STEM Faculty Mini-Grant Program
Increasing the STEM Pipeline through Instruction, Engagement and Impact

2012-2013 Request for Proposals
STEM FACULTY MINI-GRANT PROGRAM

Increasing the STEM Pipeline through Instruction, Engagement and Impact

2012-2013 Request for Proposals

Application deadline – June 22, 2012
Maximum Award Amount - $7500.00

I. OVERVIEW

Georgia Perimeter College Office of STEM Initiatives is pleased to announce a Request for Proposals (RFP) for the Faculty Mini-Grant Program. The Faculty Mini-Grant Program is in response to the University System of Georgia STEM Initiative II, whose goal is to increase the number of students enrolled in STEM degree programs and the number of teachers who are prepared to teach science and math in P-12. The GPC Faculty Mini-Grant Program provides funds for the 2012-2013 academic year to support research-based projects that increase student learning and positively impact student performance in STEM courses. Proposals are especially encouraged in the area of improving STEM education in critical gatekeeping courses (MATH 1113, MATH 2431, CHEM 1211, CHEM 1212, etc.) as well as more advanced discipline-specific courses.

The Office of STEM Initiatives invites proposals from GPC tenure track faculty in any STEM discipline (Biology, Chemistry, Computer Science, Engineering, Geology, Mathematics, and Physics). Term-to-term and adjunct/part-time faculty are also encouraged to apply with tenure-track collaborators. Collaboration between campuses, disciplines, departments, and institutions is strongly encouraged. Previous STEM faculty mini-grant recipients may re-apply, if additional work is needed on grant activities. Proposals inclusive of the theme are also strongly encouraged.

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

- Improve instructional delivery and educational outcomes
- Enhance student learning experiences
- Impact student performance

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. Therefore, proposal activities might include:

- Implementation and assessment of technology use in the classroom
- Development and analysis of a STEM-related service learning project
- Assessment of online learning strategies use to impact student learning and performance
- Design, implementation and assessment of innovative lab activities that promote student learning
- Development, implementation and assessment of professional learning communities that enhance student performance
- Design, implementation and assessment of innovative teaching strategies in gatekeeping courses
- Implementation and assessment of peer-tutoring in gatekeeping courses
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>
</tr>
</thead>
<tbody>
<tr>
<td>Identified need is challenging and well documented</td>
<td>15</td>
</tr>
<tr>
<td>Clear goals and objectives are included and relate to the goals as outlined in the RFP</td>
<td>20</td>
</tr>
<tr>
<td>Proposed activities have potential for broad impact by reaching large numbers of students through collaboration</td>
<td>20</td>
</tr>
<tr>
<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>
</tr>
<tr>
<td>The evaluation plan includes measures for effectively evaluating the project (i.e., measuring student learning, teaching impact)</td>
<td>10</td>
</tr>
<tr>
<td>The dissemination plan includes an effective strategy for sharing results (i.e., presentations, publications, etc.)</td>
<td>5</td>
</tr>
<tr>
<td>Budget expenditures are rational, justified, and directly linked to proposal activities</td>
<td>10</td>
</tr>
<tr>
<td>Total Possible Points</td>
<td>100</td>
</tr>
</tbody>
</table>

Bonus points for focus on innovative strategies used in STEM “gatekeeping” courses | 10 |

III. PROPOSAL FORMAT

The proposal should include a two page project description and a one 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) 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

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.

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/). A copy of the completed IRB application submitted to OIRP, should also be included as part of the STEM Faculty Mini-Grant application. For more information, contact Patti Gregg in the Office of Institutional Research and Planning, Patricia.Gregg@gpc.edu or 678-891-2571.

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.
- Extra compensation\(^1\) for participating faculty members of no more than 50% of total budget request.

\(^1\)Following GPC policy, extra compensation may be paid when the work is carried in addition to a normal full load and when the additional duties are not so heavy as to interfere with the performance of regular duties. Extra compensation is NOT available for laboratory supervisors, department chairs, or other 12-month employees. Any extra compensation for GPC faculty will be at the end of the academic year, contingent on demonstration of progress toward completion of the project. All STEM funds for this fiscal year must be expended or encumbered by June 1, 2013. Funds do not carry over to the next fiscal year.

C. **Reporting**

Two reports are required:

- A brief update on project activities is due Friday, December 7, 2012.
- A final report on project activities is due Friday, May 10, 2013. Update reports may be requested prior to this date 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 the IRB form submitted to OIRP (if necessary)
4. Attach a project description (*limit 2 pages*) and budget (*limit 1 page*).
5. Submit the completed Grant Application to Office of STEM Initiatives, Decatur Campus, gpc.stem@gpc.edu.

For questions, please contact: Cynthia Lester, Executive Director cynthia.lester@gpc.edu; 678-891-2895