University of Arkansas at Monticello

Division of Computer Information Systems

Support, Maintenance, and Growth Needs: External Funding Opportunities

Signed: _____

Prepared By Dr. James F. Roiger, Chair

October 2001, Rev. 7, July 2008

Introduction

The Division of Computer Information Systems was established as an academic unit at the University of Arkansas at Monticello in August 1999.

VISION

To be the best stand-alone Computer Information Systems program by providing undergraduates with a sought-after professional education in applied information sciences and business applications while maintaining a supportive encouraging learning environment

MISSION STATEMENT

The mission of the Division of Computer Information Systems is to support the mission of the University of Arkansas at Monticello by focusing on the undergraduate educational needs of computer information system students in southeast Arkansas and the region. The Bachelor of Science degree in Computer Information Systems is designed to prepare students to assume dynamic roles as analysts and designers who will provide the professional insight required for building the information systems of the future.

DIVISION FACULTY

Professors
- Dr. James Roiger, Chair

Associate Professors
- Ms. Jean Hendrix
- Ms. Angela Marsh
- Ms. Lori Selby

Instructors
- Ms. Terri Cossey
- Ms. Karen-Elise Donham
- Ms. Lynn Harris

Adjunct Instructors
- Mr. Bryan Fendley

PURPOSE

As the newest academic unit on campus, our financial needs are acute. During this period of stringent budget appropriations, we must rely on the generosity of our friends, both of the Division of Computer Information Systems and of the University of Arkansas at Monticello, to help us implement our vision and accomplish our mission.

Priorities

1 Support Needs

1 Student Scholarship Donations
2 Student Endowed Scholarships
3 Travel and Research Funding for Faculty Development
4 Endowed Faculty Positions

2 Maintenance Needs - Division Spaces

1 CIS Instructional Server - replace in 2010
2 Seven faculty computers/printers in 2010
3 BBC 110 Student Study Area - Replace computers
4 WWW IIS Server for Student Web Pages
5 CIS Application Servers for Instructional Labs
6 Internet Category 6 wiring in all spaces

3 Maintenance Needs - Laboratories

1 BBC 115 Web Media Lab - Replace computers and specialized equipment
2 BBC 122 Instructional Lab - Replace computers in 2010
3 BBC 102 Instructional Lab - Replace computers in 2011
4 BBC 103 Local Area Network Lab - Replace computers
5 BBC 103 Security Lab - Replace computers
6 BBC 121 PC Maintenance Lab - Replace computers/server

4 Growth Needs

1 ELMO, Electronic Whiteboard, DVD/CD/VCR, Sound System for laboratories
2 "Smart" Classrooms
3 CIV Instructional Laboratory
4 Multimedia/Graphics Laboratory
5 Integrated Classroom Management Systems
6 Networking Laboratory
7 Workstation Laboratory
8 New Computer Information Systems Facility
9 Seminar/Conference Rooms
10 Collaboratory
11 Research Laboratory
12 Maintenance/Support Rooms
13 Group Decision Support System

Support Needs

Student Scholarships

The Division requires a sustainable scholarship program for majors. A scholarship program is an important recruiting and retention tool. At the present time, the Division has one dedicated endowed scholarship fund.

CIS Scholarship Fund donations

Donations in any amount would be gratefully accepted. These donations would be used to provide small awards to students for a semester.

Endowed Scholarships

A $15,000 endowment will provide a $500 scholarship for one student for one semester.

A $25,000 endowment will provide a $500 scholarship for one student for the academic year (two semesters).

A $50,000 endowment will provide a $2,500 scholarship (equivalent to the State's Academic Challenge Scholarship) for one student for the academic year.

Professional Development

Travel and research funding for faculty and students to enhance professional development is needed.

Faculty Endowments

Endowed faculty positions are an important need. The salaries for CIS faculty continue to rise significantly every year. It would be nice to upgrade the program, but already, Ph.D. faculty are beyond what we might afford to pay. M.A. salaries also continue to grow. An endowment for a Ph.D. faculty position would have to be in the $2.5-$3 million range. An endowment for an M.A. faculty position would have to be in the $1.25-$1.75 million range.

Any expansion of present programs or the addition of new programs will require additional faculty with appropriate training. Funding for these positions will have to be identified and faculty endowments would secure future funding.

Maintenance Needs

Faculty and Division Offices

The CIS instructional Server will be three years old in the summer of 2010 and will need to be replaced. the cost to replace the server would be $5,000. The old server would become a back-up server that we don't have now.

Seven faculty computers will be three years old and the associated printers will be three years old in the summer of 2010. The cost to replace computers and printers would be $15,000.

The CIS Student Study Area is located in BBC 110. The student area has four computers that are five years old. The cost to replace the computers and printer would be $9,000.

The Division needs a WWW IIS Server within UAM's server system for students to publish personal web pages. The server would cost $5,000.

The Division needs Application Servers for each of the two Instructional laboratories. Each server would cost $5,000.

The CIS Division spaces need to be updated to Category 6 internet wiring at a cost of $10,000.

Instructional Laboratories

At the present time, CIS has two instructional laboratories, BBC 102 that seats 27 students and BBC 122 that seats 24 students. The computers in these laboratories need to be replaced every three years. BBC 122 will next require replacement computers in the summer of 2010 at a cost of $43,000. BBC 102 will next require replacement computers in the summer of 2011 at a cost of $48,000.

Specialty Instructional Laboratories

A small four-station Web Media laboratory is located in BBC 115. The computers in this laboratory are six years old. The cost to replace the computers and specialized media equipment and software would be $10,000. The lab also needs to be updated with computer desks, instead of tables, at a cost of $3,000.

At the present time, CIS has two specialty instructional laboratories (the local area networking (LAN) laboratory and the Security laboratory, located in the same room, BBC 103. The LAN and Security laboratory computers are four years old. The cost to replace the 24 computers in these two laboratories would be about $41,000.

The PC Maintenance laboratory is located in BBC 121. The fifteen computers (14 PC's

and One server) are nine years old. the cost to replace the computers would be $30,000.

Growth Needs

Instructional Laboratory Upgrade

The addition of an integrated ELMO, an integrated electronic white board, a DVD/CD/VCR, and a sound system would cost $16,000 for each of the two laboratories.

The addition of an integrated computer classroom management system would cost $30,000 for each of the two laboratories.

"Smart" classrooms

Several "smart" classrooms with a mounted projector, a computer station, a sound system, a VCR, an integrated ELMO system, an integrated electronic whiteboard, and an integrated classroom management system (in computer instructional laboratories) would allow instructors to integrate additional technological teaching methodologies into their course curriculum. A large body of research supports the use of technology to aid student learning efficacy. As an added bonus, familiarity with classroom technology prepares students for life-long learning using the new technologies.

The cost to upgrade a present classroom as a "smart" classroom would cost about $21,000 per classroom. This would include a high quality ceiling-mounted projector ($1,000, including wiring), a computer ($2,000), a DVD/CD/VCR ($500), a sound system ($500), an integrated ELMO ($6,500), an integrated electronic "white" board ($7,500), a Category 6 internet connection ($1,000), and a special instructor station to house equipment ($2,000). The division has three classrooms that should be updated to "smart" classroom status

Compressed Interactive Video Instructional Computer Laboratory

An instructional computer laboratory with full CIV capability would allow the Division to reach out to the technical colleges in the area to offer collaborative degree programs. Last year SAU Tech in Camden was looking for a partner who was equipped to provide such courses. The cooperating colleges could use the new wireless computer systems with up to 30 laptop stations in their regular CIV laboratories.

A new "smart" equipped CIV instructional laboratory would cost about $150,000. This would include the CIV equipment ($30,000), "smart" equipment ($30,000), furniture ($12,000), computers and associated wiring and switching equipment ($48,000), and integrated classroom management system.

Multimedia/Graphics Laboratory

A specialty laboratory that would house multimedia and computer-generated graphics stations would meet an increasing need. A full third of potential students considering a career in the computer field are interested in learning media use and graphics generation. It would fill an increasing student need and also serve as a strong recruiting and retention tool for students who have used an EAST laboratory in High School.

A multimedia/graphics laboratory would cost around $115,000 because of the higher cost of workstations for that lab and the multi-media equipment (digital still cameras, video cameras, sound recording equipment, video and audio recorders, video and audio editing stations, digital viewing equipment) and software.

Networking Laboratory

A specialty laboratory that would house integrated networking stations. Each station would consist of multiple servers, switches, and routers. The cost for each station in the laboratory would cost about $50,000. A minimum of four student stations and one instructor would be required at a cost of $250,000.

Workstation Laboratory

A specialty laboratory that would house workstations is becoming more necessary as computer technology advances. The workstation environment is necessary to consider adding courses in UNIX, LINUX, and PERL to the curriculum, three programming languages that businesses are increasingly using.

A workstation laboratory would cost around $100,000 because of the higher cost of workstations for that lab and the cost of licensing the software.

Computer Information Systems Building

A dedicated facility to house the Division is an important need. We do not have space to expand, in terms of laboratories, classrooms, support spaces, or faculty offices. As the program continues to grow, without room for expansion, a cap on enrollment in the major has become a reality. Enrollment is being controlled with stringent prerequisite requirements that forces marginal and mediocre performers out of the program. Oftentimes these are students who could be good CIS professionals but need additional time to develop their potential.

The facility should be large enough to provide room for:

- Five modern "smart" classrooms
- Three "smart" general instructional laboratories
- Five "smart" specialized instructional laboratories
- One "smart" CIV Computer Laboratory

- One Group Decision Support System conference center
- One "smart" Collaboratory
- One research laboratory
- Ten faculty offices, two "smart" seminar/meeting rooms
- A "smart" conference room
- A Chair's office
- A Division office
- A staff workroom
- Two maintenance and support rooms
- Faculty lounge
- Student lounge
- Equipment storage rooms
- Cleaning storage closets, and
- Restrooms

A building with these facilities and a full complement of faculty would provide support and services for 400 majors, 50 minors, service courses for the Spatial Information Systems program, the Business Accounting Program, and the Pre-law program; and service courses for the General Education curriculum.

The following list is an estimation of the cost for the building, the equipment, and furnishings required to prepare the facility for occupation.

Facility Item		**Estimated Cost**
Building, wiring, and basic equipment		$15,000,000
Classroom Equipment (each)	$40,000	200,000
Instructional Laboratories (each)	$120,000	360,000
Specialized Laboratories (avg each)	$130,000	650,000
CIV Computer Laboratory		150,000
Group Decision Support System		200,000
Research Laboratory		60,000
Collaboratory		135,000
Faculty Offices (each)	$10,000	100,000
Seminar/Meeting Rooms (each)	$35,000	70,000
Conference Room		35,000
Chair's Office		15,000
Division Office		35,000
Maintenance/Support Rooms (each)	$35,000	70,000
Faculty Lounge		10,000
Student Lounge		10,000
Total Cost		$17,100,000

Seminar / Conference Rooms

The Division does not have any small spaces that could be used for meetings and

teaching smaller seminar courses. At least one space would be useful. The "smart" setup and furnishings would cost about $35,000 for each such room.

Collaboratory

A collaboratory is a computer-aided small group student learning and decision-making tool. Collaboratories typically consist of a number of computer station carrels. The University of Arizona uses four 12-station carrels. The University of Arkansas at Little Rock uses four eight-station carrels. The collaboratory setting would provide learning advantages for all programs, but computer language programming is a uniquely small group collaborative endeavor.

The collaboratory for interactive student learning and small group decision-making would cost around $135,000. A collaboratory of five six-station carrels would match the student needs of a typical UAM class. The costs would include "smart" technology ($30,000), computers ($48,000), furniture ($12,000), specialized software ($20,000), and integrated classroom management system ($30,000).

Research Laboratory

The research laboratory would cost about $60,000. This laboratory would provide faculty and students a workplace in which to experiment and test computer operating systems, software applications, and networking configurations. The laboratory would include servers, computers, workstations, and networking equipment.

Maintenance / Support Rooms

These rooms would provide for tech support and equipment service. The $25,000 for each room would provide for PC computers (one room) and workstations (the other room) for beta software testing, laboratory software package imaging, and computer testing and repair. The funding would provide computers and testing equipment.

Group Decision Support System

A GDSS system is a larger group decision-making electronic enhancer. Typically containing from 40-50 computer stations, such systems allow larger groups to use computer programs that can assist in:

- Listing alternatives
- Analyzing potential solutions
- Ranking alternatives -- all to aid decision-making
- Providing common text manipulation and word processing
- Providing database and file manipulation
- Providing spreadsheet capabilities -- especially to evaluate impact of decision on budget as an example
- Providing model development
- Providing electronic meeting systems -- video conferencing or

teleconferencing, and
- Providing on-line help for software and hardware operations.

As far as is known, there is not a single such system in Arkansas. Besides its use as an instructional tool, it also aids in university decision-making, and is often leased to business and industry to help their decision-making processes. The University of Arizona typically receives $6,000 per day from business and industry for the use of one of their three systems. A 50-station GDSS would cost around $200,000 for furnishings, equipment and software.

A Final Word of Caution

The estimates of costs in this document are just that, estimates. Prices could go up or down, depending on the economic climate and product cost and availability. Close estimates should be obtained before any commitments are made.