Request for computer equipment funding for ceiling-mounted projector for student instruction

jointly submitted by the

Department of Horticulture
Department of Plant Pathology
Department of Entomology

to the

College of Agriculture

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Project Overview

This proposed use of student fees will allow the delivery of innovative cross-platform instructional content by multiple College of Agriculture departments to students using computers in a classroom setting.

Expected Benefits

After installation of computers, in 1999, capable of delivering digital streaming video and other innovative instructional content, the Student Instructional Computation Laboratory located in room 156 Horticulture Hall has become the focus of web and classroom instructional content that is being delivered by faculty in Horticulture and other departments in the College of Agriculture.

With this increased usage of the facility for instruction has come complaints regarding the instructional limitations of having to go from computer to computer to instruct students. Therefore, we are seeking outside funding to purchase a ceiling-mounted LCD multimedia projector for use in the Student Instructional Computation Laboratory.

The equipment funded by this proposal would provide instructional content to students accessing it in the computer classroom environment. This new equipment would facilitate the delivery of instructional content to students in a digital classroom environment and would empower them with greater flexibility and interactivity during the instruction process.

Student traffic in the Horticulture Building averages 5,198 students per week in the classrooms and teaching labs (Facilities Planning/Management, Fall 1997 Statistical Record). Logs of student attendance in the Student Instructional Computation Laboratory in 1999 show 68% of attendees are non-horticulture majors. A total of 8,679 students have used the Student Instructional Computation Laboratory in 1999. The Student Instructional Computation Laboratory is available to all university undergraduate and graduate students between the weekday hours of 8 AM and 5 PM. Up to 36 students can work simultaneously in the laboratory.

The Student Instructional Computation Laboratory is also available to all university departments for classroom instruction on a scheduled basis. Other College of Agriculture departments, such as Entomology and Plant Pathology, are already using the laboratory for classroom instruction involving computer technology. The facility is also used by undergraduate and graduate students for presentations as part of their course projects as well as thesis research. Based upon projected use of the facility for classroom instruction, we anticipate that at least 700 students will be positively affected by the addition of a ceiling-mounted multimedia projector in the the Student Instructional Computation Laboratory annually.

Innovative Features

Faculty in College of Agriculture departments are using new instructional technology that can illustrate more complex concepts and allow students to process the information using multiple learning methods at their own pace. Much of this new instructional technology is being delivered in the Student Instructional Computation Laboratory in 156 Horticulture Hall. The following College of Agriculture faculty are using the Student Instructional Computation Laboratory for instructional delivery:

Dr. Gail Nonnecke—Horticulture 221 (Principles of Horticulture)

Dr. Nick Christians—Horticulture 351 (Turfgrass Establishment and Management)

Dr. Cynthia Haynes—Horticulture 121 (Home Horticulture)

Dr. Mike Evans—Horticulture 332 (Greenhouse and Controlled Environments)

Barb Osborn—Horticulture 110 (Orientation in Horticulture)
A common response that other College of Agriculture faculty give for not using the Student Instructional Computation Laboratory for instruction is “moving from computer to computer to show how to do something detracts from my instructional delivery and blunts the education experience of the students. I need the ability to bring in my portable computer and to project its contents onto the screen in the room or to be able to project what is on a lab computer on the screen in the room.” Therefore, we are seeking outside funding to purchase a ceiling-mounted LCD multimedia projector for use in the Student Instructional Computation Laboratory, which would allow more College of Agriculture faculty to deliver instructional content in new and innovative ways to students and to engender greater student involvement in the classroom environment.

Traditional instructional methods involve little involvement from students in an instructional or lecture setting. The use of the multimedia projector in the Student Instructional Computation Laboratory would promote greater student involvement and feedback during the instruction process. Students would have more hands-on interactions with the instructional media as well as with the instructor.

We have had phone requests from faculty in Animal Ecology, Botany, Entomology, Forestry, and Plant Pathology for use of the lab for classroom instruction, so the use of the projector will extended to other departments in the College of Agriculture.

We are asking for funding in the amount of $5,749.00 for the purchase of a Sony LCD Multimedia Projector. The Horticulture Department will provide $2,783.94 in matching funds for mounting, wiring, and installation of the equipment.

Use of this equipment and instructional technology would be available to all Iowa State students.

**Support and Maintenance**

On-going maintenance and repairs for the proposed equipment will be paid out of the horticulture department’s yearly student fee allocation.

<table>
<thead>
<tr>
<th>Description of Item</th>
<th>Number</th>
<th>Unit Cost</th>
<th>University Pool</th>
<th>Horticulture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sony LCD Multimedia Projector</td>
<td>1</td>
<td>$5,749.00</td>
<td>$ 5,749.00</td>
<td></td>
</tr>
<tr>
<td>Chief LCDA Ceiling Mount</td>
<td>1</td>
<td>$ 245.60</td>
<td>$   245.60</td>
<td></td>
</tr>
<tr>
<td>Adjustable Ceiling Plate</td>
<td>1</td>
<td>$ 143.34</td>
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<tr>
<td>VGA Inputs and Splitters</td>
<td>1</td>
<td>$ 595.00</td>
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<tr>
<td>FP&amp;M Wiring/Installation</td>
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<td>$1,800.00</td>
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<td><strong>Total Cost</strong></td>
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**Budget**
## Minimum Budget

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## Appendix

156 Horticulture Hall
Student Instructional Computation Laboratory
Floor Plan