Georgia Perimeter College

STEM Faculty Mini-Grant Program
Transforming STEM Education through Innovation in Teaching, Research and Outreach

2015-2016 Request for Proposals
I. **OVERVIEW**

Georgia Perimeter College Office of STEM Initiatives is pleased to announce a Request for Proposals (RFP) for the 2015-2016 Faculty Mini-Grant Program. The Faculty Mini-Grant Program is in response to the University System of Georgia STEM Initiative II whose overall goal is to increase the number of students prepared for and enrolled in STEM degree programs by improving student access and success in the STEM fields and enhancing existing instructional capabilities of STEM faculty in Georgia’s postsecondary institutions.

The Office of STEM Initiatives invites proposals from GPC tenure-track/tenured faculty in any STEM discipline (Biology, Chemistry, Computer Science, Engineering, Geology, Mathematics, and Physics). Non-STEM tenure-track/tenured faculty may also apply as collaborators with STEM tenure-track/tenured faculty. Collaboration between campuses, disciplines, departments, and institutions is desirable. Previous STEM faculty mini-grant recipients may re-apply, if significant work towards proposal activities has been accomplished and preliminary results are available.

The goal of the GPC STEM Faculty Mini-Grant Program is to support faculty who engage in innovative research-based projects that:

- Restructure current instruction delivery models
- Develop new models for building and sustaining effective teaching
- Impact student learning and performance through research experiences
- Involve students in outreach activities that increases STEM knowledge and literacy

The overall objective is to increase by 10% the number of students who demonstrate satisfactory performance (A, B, C) in the overall course, on an educational unit, or course topical area in gatekeeping courses. Therefore, proposal activities might include:

- Exploring and expanding the use of effective teaching models
- Developing innovative teaching strategies that promote enhanced student learning and improve student performance
- Developing technology-driven solutions that enhance teaching and student learning
- Redesigning course delivery to include a mix of blended in-person and online experiences
- Creating professional learning communities with enhanced learning experiences
- Implementing and evaluating blended models of content delivery based on the concept of the flipped classroom
- Engaging students in research experiences beyond what is traditionally taught in GPC courses
- Involving students in co-curricular outreach activities that improve STEM literacy
II. REVIEW CRITERIA

Proposals will be reviewed by the Faculty Mini-grant Review Panel using the following criteria.

<table>
<thead>
<tr>
<th>Faculty Mini-grant Proposal Review Criteria</th>
<th>Possible Points</th>
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<tr>
<td>Identified need is challenging and well documented</td>
<td>15</td>
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<td>Clear goals and objectives are included and relate to the goals as outlined in the RFP</td>
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<td>Proposal activities have the potential to advance knowledge and understanding within the field or across different fields</td>
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<td>The research plan is well-designed, innovative, based on identified need, and will lead to successful implementation of proposal activities</td>
<td>20</td>
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<td>The evaluation plan includes measures for effectively evaluating outcomes (i.e., measuring student learning, teaching impact, testing hypotheses)</td>
<td>10</td>
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<td>The dissemination plan includes an effective strategy for sharing results (i.e., presentations, publications, etc.)</td>
<td>5</td>
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<td>Budget expenditures are rational, justified, and directly linked to proposal activities</td>
<td>10</td>
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<tr>
<td>Total Possible Points</td>
<td>100</td>
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**Bonus - Proposed activities have potential for broad impact by reaching large numbers of students through collaboration**

III. PROPOSAL FORMAT

The proposal should include a two page project description and two page budget inclusive of a budget justification. The proposal should be structured using the following format:

A. Project Description

1) *Introduction.* The introduction introduces the problem followed by a rationale for proposal activities. The introduction should include:
   - The problem statement, context for the problem and discussion of why the problem is important
   - Course(s) that will be impacted, if activities are course-related
   - Major issues or concerns addressed by proposal activities
   - Hypothesis/theory to be tested or question(s) to be answered
   - Limitations or boundaries of proposal activities
   - Prior work (optional)

2) *Literature Review.* The literature review demonstrates knowledge of the research problem and lays the foundation for proposal activities. The literature review should include:
   - A brief history of the problem and literature relevant to the problem

3) *Research Plan/Method.* The research plan or method section describes how to attack the research problem. The research plan should include:
   - Specific activities to be conducted and a timeline
   - A description of participants involved in activities or those who will be impacted
   - A list of the personnel involved (include collaborators with campus, department, email, phone, and rank). **All participants listed in the proposal must complete an Application Cover Sheet and their department chairs must sign to acknowledge their participation in the project.**
   - Instruments to be developed or used and a description of products resulting from proposal activities
4) **Evaluation plan.** The evaluation plan is designed to determine the impact of proposal activities. The evaluation plan should include:
   - Data to be collected and a description of how the data will be analyzed. Proposals not including a detailed evaluation plan will not be considered for funding.

5) **Dissemination.** Describe how findings will be disseminated. Faculty members are strongly encouraged to publish and present the results of their mini-grant. The USG is particularly interested in having the results of the project disseminated.

*Note: If this is a continuation project, initial results must be included.*

B. **Budget**
Use the supplied budget template to provide a budget with a brief explanation on how the funds will be used to facilitate research activities and meet proposal objectives.

IV. **GENERAL APPLICATION INFORMATION**

A. **GPC Institutional Review Board**
The GPC IRB is designed to assist investigators in conducting research, while ensuring adherence to all state and federal regulations, as well as College policies. The IRB procedure and applicable forms are available at [http://www.gpc.edu/~gpcoirp/irb/](http://www.gpc.edu/~gpcoirp/irb/). For more information or if you have concerns about data collection, contact Dr. Patricia Gregg in the Office of Institutional Research and Planning, Patricia.Gregg@gpc.edu or 678-891-2571. **A copy of the approval or pending approval status is required as part of the submission process.**

B. **Budget Requests**
Budget requests must be directly linked to facilitating proposal activities. The funding amount may include the following:
   - Materials, supplies, and books.
   - Travel and editorial/publication fees for the purpose of disseminating the findings of the project.
   - Student stipends.
   - **PI and collaborator compensation**¹ is allowable for participating faculty members. A maximum of the respective discipline’s part-time instructor pay is available. However, in order to receive extra compensation, the research project and/or associated activities must not be performed during scheduled teaching hours or hours associated with College responsibilities. For more information, please review the USG’s Policy 5.3.2 – **Extra Compensation Policy:**
     - ¹**PI/collaborator compensation** will be awarded at the end of the academic year (for full year projects) or at the end of the semester (for semester projects). Compensation is contingent upon demonstration of satisfactory progress toward completion of the project and receipt of the final report. All STEM funds for the fiscal year must be expended or encumbered by the deadlines provided by Logistical Services. **Funds do not carry over to the next fiscal year.**

C. **Reporting**
Required reports:
   - A brief update for full year projects or a final report for fall semester projects is due Friday, December 4, 2015.
   - A final report for full year projects or spring semester projects is due Friday, May 6, 2016.
   - Update reports may be requested prior to these dates to comply with USG requests.
D. Submission
1. Complete and attach the Application Cover Sheet including signatures.
2. Attach Application Cover Sheet for collaborator(s).
3. Attach a copy of IRB approval or pending status (if necessary).
4. Attach the project description (limit 2 pages).
5. Attach the Budget and Budget Justification (limit 2 pages).
6. Submit the completed Grant Application to Office of STEM Initiatives, Decatur Campus, gpc.stem@gpc.edu. (Electronic signatures are permissible).

For help completing the proposal application visit:
http://depts.gpc.edu/~gpcstem/Faculty/faculty-mini-grant.htm
or contact:
Dr. Cynthia Lester, Executive Director; cynthia.lester@gpc.edu; 678-891-2895