MICHIGAN DEPARTMENT OF EDUCATION

APPLICATION INSTRUCTIONS FOR THE 2014-2015 MATHEMATICS AND SCIENCE PARTNERSHIPS COMPETITIVE GRANT

I. INTRODUCTION/BACKGROUND

In January of 2002, the No Child Left Behind Act of 2001 (NCLB) became law. The Improving Teacher Quality Grant Programs (Title II) are a major component of the *No Child Left Behind* legislation. These programs encourage scientifically based professional development as a means for improving student academic performance. As schools are responsible for improving student learning, it is essential to have highly qualified teachers leading the way.

Title II, Part B of NCLB authorizes a Mathematics and Science Partnerships (MSP) program (Part B - Mathematics and Science Partnerships). This program is intended to increase the academic achievement of students in mathematics and science by enhancing the content knowledge and teaching skills of classroom teachers. **Partnerships between high-needs school districts and the Science, Technology, Engineering, and Mathematics (STEM) faculty in institutions of higher education are at the core of these improvement efforts.** In Michigan, proposals must also have a plan for utilizing Michigan's Mathematics/Science Centers per Section 99 of the School Aid Act. Other partners may include public charter schools or other public schools, colleges of teacher education, community colleges, businesses, and nonprofit or for-profit organizations concerned with mathematics and science education.

The Michigan Department of Education (MDE) is responsible for the administration of this program. **Michigan anticipates having approximately $3,500,000** for the MSP competitive grant program for 2014-15. The Michigan Mathematics and Science Partnership Program is soliciting proposals for new and continuing projects that propose to improve the mathematics and science content knowledge and teaching skills of:

- K-8 teachers utilizing the Intel® Math professional development program.
- K-12 teachers with the goal of integrating mathematics, science, and engineering.
- K-5 teachers utilizing Math Recovery.

All projects must be completed by August 31, 2016.

II. PROGRAM DESCRIPTION

A. Eligible Applicants

Eligible applicants are any local education agency (LEA), institution of higher education (IHE), [1] or Mathematics/Science Center (MSC).

B. Essential/Eligible Partners

Applications must have at a minimum, a high-needs LEA (see Appendix A for description of high-needs LEA), a science, mathematics, or engineering department within an IHE, and a Mathematics/Science Center as per Section 99 of the School Aid Act. Other partners may include another engineering, mathematics, science, or teacher training department of an IHE; additional Mathematics/Science Center; additional LEA, public charter school, public or private elementary school or secondary school, or a consortium of such schools; a business; or a nonprofit or for-profit organization of demonstrated effectiveness in improving the quality of mathematics and science teachers.

C. Targeted Activities

The MSP program seeks ways to sustain intensive, high-quality professional development activities that focus on deepening teachers' content knowledge and promote strong teaching skills.

Projects must also meet the following criteria (per 2011 State Board of Education (SBE) approved grant criteria):

- An active and well-defined **partnership with STEM** staff in all aspects of the grant including planning and delivery of professional learning.
- Designed to improve **student achievement** of the state mathematics and science content standards.
- Aligned with the MDE Standards for Professional Learning.
- An **evaluation and accountability plan** that includes rigorous objectives that measures the impact of the activities of the project on teachers, partners, and students.

Additional criteria include:

- An active and well-defined **partnership with at least one Math/Science Center** in all aspects of the grant including planning and delivery of professional development.
- A **minimum of 50 teacher contact hours** each year of the project.
- Designed to support the **individual learning need**s of participants as well as the group collectively (i.e., individual teachers have opportunities for more practice with technology; extra support for improving their mathematics proficiency with concepts they are having difficulty understanding, etc.)
- A component of the evaluation and accountability plan that measures the narrowing of any achievement gaps within a school or district.

[1] Can include universities, colleges, technical institutes, and community colleges

III. APPLICATION PROCEDURES

A. Institutions/organizations interested in applying for a 2014-2015 MSP Competitive Grant must submit a completed application on MEGS by the deadline of *November 20, 2014, by 11:59 p.m.*

MEGS will not allow applications to be submitted that have incomplete sections! There is a checklist in Appendix B that might be helpful as you proceed through the application process. The proposed timeline is as follows:

Event	Proposed Date
Letters of Intent	September 22, 2014
Deadline for application	November 20, 2014
Peer review – Lansing	*December*
Review results available to grantees	*January*

B. Letters of Intent

A letter stating intent to submit an application for an MSP grant must be sent electronically by September 22, 2014, to Ruth Anne Hodges, MSP Team Leader, hodgesr3@michigan.gov. This letter should be only 1-2 pages, and provide a brief description of the proposal, a list of anticipated partners, and an estimate of the amount that will be requested. ***Applications that do not submit a letter of intent will not be considered for funding and will not have access to an application in MEGS!***

C. Project Information

1. Partner Information

a. **Essential Partners** - Proposals must include at a minimum a STEM department from an IHE, a Math/Science Center, and at least one high-needs LEA (see Appendix A for description of high-needs LEA).

b. **Teacher Quality and Professional Development (PD) Needs Information** - The United States Department of Education (USED) requires a comprehensive assessment of the teacher quality and professional development needs of any schools and LEAs that comprise the eligible partnership with respect to the teaching and learning of mathematics and science. Applicants must provide descriptions of teacher quality and professional development needs of each **eligible building,**[2] supported with qualitative and/or quantitative data (see MEGS for more information).

c. **Partner's Primary Role** – Check all roles that apply for each partner entered into MEGS.

[2] An eligible LEA is one that meets the high-needs criteria outlined in Appendix A. Data on LEA not considered high-needs is not required.

2. **Participation of Private Nonprofit Schools –** Federal regulations require applicants to ensure that private nonprofit schools have been invited to participate in the planning and implementing of the activities of this application. Projects must include documentation that **private schools** were invited to be a part of the project (see MEGS for more information on required forms).
3. **Budget Detail –** Projects can apply for up to 2 years of funding. They must submit budgets for each year of their project in MEGS. Upon approval, successful applicants will receive funding for the year 1 budget. Projects will be required to update budgets at the end of year 1 in MEGS; any year 2 funding will not be released until year 1 is reconciled.
    a. Allowable expenditures are anything that goes to supporting the professional development activities. Budget descriptions should be specific so items can be linked to the management plan (see # 8 below).
4. **Professional Development Abstract –** The purpose of this section is to give an overall summary of the proposed project. The name of the project, targeted activity, anticipated number of teachers and students served, and amount requested are entered on this page. Also required is a brief summary that provides an initial overview of the grant project's proposed activities including the goals and objectives; the participants (students, teachers, schools, partners); and professional development interventions or models implemented (summer institutes, online or distance learning, university courses, professional learning communities, and others). This project abstract will be used to describe the project in publications and on the USDOE-MSP website. *Please note that this is a summary (maximum 1000 words). Since it will appear in public descriptions of the project it should be written with the purpose of explaining the project to a general audience.* A more detailed description of the project will be provided to reviewers by the narrative (see # 9 below).
5. **Program Alignment**
    a. This section provides the reviewer with a description of how the activities will be aligned with the state standards in mathematics and with other educational reform activities that promote student academic achievement in mathematics and science. For new projects this includes identifying the content from the state standards for mathematics and science that will be targeted for professional development. This target should be supported by school improvement plans and other **needs assessments** such as the Survey of Enacted Curriculum [SEC]). Competitive applications will include a description of how this project fits into the **school improvement plan** of the **eligible schools**[3] and how it complements or supports any other initiatives going on in the school or district (i.e., Title I, Title IIA, SIG grant, early childhood initiatives, etc.). Academic goals from the school improvement

[3] An eligible LEA is one that meets the high-needs criteria outlined in Appendix A. Data on LEA not considered high-needs is not required.

plan of each eligible school or district that supports the alignment must be uploaded into the appendix.

b. A description of how the proposed professional development interventions or models (summer institutes, online or distance learning, university courses, professional learning communities, and others) are aligned to the MDE Standards for Professional Learning must also be included.

6. **Sustainability -** Describe how the partnership will continue the activities funded under this part after the original grant period has expired and encourage teacher participants to continue activities related to the project in their classroom and school.

7. **Evaluation Design Abstract –** Federal guidelines require that a program evaluation component be part of each proposal. Each project is required to have an external evaluator and a plan to evaluate the impact of the program on students, teachers, classrooms, and partners, including STEM faculty and departments. Projects are required to report annually to the USED on their evaluation findings. All projects are encouraged to have as rigorous an evaluation method as possible. Budgets and designs need to be built to accommodate these requirements. The purpose of this section is to give an overall summary of the proposed evaluation and accountability plan which includes a brief description of the evaluation design (more detail can be provided in the narrative), target for intervention, evaluation method, intended measures (including the impact on closing any student achievement gaps), and timeline. *Please note that participation in the statewide MSP Program evaluation is also required. Therefore evaluation designs and budgets might need to be modified to provide data beyond the annual reporting requirement when requested by the state evaluator, Moore and Associates, for purposes of determining the cumulative state impact of the MSP Program.*

8. **Management Plan**

a. An organizational/process chart that outlines responsibilities of all partners must be completed. For each activity MEGS will ask for a description including an approximation of teacher contact hours, a timeline, who will do the work, and the budget line items associated with the activity. The more detailed the better – a common complaint of reviewers is that they cannot tell what the projects are actually going to do.

b. Resumes or vitae (limited to 2 pages per person) of key people in the partnership should be submitted in the appendix.

9. **Program Narrative –** All of the technical and compliance information is entered into MEGS in the various sections described above. Therefore the narrative should speak directly to the reviewers and convince them **the proposed plan is necessary and will be effective in improving the teaching and learning of mathematics in the partnering LEAs**. There are no formatting guidelines other than it should be uploaded into MEGS as a Word or PDF document, 20 pages maximum (double-spaced). Competitive applications will describe how the planned activities will support:

a. K-8 teachers utilizing the Intel® Math professional development program.
b. K-12 teachers with integrating mathematics, science, and engineering.
c. K-5 teachers utilizing Math Recovery.

New and continuation applications must describe at ***least 50 hours*** **of activities** each year that address the focus areas described above, as well as activities designed to support teachers:

a. In applying what they have learned to the improvement of teaching and learning of mathematics for all students.
b. With their individual learning needs (i.e., more practice with technology; extra support for improving mathematics proficiency with concepts they are having difficulty understanding, etc.)

K-8 plans might also include integrating mathematics and science teaching; or integrating mathematics into early childhood or special education initiatives. The narrative should also include a description of the submitting team's expertise in the content area and the capacity to manage the project, organize the work, and meet deadlines (this is in addition to the resumes/vitae). Details on how the evaluation will be conducted to support the project formatively as well as the required evaluation and accountability plan that allows for an assessment of the project's effectiveness should be addressed in the narrative as well (see also the information provided in section 7 above).

Continuation proposals must also include a summary of current work; what has been learned from this work so far including evaluation outcomes for teachers and students, and modifications made based on early evaluation findings; a description of a plan that explains how the proposed professional development will and should continue the work already started, building on successes evidenced by data collected in the original grant proposal.

Appendix

a. The appendix **must** include:
   (1) Resumes/vitae of key faculty and staff (maximum of two pages per person).
   (2) Letters of interest from STEM departments proposed as partners in the project.
   (3) Intent to participate forms from private schools.
   (4) Academic goals from the school improvement plan of each eligible school or district
b. The appendix can also include additional documents such as:
   (1) Evidence of impact from prior professional development efforts.
   (2) Elaboration of research or evidence base used to design this program.

IV. PRODUCTS

Projects will compile a **digital professional development packet** and post or send it to the MDE at the conclusion of the project. This packet will include the professional development materials (e.g., syllabus, text, teacher resources) and any other necessary components that would enable the professional development replication. *Any products developed with Title II (B) monies do not have proprietary rights.*

V. AWARDING OF FUNDS

A. Rejection of Proposals

The MDE reserves the right to reject any and all proposals received as a result of this announcement, and will do so if the proposal does not adhere to funding specifications or application preparation instructions.

B. Review Process

Proposals will be reviewed by staff for completeness and compliance with the requirements set forth in Title II, Part B of MSP to determine applicant eligibility. MEGS will not allow applications to be submitted that have incomplete sections. Any questions about significant omissions from a proposal or about applicant eligibility will be referred to the proposing organization. If, in the judgment of the MDE, a proposal is missing significant information, or an applicant cannot establish its eligibility or the eligibility of the required partners, the proposal will be omitted from the competition. The decision of the MDE is final. Applicants submitting proposals that are withdrawn due to incompleteness or ineligibility will be notified through MEGS.

Grants will be awarded through a **competitive review process**. The review and scoring of each application will be based on criteria that support sustained and intensive high-quality professional development, based on the most current research. Using a numerical scoring system, this process is intended to identify the applications that meet the needs of Michigan's eligible schools. Projects considered eligible for funding by the reviewers will be assigned funding based on scores, beginning with the highest and going in order until funding is depleted.

An expert review panel will be assembled that reflects the demographics of the applications (i.e., middle school or high school; urban or rural). Each panel will review 2-5 eligible applications according to the required application components and the established criteria reflected in the scoring rubric. Each panel will make recommendations to the MDE for funding and possible modifications as a requirement of funding. Following the review, the MSP Team Leader will contact selected project directors to discuss any modifications of the project plan that may be required. In order to maximize the effects of limited funds, applicants may be asked to revise the project budget and/or scope of work.

C. Review Criteria

Applications must provide the information outlined in Section III(C). Supporting documents and data can be put into the appendix. Reviewers will be directed to review each application using the scoring rubric found on the Michigan Math/Science Partnerships webpage and on MEGS.

Additional Review Factors

In addition to the criteria listed above, the State Superintendent may apply other factors or emphasize specific factors in making decisions to fund proposals, such as evidence that the project will serve specific geographic areas or will facilitate the state in meeting the overall professional development, curriculum improvement, and teacher education goals.

D. Award Administration

Notification of the Award: Once the review process is completed, the Superintendent/CEO/President and Project Director will be notified of the status of the proposal.

Award Conditions: For the 2014-2015 competition, approximately $3,500,000 is available for Mathematics and Science Partnership awards. Projects will be required to update budgets at the end of year 1 in MEGS before any year 2 funding will be released. Continuation of awards is contingent upon funded programs receiving satisfactory program and fiscal evaluations.

Reporting Requirements: Each eligible partnership receiving a grant must report annually to the MDE and to the U.S. Secretary of Education regarding the eligible partnership's progress in meeting the objectives and annual targets described in the partnership's plan.

Appendix A

Definition of High-Needs LEA

To be eligible for a Mathematics and Science Partnership Grant, the application must include at least one high-needs local education agency (LEA). For this purpose a school is considered high-needs if it has been identified as a priority school within the past 3 years.

Appendix B

Project Checklist

Use this checklist to help ensure that each section is completed in MEGS. MEGS will not allow the application to be submitted if any section is not completed correctly.

Section	Required Information
Partner information	a. Proposals include a STEM department from an IHE, a Math/Science Center and at least one high-needs LEA. Data are provided to support high-needs status of each partnering LEA.
	b. Descriptions of teacher quality and professional development needs of each eligible building supported with qualitative and/or quantitative data.
	c. All the primary roles for each partner are selected.
Participation of Private Nonprofit schools	a. Information required is entered directly into MEGS.
	b. "Intent to Participate" forms for each private school are uploaded into the appendix.
Budget Pages	Budgets for each year of the proposed project are completed with as much detail as possible provided and linked to the management plan.
Abstract	a. The amount requested matches the budget total; ***refreshing this page just before submitting application ensures correct budget amount.***
	b. The description of the project gives an overall summary of the project and gives the general public an understanding of the project.
Program Alignment	a. Describes how the activities proposed for this project align with the state academic content and the school improvement plans of the partnering LEA.
	b. Describes how the activities align with the Michigan Professional Learning Standards.
Sustainability	Describes how the partnership will continue the activities after the grant funding expires.
Research/Evaluation Design Abstract	a. Primary target for intervention is checked.
	b. A brief description of evaluation design is provided.
	c. External evaluator is listed.
	d. Plans for measuring impact on students, teachers, classrooms, and partners are provided.
Management Plan	A detailed list of all the activities to be paid for by grant funds is provided. For each activity there is a timeline, identification of who will do the work, and a link to relevant budget line items.
Project Narrative	Narrative is uploaded.
Appendix	a. Resumes of key faculty and staff.
	b. Letters of interest from STEM departments.
	c. Intent to participate forms from private schools.
	d. Academic goals excerpted from the school improvement plans of eligible schools.
	e. All uploaded documents have descriptive titles: i.e. "Resumes," not "Appendix B".

Appendix C

Intel® Math

Currently Intel® Math trainers are associated with the *Greater Proficiency in Mathematics (GPM)* project (Tara Hartman, project director), *Supporting the Implementation of Intel Math (SI2M)* project (Tamara Barrientos, project director) and *Changing the Equation Using Intel Mathematics (CEIM*) project (Pam Bunch, project director).