REQUIRED PROGRAM INFORMATION
DATE DUE: MONDAY April 4, 2016

Listed below are the required components of the application which are included and should be responded to in the workbook. Applicants should not append additional material other than what is required. These components must be submitted by Monday, April 4, 2016 for anticipated initial release of funds in April 2016.

PART I - SIGNATURE PAGES

A. Standard Contract Form and Application for Program Grants
   This form is to be mailed in with original signatures.

B. Partner Contributions and Commitments
   Describe what supports the institution of higher education will provide to enhance partnership activities, such as: faculty to plan and present the course; meetings to plan and implement policy changes at the institution; new degree programs and/or institutionalization of MMSP course; onsite support for educators during the school year; etc. A syllabus should be developed for each professional development (PD) course offered.

   Describe how the high-need district will support the partnership activities, such as: identifying and recruiting educators; providing administrative support by allowing time for educators to meet and plan; linking MMSP course work and development of student learning growth measures to individual professional development plans; providing release time for educators to meet with administrators and other teacher partners to assess student learning growth measures administration and data analysis and future professional development needs; etc.

   Describe the role of additional partners and describe specific ways these partners will support the partnership activities. Additional partners may include: engineers, mathematicians, or scientists from institutions of higher education; teacher training department of institutions of higher education; additional school districts; business partners; and/or non-profit or for-profit organizations of demonstrated effectiveness in improving the quality of mathematics and science teachers.

   Mathematic Partnership: Bonus points will be awarded to Mathematic partnerships that include WGBH as an educational partner in developing resources for mathematical rigor with a focus on proportional relationships. These resources will be developed in collaboration with a specific partnership but will ultimately be available to all educators. To pursue this opportunity: details and contact information are provided in the MMSP Application Workbook.

C. Statement of Assurances
   This form requires an original signature of the lead partner’s Superintendent or Dean/Provost as well as the Project Director.

D. Equitable Participation of Private Schools
   The MMSP grant requires the equitable participation of private schools. Private schools in a district can be found under school/district profiles on the ESE website. After consulting with the private schools and offering them the opportunity to participate, please provide the information in this form.

PART II – GENERAL

A. Title and Abstract
   Provide a summary of the proposed project that briefly describes your vision, goals, activities and key features that will be addressed as well as the expected outcomes of the work.

B. Project Impact
   This includes numbers of districts, schools, and educators expected to participate in each course from high-need districts as well as the total number of educators expected to participate.

C. Contact Information
D. Qualifications: Summarize the qualifications and relevant experience of the administrative/project leaders and key instructional staff members. Include instructors and staff involved with course and follow-up activities. Describe the PD provider credentials in relation to planning and implementing PD (reference to an attached resume will suffice).

PART III – PROGRAM INFORMATION

A. Program Narrative: This section addresses the partnership, needs assessment, proposed professional development school/district participation and sustainability.

• Partnership: Provide evidence of a meaningful partnership in terms of both commitment and capacity.

Mathematics Partnership: Bonus points will be given to Mathematics partnerships that include WGBH as an educational partner in developing resources for mathematical rigor with a focus on proportional relationships. This partnership will work in collaboration with WGBH to:
  • identify resources to use in mathematics PD
  • develop a video illustrating effective instruction of mathematical rigor and proportional relationships.

Describe evidence that representatives from each partner organization, including administrators and possibly teachers, participated in meaningful planning for and development of this proposal. Describe the partnership’s proposed governance structure specific to decision-making, communication, and fiscal responsibilities. Show evidence of the number and quality of staff to carry out the proposed activities and the institutional resources to support the activities. (The specific role and commitment of each partner is to be included in the Partnership Commitment form.)

• Instructional Rigor Needs Assessment: Describe the instructional rigor needs assessment focused on:

  Mathematical Rigor: balancing conceptual understanding, procedural fluency, and application. Grades 3-8, with a focus on proportional reasoning; and/or

  Science and Technology/Engineering: balancing disciplinary core ideas, science and engineering practices, and application. Kindergarten – High School implementation of the revised Science and Technology / Engineering (STE) standards.

Describe the results of the assessment and analysis of:
  o District Need: district and/or school STEM initiatives and instructional leadership for supporting STEM improvement and evaluation.
  o Educator/Administrator Need: identify and prioritize professional development needs of participating STEM educators and administrators in instructional rigor in discipline.
  o Student Need: identify and prioritize the academic needs of their students. These may be based on analysis of student learning needs (i.e., MCAS results, benchmark assessments, and/or DDMs).

Include data and data sources. The goals and objectives for the proposal must be relevant to the results of this needs assessment.

• School/District Participation: Provide evidence of a clear commitment of the school/district leadership to support the STEM educators in participating in the work proposed by the project; include the PD and implementation of the developed student learning growth measures. Explain how educators will be identified, provided sufficient
REQUIRED PROGRAM INFORMATION

continued
time and incentives to complete the course work, develop the student learning growth measures, and collaborate on the follow-up activities. It is expected that the participants consist of educators from across the district.

Through this grant the educators and other participants as identified by the partnership will be responsible for identifying, developing/modifying, administering, and scoring student learning growth measures relative to subject matter standards from the professional development course(s).

- **Higher Education Institute Participation:** Describe program of courses, certificates, degrees, and/or other institutional changes to be implemented.

- **Sustainability:** Each core partner must describe how it will continue and/or extend the activities funded under this proposal after the grant period has expired. High-need districts should describe a mechanism to integrate educators’ experiences into the provision for professional development, support, and assistance at the district/school level. Higher education institutions should describe how components or full courses will be integrated in the institution’s on-going program, department, or regional offerings.

B. **Work Plan:** Describe how the coursework, student growth measures, and follow-up activities meet the goals of the MMSP program and the district(s) needs assessment.

- **GOAL I** Develop and implement an effective and sustained course of study for in-service educators of STEM by integrating the courses of study into schools of arts and sciences and/or education at institutions of higher education.

- **GOAL II** Develop and implement a systemic approach to STEM education by integrating professional development with district and school STEM improvement initiatives.

- **GOAL III** Increase the number of STEM educators in the partner school districts who participate in effective professional development and advance their content knowledge and effective instructional practices.

- **GOAL IV** Identify credible, instructionally useful measures of student learning that measure student impact relative to subject matter standards in the professional development course(s).

**Courses and Activities:** Courses and follow-up activities should promote collaboration among educators to encourage sharing of ideas and working together to achieve the goals and identified objectives. The follow-up activities should advance the educator’s ability to apply learnings from the course in their class, school, and district. Courses and activities should be clearly defined in the table, in the workbook. Include:

- course titles, course objectives, practice and/or content learning standards coded to the appropriate framework, Student learning growth measures identified (for development and implementation), the number of contact hours, course location, and instructors; and

- a description of follow-up activities, including instructors involved, the number of hours per activity, and how these activities will help teachers implement standards and Student learning growth measures from the course of study to improve student learning growth.

Each course must meet for a minimum of 45 hours of effective professional development (PD) for STEM educators relevant to STEM topics in state standards and the student learning measures to be developed. The PD should include special education teachers and teachers of English language learners as possible. The PD should focus on:

**Mathematical Rigor:** balancing conceptual understanding, procedural fluency, and application. Grades 3-8, with a focus on proportional reasoning; and/or
Name of Grant Program: Title II-B: Massachusetts Mathematics and Science Partnership Program (MMSP)

Fund Code: 150-B

REQUIRED PROGRAM INFORMATION continued

Science and Technology/Engineering: balancing disciplinary core ideas, science and engineering practices, and application. Kindergarten – High School implementation of the revised Science and Technology/Engineering (STE) standards.

Other grades may be included if it substantively supports the work in the target grades.

Each must have at least 24 hours of follow-up activities per course to guide the implementation of standards-based instruction and facilitate connections between the PD course(s) and student learning measures is required.

Syllabus: A syllabus for one (or more) professional development courses should be included. A template of key elements of a MMSP syllabus and sample is included in the Workbook to provide guidance. As part of this syllabus, there should be a detailed description of one 3-4 hour session that defines the Massachusetts standards addressed (content and practice), the activities incorporated, and the learning expectations for the participants. Be sure to address rigor and instructional practices needs of all learners. All PD course syllabi are required for the end of grant report.

High-need districts: Describe how high-needs districts will integrate these activities and professional development with their STEM improvement initiatives, such as:

- the development or redesign of school or district alignment and planning documents;
- the creation of tools or protocols to assess teacher needs and enable targeted professional development; and
- the formation of a site-based action plan to support the integration of course content and mathematical and scientific practices into curriculum and instruction.

End of course and End of year Files/Data/Reports:
Identify which member will maintain and submit the end of course or grant year Partnership data files and reports, in electronic format:

- PD courses: syllabi, formative and summative evaluation tools, participant data,
- Student learning measures: inventory, tools, & data, and
- Annual Partnership reports

Participant Database: It is expected that each partnership will maintain a database (or other electronic tracking system) of all program participants, including a record of the courses each participant completed and when those courses were completed. This system will be provided by the state evaluator and is designed to allow for follow-up data collection from participants regardless of when they completed their last course in the program.

Student Learning Measures Database: It is expected that each partnership will maintain a database of all program student learning assessments/instruments, protocols, and participants’ student data.

C. Project Timeline: Include a monthly timeline for implementation of activities, including estimated course start dates, course end dates, leadership meetings, planning/designing meetings, data review and analysis meetings, and follow-up activities.

It is encouraged that proposals include PD course(s) in summer 2016, and then during the school year 16-17. A summer 2017 PD course(s) can be undertaken as well, but are not ideal as funding for follow up will not be available.

Any PD course(s) offered in summer 2016 or SY16-17 can embed follow-up in school year activities. Any PD course(s) offered in summer 2017 must propose either how follow-up will be conducted the following fall without funding OR an alternative follow-up activity or product to be completed in summer 2017;

D. Evaluation Plan: This section should describe how the goals and objectives of your project will be met and evaluated.
REQUIRED PROGRAM INFORMATION
continued

Program Level: The DESE has contracted with the University of Massachusetts Donahue Institute (UMDI) to serve as the single, statewide evaluator to conduct partnership and program level evaluation activities associated with the grant. Each partnership is expected to cooperate with the following data collection activities: (1) end-of-course report packages including enrollment and completion rates, individual pre/post course content knowledge assessment results, and completed participant surveys; (2) annual partnership interviews; (3) annual participant survey; (4) student performance data relative to partnership developed student learning growth measures. More detailed instructions will be provided shortly after grant awards are announced. No specific action relative to the program evaluation is needed for this proposal; the district’s awareness of and willingness to participate is all that is needed at this time. More information can be found in the MMSP Evaluation Approach for Partnerships document located in the Additional Information section of the RFP.

Course Level: Partnerships must administer a pre/post content-knowledge assessment for each course and submit individual design and results to the evaluator as described above.

All professional development funded by this grant program will be implemented in accordance with Massachusetts Standard for Professional Development. Describe how the professional development course(s) of the partnership will address standard 4: “HQPD is assessed to ensure that it is meeting the targeted goals and objectives.”

UMDI will be available to advise on the development of course assessments once the grant is awarded.

Smart Goals: show how the goals/objectives of your project will be tracked, analyzed, and evaluated. Specific measures need to be included. At a minimum, improving teacher content knowledge and increasing student achievement need to be included as goals. Describe your PD program goals/objectives in SMART format.

- Specific & Strategic
- Measureable
- Action-Oriented
- Rigorous/Realistic/Results-focused
- Timed/Tracked

PART IV – BUDGET PAGES

A. Project Expenditures Include the budget for project administration, staffing, contractual services, supplies and materials, travel, indirect costs, and other related costs. Explanations of budget and in-kind or matching contributions may be included in the budget details or cumulative section of the Workbook. Proposals must include a provision for state evaluation of the partnership activities through the allocation of 10% of the total grant proposal to the state evaluator.

For those mathematic Partnerships that plan to partner with WGBH in developing resources, include $25,000 in consulting services for this work.

B. Budget Details For partnership staff, include: name; institution; primary type of activity (such as program coordination, course planning and instruction, attendance at partnership meetings, onsite support of teachers in their classroom, etc.); rate per hour/day; and number of hours/days. Itemize the costs for materials, supplies, and incentives (stipends, graduate credits, MTEL, or substitutes) reported in the Project Expenditures section. Approximate the amount of funds allocated to each partner.

C. Cumulative Budget This worksheet summarizes the proposed expenditures for all years of the project, provided that funds are available.
STATE AND FEDERAL REPORTING REQUIREMENTS

Each partner must be familiar with the federal and state reporting requirements and be prepared to provide all of the required information in a timely manner as described below.

The Department has established an ongoing reporting system for all partnerships, consisting primarily of end-of-course summary report packages. These report packages will be submitted within two weeks of the end of the course and will include: course enrollment and completion rates; individual pre/post-results of the participant content knowledge assessment; completed course participant background surveys; and Student learning growth measures and tools. In cases where partnerships are providing data on individual participants (pre/post-results and the background surveys) those data must be collected using an individual coding system prescribed by the Department. This coding system will allow data to be linked anonymously across various instruments and program years.

Federal legislation authorizing the MSP program (Title II-B) requires each of the projects funded by the States to submit an annual report to the U.S. Department of Education (USED), documenting the partnership's progress in meeting its MSP goals and objectives. An electronic Annual Performance Report (APR) reporting system is the tool designated by the USED for the reporting of MSP projects to provide the following types of information: Description of MSP Partners, Roles and Responsibilities of Partners, Information for GPRA Reporting, Characteristics of MSP Participants, Professional Development Models, Program Evaluation Design, Evaluation Findings and Evidence of Outcomes. Partnerships will be provided access and instructions on the use of this system. Most of the data necessary to complete sections two through five of the federal report will be collected through the Massachusetts Department of Elementary and Secondary Education and/or generated by the MSP State Evaluator. The MSP State Evaluator will offer assistance in processing those data and providing them to the partnership to facilitate compliance with the federal requirements.