

PROGRAM PROPOSAL FOR 2005-2006 ENHANCEMENTS
Promoting Academic Enrichment

1. Name of proposed project Student On-Line Experimentation Extension/Expansion
2. Sponsoring department(s) Math/CS/Econ, Physical Sciences
3. Primary contact C. Pheatt, x5637 J. Ballester, x5971

4. Description of project:

During the past several years, C. Pheatt and J. Ballester have been creating web-accessible physics experiments.

Specifically the projects:

- dropball.cs.emporia.edu - An online experiment in Newtonian Mechanics
- pipedream.emporia.edu - An online experiment in sound resonance.
- thecar.emporia.edu – An online experiment in acceleration.
- thelight.emporia.edu – An online experiment investigating spectrum.
- parabola.emporia.edu – An online experiment investigating parabolas (in progress).

These projects have been developed using undergraduate students in the course CS552, Software Engineering. Funding for developing the apparatus associated with each project has come from the Faculty Research and Creativity Committee, the Simpson Fund, the Innovation Committee and an Enhancement grants in previous years. We would like to extend and expand this undertaking by involving more computer science students as well as physics students. The limitation at this time is funds for equipment needed for the projects.

We are requesting the following 1-year funding:

- Equipment cost. 1 project * \$2,500 per project = \$2,500

5. Manner in which academic success will be promoted by project

This project will encourage undergraduate students to participate in faculty research undertakings. Undergraduate publications may be possible based on the project selected.

6. Relationship to university strategic plan

This undertaking will address the Strategic Plan item, "Retaining High Quality Students" and addresses those student needs.

7. Manner in which program success will be assessed

Assessment will take the form of successful project implementation and student assessment instruments distributed after project completion.

8. Were funds granted for this project during FY 2004? Yes X No

a. Status of project (if funds were received in FY 2004, including what will be done with remaining funds)

All 2005 funds have been expended.

b. Amounts unexpended in FY 2004, which will roll forward to FY 2005

\$0

9. Funds proposed

| | FY 2006 |
|--------------------|----------------|
| Student Salaries | _____ |
| Travel | _____ |
| Speakers/Lecturers | _____ |
| Equipment | <u>\$2,500</u> |
| Other O.O.E. | _____ |
| GRAND TOTAL | <u>\$2,500</u> |

10. Would continued funding for this project be requested during future years?

Yes X No

Return one electronic copy of proposal by April 11 to Bob Grover (groverro@emporia.edu), one copy to the Dean to which your Department reports, and one copy to your Department Chair/ Director.