PROPOSAL TO THE COMPUTATION ADVISORY COMMITTEE FOR SUPPORT FROM CENTRAL POOL STUDENT COMPUTER FEES

PROJECT TITLE:
Enhancing the Public Computing Lab at 156 Horticulture Hall

PROPOSING UNIT:
Department of Horticulture

ADMINISTRATIVE REVIEWING UNIT:
College of Agriculture

ADMINISTRATORS AND PROJECT PARTICIPANTS:

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Department of Horticulture

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Department of Horticulture

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FCS – Dietetics

Stacy Friesen
Undergraduate Student
LAS – Biology

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Department of Horticulture

PROJECT LEADER:
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PROJECT OVERVIEW AND EXPECTED BENEFIT

The Department of Horticulture manages the seven public student computing labs located in Horticulture Hall. Nine years ago, the department embarked on an ambitious project of providing advanced computing resources to university students, due to the large numbers of student visitors to its classroom facilities as a result of the building’s central location on campus.

The facilities provided by the department are designed to address the general instructional and research computing needs of the university community: One student lab features advanced CAD capabilities, another student lab features multimedia and web authoring capabilities, while five smaller student labs feature Macintosh and PC computers having more specialized capabilities, such as statistical analysis and desktop publishing.

The lab at 156 Horticulture Hall contains 30 PCs utilizing the Windows operating system. These computer systems include software that supports several applications used by students from all academic areas. Additionally, these PCs are used for multimedia and web authoring projects. All computers provide secure access to core ISU network services, such as AFS, Telnet, and FTP. The facility includes both wired and wireless network access for students, faculty, and staff to connect their mobile devices to the ISU network.

Students have full control over their computing session. PCs in the lab use a technology that restores the computer system to its original configuration after rebooting. This configuration assures privacy, ensures compliance with software licensing and copyright laws, and prevents exposure to objectionable material.

Computer systems in the lab contain the following software applications, which are continuously upgraded by the department: Adobe Acrobat Professional 7, Adobe InDesign CS, Adobe Photoshop CS, Adobe Premiere Pro, JMP, Macromedia Studio MX 2004, Microsoft Office 2003 Professional, Roxio Easy CD Creator 7, various web browsers and instant messaging software, QuickTime, Real Player, Windows Media Player, and various terminal emulation/file transfer software as well as antivirus software available through Scout.

The lab contains an LCD projection system for classroom instruction. This technology allows other departments on campus to schedule student-related computer instruction in the lab.

The facility contains self-serve laserprinters. Students are not charged for printing, but there is information posted in the facility regarding appropriate use of the free printing service to prevent waste of resources. A student lab monitor is also present in the facility to provide assistance for users’ printing needs.

A student lab monitor provides assistance to faculty, staff, and students using the services within the lab. The lab is open to all students a minimum of 40 hours per week, and use of the facility for classroom instruction can be scheduled for up to 8 hours per week.

University student traffic in the Horticulture Building averages 5,198 students per week in the teaching classrooms and labs (Facilities Planning/Management, Fall 1997 Statistical Record). When students leave these classrooms, they frequently head to one of the seven computing labs located in Horticulture Hall.
At the request of the department chair, the department’s Systems Support Specialist conducted informal interviews with 200 students selected at random during visits to the lab at 156 Horticulture Hall, between January 3, 2005 and February 21, 2005. Questions asked of the students were: “What college is your major in?”, “Why do you come here to use this lab?”, and “What do you want to see upgraded/improved in this lab?”.

Results of the ad-hoc student survey:

**Student Visitor Demographics**
- 41% College of Agriculture
- 28% College of Liberal Arts and Sciences
- 17% College of Family and Consumer Sciences
- 8% College of Education
- 6% College of Design

**Student Visitor Responses to: “Why do you come here to use this lab?” (Top 3)**
- 62% “I attend classes in the building, and this computer lab is just down the hall…”
- 27% “I heard about this lab from another student, who uses it…”
- 11% “I’m glad to see my student fees being used to provide some free printing…”

**Student Visitor Responses to: “What do you want to see upgraded/improved in this lab?” (Top 2)**
- 53% “Your PCs need DVD burners, so I can save my multimedia project on DVD…These computers are slow…When are you getting PCs with Pentium 4 processors in them?…”
- 47% “The printers in this lab are too slow…I am always waiting in line to get my printout…”

Based upon overall feedback from student visitors, the lab at 156 Horticulture Hall is one of the most-used public computing labs on campus. It is centrally located for ISU students, who need access to computing facilities on campus. The facility is also one of the attractions that prospective students visit during campus tours.

Based upon ad-hoc daily head counts of students visiting the computer labs and the Facilities Planning/Management statistical information for Horticulture Hall, we project that more than 125,000 people will visit the student computer labs in Horticulture Hall in 2005. The majority of these visitors will be ISU students who need to use state-of-the-art computer equipment for their instructional and research assignments.

The goal of this proposal is to provide an upgrade to the existing technology in 156 Horticulture Hall in order to provide updated resources that meet the computing needs of all ISU students that visit the facility.

This proposal is a request for funding in the amount of $44,794.00 to purchase updated hardware for 156 Horticulture Hall including 30 new PCs with Pentium 4 processors running the Windows XP operating system and two networked monochromatic laser printers. The existing PCs in the lab are more than five years old and have become very difficult and expensive to maintain. The new PCs will include DVD-authoring features, faster processors, and more memory that will satisfy students’ needs during multimedia development. The existing laser printers are also more than five years old and require frequent maintenance. These printers do not have the features to consistently serve users’ needs. There are daily printing backlogs with waiting periods of more than twenty minutes. The proposed new printers will resolve these issues.
This proposal focuses on upgrading and enhancing services provided in the 156 Horticulture Hall computer lab, which is accessible during the hours of 7:30 A.M. to 6 P.M., Monday through Friday. Horticulture Hall is open to the public from 7:30 A.M. to 6 P.M. on weekdays and closed on weekends and holidays.

**INNOVATIVE UPGRADES AND ENHANCEMENTS**

New Media Formats: The new PC computers will have the capability to burn DVDs. Front-accessible USB ports will allow access to FlashDrive technology, which is more reliable than zip/floppy disks for storing files.

Hyperthreading: The Pentium 4 processor in the new PCs will allow faster processing of digital video content for multimedia projects.

New Laser Printers: New laser printers will allow faster printing up to 50 pages per minute at a higher resolution of 1200 dpi, which will prevent printing backlogs and provide users with better quality prints.

**INTEGRATION WITH EXISTING FACILITIES**

The lab at 156 Horticulture Hall (see Figure 1) is equipped with facilities that include power and 100Mbps network connectivity as well as wireless network connectivity for students, faculty, and staff to connect their mobile devices to the ISU network and the Internet.

**SUPPORT AND MAINTENANCE**

The public computing lab at 156 Horticulture Hall is managed by the Department of Horticulture. The department provides direct support for the computer facilities and services available within the lab. Fully 20% of the department’s System Support Specialist’s time is allocated to management of the facility and the training and supervising of the student lab monitors, a level of support that the department sees as sufficient. The department intends to continue this level of support in the future.

Expenditures for network connections and furniture for the facility are supported by the Department of Horticulture. The department also pays for security kits used to secure all equipment located in 156 Horticulture Hall.

All replaced equipment will be rotated either into the Department of Horticulture’s smaller student computer labs or disposed of according to CAC’s “Policy Regarding Disposal of Hardware Acquired with Student Computer Fee Income.”
### Table 1. Full Itemized Budget

<table>
<thead>
<tr>
<th>Description of Item</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>University Pool</th>
<th>Horticulture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dell OptiPlex 170L Small DT; 17 inch CRT monitor</td>
<td>30</td>
<td>$1,271.00</td>
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<td>$0</td>
<td>$3,900.00</td>
</tr>
<tr>
<td>Security Kit</td>
<td>30</td>
<td>$51.00</td>
<td>$0</td>
<td>$1,530.00</td>
</tr>
<tr>
<td>Drive Shield Universal License</td>
<td>1</td>
<td>$612.00</td>
<td>$0</td>
<td>$612.00</td>
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<tr>
<td><strong>Total Request</strong></td>
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<td><strong>$44,794.00</strong></td>
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### Table 2. Minimum Feasible Itemized Budget

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Figure 1: 156 Horticulture Hall Floor Plan