

2009 Student Technology Fee Proposal Form

Title of Project: Teaching Station for Biology 348 (BI 365)

Department/Organization: **Biology**

Name(s) of Project Applicant(s)

Name **Janice Lapsansky MS 9160**

Phone **7337**

Name **Jeannie Gilbert MS 9160**

Phone **7482**

Name MS

Phone

Name MS

Phone

Principal Contact person:

Name **Jeannie Gilbert**

Phone **7482**

Amount Requested for project: **9400.00**

Contribution by Requesting Organization:

Important note: Before completing this form, please read the Proposal Form Instructions located on the STF website:
<http://www.wvu.edu/stf/>

I. Project Abstract

Give an overview of existing environment, and summarize the items being requested. Include a brief explanation as to 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.

Currently, the Human Anatomy & Physiology class (Biology 348) is the primary user of BI 365, a utility lab in the Biology building. This is a non-majors "service" course primarily for students outside of the Biology department enrolled in a variety of majors with a wide range of career aspirations. Technology plays an integral role in covering the mostly visual teaching material in a timely manner. An example is the ADAM program (software purchased by STF grant in 2005) and installed on 5 desktop stations in the classroom. However, when an image from ADAM needs to be discussed by the whole class it is almost impossible to do so on one workstation. The classroom is designed for 18, the seat limit is set at 20, but the instructor often allows 22 to accommodate enrollment pressure. Space constraints are recurring issues. A permanently installed overhead projector and computer would increase the ability of the TA to facilitate a more effective, synchronous communication with the entire class related to a visual presentation of a classroom demonstration or exercise.

II. Relationship to STF Objectives and Impact upon 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?

It would allow for whole class participation in discussion of various aspects of anatomy and physiology. The use of visual presentations of online resources, the course website, histology slide sets, x-rays and other imaging modalities, etc. to the class would increase the interaction of the students with the necessary material, much of which is only currently available on the 5 workstations.

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

Undergraduate TA's are the primary facilitators in the A and P laboratory. With the direction of the instructor, the technology would be used to access specific A/P websites, ADAM, histology and imaging archives, videos of clinical procedures, and web based animations in a way that has strong pedagogical support, is directly related to the learning outcomes of the course, and in a delivery mode that is homogenous across all laboratory sections.

- c. How would this project integrate technology into coursework?

The course currently relies heavily on technology as an important communication tool and source of information. It is not unusual for students to suggest websites for use by other students in the class. The instructor evaluates these potential tools, and adds a link to the course website if appropriate. The availability of the technology in the laboratory will enable accurate instruction and a course-based context for student exploration and study using these and other tools outside the classroom. The ability to utilize web animations and streaming video to present active content will aid in engaging the students in the content from a variety of web-based sources.

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

In summary, the types of teaching/learning materials I would use more effectively (if the lab was outfitted with an instructor's workstation and ceiling-mounted projector) include:

**- ADAM (software purchased by STF grant in 2005)
- visual presentations of histology, x-rays and other images in files that I have created. These are currently available only on 5 student workstations in the lab.**

- the course website**
- videos of clinical procedures (better viewed on a large screen)**
- web-based animations**

In order to present from these files to the entire class, one of 4 PPT laptop carts in the department must be reserved and collected from the stockroom, and then returned to the stockroom the next day (because lab meetings conclude after the stockroom closes for the day). This course monopolizes the use of one cart for virtually all of Tuesday and/or Thursday while lab meetings are in session. For security and availability reasons, this technology is not available during proctored open lab meetings, and limits what can be accomplished with large groups of

students during these other times. In addition, laboratory sections in this course are facilitated by UG TAs. I am able to recruit excellent TAs from whom I regularly solicit suggestions to improve the organization and delivery of laboratory content. My current TAs tell me that they would find a presentation template that I would provide very useful, along with a resource of figures, links, etc. toward developing more homogeneous introductions to each lab. They would also use this technology to review with the class the answers to important lab exercises and worksheets.

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

No

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

No

Yes

(Please describe):

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.

Lab meetings are scheduled Tuesday and Thursday 8am - 6pm, but "open lab" hours (always proctored by a TA) mean this lab is available for students to study during most of the building hours: 8am-8pm M-F, and many weekends during each quarter.

IV. Project Budget

This section of the proposal details the estimated cost of the project. Please 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.wvu.edu/stf/instructions.shtml>

ATUS has developed standard configurations for desktop and laptop PCs and Macs. Your project is not limited by these standards, but these figures may be helpful. Standard configurations can be found on the Student Technology Fee website: <http://www.wvu.edu/stf/instructions.shtml>

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

| Item | Quantity | Item Cost | Total |
|---|----------|----------------|----------------|
| Projector and associated wire, speakers, etc | 1 | 4000.00 | 4000.00 |
| Labor for installation | | 4000.00 | 4000.00 |
| Laptop computer | 1 | 1400.00 | 1400.00 |
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| Shipping (taxable) | | | |
| Tax (8.4%) | | | |

We recognize your proposed budget as an estimate. Final funding for successful projects will be established after through technical review; some costs may need adjusting due to price changes. The STF Committee may impose special conditions may upon a project. See Sections B.7 & B.9 of the STF Mission Statement <http://www.wvu.edu/cms/WWU.STF/mission.html>

1. What funding is available from your department or other sources?
none
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 class is limited to using a computer and projector one or more days per week, borrowed from the stockroom carts which are heavily utilized by Biology majors courses.
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 doesn't meet the needs outlined in this proposal.
No, this is a lab course combining dissections and online as well as multi-media research into one lab time.

3. If this project involves the replacement of equipment:
 - a. Describe the 'before and after' configuration changes. A spreadsheet reflecting these changes can be attached.
 - b. Describe the costs and benefits of replacing vs. upgrading (if applicable).

4. Will this equipment be available to students outside your department?
 No Yes

5. If the proposed technology will be used by students outside 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.

6. 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 on-going maintenance and support?
 No Yes Please describe.
The department's operating funds include monies for maintenance.

7. Does the department have adequate personnel funds to provide on-going staff support for this project?
 No Yes Please describe,
The department has 4 scientific technical staff to provide support.

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 control of the department, a draft proposal must be submitted to Space Administration by **Friday, November 14, 2008**. Space Administration and Facilities Management will conduct a site survey and respond back to you with information 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 survey by Space Administration and Facilities Management has been completed.

1. Location for installation of equipment or technology.
 Biology 365 in the biology building

2. Is site modification required?

No Yes Please describe. (Electrical, air, painting, lighting, security, network access, etc.)

Installation of the overhead projector and the wiring required.

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.

Fall 2009 desired.

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.
2. Describe the funding cycle for these requests (submission dates, projected award dates).
3. Indicate the amount of external funding that would be requested.
4. In cases where joint funding is requested, what will happen if the STF award is made and the external grant is not awarded?
5. Has a grant proposal already been submitted for all or part of the proposed STF project?

NO