



# Seeding Strategies (II) to Close the Calculus Equity Gap

## Frequently Asked Questions

### Table of Contents

**Eligibility Questions ..... 4**

- What disciplines are eligible to apply for “Seeding Strategies (II)” funding? .....4
- Who is eligible to serve as a PI or co-PI? .....4
- Is there a limit on the number of proposals that may come from one institution? .....4
- If I am already on a Learning Lab funded project, may I apply or be part of a project team that applies for this challenge? .....4

**Application Requirements..... 4**

- Can the PI be a faculty member other than the dean or chair? Deans or chairs can change even between now and fall.....4
- What if the dean or chair of the department serving as PI has transitioned to another department? Would the project still have to change PIs? .....5
- To demonstrate the need for the proposed intervention(s), what types of existing data on student enrollment and outcomes in calculus course sequences are you requesting? .....5
- Is there any chance the two-year grant could be extended? Curricular changes including new courses and articulation takes a long time. ....5
- Is it permitted to include visuals in the proposal? .....5

**Project Approach ..... 5**

- Does our proposed project have to include all six strategies?.....5
- Will my project be considered more competitive if it includes more than one strategy?....6
- Can we propose to *pilot* one or more of the six strategies in the RFP?.....6
- Our department is considering submitting a proposal but are not sure which strategy to propose, or whether to propose more than one strategy. Can you provide any guidance? .....6
- If we were to propose a strategy that is backed by a lot of evidence but may not fit within

the six strategies in the RFP, would we not be successful? .....	6
Strategy 1: What is meant by “course coordination”? Will individual instructors lose pedagogical autonomy and flexibility?.....	7
Strategy 2: For course or prerequisite pathway redesign, does our project have to address all courses in the sequence leading up to calculus? .....	7
Strategy 3: Should an application to redesign calculus for a STEM discipline be submitted by our institution’s math department or the relevant STEM department? .....	7
Strategy 3: Would a project that utilizes courses like discrete math be eligible for funding? .....	7
Strategy 4: Does the approach to resequence content only apply to Calculus I or can we propose re-sequencing content for other courses in the pathway? .....	7
Can you elaborate on what you mean by “resequencing”? .....	8
Does the focus have to be calculus or could it be a course that requires calculus such as Calculus-based physics?.....	8
How would collaboration work in this grant cycle? Can you elaborate on what is meant by parallel implementation or consultation model?.....	8
Would two departments from the same institution be considered a partnership under the parallel implementation model? .....	9
What is an example of a project that combines two strategies? .....	9
What is an example of a project that incorporates ancillary student supports (also referred to as other student-centered approaches on RFP page 6)? .....	9
Can the grant be used to support non-credit courses? What about a non-credit course designed to provide students with additional math support? .....	10
<b>Project Outcomes and Impact .....</b>	<b>10</b>
How does Learning Lab define outcomes and what types of outcomes should be included in the proposal? .....	10
Are projects expected to show direct impact on students and faculty within the maximum of two-year timeframe?.....	11
What is expected regarding the size and scope of the project assessment? .....	11
Can Learning Lab provide a previously submitted grant proposal for prospective applicants to view? .....	11
<b>Budget .....</b>	<b>11</b>
If the institution applies for a \$100,000 grant over two-years, does the budget have to be \$50,000 each year? Is indirect allowed?.....	11
What is the difference between the two expense categories, Personnel and	

Consultant(s)?.....	11
What is the difference between paying faculty as personnel and paying faculty stipends? .....	12
Can grant funding be used to pay faculty stipends at other institutions? .....	12
Can funds be used to pay students? .....	12
Can a portion of the grant go toward offering students equipment? .....	12
Can funding be used for things like calculators and software licenses?.....	12
What can award funds be spent on? .....	13
Why are the Indirect Costs capped at 8 percent and how is this calculated? .....	14
How will money flow for awarded projects? .....	14
My institution charges General, Automobile, and Employment Liability (GAEL) and other fees separately. Can I put them in as ODC?.....	14
Will my submitted budget be approved if my project gets awarded?.....	14
<b>Other .....</b>	<b>15</b>
Will there be consideration for renewal funding in the future?.....	15
Could a project be to fund an institute that generates resources on an ongoing basis to bring speakers of color with PhDs in mathematics, for example, to promote greater representation at California Community Colleges? .....	15

## Eligibility Questions

### **What disciplines are eligible to apply for “Seeding Strategies (II)” funding?**

Mathematics and any STEM discipline where calculus is a prerequisite are eligible to apply for funding. Focus should be on improving college-level courses within the calculus course sequence (i.e., remedial courses will not be considered).

### **Who is eligible to serve as a PI or co-PI?**

The RFP requires that the project PI be a department chair or dean. The project team may include dean(s), chair(s), and/or faculty as co-PIs from within the department and/or within other departments relevant to the project. Where intersegmental partnership is included, faculty from partner institutions can serve as co-PIs. Learning Lab requires that principal investigators hold an appointment that provides assurance that they will be able to oversee the proposed project for the duration of the grant.

### **Is there a limit on the number of proposals that may come from one institution?**

No, there is no limit. However, it is reasonable for proposal reviewers to consider whether there are duplicative efforts or potential collaboration across submissions.

### **If I am already on a Learning Lab funded project, may I apply or be part of a project team that applies for this challenge?**

Yes. In addition to meeting all the RFP requirements, existing grantees must demonstrate that they have time to participate in or lead a new project without compromising the existing grant project.

## Application Requirements

### **Can the PI be a faculty member other than the dean or chair? Deans or chairs can change even between now and fall.**

At the time of proposal submission, the dean or chair at that point in time needs to be identified as the PI. However, acknowledging that circumstances may change, a PI change after funding is awarded whether before the project begins or shortly after, would be fine. Learning Lab would require the project to identify a new dean or chair as PI. Note: faculty may serve as key project personnel to drive the project and move it forward.

**What if the dean or chair of the department serving as PI has transitioned to another department? Would the project still have to change PIs?**

Yes, the PI for the project is required to be the dean or chair of the department for which the strategy or strategies are being implemented.

**To demonstrate the need for the proposed intervention(s), what types of existing data on student enrollment and outcomes in calculus course sequences are you requesting?**

The existing data on student enrollment and outcomes your project provides in the proposal will depend on the strategy or strategies you select, but whatever your project decides to present in the proposal should be disaggregated by race/ethnicity and gender to demonstrate existing equity gaps. Some examples of data related to the strategies outlined in the RFP include: course placement data, DFW rates, correlation between grades received and success in subsequent courses in the calculus sequence.

**Is there any chance the two-year grant could be extended? Curricular changes including new courses and articulation takes a long time.**

We request that applicants write their proposals to the two-year timeframe, including a two-year budget. Proposed projects should also be designed to adhere to a feasible, realistic timeframe. If needed, the project may include a robust planning phase.

Learning Lab understands that, as with all funded projects, unanticipated challenges may lead to delays. Applicants may include any caveats to their proposed project timeline if there are anticipated steps that may significantly impact the timeline.

**Is it permitted to include visuals in the proposal?**

You may add visuals to the proposal if you think they will enhance articulation of the proposed project.

## **Project Approach**

**Does our proposed project have to include all six strategies?**

No, projects may select one or more of the six strategies. Importantly, proposed projects should be realistic for achieving the results desired to close equity gaps.

**Will my project be considered more competitive if it includes more than one strategy?**

No, not necessarily. The proposed project should reflect the needs of your students and capacity of your department(s) and provide a strong rationale for the strategy or strategies selected. The project should effectively meet all application criteria including the preparation of an aligned budget. Including more than one strategy alone will not result in increased competitiveness. Please consult the scoring rubric throughout the development of your proposal.

**Can we propose to *pilot* one or more of the six strategies in the RFP?**

Yes, piloting one or more of the six strategies as referenced in the RFP is allowed. Learning Lab defines project implementation as execution of the strategy or strategies within the department(s) identified, which includes testing the intervention(s) through a pilot. We would, however, expect that institutions plan to make permanent those interventions that prove successful in a pilot.

**Our department is considering submitting a proposal but are not sure which strategy to propose, or whether to propose more than one strategy. Can you provide any guidance?**

A few things to consider are that, first, proposing more than one strategy alone does not necessarily enhance the strength or competitiveness of your proposal. We recommend that applicants carefully consider which strategy or strategies if more than one shows the most promise of success within your context (e.g., institution, faculty members). Also consider the proposal as a whole and questions about institutional readiness and team capacity. Consider the approach that has the greatest support, traction, etc. and be prepared to articulate why in the proposal.

**If we were to propose a strategy that is backed by a lot of evidence but may not fit within the six strategies in the RFP, would we not be successful?**

The six strategies are designed to be somewhat broad, such as professional development or integrating active learning, with others being more specific like resequencing courses. Please revisit them. If you still think that your approach falls outside of the six strategies, we suggest that you contact us ([info@calearninglab.org](mailto:info@calearninglab.org)) for individual consultation. We would be open to considering your approach/ideas.

**Strategy 1: What is meant by “course coordination”? Will individual instructors lose pedagogical autonomy and flexibility?**

Course coordination is a strategy to reduce variation in course content, grading, and assessments, and to encourage communication among faculty teaching the same course. It is a way for faculty to align their teaching practices through, for example, having regular meetings, aligned syllabi, and creating and maintaining a community of practice. (See [“Charting a New Course”](#), p. 18) While the term indicates a level of alignment, it does not prescribe inflexibility.

**Strategy 2: For course or prerequisite pathway redesign, does our project have to address all courses in the sequence leading up to calculus?**

No. However, we encourage applicants to think holistically about the course sequence and look beyond the success of an individual course. If the project focuses on a particular course, include an explanation of the role of that course in the calculus sequence, and how the project will lead to greater success in calculus.

**Strategy 3: Should an application to redesign calculus for a STEM discipline be submitted by our institution’s math department or the relevant STEM department?**

Either. We encourage prospective applicants to consider what makes best sense for the intent and scope of the project. Meanwhile, for this strategy we suggest that applicants consider cross-department collaboration to ensure appropriate relevance of modeling or contextualized examples and other content-specific expertise.

**Strategy 3: Would a project that utilizes courses like discrete math be eligible for funding?**

Yes. Projects that aim to create an alternative to calculus for STEM disciplines where calculus is a prerequisite are eligible. The project should consider the nexus between those STEM disciplines and the application of calculus content.

**Strategy 4: Does the approach to resequence content only apply to Calculus I or can we propose re-sequencing content for other courses in the pathway?**

This strategy applies to all courses in the pathway, however, please note that existing research referenced in the brief specifically demonstrates success for Calculus I. If you intend to apply this approach to other courses, please provide a strong rationale for this decision and how it supports subsequent calculus success, and, if available, cite sources for supporting evidence of success.

### **Can you elaborate on what you mean by “resequencing”?**

Resequencing refers to the order of the presentation of topics covered in a course. There’s some evidence that presenting material in a different order helps with student success. A significant example is in Bressoud’s *Calculus Reordered*; a link to a review of this work is provided in the RFP, page 4. For further details on resequencing, please see the references to the “[Charting a New Course](#)” report that is also provided on RFP, page 4, strategy #4.

### **Does the focus have to be calculus or could it be a course that requires calculus such as Calculus-based physics?**

Redesigning a Calculus-based physics course as the primary strategy would fall outside the guidelines; however, for example, redesigning a course(s) along the calculus or prerequisite course sequence leading to that course would fit within the guidelines. You may want to look at these two strategies of the RFP:

1. Redesign placement practices and/or course(s) in the prerequisite pathway or streamline the prerequisite pathway itself leading up to calculus to better align with calculus success; [[Placement, Articulation, and the Pathway to Calculus, p.8-9, entire section](#); [Revising Placement Practices, p.12-13, entire section.](#)]
2. Redesign calculus for disciplines such as life sciences or computer science, using modeling and/or contextualized examples, or utilizing other prerequisites in place of calculus, such as focusing on discrete math; [[Curriculum, p.9-10, entire section](#); [Redesigning Calculus Curriculum, p.13-14, paragraphs 1-3 and Macalaster box](#); [Redesigning On-ramps to STEM, p.14, entire section.](#)]

### **How would collaboration work in this grant cycle? Can you elaborate on what is meant by parallel implementation or consultation model?**

Parallel Implementation. With a maximum grant award of \$100,000, funds may not be sufficient for fully implementing the same a strategy at two institutions. Meanwhile, if you want to partner with a local community college or CSU, for example, and communicate throughout the project as a way to learn together, leverage insights, or coordinate to boost success with transferability, each institution may apply for funding independently under this model and indicate the partnership/parallel implementation in the proposal.

Collaboration, whether within the same segment or intersegmental, may add to the competitiveness of an already strong proposal, but would not increase the competitiveness of a weak proposal. Last, each proposal would be evaluated independently.

Consultation. In this model, the applicant may identify a second institution that may be brought into the project as a partner with a “lighter” level of involvement. For example, this partner might lend expertise, thought partnership, or other support to the applicant’s

proposed project. In the example of redesigned courses for transfer, the partner may provide guidance and validate the courses would likely be transferable. This model provides another way to include another institution or segment into the project.

**Would two departments from the same institution be considered a partnership under the parallel implementation model?**

No. This model specifically applies to two distinct institutions, not departments. If two departments at the same institution are interested in implementing the same strategy and coordinating efforts, we would expect a single application for the project.

**What is an example of a project that combines two strategies?**

An institution has identified the widest gaps in completion in Calculus I, and two math faculty have participated in workshops on mastery learning and have begun to see success in student learning using these approaches. The department chair is proposing a project to implement course coordination among all four faculty members teaching Calculus I to align course objectives and learning outcomes as reflected in their syllabi, assessment and grading practices. A course coordinator will be designated. Additionally, the project will develop a means for institutionalizing ongoing faculty training which will be extended to graduate student instructors. A designated faculty co-PI will begin working collaboratively with other STEM departments and, at the conclusion of the project, the project team and lead PI will showcase project results to STEM department peers, as part of a longer-term effort to develop an interdepartmental community of practice focused on innovative pedagogy.

**What is an example of a project that incorporates ancillary student supports (also referred to as other student-centered approaches on RFP page 6)?**

Building upon the example provided above, during the early project phase, the designated co-PI will reach out to student affairs, student STEM clubs, and other relevant student groups at the respective institution to introduce the project to close equity gaps and open dialogue about potential collaboration. The co-PI will help the faculty to understand the role of student clubs and other supports in student persistence, increase their awareness of student resources at their institution, and consider ways to facilitate or encourage accessing resources or participating in student groups.

### **Can the grant be used to support non-credit courses? What about a non-credit course designed to provide students with additional math support?**

Generally, the strategies outlined in the RFP refer to college-level courses within the sequence, so with the understanding that college-level courses are credit bearing, the answer would be no, that non-credit courses cannot be the focus of the grant.

However, if your proposed project includes developing a non-credit course that provides additional math support for students impacted by equity gaps as part of a broader strategy, partial funds may be used to contribute to that effort. To clarify, as a standalone project, developing such a non-credit course would not meet required criteria. The rationale is similar to that of the RFP's statement regarding incorporation of what is referred to as ancillary student supports in the RFP, page 6.

## **Project Outcomes and Impact**

### **How does Learning Lab define outcomes and what types of outcomes should be included in the proposal?**

Outcomes should demonstrate the changes that will result from the project; they should be measurable and timebound. Outcomes should collectively reflect how well strategies were implemented and the effectiveness of the interventions to the extent possible, not simply whether activities took place.

While Learning Lab acknowledges that each project will be unique with different outcomes, we also hope that outcomes across all awarded projects will lead to insights about which strategies are the most promising, effective, and/or relevant to faculty and students in California public higher education institutions to close STEM equity gaps.

To this end, we developed a set of common metric parameters for your team to consider as you develop project outcomes:

- Successful implementation of project strategy or strategies, such as demonstrated process that effectively fostered inclusivity, collaboration, and communication among faculty and/or with institutional leadership and administrative offices;
- Improvement in student enrollment/placement and learning outcomes (e.g., course placement, DFW rates, correlation between grades received and success in subsequent courses in the calculus sequence);
- Improvement in student sense of belonging or STEM identity;
- Changes in faculty knowledge, attitudes, practices, and/or willingness to collaborate in efforts designed to improve learning and close equity gaps;
- Changes in department or institution-level policies and/or practices that support pedagogical or curricular innovation to close equity gaps; and/or

- Efforts to share research-based knowledge and project data with other STEM departments and institutions and engage in cross-department, institutional, and/or intersegmental collaboration.

**Are projects expected to show direct impact on students and faculty within the maximum of two-year timeframe?**

It is conceivable that within the two-year grant term, the project may result in data that evidences positive impact on student learning, math attitudes and identity, and/or faculty mindset and/or practices. At minimum, the RFP prescribes that projects have *potential* to impact teaching and learning for students and/or faculty.

**What is expected regarding the size and scope of the project assessment?**

Learning Lab expects projects to include an assessment plan with data collected throughout the project. Data should demonstrate progress and/or efficacy toward achieving project outcomes. The evaluation can be internal; there is no expectation of an external evaluation.

**Can Learning Lab provide a previously submitted grant proposal for prospective applicants to view?**

We advise being responsive to the prompts in the proposal requirements, reviewing all supplemental RFP resources, paying close attention to the scoring rubric, and contacting Learning Lab at [info@calearninglab.org](mailto:info@calearninglab.org) to receive technical assistance.

## Budget

**If the institution applies for a \$100,000 grant over two-years, does the budget have to be \$50,000 each year? Is indirect allowed?**

No, the budget does not have to be divided in half each year. Budgets can be allocated, as needed, for the project. Indirect is allowed up to 8 percent. (See Indirect Cost question [below](#).)

**What is the difference between the two expense categories, Personnel and Consultant(s)?**

Unlike Personnel who provide a percentage of effort and contribute to the project as a whole and are employees of the institution, Consultants are individuals or organizations who provide expert advisory or other services for brief or limited periods and are most often not employees of the institution. Individuals listed under Personnel list their percent of effort as represented against their total available time. Consultants' efforts measured

against their total available time is not represented; instead, hours of effort and daily or hourly rates are typically represented.

### **What is the difference between paying faculty as personnel and paying faculty stipends?**

Faculty serving a role that contributes to the overall effort or project implementation would likely be compensated as project personnel and included in the respective budget line item. Faculty who engage in a discrete or one-time activity, such as attending a workshop, may be paid a stipend. See additional reference to [faculty stipends](#).

### **Can grant funding be used to pay faculty stipends at other institutions?**

Yes. From our current grantees, Learning Lab has learned about some of the challenges institutions have faced with paying stipends to faculty so it is advised that you check with your institution (and/or partners) about the required process for paying stipends.

### **Can funds be used to pay students?**

Learning Lab funds may be used to pay students (stipends or hourly rates) and related student fees; however, Learning Lab funds may NOT be used to cover student tuition (undergraduate or graduate), housing, or summer bridge attendance.

Stipends or remuneration for students can only be made to students who are actually working on the project in some capacity (not participating as a student). The exception to this is de minimus type incentives (e.g., small bookstore vouchers) to participate in out-of-class surveys, or things that could not be made part of a classroom requirement.

### **Can a portion of the grant go toward offering students equipment?**

This is not prohibited, though applicants should consider when developing budgets a reasonable balance in how grant funds are allocated. Typically, a majority of funding is used for personnel. Our [budget template](#) includes a materials and supplies line, and sometimes equipment is included in Other Direct Costs. An example is funding for bookstore vouchers as incentives for students to complete surveys, which is allowable. However, a disproportionate amount of funding toward providing equipment that is not central to the proposal, would lead to a negotiated process with Learning Lab, if the proposal was awarded. In sum, the budgets developed as part of your proposal should match the project, but the budgets are not locked in. If awarded a grant, Learning Lab would negotiate the final budget as part of the grant agreement process.

### **Can funding be used for things like calculators and software licenses?**

As for software licenses, yes, we have approved such expenses as part of grant projects. We would ask for the cost per license and how many licenses are needed. Calculators falls under de minimus expenses under materials and supplies. For all expenses, Learning Lab requests a justification included in the [budget template](#).

### **What can award funds be spent on?**

Award funds may be spent on expenses that are necessary for project implementation including assessment, with parameters provided below. The proposal requires applicants to populate a [budget template](#), with detailed budget information and a budget justification.

Additional parameters:

- Personnel. Personnel may include faculty, staff, graduate student, and student or research assistant time toward planning and implementation of the project. If a project incorporates other student-centered approaches, such as coordination with ancillary student supports, a nominal portion of personnel is allowed for related activities.
- Faculty Stipends. Faculty stipends can go in the Other Direct Cost category (ODC). Please provide the number of faculty, the rate you are paying, and describe their participation.
- Materials, supplies, and equipment. Expenditures on materials, supplies, and equipment will be capped at 10 percent of the grant award and must be necessary to achieve the project goals. If your proposed budget requires a larger percentage of expenditure in these categories, please explain how your project would be widely scalable and replicable at other institutions without the same costs.
- Travel. Learning Lab requests that applicants reserve a total of \$4,000 in the project budget for travel over the course of the maximum grant period (two years) to attend two intersegmental grantee convenings. This amount is based upon two team member attendance, with an estimated individual travel cost of \$1,000 per person.  
  
Learning Lab will only fund reasonable travel that is directly related to furthering the purposes of or disseminating the practices and results of the project. All travel must be approved by Learning Lab with justification and reasonable rates.
- Convenings. Any sponsored convenings must be approved by Learning Lab and accord with state rules and rates for food-related and other costs.
- Learning Lab funds are intended to be used in California. If the project necessitates the use of Learning Lab funds outside of California, a brief justification and estimate

of the funding will need to be provided in the full proposal. The amount of funds that can be spent outside the state will be subject to the final award agreement.

**Why are the Indirect Costs capped at 8 percent and how is this calculated?**

Learning Lab allows for up to 8 percent in indirect costs (IDC) on grant awards. Learning Lab's IDC rate is lower than that contained in the California Model Agreement used by CSU and UC. Learning Lab views the lower rate as appropriate for its grants, because these awards support pedagogical research and demonstration projects involving courses that are normally and regularly offered as part of established departmental curricula. In addition, projects supported by Learning Lab awards generally do not involve substantial facilities or equipment use beyond that associated with normal instruction. As a result, Learning Lab expects funded projects to pose a lower burden on facilities and administration than the research projects anticipated by the Model Agreement.

Learning Lab calculates the 8 percent IDC rate based on project direct costs. Combined direct and indirect costs cannot exceed the award amount. Consequently, for a project awarded a \$100,000 grant, the total IDC cannot exceed \$7,407 (i.e., 8 percent of total direct costs of \$92,593. with indirect and direct costs totaling \$100,000).

**How will money flow for awarded projects?**

For all awards, the grant agreement will consist of a single contract between the institution and the Foundation for California Community Colleges (the Governor's Office of Planning and Research's designated entity to administer Learning Lab).

All project teams should anticipate submitting invoices, either based on expenditures made or progress made on the project, according to the specific terms of the grant agreement and agreed-upon budget plan.

**My institution charges General, Automobile, and Employment Liability (GAEL) and other fees separately. Can I put them in as ODC?**

No. These must be absorbed in your Indirect Cost (IDC) rate.

**Will my submitted budget be approved if my project gets awarded?**

No. The project's final budget will be negotiated as part of the grant agreement, and may be revised during the grant period, with Learning Lab's approval.

## Other

### **Will there be consideration for renewal funding in the future?**

It is not a guarantee that there will be renewal funding in the future, but there may be an opportunity. As part of the grant, we ask for a final evaluation, which helps to inform our future grantmaking. For example, after awarding grants for the Grand Challenge we realized that there was greater need to support efforts to close equity gaps in Calculus and, as a result, developed the Seeding Strategies RFP. In addition, we have another competitive grant opportunity, referred to as our Scaling Success RFP, that is available only to a subset of current grantees with the goal of expanding the impact of successful projects.

### **Could a project be to fund an institute that generates resources on an ongoing basis to bring speakers of color with PhDs in mathematics, for example, to promote greater representation at California Community Colleges?**

Learning Lab does host webinars for our community of faculty and/or broader community, such as a [four-part equity series](#) in tandem with the Grand Challenge RFP last year. We could potentially consider this idea as a separate opportunity. We suggest writing to us with your idea via email at [info@calearninglab.org](mailto:info@calearninglab.org).