



BRIDGES TO
SUCCESS

Ohio Mathematics Bridges to Success

Request for Proposals

Application Release: **April 20 and 21, 2016**

Application Due: **May 31, 2016**

Program Purpose

The Ohio Mathematics Bridges to Success (B2S) initiative strives to help public colleges and universities improve student success by systemically linking three successful strategies: guided degree pathways, redesigned mathematics gateway courses and corequisite remediation. With support from the Helmsley Trusts, the Ohio Department of Higher Education (ODHE) will provide grants and technical assistance to at least eight Ohio public colleges and universities to design and pilot redesigned degree pathways that incorporate redesigned mathematics gateway courses and corequisite strategies for remediation. Please see definitions below:

- **Guided degree pathways:** Guided pathways establish clear academic maps for a degree program and indicate sequencing of milestone courses along the way to a degree, allowing students to make informed choices and to be placed into a default pathway of courses coupled with intrusive advising triggered by evidence that the student is beginning to wander from a successful path.
- **Redesigned mathematics gateway courses:** College algebra is primarily a preparatory course for programs (such as STEM disciplines) that require pre-calculus or calculus. Alternative gateway mathematics courses (such as in quantitative reasoning or statistics) prepare students for programs of study that do not require calculus (such as health sciences, social sciences, liberal arts, education and business).
- **Corequisite remediation:** Rather than facing a long sequence of prerequisite, non-credit courses, students get up to speed while working toward their degree. Students enroll directly into college-level courses and receive simultaneous academic support. Additional, mandatory class periods or customized support in a lab provide “just in time” academic support within a college-level course.

Program Background

Research on improving student success indicates that multifaceted approaches simultaneously aligning degree pathways, mathematics gateway courses and corequisite remediation have the greatest impact on student success and on affordability. The Ohio Mathematics Bridges to Success initiative embraces a systemic strategy and endeavors to synergistically link multiple promising approaches. These approaches include ensuring that students have the right mathematics course(s) for their major, are provided with structured degree pathways that focus more on programs than courses, and participate in corequisite strategies for remediation as needed. While each approach shows promise for student success individually, coordinated application is expected to result in synergistic advantages to students and implementation efficiencies for institutions.

Linking the right gateway mathematics course to the right major grows out of the Ohio Mathematics Initiative (OMI) recommendations from its March 2014 report, which included: 1) “Improve student success in entry-level courses by aligning mathematics to academic programs of study and by improving instructional delivery mechanisms;” and 2) “Develop, implement and evaluate corequisite strategies to support underprepared students.”

OMI subcommittees of mathematics faculty have made significant progress by developing learning outcome standards for three different mathematics pathways: quantitative reasoning, statistics and science/technology/engineering/mathematics (STEM). These standards have been approved for guaranteed state-wide transferability. Support is available through Ohio Mathematics Bridges to Success for institutions to provide time and opportunities for faculty to redesign their courses to be aligned with these newly approved learning outcomes.

A number of community colleges and universities in Ohio have developed and implemented guided degree pathways for students. This approach creates a default pathway for students, enabling them to choose their majors, while structuring choice and sequencing of courses within that major to demonstrate a clear, timely path to graduation. Guided degree pathways have used a backward design approach in which program faculty generate a short list of electives they determine to be best for students pursuing that discipline.

In addition to the OMI work, Ohio has been working to improve developmental education outcomes at both the policy and practice level. Implementation of Ohio's Uniform Statewide Standards for Remediation-Free Status along with state funding changes for developmental coursework have catalyzed institutional innovations. Moreover, Ohio is working with Complete College America (CCA) to explore ways to improve developmental education outcomes by expanding corequisite strategies in mathematics and English. Several institutions have begun investigating or piloting corequisite developmental models, particularly for English. Support is also available through Ohio Mathematics Bridges to Success for the piloting of corequisite strategies in mathematics that leverage success in mathematics to degree success.

Eligible Applicants

Eligible institutions include state institutions of higher education, as defined within the Ohio Revised Code:

“State institution of higher education” means any state university or college as defined in division (A)(1) of section [3345.12](#) of the Revised Code, community college, state community college, university branch established under Chapter 3355. of the Revised Code, or technical college.

Eligible institutions must also have been represented by a team (ideally, a mix of faculty, advisors and administrators engaged in developmental education and pathways to student success) of at least five and up to 10 individuals at one of two convenings hosted by the Ohio Department of Higher Education on April 20, 2016 at the Sharonville Convention Center in Sharonville, OH or on April 21, 2016 at the Spitzer Conference Center at Lorain County Community College.

State institutions of higher education may collaborate with other state institutions of higher education (particularly two- and four-year institutions serving similar populations of students) on Ohio Mathematics Bridges to Success projects. Institutions serving as lead applicants must have sent a team to the convening and institutions may not be part of more than one proposal.

I. Expected Outcomes

- a. Institutions will identify three to five (3-5) structured pathways that incorporate guided degree pathways, mathematics gateways and corequisite remediation strategies in mathematics by January 2017. One pilot pathway must be implemented by January 2017 and the remaining pilots implemented by September, 2017.
- b. Institutions will develop a plan that outlines the process and timeline to expand implementation of all of the facets of the pilot to more majors and submit them to the Ohio Department of Higher Education by September, 2017.
- c. Student success and retention in the piloted pathways with corequisites will be evaluated through data analysis of course completions and enrollment persistence.

II. Anticipated Awards

The total of all awards under the Ohio Mathematics Bridges to Success program will not exceed the total funding available. Planning grants of up to \$20,000 per participating institution will be awarded. Partnerships with multiple institutions are available and opportunities to collaborate will be viewed favorably, but partnerships may not exceed a total of three (3) institutions. Only public institutions of higher education are eligible to apply; partnerships must select which institutions will be the fiscal agent.

III. Eligible Expenses and Project Term

Awards under the Ohio Mathematics Bridges to Success program are to be expended on eligible costs. Eligible costs must be expenses directly tied to the implementation of the project and may include personnel and other costs. Indirect costs in support of the project may not exceed 8%.

Ohio Mathematics Bridges to Success grants funded through this RFP will be on a 14-month time frame from the time a grant agreement is executed between the Department of Higher Education and the institution, with student outcomes being tracked and reported for an additional 24 months. Institutions will be expected to attend one additional convening in September, 2016 and to have completed the planning of at least one structured pathway in December, 2016 with an attempted launch in January, 2017 (any remaining pilots must be implemented by September, 2017). A plan to implement more pathways with corequisites across the institution must be submitted to ODHE by September, 2017. A final program and expense report will be due from the institution 90 days after the end of the expenditure period.

IV. Proposals Review Process and Timeline

The schedule below may be revised by the Chancellor due to circumstances and any changes will be communicated to applicants.

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| Request for Proposals Released | April 20 and 21, 2016 |
| Proposal Questions from Interested Parties | April 25 to May 25, 2016 |
| Proposals Due by 12 p.m. | May 31, 2016 |
| Proposal Review Period | June 1 to 29, 2016 |
| Notification of Awarded Proposals | June 30, 2016 |

The Chancellor will provide information to interested parties and provide assistance to potential applicants by responding to questions submitted via e-mail to MathBridges@higher.ed.ohio.gov

Applicant questions are to be submitted in writing via email between April 25, 2016 and May 25, 2016. Responses to questions will be posted at https://www.ohiohighered.org/content/math_bridges.

The Chancellor's staff will initially screen proposals for completeness. Any deficiencies must be addressed by the applicant within a time period set by the Chancellor's staff. While all proposals will receive consideration, submission of a complete proposal does not guarantee funding.

Accepted proposals will be evaluated using a scoring rubric (see section VI, *Proposal Requirements*) approved by the Chancellor. The Chancellor will make final decisions based on the quality of the proposal.

Upon applicant approval, the Chancellor will provide an award letter to the institution, which will include the total awarded amount. Following notification of an award, grantees must execute a grant agreement with the Ohio Department of Higher Education before funds will be disbursed.

V. Proposal Submission

Applicants are responsible for timely submissions of proposals. Proposals containing all the required elements will receive careful consideration but cannot be guaranteed funding. Proposals must be received no later than 12 p.m. on May 31, 2016, and must be submitted in the following manner:

One electronic PDF file sent electronically to MathBridges@highered.ohio.gov.

Proposals become property of the Chancellor and are subject to public record laws of the state.

VI. Proposal Requirements

A. Format

Proposals must be submitted in Arial Font, 10 points or larger; there is an exception for tables and images, where the font may be single-spaced. Required elements of the proposal should not exceed 12 pages (not counting attachments). Please see below for directions for each required section of the proposal.

- a. **Cover Letter (1 page):** Title of project; identify one primary contact by name, title, address, phone and email address.
- b. **Executive Summary:** Describe the proposed work and how it will link guided degree pathways with the appropriate mathematics gateway course and corequisite remediation strategies in mathematics.
- c. **Project Narrative:** Must contain four sections (Project Design, Project Rationale, Project Plan and Project Evaluation).
- d. **Budget & Budget Narrative:** In a narrative and summarized in an Excel spreadsheet, the budget and budget narrative will document:
 - i. Itemized costs
 - ii. The underlying assumption for each cost (i.e. base cost of item or service, number served, number of times per year, etc.)
 - iii. Any matching funds that will be leveraged, clearly labeled
- e. **Attachments:** While there is no maximum, effort should be made to be selective and limit the number of additional visuals or informational brochures that accompany the proposal. Letters of support, evidence of matching funds and documentation of partnerships do not count toward the page length.

B. Scoring Rubric and Award Recommendations

Each proposal will be assessed according to the proposal criteria:

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|--------------------|-----------|
| Project Design | 40 points |
| Project Rationale | 10 points |
| Project Plan | 25 points |
| Project Evaluation | 15 points |
| Budget & Narrative | 10 points |

The Chancellor, after considering recommendations of at least three reviewers, shall make the final determination about which proposals, if any, shall be recommended for funding to the Controlling Board. The Chancellor shall determine the amount of recommended funding for each applicant and the nature of any conditions on funding. All recommendations of the Chancellor are subject to Controlling Board approval.

C. Proposal Criteria

All proposals must specifically articulate the processes by which the following criteria will be addressed:

Project Narratives must address the following:

1. *Project Design*: Broad description of how the proposed work will result in: 1) piloting of guided degree pathways in three to five majors; 2) selection of appropriate mathematics pathways and potential redesign of courses in light of new gateway mathematics learning outcome standards (quantitative reasoning, statistics and STEM); and 3) pilot corequisite strategies in mathematics that leverage success in mathematics to student success for the gateway mathematics course. At a minimum, this section should address the processes by which the following criteria will be addressed. The criteria are:
 - a. Which three to five majors will be impacted by this grant and why were those majors chosen?
 - b. What process will be used to develop or refine the degree pathway? How will gateway and milestone courses be identified and sequenced in the default pathway? For those needing corequisite remediation, how will those courses be sequenced in the degree pathway?
 - c. What process will be used to develop or refine the mathematics gateway course that will be part of this degree pathway? How will the gateway mathematics course be selected for the major and sequenced within the degree pathway?
 - d. What process will be used to develop or refine the corequisite remediation in mathematics that will be offered to students in this degree pathway? What type(s) of corequisite remediation (for example, mandatory class periods or customized support in a lab) will be used to provide “just in time” support?
 - e. How will students be recruited, selected and advised on a) the degree pathway and b) the corequisite mathematics course?
 - f. How will corequisite remediation be structured and how will faculty receive training and information to enable them to best help students obtain “just in time” mathematics support that is appropriate for their chosen pathway?
 - g. How can the proposed work be expanded within the applicant institution(s)?

2. *Project Rationale:* This section will explain why this project is important and likely to succeed. This section should address, but is not limited to, the items detailed below:
 - a. Describe the institution's prior experiences with similar projects and work.
 - b. Detail the expected number of students to be impacted by this project and the impact for these students.
 - c. Demonstrate commitment to project success. Indicate any financial or in-kind contributions that will be made to the project during the funding period; discuss synergy with other institutional initiatives.

3. *Project Plan:* This section will provide a clear description and timeline for activities to be undertaken.
 - a. Outline the roles and responsibilities of key staff members.
 - b. Provide a brief biography of key staff members
 - c. Provide a timeline with proposed activities and estimated completion milestone for each activity.

4. *Project Evaluation:* Explain how project success will be measured. Project evaluation must include a system to measure academic achievement and retention and the effectiveness of each component of the personalized pathway (degree pathway, mathematics gateway, corequisite remediation). The evaluation plan should include both formative (inside the grant cycle) and summative (outside the grant cycle) measurements and may (but is not required to) utilize the support of an external evaluator. Project evaluation must also describe how student outcomes will be measured going forward for an additional report one year after completion of the funded activity.
 - a. Describe the evaluation design. Clearly explain how program success will be defined and measured.
 - b. ODHE will collect data related to the project for three years after the end of the agreement. These data will include, but are not limited to, student outcomes such as course completions and enrollment persistence.
 - c. Describe the ongoing evaluation process, including (a) collecting data; (b) analyzing data; (c) responding to data (i.e. developing improvement plans); and (d) reporting data to ODHE.
 - d. Provide a timeline for the evaluation process, including formative and summative evaluations. Ensure that this timeline meets the requirement for a data analysis and expansion report due September, 2017.
 - e. Identify the individuals who will lead the evaluation process and describe their credentials.

VII. Legal Notices

The applicant understands that if its application is accepted by the State, the applicant shall enter into an agreement with the State governing the use of the awarded funds. The applicant agrees to comply with all applicable federal, state and local laws and regulations in the conduct of the work hereunder.

The State reserves the right to fund any application in full or in part, to request additional information to assist in the review process, to require new applications from interested parties, to reject any or all applications responding to this announcement, or to reissue the announcement if it is determined that it is in the best interest of the State of Ohio. Issuing this announcement does not bind the State to making any awards. The State reserves the right to adjust the dates for this announcement for whatever reasons are deemed appropriate. The State reserves the right to waive any non-substantive infractions made by an applicant, provided that the applicant cures such infraction upon request.

All costs incurred in preparation of an application shall be borne by the applicant. Application preparation costs are not recoverable under an award. The State of Ohio shall not contribute in any way to recovering the costs of application preparation.

The funding decisions are final. Applicants will be notified of the outcome of their application(s) at the conclusion of the review process.

The applicant understands that the information provided herein is intended solely to assist the applicant in submittal preparation. To the best of the State's knowledge, the information provided is accurate. However, the State does not warrant such accuracy, and any errors or omissions subsequently determined will not be construed as a basis for invalidating this solicitation. Interested parties bear the sole responsibility of obtaining the necessary information to submit a qualifying application. The State retains the right to modify or withdraw this solicitation at any time. By submitting an application, applicants expressly agree to these terms.

VIII. Trade Secrets

All lead applicants are strongly discouraged from including in a proposal any information that the lead applicant considers to be a "trade secret," as that term is defined in Section 1333.61(D) of the Ohio Revised Code. All information submitted in response to this RFP is public information unless a statutory exception exists that exempts it from public release under the Ohio Public Records Act in Section 149.43 of the Ohio Revised Code.

If any information in the proposal is to be treated as a trade secret, the proposal must:

- a. Identify each and every occurrence of the information within the proposal with an asterisk before and after each line containing trade secret information and underline the trade secret information itself;
- b. Identify that the proposal contains trade secret information in the cover letter; and
- c. Include a summary page immediately after the cover letter that lists each page in the proposal that includes trade secret information and the number of occurrences of trade secret information on that page.
- d. To determine what qualifies as trade secret information, refer to the definition of "trade secret" in the Ohio Revised Code at 1333.61(D), which is reproduced below for reference:

"(D) 'Trade Secret' means information, including the whole or any portion or phase of any scientific or technical information, design, process, procedure, formula, pattern, compilation, program, device, method, technique or improvement, or any business information or plans, financial information, or listing of names, addresses or telephone numbers that satisfies both of the following:

 1. *It derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.*
 2. *It is the subject of efforts that are reasonable under the circumstances to maintain its secrecy."*
- e. The Ohio Department of Higher Education requires non-disclosure agreements from all non-Department of Higher Education persons who may have access to proposals containing trade secret information, including evaluators.