2010 Student Technology Fee (STF)
Proposal Form

Title of Project: Bond Hall 215 Computer Lab Media Upgrade

Department/Organization: Mathematics Department

Name(s) of Project Applicant(s)

Name Jerry Johnson MS 9063 Phone 3801
Name Tjalling Ypma MS 9063 Phone 3785
Name MS Phone
Name MS Phone

Principal Contact person:
Name Teresa Sherwood Phone 7212

Amount Requested for Project: $27,000
Contribution by Requesting Organization: $2,700

Important notes:

- Before completing this form, please read the Proposal Form Instructions on the STF website: http://www.wwu.edu/stf/

- Beginning this year (2009-10), the Student Technology Fee Committee will no longer accept proposals for computer lab upgrades. Existing computer labs will now be upgraded on a rolling schedule, and the Student Technology Fee will continue to fund these upgrades. (The schedule for upgrading computer labs, when approved, will be posted on the STF website.)

I. Project Abstract

Give an overview of the existing environment, and summarize the items being requested. Briefly explain how the requested technology will:

- improve **student access** to technological resources, and/or
- enhance the **quality** of the student academic experiences through the use of technology, and/or
- increase the **integration** of technology into the curriculum.

II. Relationship to STF Objectives and Impact on Existing Academic Programs

Describe your proposed project in detail. Tell us how it will provide positive benefits to specific courses or instructional programs.

1. From a **student perspective**:
   
   a. How would this project provide additional student **access** to technological resources?
The project expands student access to additional and integrated technologies, both when used by the instructor for teaching purposes and when used by students to share their work with the class. For example, as part of routine classroom and lab activities students would be able to use the document camera to share their mathematical explorations and ideas. BH 215 is a computer lab, but in the context of the classes for which it is used, access to other technologies is desirable from time to time. In particular, students would no longer have to change classrooms in order to view DVDs and other items pertinent to the class content and closely related to the computer demonstrations and experiences that form other parts of the course and currently occur in that space.

b. How would this project broaden or enhance the quality of the student’s academic experience through the proposed technology?

The project broadens and enhances the quality by providing access, by both students and professors, to more varied and integrated technologies. As part of a single class, a professor will be able to show part of a DVD or have students share their work using the document camera without having to change rooms. Thus the classes themselves, and the associated student experiences, will be better integrated and more cohesive.

c. How would this project integrate technology into coursework?

The project provides audio-visual tools that both complement and support student use of computing technologies that are already present in the computing lab.

2. From a faculty perspective, explain how this project will enhance your ability to help students meet their educational goals.

The project will allow a more integrated class experience. For example, in the Math 360 class, we have to manipulate the curriculum schedule in unnatural ways to try to minimize movements from the computing lab to another classroom to view relevant DVDs. Often, the videos are thus not viewed when most appropriate but when feasible. The instructor has written his own Math 360 course and does not use a textbook, so he must constantly resort to using an "ancient" overhead projector, when a document camera is so much better because it also allows the showing of student work generated as part of each class experience.

3. Will other departments be involved with this project? If so, please describe.

Only the Mathematics Department. However, this computing lab is occasionally used for workshop experiences as part of professional development with local mathematics teachers in grades 6-14. These experiences have been minimal to date because of the lack of the items requested as part of this proposed upgrade.

4. Has any part of this project previously been funded by STF?

No ☐ Yes ☑ Please describe:

The computing and projection equipment in the lab was originally partly funded through STF support, and the computers were subsequently upgraded through such support. The most recent computer upgrade was; however, funded through other sources.
III. Utilization

1. Please list the anticipated number of times and duration per each use, per quarter, that the proposed technology will be used by students.

   The computing lab is used by students throughout the day every term, either as part of a class experience or for the completion of course projects. However, the proposed upgrade will be used primarily as an integral part of classroom learning experiences.

   The proposal largely originates in the needs of the class Math 360 (Euclidean and non-Euclidean Geometry), which is taken by a wide range of students, but primarily those interested in secondary math education. That class meets daily in Fall quarter, with about 30 students. However, the proposed technology would likely rapidly be adopted for use by other math courses, given its ability to integrate computational experiences provided by the existing computers with other means of presentation and instruction.

IV. Project Budget

This section details the estimated cost of the project. Include costs that will be covered—by your department or another source—for ongoing costs such as personnel or operating expenses.

To assist you in preparing your budget, please consult with relevant campus support departments (ATUS, Purchasing, Space Administration, etc.). For more information, see this page on our website: http://www.wwu.edu/stf/instructions.shtml

Please complete all of the following sections (attach Excel spreadsheet for any additional details).

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Item Cost</th>
<th>Total</th>
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<tbody>
<tr>
<td>Video Projector</td>
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<tr>
<td>Projector Moun</td>
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</tr>
<tr>
<td>VHS/DVD Player</td>
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<tr>
<td>Blu-ray Disc Player</td>
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<td>Document Camera, Progressive Scan</td>
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<td>Tax (8.5%)</td>
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</table>

We recognize your proposed budget as an estimate. Final funding for successful projects will be established after thorough technical review; some costs may need adjusting due to price changes. The STF Committee may impose special conditions on a project; see the STF Program Description.
1. What funding is available from your department or other sources?

   The Math Department is willing to fund 10% of the overall project cost (about $2700).

2. Could this project be divided into discrete elements that could be funded separately?

   No ☒ Yes ☐ Please summarize and prioritize project segments with cost estimate for each segment.

3. Are lab fees charged for any of the courses that will use this equipment?

   No ☒ Yes ☐ If yes, please note: The total funding requested from the STF must reflect the amount collected from course fees for equipment replacement and/or equipment acquisition. All proposals asking for course fees will be reviewed by the Academic Budget Office.

V. Impact on Existing Resources

The proposal should address your project’s potential impact on existing resources. Special attention should be given to impact on data transmission networks (e.g., sources accessed, networking equipment, etc.), and personnel (e.g., staffing, administrative support, faculty support, etc.).

Any proposal that includes the replacement of computers should specifically address the feasibility and cost effectiveness of upgrading the computers rather than replacing the computers.

1. Describe how existing equipment is used. Contrast this to projected use if your project was funded.

   The computing lab currently involves multiple computer stations and an outdated projection unit. This request is designed to upgrade the lab's media access to a Level 4 equivalent classroom, by providing additional equipment items and thus new capabilities, which enhances the students' course experiences using the current computer stations.

2. Is similar equipment or technology available elsewhere on campus—such as the Student Technology Center, Classroom Services, Video Services, Western Libraries, a college lab? If so, please describe why the existing equipment does not meet the needs outlined in this proposal.

   Yes, but that does not solve the problem of needing on-location access to a decent overhead projection unit, sound system, DVD unit, and document camera. This request is being made so that professors and students do not have to move outside of the computing lab to access necessary technology.

3. If this project involves the replacement of equipment:

   a. Describe the “before and after” configuration changes. A spreadsheet reflecting these changes may be attached.
The only change to the existing equipment is the replacement of the outdated projection system with a more modern projector. Additional equipment includes provision of a DVD player, sound system and document camera.

b. Describe the costs and benefits of replacing vs. upgrading (if applicable).

Not an option.

4. Will this equipment be available to students outside your department?

No ☒ Yes ☐ If the proposed technology will be used by students outside of your department, please describe how they would gain access, how the availability of the equipment will be publicized, the hours/week when the equipment will be available, and any costs that would apply.

5. Does this project involve the check-out of equipment to students?

No ☒ Yes ☐ If yes, please discuss whether or not the Student Technology Center could be assigned this task.

6. Does the department have adequate operating funds to provide ongoing maintenance and support?

No ☐ Yes ☒ Please describe.

Such expenses are minimal for the equipment sought and can be met from the operating budget.

7. Does the department have adequate personnel funds to provide ongoing staff support for this project?

No ☐ Yes ☒ Please describe.

Such expenses are minimal for the equipment sought.

VI. Space and Site Information

This section addresses any space alteration or site preparation necessary for the proposed project. Site alterations include painting, holes in walls, security systems, carpeting, construction, lighting changes, or conversion of a lab or office.

Special Note: If this project requires any site preparation, or if this project uses any space not currently under your department’s control, you must submit a draft proposal to Space Administration by November 25, 2009. Space Administration and Facilities Management will conduct a site survey and respond back to you concerning project feasibility, cost, and schedule. This information must be included in the final project proposal.

Proposals for projects that involve any site preparation will be considered only after the required site surveys by Space Administration and Facilities Management have been completed.
1. Location for installation of equipment or technology.
   The current computing lab in the Mathematics Department.

2. Is site modification required?
   - No ☐ Yes ☒ If yes, please describe (electrical, air, painting, lighting, security, network access, etc.).
     Some additional duct work (for wiring) and other minor modifications (such as mounting of equipment) will be needed.

3. Will this project use space not currently assigned to your department or area?
   - No ☒ Yes ☐ Please describe.

VII. Project Schedule

This section describes your overall implementation schedule. Project awards will be announced by the end of spring quarter. It is anticipated that projects would be substantially completed by the end of the calendar year. If there is any site preparation involved, please align your project schedule with the schedule provided by Space Administration and Facilities Management.

Optimal implementation time is as soon as possible, when classes are not scheduled, and preferably before the next offering of Math 360, Fall 2010.

VIII. Constraints

This section should list any external or internal factors that could affect your project schedule, project objectives, or the project budget (e.g., if external approval is required for curricular changes, or if funding must be received by a certain date).

1. Please describe any constraints to this project.
   None

IX. External Funding

This section must be completed for any projects over $100,000. For project budgets of this scale, the applicant should investigate opportunities for obtaining external funding for all or part of the proposed project.

1. Describe the external organization(s) able to provide funding in support of this project.
   N/A

2. Describe the funding cycle for these requests (submission dates, projected award dates).
3. Indicate the amount of external funding that would be requested.

N/A

4. In cases where joint funding is requested, what will happen if the STF award is made and the external grant is not awarded?

N/A

5. Has a grant proposal already been submitted for all or part of the proposed STF project?

No