

# College of Pharmacy Information Technology Vision Plan 2005-2006

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College of Pharmacy  
 Information Technology Vision Plan  
 2005-2006

Summary of Requests

Note that each of these requests is detailed later in this document.

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|--|----------|
| 1. Continue life-cycle replacement of lab PCs-----                 | \$20,000 |
| 2. Remodel/upgrade PHR 4.114 -----                                 | \$30,000 |
| 3. Integrate Classroom Performance System (CPS) -----              | \$20,000 |
| 4. Classroom technology maintenance/upgrade (Departmental) -----   | \$20,000 |
| 5. New RAID for streaming video -----                              | \$10,500 |
| 6. Classroom technology maintenance/upgrade (General Purpose)----- | \$20,000 |
| 7. Convert PHR 3.106 video to SDI (digital) video standard-----    | \$40,000 |

Infrastructure

- |                               |          |
|-------------------------------|----------|
| 8. Data network projects----- | \$20,000 |
|-------------------------------|----------|

Total requested:        \$180,500

## Overview of Current Programs and Infrastructure

### Vision/Mission/Goals of Unit

The UT College of Pharmacy Learning Resource Center is responsible for practically all academic information technology support within the College. Its mission statement, reproduced here from the College's website, is a simple one:

The mission of the Learning Resource Center of the College of Pharmacy is three-fold:

- to support and maintain a reliable and modern instructional technology infrastructure;
- to offer dependable, outstanding service to faculty, students and staff in specific, identified priority areas; and
- to provide professional training and consulting on using technology for productivity and education.

### Services

The LRC makes its mission operational by supporting:

- live two-way and multi-point interactive video conferencing
- analog and digital delivery of recorded Pharmacy classes
- computer and audio/visual support for classes
- a student computer laboratory
- an instructional materials development facility
- a student media library
- a computer laboratory classroom
- the College website
- training and consulting in a variety of technical areas

## Infrastructure

The College of Pharmacy operates a full-time computer lab, a computer classroom (available until 3:00 as a General Purpose Classroom), and an audiovisual library that houses computers used for streaming video and general use as well as VCRs and DVD players:

Room	OS	No. of Stations
PHR 3.116	Win XP	19
PHR 2.116	Win XP	23
PHR 3.114	Mac OS X	8

Note that, thanks to a special ITAC appropriation last year, the 23 computers in PHR 2.116 were replaced during the preceding year.

A third of the PCs in 3.116, the main computer lab, are replaced each year. At the time of this writing the standard complement of software included the Microsoft Office suite, web browsers (including specialized plug-ins for media types requested by faculty), A.D.A.M. software for studying anatomy, and a few other helpful utilities such as QuickTime. LabMan is used to manage the labs. Students also access Adobe Photoshop and Acrobat via a keyserver. Keyserving has brought a very cost-effective way to supply occasionally needed software to the College.

## Technology Auditoriums and Classrooms

The College of Pharmacy had one of the first Technology Classrooms on the UT Austin Campus. In 1997, when it was significantly remodeled to bring it to its current configuration, it represented the state of the art in distance education and computer-based teaching facilities on campus. Last year, the control system for the classroom was updated thanks to ITAC funds.

A second room, PHR 4.114, is a fully functional videoconferencing and computer-instruction space. It is, however, becoming rather dated both in terms of its furnishings and some of its equipment. This year, we request funds to purchase new cameras and architecturally update the space, including acoustic treatment in the ceiling, replacement of the literally threadbare carpet, and repair and reupholstering the aging seating.

A third room, PHR 2.208, has been added to the inventory of videoconferencing spaces. This completes the College's complement of video facilities: One auditorium-style large room, one auditorium-style medium room, and a compact boardroom-style facility.

Other rooms have received and will continue to receive audiovisual upgrades in an effort to increase utilization while decreasing demands on staff time. The College placed campus-standard Technology Classroom Consoles in three PHR-located General Purpose Classrooms and has installed projectors and ancillary equipment, described below as PHR standard, in nearly all other instructional spaces.

## Classroom Inventory :

Room Number	Capacity	Installed Equipment effective Fall '04	Gen'l Purpose
2.108	127	NS standard	Yes
2.110	133	NS standard	Yes
2.114	60	NS standard	Yes
2.116	45	PHR standard	~75%
2.208	20	PHR standard*	No
3.106	136	Full tech. classroom, not NS standard*	No
3.108	30	PHR standard (teaching lab)	No
3.110	30	PHR standard (multipurpose lab/classrm)	No
3.114A	10	PHR standard	No
3.114B	10	PHR standard	No
3.114C	6	Plasma screen only	No
3.114D	10	PHR standard	No
4.114	52	PHR standard*	No

\*equipped for two-way videoconference

### Networking and Associated Electronics

As discussed above, wireless Ethernet of the 802.11b standard has been provided throughout the old and new Pharmacy buildings. We expect to upgrade the system's transceivers to 802.11g standard this year.

Total number of Ethernet ports maintained by the College ----- 914  
 Number of static and dynamic IP addresses ----- 542  
 Number of 100baseT switched ports----- 822

### Departmental Servers

The College operates four servers for primarily administrative uses:

- Mac G4, OS X  
 FileMaker Pro Server  
 Now-Up-To-Date
- Mac G3, OS X  
 FileMaker Pro - Instant Publishing.
- Mac G3, OS X  
 FileMaker Pro Unlimited - Dedicated (i.e., non-instant) Publishing,
- Mac G3, OS 9.2  
 FileMaker Pro running Dragon, an online survey tool

In addition, two video servers and a large RAID array are used to publish streaming video to our audiovisual library and feed the video caches installed in our San Antonio and El Paso sites:

- Mac Xserve, OS X Server  
QuickTime/MPEG4. Streaming Server, Apache Web server
- Mac Xserve, OS X Server  
Netinfo/WINS Server, Retrospect backup server using tape array

Finally, three servers are used for file storage and Labman. Note that the Labman server was replaced during the preceding year with ITAC funds:

- Mac Xserve, OS X Server  
LRC Fileserver, AFP/ FTP fileserver
- Dell PowerEdge 2400, Windows 2000 Server  
Labman and Application server
- Dell PowerEdge 2650, Windows 2003 Server  
Ghost, RevrDist, and file server
- Dell Optiplex GX110, Windows 2000 Server  
College Accreditation FTP Server

### **Portable Projectors and Notebook Computers**

Although the College's has installed instructional technology in every dedicated classroom, we still maintain a complement of portable equipment for checkout by faculty and for use in classroom spaces elsewhere not yet equipped with installed equipment.

We continue to provide laptops to students, faculty, and guests giving presentations. In an effort to facilitate the presentation process a pool of 'pen drives' has been purchased and made available to faculty and graduate students. Furthermore, we have (with Liberal Arts Media's blessing) modified the Technology Classroom consoles to accommodate the USB-based pen drives and Liberal Arts has used our USB installation as a model for modification of their consoles.

### **Current and Proposed Funding Sources**

The LRC's funding is chiefly derived from two student fee income streams. One is the College's Instructional Technology Fee. At present, each student enrolled in the College pays this fee. Nearly 100% of the income from this fee is used to fund LRC personnel.

The second main source of income is ITAC funds. At present, ITAC funds virtually all non-human expenditures for IT: computers, video equipment for the College's distance education programs and local use, classroom audiovisual equipment, and so on.

The LRC also receives funding from the Dean's Office for some administrative salaries.

### **Best Practices**

The College of Pharmacy continues to be among campus leaders in the utilization of streaming video. Because the College has an extensive distance education program

involving three UT satellite locations, San Antonio, El Paso, and Pan American, whose coursework is chiefly taught using videoconferencing, this was a natural outgrowth of a long-standing practice of recording those video-taught lectures and making them available, at the faculty member's discretion, to students for their review.

The College currently captures, encodes, and offers as streaming video fifteen to twenty hours per week of course material. We are collaborating on an ITAC request that seeks to build a campus infrastructure to bring the possibility of similar services to others on campus.

## Use of Previous Academic Year Allocations

### Programs and Infrastructure

Last year's Vision Plan requests in summary with outcomes for each:

1. Establish video cache in Edinburg ----- \$20,000  
Project deferred until Pharmacy program moves into new facility in Spring/Summer 2005.
2. Remodel/upgrade PHR 4.114 ----- \$50,000  
This project is finally coming to fruition with architectural work scheduled for the December-January intersession and Spring Break. The College has already purchased and installed new cameras and enhancements to the room's control systems. Note that the architectural remodeling of this space is now estimated to cost \$80,000.
3. Continue life-cycle replacement of lab PCs----- \$20,000  
While the computing power of the existing lab PCs continues to be sufficient, and the Dell PCs and LCD screens have not begun to fail from a mechanical standpoint, these funds will likely be used on architectural revisions. The room is in desperate need of new carpet and, because of the smaller size of today's CPUs more computer stations could be established in the same size with newer furniture. Therefore, these funds are being held to fund both architectural updating and to life-cycle the lab's PCs when they begin to fail.
4. Data network projects----- \$12,000  
The College's network is in excellent shape. Only printers remain on 10baseT circuits, which offers no compromise in performance. 100baseT is now offered to each desktop.
5. New server for Labman----- \$6,500  
Purchased and in use.
6. Classroom technology maintenance/upgrade ----- \$20,000  
The College has continued to maintain and enhance its technology classrooms. One significant purchase made in this category was two new, brighter projectors for PHR 3.106.
6. Convert PHR 3.106 video to SDI (digital) video standard----- \$40,000  
The two new cameras purchased for PHR 4.114 have SDI outputs, joining the cameras in PHR 3.106. This project will continue to be deferred until funds are available, the video plant deteriorates significantly, or the new technology becomes more affordable.

Total requested 2004-2005: \$168,500

### One-time Projects

A one-time award was made to equip PHR 2.116, a unique computer classroom that is approximately 75% General Purpose and 25% Departmental, with updated computers and similar display technology to other Pharmacy classrooms. The project has been completed and was well-received.

## Needs and Proposed Use of Funds Programs

1. Continue life-cycle replacement of lab PCs----- \$20,000  
Although, as previously mentioned, the life cycle has been adjusted to some extent due to the hardiness and suitability of the current crop of lab PCs, this item should and does remain. Thanks to the availability of new, smaller CPUs, we hope to renovate our main computer lab and increase the chair count.
  
2. Remodel/upgrade PHR 4.114 ----- \$30,000  
The previous request for this item was for \$50,000. This request is to offset the shortfall of \$30,000 between the amount requested and the actual cost of architectural updates. Note that this amount does not include the equipment that has been purchased, including two digital robotic cameras.
  
3. Integrate Classroom Performance System (CPS) ----- \$20,000  
Several Pharmacy faculty have indicated a high level of interest in CPS. With the advent of the RF-based system this technology has matured. This request is to cover the College's share of the campus license being negotiated by Natural Sciences and to pay for integration into Pharmacy classrooms.
  
4. Classroom technology maintenance/upgrade (Departmental) ----- \$20,000  
Having three videoconferencing rooms plus technology in virtually every instructional space results in a significant maintenance effort. One significant purchase made in this category was two new, brighter projectors for PHR 3.106.
  
5. New RAID for streaming video ----- \$10,500  
The current RAID for streaming video is in need of replacement.
  
6. Classroom technology maintenance/upgrade (General Purpose)----- \$20,000  
The College has continued to maintain and enhance its technology classrooms. The three General Purpose classrooms within the Pharmacy buildings are maintained on contract by Liberal Arts.
  
7. Convert PHR 3.106 video to SDI (digital) video standard----- \$40,000  
This remains as a long-term goal. This project is inevitable as the current state-of-the-art for video transport works its way down from the broadcast arena to education; in the mean time, the current system can do the job with some patching and work-arounds.

## Infrastructure

### 8. Data network projects----- \$20,000

While the College has invested recently in new gateway switches and other network upgrades, we wish to invest in a few gigabit pathways for critical high-bandwidth projects such as streaming video. Also, renovations in our General Purpose classrooms will leave us in need of more available ports and DHCP addresses because Ethernet is being added to each chair.

Total requested:        \$180,500

## One-time Projects

The College of Pharmacy is participating in a proposal that will be submitted to ITAC as an multi-college project. The proposal requests funding to bring the streaming video (both live and pre-recorded) capabilities that some colleges have already begun to the entire University community. Your consideration is requested for this proposal.