrooms. There should be a focus of emerging technologies of economic importance to the state and/or state and national science or mathematics standards. The workshop may be further enhanced by the integration of ISTE (International Society of Technology in Education) technology standards, or 21st Century Skills (Partnership for 21st Century Skills).

3.1.3. The proposal must address the area of the state to be served, and the number of teachers within the area to be served.

3.1.4. The proposal must address the general management and organizational plan for the workshops as well as the strategies for post-workshop activities. These activities may include teacher fellowships, follow up activities in the participating school districts, or further outreach.

3.1.5. The proposal must be officially submitted by an Arkansas college, university, or public school, the Arkansas Department of Education, or other educational organization.

3.1.6. The Arkansas college, university, or public school, the Arkansas Department of Education, or other educational organization officially submitting the grant application must assure funding for not less than fifty (50%) of the total cost for workshops by institutional/community/school district support through either cash monies or in-kind services.

3.1.7. The proposals must be submitted by an announced deadline date to be considered for a given solicitation.

3.2. **CONFLICT OF INTEREST**

3.2.1. No Director, officer or employee of the Authority for purpose of personal gain shall have or attempt to have, directly or indirectly, any interest in any contract or agreement of the Authority in connection with the Arkansas STEM Professional Development Program of the Authority.

- 3.2.2. It shall not be a conflict of interest for the Authority to permit any Arkansas college, university, or public school, the Arkansas Department of Education, or other educational organization with which a Director of the Authority is affiliated to participate in any program of the Authority, provided that such Director shall promptly disclose the nature of the affiliation to the Board of Directors.

4.0 APPLICATION PROCESS

Application for the STEM Professional Development Program shall be in a format prescribed by the Authority. The following information shall be included.

4.1. APPLICATION

- 4.1.1. The first page of the application which contains the following information: name of the college, university, public school, Arkansas Department of Education Cooperative or other organization; name, mailing address, telephone, fax and email for the principal investigator and the institutional contract office; title of the proposal; amount of funds requested from the Authority; summary of the proposed project; and principal investigator and institutional contract official signatures.
- 4.1.2. A statement of the rationale of the proposed project, a description of how it will improve STEM curriculum and STEM career awareness in partner schools and/or individual teachers, and an explanation of how the proposed workshop will enhance, expand or differ from previous professional development projects.
- 4.1.3. A review of the teachers to be served by the workshop and post-workshop activities, including a minimum number of teachers to be served.
- 4.1.4. A clearly-described implementation plan for focus-area workshop(s) and post-workshop activities. This should include a detailed budget indicating equipment and consumables, accessory supplies, travel, and estimates of support requirements for events.
- 4.1.5. A statement detailing the sources and amount of the required matching funds to support the workshop.
- 4.1.6. A description of the qualifications of the personnel to be involved in the proposed project.
- 4.1.7. A description of the assessment technique to be used to determine the success level or benefits provided by the workshop and post-workshop activities. This should include evidence that teachers exited the workshop equipped to provide new or enhanced classroom teaching methods. Data for all workshops supported by Authority grants must be submitted for inclusion in the evaluation database.

4.1.8. A statement that a final summary report will be submitted to the Authority within 60 days after expiration of the award period (one year). The final summary report shall include:

4.1.8.1. A narrative stating the project's major focus and service area; the primary objectives and scope of the project; the results of first year efforts showing positive and negative outcomes of the workshop and post-workshop activities; any changes in participating schools, staff, or collaborative partners; and the level of influence on classroom teaching after workshop participation.

4.1.8.2. A description of evaluation procedures used to assess results.

4.1.8.3. Final budget, demographic data and other information requested by the Authority Board of Directors.

5.0 EVALUATION

Applications meeting the eligibility requirements will be evaluated on the basis of the following criteria:

5.1. CRITERIA

5.1.1. The educational merit of the proposal, including the quality and importance of the proposed project, and the suggested service area.

5.1.2. The competence of the professional personnel involved in the project as evidenced by relevant training, administrative experience, and support of institution.

5.1.3. The availability of technical and support personnel and resources necessary to ensure a reasonable probability of project success.

5.1.4. The soundness of the implementation plan and the likelihood that the project objectives will be achieved.

5.1.5. The probability that the requested support will result in the improvement in STEM curriculum, STEM career awareness, and/or instructional techniques of STEM teachers.

5.1.6. The overall probability of success of the proposed project.

5.2. PROPOSAL REVIEW

5.2.1. Each proposal shall be initially reviewed by a member of the Authority staff to determine that eligibility requirements have been met.

5.2.2. The STEM Advisory Committee, whose expertise in specific scientific/technological areas will aid in the evaluation of each proposal, will review all proposals and make recommendations to the Research Committee of the Board of Directors. The Research Committee of the Board of Directors shall be responsible for final review and recommendation to the Board.

5.2.3. Each eligible proposal will be reviewed and evaluated in terms of the purposes of establishing the project, the area to be served, the evaluation criteria, and the adequacy of the requested level of funding.

5.2.4. The Authority will make every effort to complete the review and evaluation process within 90 days after the deadline for receipt of solicited proposals.

5.3. AWARDS

The final decision to commit funds to an applicant shall be made by the Board of Directors of the Authority. The decision to fund/decline will be based on information derived from the review process and its accompanying criteria and the Board's own interpretation of the accompanying information. The Board's decision shall be final.

6.0 AWARDS LETTER

6.1.1. Cash awards will be distributed by the Authority on the recommendation of the Board of Directors, based on terms and conditions agreed upon by the Board of Directors of the Authority and the submitting Arkansas college, university, or public school, the Arkansas Department of Education, or other educational organization.