1. Project Short Title

<table>
<thead>
<tr>
<th>5-8 Word Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modernization of Archaeology/Biological Anthropology Labs</td>
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</table>

2. Total Requested Amounts

<table>
<thead>
<tr>
<th>Fiscal Year 2003</th>
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<tbody>
<tr>
<td>$59,335**</td>
</tr>
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</table>

3. Executive Summary

<table>
<thead>
<tr>
<th>Project Description (Three or four sentences)</th>
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<tbody>
<tr>
<td>Funding is requested to modernize the two laboratory classrooms that are used for instruction in archaeology and biological anthropology. Courses in these fields have been rapidly growing over the past two years, with graduates easily finding employment in several local cultural resource management firms. However, the antiquated facilities and equipment are insufficient for effectively training students in modern, technology-intensive laboratory techniques. In particular, the classrooms need modern LCD display capabilities as well as computer stations for conducting student research.</td>
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4. Project Description

This project will allow for the effective teaching of techniques in archaeology and biological anthropology, skills that provide the foundation for cultural resource management (CRM). Several private and public CRM agencies are located in the Atlanta metropolitan area, and GSU is the only local university to offer the necessary training to enter this growing field. A gauge of the interest in archaeology and biological anthropology is the growing number of students who have been enrolling in these courses, including students from other disciplines, such as history, heritage preservation, geography, and geology. GSU students trained in these skills have been extremely successful at finding employment after graduating, and in fact local CRM firms have been very eager to initiate internship programs with GSU.

Despite these successes, the spaces available for teaching students about archaeology and biological anthropology are inadequate. The primary teaching laboratory used for these courses has no digital visualization capabilities, which could be used in every course that teach these fields. For example, lower-division courses could include 3D visualization to allow students to experience what the past was like, while, in upper-division methods courses, the ability to display a microscope’s field-of-view to illustrate how to identify miniscule features on artifacts would be invaluable. Funding to modernize the teaching laboratory is accordingly requested.

In addition to the teaching laboratory, a second space is reserved for students engaging in independent or group research in archaeology or biological anthropology. This research is required in a number of upper-division courses, and it is of course also a prominent part of graduate education in the program. The student-research laboratory,
however, is currently not equipped with any computers. Modern research in these fields is computer-intensive, from recording data with digital calipers, to 3D modeling of artifacts and skeletal features, to analyzing the resulting data with statistical software. Funding for computers for this room are therefore also requested.

5. Relevance to Regents Guidelines

The proposed project is strictly in compliance with all of the Board of Regents guidelines for the use of technology fees. With respect to the fundamental principles of the Regents Technology Fee Guidelines, this proposal is “above and beyond normal levels” of technology expenditures. Additionally, the project is designed purely for instructional enhancement. The proposal Guidelines that specifically and most strongly justify this proposal include:

[1] Technology fee revenues should be used primarily for the direct benefit of students to assist them in meeting the educational objectives of their academic programs.

[3] Technology fee revenues should be used for hardware and Network related expenditures that include support of general purpose or special purpose laboratories used by students for body productivity and more discipline related activities.

[4] Technology fee revenues may be used for training of students and, to a lesser extent, staff and faculty.

6. Relevance to Strategic Plan

This proposal reflects our effort in using technology to achieve academic excellence. Currently the Department provides courses in the Core curriculum in both social sciences foundation area (Anth 1102) as well as Area F of the Core (Anth 2030), both of which include components in archaeology and biological anthropology. Modernizing the laboratory classrooms will enhance instruction and the hands-on learning experience for the students and have far-reaching impact for the entire university community. With the increasing interest in our archaeology and biological anthropology programs by both students and local employers, the Department wants to ensure that the students are well-prepared for entering the field. The Department has enjoyed initial success in building relationships with the local CRM community, and we want to make sure our reputation continues to grow.

7. Impact on Students Served

Courses and the number of students impacted include:

**Anth 1102 Introduction to Anthropology**, Enrollment: 600–700 students/year
**Anth 2030 Introduction to Archaeology**, Enrollment: 30–40 students/year.
**Anth 2040 Introduction to Biological Anthropology**, Enrollment: 30–40 students/year.

These are the lower-division classes that will be benefited by a modernized laboratory classroom. Anth 1102 and Anth 2030 are part of the Core curriculum. The use of the classroom would include digital demonstrations of archaeology and biological anthropology that would be accompanied by hands-on work with casts and artifacts stored in the classroom.

**Anth 4300/6300 Human Evolution**
**Anth 4330/6330 Primate Behavioral Ecology**
**Anth 4360/6360 Methods and Theories in Biological Anthropology**
**Anth 4370/6370 Forensic Anthropology**
**Anth 4590/6590 Archaeological Laboratory Methods**

These upper-division courses will benefit the most directly from improvements to both laboratories. All of these courses feature hands-on training and research experience in archaeology and biological anthropology, and improvements to both the teaching laboratory and the student-research laboratory will greatly enhance instruction. The enrollment in these upper-division courses has been
increasing so rapidly that the impact is difficult to assess; currently, approximately 100–130 students enroll each year.

**Anth 4160/6160 Archaeology of the Southwestern U.S.**  
**Anth 4180/6180 Archaeology of the Southeastern U.S.**  
**Anth 4390/6390 Diet, Demography, and Disease**  
**Anth 4460/6460 Health and Culture**  
These upper-division courses would be able to take advantage of the modernized facilities on an occasional basis as warranted by their curricula. Current enrollment: 60–80 students/year.

**Geog 1112 Introduction to Weather & Climate**, Enrollment: 600–700 students/year (including summer).  
**Geog 1113 Introduction to landforms**, Enrollment: 500–600 students/year (including summer).  
Both geography courses have frequently held lab sessions in the teaching laboratory classroom when it is not being used by archaeology or biological anthropology courses. Instruction in these courses would be greatly enhanced with the proposed improvements.

In addition, the student-research laboratory would be intensively used by graduate students studying archaeology and biological anthropology, both for their advanced coursework and for their practicum or thesis research.

### 8. Justification of Funding Requirements for Fiscal Year 2003

<table>
<thead>
<tr>
<th>Object of Expense</th>
<th>Itemized Descriptions</th>
<th>Quantity</th>
<th>Extended $ Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Salaries</td>
<td></td>
<td></td>
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<tr>
<td>Fringe Benefits</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Student Salaries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment (Note: Use standard dollar amounts and replacement thresholds from sections 11/12, or provide explanation in sections 11/12)</td>
<td>Windows instructor computer</td>
<td>1</td>
<td>$1,800.00</td>
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<tr>
<td></td>
<td>Instructor multimedia station</td>
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<td>$2,000.00</td>
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<tr>
<td></td>
<td>Digital projector</td>
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<td>$7,500.00</td>
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<tr>
<td></td>
<td>Stereo microscope</td>
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<td>$1,200.00</td>
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<tr>
<td></td>
<td>Microscope video camera</td>
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<td>$1,300.00</td>
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<tr>
<td></td>
<td>Microscope storage cabinet*</td>
<td>2</td>
<td>$3,200.00</td>
</tr>
<tr>
<td></td>
<td>Dry-erase boards**</td>
<td>5</td>
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<tr>
<td></td>
<td>Macintosh computers</td>
<td>5</td>
<td>$15,850.00</td>
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<tr>
<td></td>
<td>Network printer</td>
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<tr>
<td></td>
<td>Laboratory tables*</td>
<td>3</td>
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<tr>
<td></td>
<td>Laboratory chairs*</td>
<td>5</td>
<td>$1,165.00</td>
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<tr>
<td></td>
<td>Storage cabinets*</td>
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<tr>
<td>Software</td>
<td>VCR</td>
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<tr>
<td></td>
<td>Slide projector</td>
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<td></td>
<td>Mounting hardware</td>
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<tr>
<td></td>
<td>Speaker and amp setup</td>
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<tr>
<td></td>
<td>Ceiling-mount screen</td>
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<td>$770.00</td>
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<tr>
<td>Maintenance or Contractual Services</td>
<td>Electrical and wiring</td>
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<tr>
<td>Supplies</td>
<td>Network connections</td>
<td>6</td>
<td>$2,700.00</td>
</tr>
<tr>
<td>Construction Services (Requires review of Planning &amp; Facilities)</td>
<td>Network connections</td>
<td></td>
<td>$</td>
</tr>
<tr>
<td>Description</td>
<td>Amount</td>
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<td>review of UCCS)</td>
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<tr>
<td>Other Expenses (explain)</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>$59,335</td>
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* To maximize the number of students that can use the classrooms and to ensure that the teaching materials are secure, funding is requested to replace antiquated furniture and unsecured storage cabinets with more space-efficient and modern equipment.
** To ensure that computer equipment is not damaged, old chalkboards in both classrooms will need to be replaced.

9. **Consequences of Partial Funding**

If the proposal were funded at 75% of the total request, the project would still be viable. The most important component of the project is the modernization of the teaching laboratory into an effective instructional space, for this would impact the most students. This level of reduced funding would cover all of the requests for improvements to this room ($28,170). However, modernization of the student-research laboratory would have to be truncated. Only 3 computers would be purchased along with the network printer and the dry-erase board for that room. The laboratory tables and chairs and 3 of the storage cabinets would be removed from the budget, resulting in a reduced budget of $43,955.

If the funding were reduced by 50% of the total request, the project would still be viable. All of the funding would be dedicated to modernizing the teaching laboratory. All of the Macintosh computers, the network printer, the tables and chairs, one of the dry-erase boards, and all but two of the storage cabinets would be removed from the budget, resulting in reduced cost of $28,170.

10. **Standard Dollar Amounts**

The requests for computer equipment do not depart from standard dollar amounts.

11. **Standard Replacement Thresholds**

The proposal does not include any requests for the replacement of equipment due to obsolescence or inadequacy.

12. **Prerequisite, Non-Technology Fee, Funding**

This proposal is not dependent upon any non-technology fee prerequisite funding.

13. **Matching Funds**

At this time, there is no additional funding committed to the proposed project.

14. **Staffing and Other Support Availability**

No new support is required for the proposed instructional lab expansion. Current faculty and staff who will either teach or maintain the instructional lab include the following:

**Dr. John Kantner**: Archaeologist with specialties in complex societies, American Southwest, Internet-based instructional technology, and 3-D modeling. Instructor of Anth 2230.

**Dr. Paul Knapp**: Physical geographer with specialties in biogeography, meteorology and climatology. Instructor of Geog 1112.
Mr. Jeffrey McMichael: Instructional lab manager with specialties in networking and system administration, graphic design, and cartography. Instructor of Geog 4526/6526.
Dr. Susan McCombie: Medical anthropologist with specialties in epidemiology, public health, and biocultural anthropology. Instructor of Anth 4440/6440 and Anth 4620/6620.
Dr. Frank Williams: Biological anthropologist with specialties in human osteology, forensic anthropology, and human evolution. Instructor of Anth 4300/6300, Anth 4360/6360, and Anth 4370/6370
Dr. Zhi-Yong Yin: Physical geographer with specialties in water resources, remote sensing, and GIS applications in environmental studies. Instructor of Geog 1113, Geog 4530/6530, Geog 4640/6640, Geog 4650/6650, and Geog 8050.

15. Space Availability
The two laboratory spaces to be modernized—Kell 100 and Kell 316—are currently used by the Department of Anthropology and Geography for teaching and student research.

16. Impact on Facilities
The proposed project should result in minimal impact to the University’s facilities infrastructure. Both rooms will require minor modification to the network and electrical systems to accommodate the computers and LCD projector. Kim Bauer of Planning and Facilities was consulted on impact and costs of this project, as indicated in the attached email message.

17. Impact on Computing/Network Infrastructure
Both rooms have network ports, but some minor modifications will be needed to ensure that ports are located where needed. The student-research laboratory will need a few additional ports to accommodate the additional computers in that room. Because the department maintains its own web server and data servers, the project will not put significant strain on the University computing/network infrastructure. Mark Roberson, Assistant Director of UCCS, was consulted and provided his assessment of the impact of this project, as indicated in the attached email.

18. Post-Project Assessment Criteria
The outcomes of the proposed project would be somewhat different for the two laboratory spaces to be modernized. For the teaching laboratory, the success of the project can be evaluated in two stages: first, on the successful installation of the digital projection system, and, second, on the increasing frequency of use of the room by faculty and students. For the student-research laboratory, the project can also be considered a success in two stages: first, once the space is reorganized and the small network of research computers installed, and, second, once students begin to regularly use the space for their own research projects.

19. Review and Acknowledgements
From Planning and Facilities:

> From: "Kimberly P. Bauer" <kimbauer@gsu.edu>
> Date: Tue, 05 Feb 2002 15:12:24 -0500
> To: <kantner@gsu.edu>
> Subject: Re: Tech Fee Proposal
> Hi!
> I did receive your Tech Fee Proposal and have been reviewing it with our
> electrical engineer. He suggests that you allow $5,000.00 for data and
> electrical installation as well as the wiring needed for the projector and
> screen. This cost does not include any equipment (computers, screen, etc.),
> but I assume that that is part of your proposal.
>
> I think that this e-mail will probably work for the purpose of my review. If
> you need any additional information, please let me know.
>
> Kim Bauer

From UCCS:

From: "Mark Roberson" <istmar@langate.gsu.edu>
Date: Tue, 05 Feb 2002 17:19:51 -0500
To: <kantner@gsu.edu>
Subject: Re: Tech Fee Proposal

Dr. Kantner,

Bill Paraska asked that I review your proposal and provide network costing information.

The proposal indicates an addition of 3-5 computers for room Kell Hall 100. I estimate the network cost to approximately $400-450 per computer. This cost includes cabling and the actual network connection. The same cost can be applied to any network attached computers or printers in Kell Hall 316. Of course, these estimates do not include any electrical or furniture requirements.

Mark

Mark Roberson
Assistant Director, UCCS
Georgia State University, IST
95 Decatur Street, Suite 500
Atlanta, GA 30303
phone: 404.651.3944
pager: 404.382.3854