

# College of Pharmacy Information Technology Vision Plan 2008-2009

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College of Pharmacy  
Information Technology Vision Plan  
2008-2009

Summary of Requests

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

Programs

- 1. Continue life-cycle replacement of lab PCs.....\$20,000
- 2. Upgrade/increase streaming video Macs .....\$20,000
- 3. Install classroom response system widely .....\$5,000
- 4. Classroom technology maintenance/upgrade (Departmental) .....\$20,000
- 5. Upgrade Video Production System to HD.....\$20,000
- 6. Classroom technology maintenance/upgrade (General Purpose) .....\$20,000

Infrastructure

- 7. Data network projects .....\$20,000
- Total requested:.....\$125,000

## 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:

#### Mission

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
- faculty and staff desktop and laptop computers

## 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	32
PHR 2.116	Win XP	23
PHR 3.114	Mac OS X	8

Pharmacy computer lab 3.116 was remodeled during late summer 2006, increasing its capacity by about a third. This project is described in more detail later in this document.

The standard complement of software in both labs includes 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.

Keyserved software was expanded to include the entire Adobe Creative Suite CS. In addition to Photoshop and Acrobat, the suite included Illustrator, InDesign, and a few other useful utilities. This represents a significant enhancement to the keyserved offerings. Over the summer of 2007 the software was upgraded to CS 3.

Finally, in an effort to increase value that ITAC returns to graduate students, funds continue to be used to purchase JMP licenses for graduate students. This license is slated to at least double in size with greater adoption during the 2007-2008 academic year.

## Technology Auditoriums and Classrooms

The College of Pharmacy had one of the first Technology Classrooms on the UT Austin Campus, PHR 3.106. 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. However, as with all such spaces, it must be aggressively maintained at a significant annual cost.

This room communicated with the UT System via a high-quality fiber signal until Fall of 2006. At that time, a dedicated PolyCom codec was purchased and installed in the College's control room. Having a dedicated codec has offered far greater flexibility, and the College now has a codec for each videoconferencing space.

A second room, PHR 4.114, is a fully functional videoconferencing and computer-instruction space. This room received a projector upgrade recently.

A third room, PHR 2.208, is one of 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. This room is slated for a technical upgrade in 2007-2008 in order to give users more display opportunities, such as dedicated flat-panel screens to display the remote site and outgoing video.

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. The life-cycle maintenance that is routinely requested via this mechanism will enable an update of the control system in the three General Purpose classrooms as well as projector replacement in two of the rooms; the third recently had a projector upgrade due to equipment failure.

## Classroom Inventory

<u>Room Number</u>	<u>Capacity</u>	<u>Installed Equipment effective Fall '04</u>	<u>Gen'l Purpose</u>
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
2.214	20	Data projector, dual-platform computer	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 videoconference

## Networking and Associated Electronics

As discussed above, wireless Ethernet of the 802.11b standard was originally provided throughout the old and new Pharmacy buildings. This system was upgraded to 802.11g standard during 2005.

Total number of Ethernet ports maintained by the College -----	997
Number of static and dynamic IP addresses -----	542
Number of 100baseT switched ports-----	871

Early indications are that the College's wireless access points will have to be upgraded to maintain the campus standard. This activity will be funded from network maintenance funds.

## Departmental Servers

The College operates four servers for primarily administrative uses:

- Mac Mini, OS X  
FileMaker Pro Server
- Mac Mini, OS X  
FileMaker Pro Unlimited - Instant Publishing.
- Mac Mini, OS X  
Sassafras Keyserver, Now-Up-To-Date

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
- Dell PowerEdge 2850, Windows 2003 Server  
Flash Communication Server, Flash video streaming
- Mac Xserve, OS X Server  
Netinfo/WINS Server, Retrospect backup server using Xserve RAID

Finally, three servers are used for file storage and student lab management:

- 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

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

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

We continue to provide laptops to students, faculty, and guests giving presentations. The provision of wireless Ethernet in the Pharmacy buildings has resulted in greater flexibility and is a boon for presenters using the internet. This capability will be even more important as web-centric applications such as the Google offerings continue to grow.

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

The LRC's funding has traditionally been chiefly derived from two student fee income streams. One is the College's Instructional Technology Fee. Although this fee has been combined with the flat-fee tuition, the level of support has not changed. 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-five hours per week of course material.

Interest in podcasting has grown to the point where installing this relatively inexpensive infrastructure universally has become practical and valuable. To this end, the College installed direct-to-mp3 audio digitizing units in each of the two large, PA-equipped General Purpose classrooms. Also, users of the College's video streaming content can request an mp3 file for download in addition to being able to view a video stream.

Another item deserving discussion is the use of the College's Classroom Response System. At the time of purchase, the system from TurningTechnologies called TurningPoint (TP) was chosen because it was the only system that allowed our College's remote sites to participate with 'clickers.' The company introduced its latest software just in time for implementation in Fall 2007; note that a not-uncommon fit of patches, upgrades, poor documentation, and fragmented support was experienced. At the time of this writing, November 2007, the company has just issued a bug fix and software consolidation for the software that was rolled out in August.

Other colleges who are interested in this multiple-site enabled system are encouraged to contact Pharmacy LRC staff. It works as promised but demands a high level of support, and the software remains in flux which creates further support demands. Hardware compatibility among the company's systems is haphazard. This and other issues make adopting this system a decision deserving of much consideration.

All that said, Pharmacy faculty have implemented the system and are finding it valuable. We expect to install the system universally in our spaces so that all faculty can avail themselves of this technology.

## Use of Previous Academic Year Allocations

### Programs and Infrastructure

#### Programs

1. Continue life-cycle replacement of lab PCs; remodel 3.116 .....\$20,000  
This is a continuing request to fund life-cycle replacement of PCs and other infrastructure, including the updating of furniture and furnishings when needed.
2. Replace Classroom G4 Macs with Intel Macs .....\$5,000  
This program is nearly complete.
3. Integrate Classroom Performance System (CPS) .....\$20,000  
As discussed above in Best Practices, this program was implemented. While it has not been as smooth an introduction as was hoped due to the vendor's haphazard support, we continue to work through the issues and faculty are using the system. Funds are requested elsewhere to continue implementation in the College's instructional spaces.
4. Classroom technology maintenance/upgrade (Departmental) .....\$20,000  
This continuing request keeps the College's Departmental spaces maintained and updated.
5. Upgrade Video Production System to HD .....\$20,000  
This request repeats and will be a feature in this space for at least a few years. The entire video industry is in transition, both from analog to digital and from standard definition to high definition. The videoconferencing industry must also make this transition even if bandwidth limitations make implementation of high definition video a challenge.
6. Classroom technology maintenance/upgrade (General Purpose) .....\$20,000  
Another repeating request. As equipment ages and as campus standards evolve, this equipment must be updated or simply replaced.

#### Infrastructure

7. Data network projects .....\$20,000  
The College continues to add Ethernet ports and switching capacity as required.

Needs and Proposed Use of Funds

Programs

- 1. Continue life-cycle replacement of lab PCs; remodel 3.116 .....\$20,000  
This is a continuing request to fund life-cycle replacement of PCs and other infrastructure, including the updating of furniture and furnishings when needed.
- 2. Upgrade/increase streaming video Macs .....\$20,000  
These aging iMacs deserve to be upgraded to the new iMac model
- 3. Install classroom response system widely .....\$5,000  
Funds are requested to continue implementation in the College’s instructional spaces.
- 4. Classroom technology maintenance/upgrade (Departmental) .....\$20,000  
The College’s main boardroom-style facility is showing its age, both in terms of equipment and furnishings. A chronic problem in this space is water leaks from the wet labs located on floors above it; however, the room remains to be highly utilized, and a careful remodeling needs to be undertaken.
- 5. Upgrade Video Production System to HD.....\$20,000  
This request repeats and will be a feature in this space for at least a few years. The entire video industry is in transition, both from analog to digital and from standard definition to high definition. The videoconferencing industry must also make this transition even if bandwidth limitations make implementation of high definition video a challenge.
- 6. Classroom technology maintenance/upgrade (General Purpose) .....\$20,000  
Another repeating request. This year, two projectors and three control systems should be updated for two reasons. One reason is that the equipment is getting old and failure-prone; the second is that the campus hardware standard for control systems has evolved, and the College needs to stay abreast of campus standards.

Infrastructure

- 7. Data network projects .....\$20,000  
At the time of this writing we are expecting to receive an estimate for the replacement of wireless access points and the possible requirement of replacing wired network switches to comply with state-of-the-art security requirements.

Total requested:       \$125,000