



The Maine Center for Research in STEM Education

Faculty Course Modification Incentive Grants and Maine Learning Assistant (FIG-MLA) Program

**Request for new proposals for the 2022-2023 academic year
Faculty with current FIG-MLA funding do not need to re-apply.**

Letter of Intent due by: January 31, 2022. Complete online form (estimated time to complete 15-30 minutes).

Full Proposals due by: February 22, 2022. Complete online form (sent upon receipt of the LOI).

One-on-one Information/Q&A Meetings: As requested – please email Erin Vinson (erin.vinson@maine.edu).

The Maine Center for Research in STEM Education ([RiSE Center](#)) is pleased to invite instructors of science, technology, engineering, and mathematics (STEM) courses at the University of Maine to apply to the [Faculty Course Modification Incentive Grants and Maine Learning Assistant \(FIG-MLA\) Program](#) for the **2022-2023 academic year**. With substantial funding from the Office of Academic Affairs, the FIG-MLA Program is research-supported and successful program that improves undergraduates' STEM course experiences and learning outcomes while providing a rewarding professional development opportunity for undergraduate students and STEM instructors.

The goals of the FIG-MLA program are to:

- improve the quality of undergraduate STEM education,
- promote and support evidence-based teaching,
- help STEM majors build career-relevant teaching and communication skills,
- encourage institutional change at all levels of STEM teaching.

Through the FIG-MLA program, STEM instructors receive assistance in planning and implementing course modifications that incorporate research-based techniques for STEM instruction, including those that promote active learning and peer-to-peer learning. MLAs serve as peer instructors, facilitating group work and assisting instructors as they transform their courses to incorporate more interactive-engagement and student-centered instruction. MLAs learn to use innovative and research-based instructional strategies, develop relevant pedagogical skills, deepen their content understanding, and have the opportunity to explore their interest in STEM teaching, while participating in a vibrant community of peers and instructors.

I. As a FIG-MLA awardee, STEM instructors will receive:

Summer salary. Selected instructors will receive a \$2500 summer stipend for each of two summers. During the first summer, prior to the first offering of the modified course in the 2022-2023 academic year, instructors will plan instructional changes or enhancements and further develop plans for gathering data to assess student learning in their course. Instructors will receive a \$2500 summer stipend for the second summer, following the first offering of the modified course and will analyze the impact of the instructional changes on student learning in their course and revise instructional plans. If you have a colleague (or colleagues) who are also interested in reforming the same course, please contact us to discuss multi-instructor course proposals. We encourage such proposals as appropriate; however, the summer stipend (\$2500) will be split among participating faculty.

Undergraduate Maine Learning Assistants. Incorporating undergraduate students as Maine Learning Assistants (MLAs) as part of the method for implementing the proposed instructional modifications must be a component of the proposed project. These undergraduate students will assist with instruction. MLAs are currently paid the minimum wage (\$12.75/hour as of January 2022). Students new to the MLA program are required to attend a weekly MLA Professional Learning meeting for all first-time MLAs.

MLAs must **not** be expected to do grading of any kind or hold private one-on-one office hours. MLAs will be selected from among students who were successful and/or highly engaged in the course during a previous semester or who have shown previous knowledge for the course content. A formal application and interview process is required for the selection of all MLAs.

Assistance with instructional design and evaluation. Instructors will also have assistance from the RiSE Center including staff, faculty consultants, and/or graduate students to collaborate in course development, data collection, and/or data analysis to evaluate the course modification. We encourage instructors to speak with UMaine's [Center for Innovation in Teaching and Learning](#) staff for feedback and assistance with course design.

II. Expectations of FIG-MLA Program Instructors:

- upon award recommendation, communicate with program staff to discuss the award and commitment.
- develop and implement course modifications and instructional changes described in your proposal.
- hold weekly preparation and coordination meetings with MLAs (this may be combined with regular weekly meetings with graduate student teaching assistants (TAs), if applicable).
- develop and implement the proposed assessment plan for measuring impacts of instructional changes on student learning. We can work with you to develop an assessment plan prior to proposal submission.
- administer pre- and post-semester surveys for program evaluation from the RiSE Center. (We gather these data for program evaluation and not as an evaluation of individual instructors or projects.)
- attend meetings with other instructors in the program to discuss project plans, assessment design, data analysis, challenges, successes, etc. (there will be at least one meeting per semester).
- prepare a brief project report annually, which might be shared with the campus community.

III. Proposal Evaluation Timeline and Anticipated MLA Funding:

Timeline. Letters of intent are due on **January 31, 2022**. Members of the FIG-MLA Review Committee are available to work with instructors to fine-tune their full proposal. Full proposals are due by **February 22, 2022**. Final funding decisions will be made by early **March 2022**. Maine Learning Assistant recruitment will begin mid-March for all Fall 2022 FIG-MLA courses, and mid-October for Spring 2023 FIG-MLA courses.

Anticipated MLA Funding. At this time the program is funded in large part by the office of Academic Affairs. Through this program funding, the RiSE Center covers approximately 65% of the costs of the MLAs. Typically, departments and/or colleges provide the remaining cost of each MLA (about $\frac{1}{3}$ of the cost). Instructors should discuss this match with their department chair and/or dean prior to submitting their full proposal.

FIG-MLA Program Contacts.

- Erin Vinson – RiSE Center Campus Programs Coordinator / erin.vinson@maine.edu / 581-4666
- Sara Lindsay – Professor, School of Marine Sciences, RiSE Center Assistant Director and Faculty, and FIG-MLA Faculty Consultant / slindsay@maine.edu / 581-2739
- Natasha Speer – Assoc. Professor, Dept of Mathematics & Statistics, RiSE Center Faculty, and FIG-MLA Faculty Consultant / natasha.speer@maine.edu / 581-3937

IV. Letter of Intent Instructions

Submit your [Letter of Intent via the Google Form](https://forms.gle/Ge494Nvw9DGVK36a8) (linked to <https://forms.gle/Ge494Nvw9DGVK36a8>) by **January 31, 2022**. The letter of intent must be submitted in order to submit a full proposal. Please complete a separate Letter of Intent for each course you are proposing course modifications and MLAs. The letter of intent form includes the following:

Instructor Information:

Name of primary instructor for the course:

Name of additional instructor(s), if applicable:

Department:

Email address of primary instructor/contact person for the proposal:

Course Information:

Course to be modified (number and title):

Is this a proposal for a course taught by a single instructor or for a course with multiple sections that are taught by multiple instructors (i.e., a multi-instructor proposal)?

Semester(s) when the course for which you are requesting MLAs will be taught

Expected course enrollment (if multiple sections, provide total enrollment for all sections that would be involved):

Approximately how many times have you already taught this course?

Proposed Course Modification:

How many Maine Learning Assistants do you anticipate requesting? Please indicate whether positions would be full time (8 hours per week), part time (4 hours per week) or some combination. If you are not certain, just provide your best guess.

What motivates you to want to introduce or enhance the student-centered, active learning instructional practices used in the course? (Provide a brief description, i.e., 2 or 3 sentences).

Briefly describe the student-centered, active learning instructional practices you would like to introduce or enhance in your course, and what roles MLAs will play to support those changes.

Other information or questions:

Is there any other information you would like to share at this point? Do you have any questions you would like answered prior to submitting a full proposal? If so, include those here.

V. Full Proposal Instructions

Instructors who submit a letter of intent will be invited to submit a **full proposal online** (the link for submitting a full proposal will be provided once the letter of intent is received). Full proposals are due by **February 22, 2022**. Please complete a separate proposal for each course you are proposing course modifications and MLAs. The full proposal form includes the following:

Course Details

Primary instructor for the course:
Email address of primary instructor:
Additional instructor(s), if applicable:
Department
Course number and title
Number of MLAs requested
Semester(s) when the course for which you are requesting MLAs will be taught

Course Modification: The proposed additions or enhancements to the course must involve active learning or other research-supported instructional practices. These can include (but are not limited to) integrating clickers (student response systems) into a large lecture, incorporating collaborative group work, or integrating small group discussion into a large lecture.

Describe in detail how you are proposing to modify this course. Be sure to address:

- what your students will be doing differently in your modified course,
- what will you be doing differently, and
- any instructional practices that you will introduce or enhance.

Why do you believe these changes are likely to improve student learning in your course?

Discuss any challenges you anticipate in modifying your course and meeting the guidelines of the FIG-MLA program. Are there any areas in which you would particularly like to be supported?

Plan for MLAs as part of course modification: The changes or enhancements to the course must make use of MLAs in either lecture or recitation/lab, or both. The MLAs are undergraduates who have done well in the course previously or are otherwise knowledgeable about the course content and are hired to facilitate small group interactions. The way in which MLAs are used may take many different forms including (but not limited to) having MLAs assist during lectures/recitations/labs to help facilitate small group discussions.

Describe how you plan to incorporate MLAs into your course.

How many Maine Learning Assistants do you anticipate requesting? Please indicate whether positions would be full time (8 hours per week), part time (4 hours per week) or some combination. If you are not certain, just provide your best guess.

Please explain what having the MLAs in your course will enable you to do that you couldn't do without them.

Description of Rationale and Assessment. Proposals should include a rationale for the proposed changes and your expectations for the changes to improve student learning. Proposals should also include plans for assessing the impact of the changes on students' learning, attitudes, and/or experience in the course.

What is the rationale for making the proposed course modifications? How do you expect the modifications to improve student outcomes?

Instructors in this program use data to inform instruction. How do you plan to assess the success of your course modifications? What data will you gather? Note: if you need help or would like some suggestions, please contact program staff (Erin Vinson, Sara Lindsay, or Natasha Speer).

Supporting Documents

Funding

- At this time the program is funded in large part by the office of Academic Affairs.
- Through this program funding, the RiSE Center covers approximately 65% of the costs of the MLAs. Typically, departments and/or colleges provide the remaining cost of each MLA (about $\frac{1}{3}$ of the cost).
- Instructors may want to discuss this match with their department chair and/or dean prior to submitting their full proposal.

Supporting documents. Please email the following to Erin Vinson at erin.vinson@maine.edu. Your proposal is not complete until we have received these documents.

- a copy of your resume/curriculum vitae
- a letter of support from department chair/director and that departmental letter should indicate support for obtaining/providing the match (roughly 35%) for MLA costs.

Any additional comments you would like to include for consideration of your FIG-MLA program proposal?