

MATTERS FOR ACTION:

Charges for Technology Report (formerly Technology Fees)

RECOMMENDED ACTION:

No action required – report only.

EXPLANATION:

Presented by Judson M. Harper, Special Assistant to the President.

Charges for Technology provide students with access to state-of-the-art equipment and software and, thus, opportunities that will help them succeed in their educational pursuits. The implementation of a college Charge for Technology has required extensive student input and, as referenced, students are actively involved in the management of Charges for Technology through representative student committees within each college. Charges are used to purchase computer hardware, software, laboratory equipment, maintenance, financial aid and hourly employees.

There are more than 50 computer labs on campus, many of which are directly supported by Charges for Technology. Hours of operation and utilization by students continue to increase, as detailed in the attached report. These labs and the student populations that have access to them are listed in the table below.

Consent Item _____

Action Item _____

Report Item X

<i>Undergraduate Computer Labs</i>	
<i>Student Units Served</i>	<i>Computer Lab</i>
University-wide	Computer Assisted Writing Lab
	Computer Visualization Lab
	Intra-University (Open Option) Computer Lab
	CNS MacLab (Weber)
	CNS/Honors Program Computer Lab - Newsom Hall
Agricultural Sciences	CNS/Residence Life Computer Lab – Ingersoll Hall
	UG Ag Sci Computer Labs - 4
Applied Human Sciences	Graduate Ag Sci Computer Labs – 5 (increased by 1)
	CTTEC Lab
	Management Technology & Construction (also available for Engineering Auto-CAD students)
	Education Computer lab
	Gifford Computer Lab
Business	Moby Computer Lab
	Rockwell Computer Lab plus classrooms
Engineering	Durrell Center Student Computer Lab
	Engineering Classroom Lab (A-104)
	LM Design Lab (B-203)
	Allison Lab (Allison E104)
	Anderson Lab (Glover 220)
Liberal Arts	ERC Computer Lab
	Total of 14 computer labs within the College, including:
	Art Department Computer Lab
	Foreign Language Lab
	Journalism Desktop Publishing Lab I
	Journalism Desktop Publishing Lab II
	Music Technology lab
Social Sciences/Statistics Computer Lab (student access to CLA/Nat Sci/and classes taught in lab)	
Natural Resources	CNR Advanced Technology Lab
	CNR Computer Applications Lab
	CNR Computer Learning Lab
	GIS Technology Lab
Natural Sciences	Biochemistry Undergraduate Resource Room
	Biology Computer Lab
	Computer Science General Computing Labs
	Ingersoll Computer Lab
	Mac Lab (Weber)
	Mathematics Computer Lab
	Newsom Computer Lab
	Social Sciences/Statistics Computer Lab (student access to CLA/Nat Sci/and classes taught in lab)
VMBS	Microbiology Undergraduate Computer Lab
	Vet Teaching Hospital Computer Lab – PVM program only

Colorado State University
SBA Meeting – May 1, 2001

Following is a summary schedule of the per semester Charges for Technology in place during Academic Year 2000-2001:

CSU Charges for Technology – AY 01		
College Program	Undergraduate	Graduate
	Charge per Semester ^{1,2}	Charge per Semester ^{1,2}
Agricultural Sciences	\$75	\$75
Applied Human Science	63	63
Business	100	100
Engineering	140.50	140.50
Liberal Arts	53	53
Natural Resources	100	100
Natural Sciences	100	0
Veterinary Medicine & Biomedical Sciences	50	0
Intra-University Option	35	0

¹Resident and non-resident students pay the same fees.

²Students enrolled for nine or more credits are considered full-time and required to pay the full amount according to their college affiliation. Part-time undergraduate and graduate students pay a pro-rated amount.

Two requests for increases in fees are discussed in the respective college portions of the attached report and will be brought forward for consideration by the SBA at its June meeting:

College of Engineering – from \$140.50 to \$147.50 per semester (4.98%)

Intra-University – from \$35.00 to \$36.00 per semester (2.9%)

Attachment: AY 01 Colorado State University College Reports on Impact of Charges for Technology & Their Administration

**College Reports on Impact of Charges for Technology & Their Administration
Spring 2001**

1. Overview

1.1 Summary of CFT Account Activities Across All Colleges/Units

Table 1: Summary of Charges for Technology for FY 01					
College/Unit Per Semester CFT	Carry- forward from FY 00	FY 01			Carry- forward Request to FY 02³
		Revenue	Need-Based Scholarships (% CFT¹)	Expenses²	
Agricultural Sciences UG: \$75.00 Grad: \$75.00	\$12,258	\$220,987	\$21,647	\$177,861	\$33,736 ⁵
Applied Human Sciences⁴ UG: \$63.00 Grad: \$63.00	66,854	443,986	39,479	462,798	8,563
Business UG: \$100.00 Grad: \$100.00	331,488	431,371	40,360	251,133	471,367 ⁵
Engineering UG: \$140.50 Grad: \$140.50	217,000	440,000	38,000	609,000	10,000
Liberal Arts UG: \$53.00 Grad: \$53.00	37,285	426,339	42,500	421,124	0
Natural Resources UG: \$100.00 Grad: \$100.00	0	247,005	24,000	223,315	0 ⁵
Natural Sciences UG: \$100.00 Grad: \$0.00	115,357	569,400	73,217	469,650	141,890
Veterinary Medicine UG: \$50.00 Grad: \$0.00	(2,249)	52,000	5,225	42,934	1,592
Intra-University Option UG: \$35.00 Grad: N/A	0	180,000	18,000	162,000	0
Total for All Units	\$777,993	\$3,011,088	\$302,428 (10.04%)	\$2,899,654	\$666,838⁵

¹ Need-based scholarships across all units to equal 10% of Fall and Spring Semester CFT revenues

² Approximate – projection of estimated expenditures through June 30, 2001

³ Carry-forward request detail provided in respective college/option report text; largely a budget sequencing phenomenon

⁴ Applied Human Sciences is the only college that applies charges during the Summer Session

⁵ Rounding error

1.2 Item for Discussion:

With regard to footnote 3 to Table 1, issues of budget sequencing with respect to Charges for Technology merit discussion: Charges for Technology budgeting follows the July 1-June 30 fiscal year accounting model. The majority of lab upgrades (construction/renovation/enhancement) and expenditures upon delivery of services are made during classroom down time in July and August (between Summer Session and Fall Semester). Carry-forward requests are largely a function of expenditure timing after the close of the fiscal year and are not indicative of unencumbered surplus.

1.3 Activities Meriting Special Attention

Need-Based Scholarships

In excess of \$2.4 million has been provided in need based scholarships and fee waivers since initiation of Charges for Technology, representing approximately 9.8% of total CFT revenue. Allocation of scholarship funding is made on a per-college/unit basis in consultation with Financial Aid for identification of needy students. The amount to be distributed during each Academic Year is estimated on the basis of Fall Semester enrollment and CFT revenue, accounting for variance from the 10% target. Refinement of estimation methodology is on-going.

For subject Academic Year 01, 10.04% of CFT revenue was awarded in this category (\$302,428), with actual distributions ranging from 8.6% (Engineering) to 12.9% (Natural Sciences). Engineering has announced its intent to make up its shortfall during AY 02.

College of Business Laptop Computers

With the approval of its Student Technical Advisory Council, the College of Business is investigating costs, circumstances and operational issues associated with requiring its students to have access to laptop computers. Current college CFT resources may be adequate for support of its computing laboratories and a laptop pilot program that would not require student purchase of these computers. Once an investigation of the longer term implications of this proposal are understood, a proposal is expected to come forward for consideration and potential approval through normal University processes before implementation of any such requirement.

2. College of Agricultural Sciences

2.1 Administration of Charges for Technology

Expenditures are determined by the Student Charges for Technology Committee using input from the Information Systems Coordinator (IS Coordinator). Meetings are held monthly. This committee is comprised of voting members: one graduate student from each of the departments and one undergraduate member from each major. Non-voting members (staff, faculty and other students) may also attend. Members vote on how the budgets are spent.

Expenditures are allocated to three areas:

Undergraduate student labs - There are four undergraduate computer labs that are updated and maintained with CFT funds.

Department-specific technology - Funds are allocated to departments for purchases of technology unique to that department. Undergraduate students perform a needs assessment and vote on specific purchases for their respective departments. The formula used to determine each department's allocation is: $\$1000 + (\text{the number of undergraduate students in the department.})$ If a department had 500 students, that department could use \$1500 for department specific technology purchases.

Graduate student labs - CFT funds are also used to support graduate student labs. Funds pay for a student employee to maintain all the graduate student labs. The graduate students approve all lab expenditures.

2.2 Computer Labs

The College of Agricultural Sciences has four computer labs intended for the use of its students or students taking classes in the college:

Students monitor two labs (one with 35 computers and one with 15 computers), which provide the latest hardware, software, web access and peripherals such as several scanners (including a large document scanner), printers (B&W and color), and plotters.

A third lab is primarily a teaching lab, although it may be used as an overflow lab when the others are full, and contains 21 fully networked computers with a projection system.

The fourth lab is primarily an overflow/e-mail lab/back-up teaching lab with 21 fully networked computers with a projection system. Its location provides a convenient site for students to come in to check e-mail and web-based assignments.

Agricultural Sciences also owns media equipment available for check-out by students for presentations, including laptops, digital projection systems and digital cameras.

There are five graduate computer labs (an increase from four) throughout the college. Each lab has five to eight networked computers with scanning equipment and printers. A student is hired for 20 hours a week to go to the labs to fix the computers under the supervision of the IS Coordinator.

2.3 Annual Revenue and Expenses (Tables 2a and 2b)

The small carryover from FY 00 was used in FY 01. An approximately a 10% carryover is projected in anticipation of a computer lab facility renovation. Private funding for the renovation is pending, but the college hopes to be able to start on the project by early FY 02. Student Charges for Technology will be used to buy workstations, student desks and chairs for the renovated space.

Table 2a: Summary of FY 01 CFT Budget – College of Agricultural Sciences			
Revenue & Account Balance			
Item	Subtotal	Total	
Revenue from CFT FY 01		\$220,987	
UG @ \$75/student/semester		\$187,634	
Grad @ \$75/student/semester		33,353	
Summer Session @ \$0		0	
Carry-forward from FY 00		12,258	
Total Revenues Available		\$233,245	
Expenses (est.)		(199,509)	
	Non-scholarship	\$177,862	
	Scholarships	21,647	
Carry-forward balance to FY 02 (est.)		\$33,736	

Table 2b: Expense Summary – CFT FY 01 – College of Agricultural Sciences			
Item Detail			Item Total
Non-Scholarship Expenses - Subtotal			\$177,862
Servers: Hardware, Software			\$9,344
Hardware: Workstation/PCs			65,917
	UG Computer Labs	\$30,668	
	Grad Computer Labs	22,249	
	Laptops and other workstations	13,000	
Software			34,094
Peripherals – projection systems (2), internal CD writers (2), digital video camera (1), printer (1)			14,560
Supplies & Misc. (paper, toner, furniture, ergonomics)			8,476
Network Equipment (switches, hubs, wiring, etc.)			3,000
Maintenance			1,700
Personnel – UG lab monitors and Grad lab tech			37,800
Special Projects - Adaptive Services			1,210
Non-computer Technology Equipment			1,761
	DARE UG display	\$810	
	Plant Sciences UG digital camera	950	
Scholarship Expenses – Subtotal			21,647
– Subtotal			
Total Expenses (est.)			\$199,509

3. College of Applied Human Sciences

3.1 Administration of Charges for Technology

Major expenditure items beyond the normal maintenance and replacement are approved by the College Charges for Technology Committee, which is a subset of the College Council. All voting members are students. There are no faculty members on this committee. The College Council meets weekly, so it is very easy to get items reviewed and approved. In essence, technology is a standard agenda item on the College Council meeting.

Faculty have access to this committee through Lauri Herrmann-Ginsberg, Assistant Professor for Instructional Design, as well as all of the college IT staff who are *ex-officio* members of the committee.

3.2 Computer Labs

Table 3 is a chart of computer labs denoting hours and workstations available. The college opened a fifth computer lab, room 105 Education building, to handle smaller upper division classes. Class sizes of 18 or less can be booked in room 105 and the larger labs (25 workstations or more) can be kept free for open lab hours to better accommodate students' needs. Access to labs is restricted to Applied Human Sciences students unless needed for classes from other colleges (e.g., Auto-Cad classes for Engineering students in the college's Manufacturing Technology & Construction Management lab). The college's computing labs are open an additional 81 hours per week over the previous year.

Table 3 Applied Human Sciences Student Computing Labs			
Lab	Location	Number	
		Computers	Hours Open per Week
CTTEC Lab	105 Education Building	18	40
Education	220 Education Building	29	82
Gifford	317 Gifford Building	53	87
Industrial Sciences	200 Industrial Sciences Building	50	82
Moby	B212D Moby	26	74
Total		176	365

3.3 Annual Revenue and Expenses (Tables 4a and 4b)

The college projects a carry forward balance of \$8,563 at year-end, which represents a strictly contingency balance to cover unexpected hardware/software or network problems. The college carried forward approximately \$67,000 from last fiscal year and that has been absorbed in new servers and computers. The college is planning 50 additional new replacement computers this spring. The older machines that are replaced are given to the departments for students to access in open common areas. This year approximately 24 (three per department) recycled computers were allocated for unrestricted student access in common areas. The college charges will remain the same for FY 02.

Table 4a: Summary of FY 01 CFT Budget – College of Applied Human Sciences		
Revenue & Account Balance		
Item	Subtotal	Total
Revenue from CFT FY 01		\$443,986
UG @ \$63/student per Semester and Summer Session	\$368,511	
Grad @ \$63/student per Semester and Summer Session	75,475	
Carry-forward from FY 00		66,854
Total Revenues Available		\$510,840
Expenses (est.)		(502,277)
Non-scholarship	\$462,798	
Scholarships	39,479	
Carry-forward balance to FY 02 (est.)		\$8,563

Table 4b: Expense Summary – CFT FY 01 – College of Applied Human Sciences		
Item Detail		Item Total
Non-Scholarship Expenses - Subtotal		\$462,798
Servers: Hardware, Software	\$42,020	
Hardware: Workstation/PCs	155,861	
Hardware	\$95,340	
Planned add-ons (e.g., ZIPs, extra monitors, mice, network cards, etc.)	60,521	
Software	41,000	
Peripherals (e.g., scanners, printers, plotters, LCDs, projectors)	26,917	
Supplies & Misc. (e.g., paper, toner, furniture, ergonomics)	25,000	
Network Equipment (switches, hubs, wiring, etc.)	10,000	
Maintenance - Lectra software	22,000	
Personnel	140,000	
Special Projects	0	
Non-computer Technology Equipment	0	
Scholarship Expenses – Subtotal		39,479
Total Expenses (est.)		\$502,277

4. College of Business

4.1 Administration of Charges for Technology

The College of Business (COB) governs the Charges For Technology through a subcommittee of Business College Council (BCC) called Student Technology Advisory Council (STAC). STAC is comprised of a student representative from each department in the College of Business, a student-at-large, who is not affiliated with the Business College Council, a honors society student, an ASCSU Senator, and the Lab Supervisor/STAC Advisor, Jon Schroth. These representatives are identified during Fall Semester BCC elections. Everyone has voting power, except the Lab Supervisor and the ASCSU Senator, and majority vote rules.

All requests for technology must be routed through STAC, with the exception of the lab manager, who has been given authority by STAC to spend up to \$1,000 for supplies.

Integration of College Planning and coordination is handled in several ways. Firstly, Jon Schroth is a member of both STAC and the Faculty Technology Advisory Committee (FTAC). When appropriate, members of STAC have been invited to FTAC, and *vice versa*. Secondly, STAC also has direct access to the Dean and Associate Dean of the College of Business.

4.2 Computer Labs

General services provided to students include network drive space (60 MB) and Outlook mail service that includes a public folder for each class offered by the COB. These folders allow for the distribution of class materials, class discussions, and assignments. Printing service is also provided for students. Soon, the College hopes to be able to provide web hosting for student portfolios.

In addition to general services, CFT funds support the Rockwell lab and two teaching classrooms. The Rockwell Lab services over 2,100 students with 130 PIII 800 computers in a Windows 2000 environment. The lab is open 100 hours per week: Monday through Thursday, 7:00 am-Midnight; Friday, 7:00 am-6:00 pm; Saturday, 9:00 am-6:00 pm; and Sunday, 12:00 pm-Midnight. The lab is restricted to COB students and students taking classes in the COB. Access is restricted to these students by assigning user logins.

The first of the two teaching classrooms is Rockwell 38. This lab is located adjacent to the main lab and can be scheduled for class use on an as-needed basis. The room is used to integrate software and other technology into instruction. When not in use for class, this room also supports overflow from the main lab. The room has 33 PIII 800 computers and is open the same hours as the Rockwell Lab. Currently, few COB classes have enrollment of less than 33 students. To accommodate large classes, teachers have had to break classes into multiple sessions to get an entire class through a training session. This compounds the issue of inadequate technology resources for students and faculty.

The second teaching classroom is the Allison Lab. This lab is used to teach the BD 150/111 classes and has a separate server and 28 P2 200 computers all running Windows 2000. The Allison lab is open 70 hours per week: Monday through Thursday, 7:00 am-9:00 pm; Friday, 7:00 am-6:00 pm; and Sunday, 6:00 pm-9:00 pm. This lab is utilized nearly 100% of the time by these classes except on Sunday evenings, when the lab is available for students requiring access outside of class time.

Other technologies supported by the CFT funds in the COB include nine laptops used for student check-out for group projects, as well as camcorders and scanners. Check-out is limited to use within the Rockwell building within a 3-hour time limit. The college supports laptop connectivity via a Lucent wireless network that services the courtyard, common areas, and the classrooms. All classrooms now have data ports and electrical power for students at the desktop.

4.3 Annual Revenue and Expenses (Tables 5a and 5b)

Revenues

Over the past six years, the undergraduate enrollment in the College has increased by 114%. This has provided an increase in the total amount of funding available for student technology, but unfortunately has exacerbated the serious space constraints within Rockwell Hall. Over these years STAC has accumulated \$470,000 in carryover, in the hope that space would become available to implement additional student computing labs and classrooms.

Constraints and Considerations – Laptop Proposal

During the past six years, teachers have significantly increased their use of technology in the curriculum. Currently computing labs in the College are seriously overcrowded, accommodating an average 4.9 hours of computing access per student per week (12,768 available machine hours during the week/2,600 students). As a consequence, there are commonly waiting times for computer use, and the labs are crowded until Midnight. To make matters worse, according to past student surveys, more than 70% of our students have felt the need to acquire computers on their own, yet the labs are still overcrowded.

Having students purchase technology on their own does not alleviate the demand for technology in the College of Business, primarily because students tend to purchase desktop models, which cannot be used in the classroom, cannot be used to work groups, or typically do not have special software applications needed for their classes.

The COB, with STAC support, is investigating the short- and long-term cost implications associated with a proposal to supply the next class of incoming first year Business students with laptops, and refreshing the technology every two to four years. Initiation of any such proposal, however, would be contingent upon full identification of all financial details, review and approval by College of Business constituencies, university administration, and the SBA.

The proposal appears to offer several key advantages:

Cost: The purchase of technology in bulk would be substantially less expensive than individuals purchasing it on their own due to the substantial discounts available to the university. For example, Microsoft Office costs \$54 for university-owned PCs, whereas a student's individual discounted purchase cost would be \$196 for the same product.

Ubiquity: STAC believes it is critical that all students have equal access to the same type of hardware and software that they need to be successful in their academic and, ultimately, their professional careers. By having college-owned software, the COB would be able to purchase and issue software necessary for a specific class and then cycle it on to the next semester's students. In addition, several software applications are donated (e.g., by JDEdwards) for use solely on university-owned equipment and are not even available for student-owned computers.

Ubiquity would also ensure that the COB could supply the highest level of support, since support staff would be familiar with the hardware and software in a common configuration. Also, faculty could assume that all students would have access to the

technology they need in the classroom, which is essential for on-line assessment and teaching.

Flexibility: Student laptops would enhance the ability of faculty and students to incorporate technology into the classroom, work groups, and campus resource areas such as the Library and Student Center.

To help lower the cost associated with the purchase of laptops, STAC advocates consideration of the use of the COB CFT surplus to fund the cost of software for the required laptops while maintaining the college computing lab operations at their current level. In this scenario, first year students would not be expected to use the computers labs to the extent they do now, which would immediately help increase availability of computers for other students in the college. Over the next four years, the college projects a resulting greatly reduced need for computing lab, with most of Business' CFT funding channeled towards supporting the laptops. As a side benefit, the size of the computing labs could possibly be reduced, freeing space for additional classrooms.

Expenditures

During AY 01, STAC approved spending to upgrade 50 of the Rockwell Lab computers from P2 266 computers to P3 800 computers. The decommissioned PS 266 computers were “trickled down” to the Allison Lab, providing an upgrade from Pentium 150s to P2 266s. This allowed both labs to better utilize the Windows 2000 operating system and improve performance and stability of the applications running on these computers. STAC also approved funding of a new Exchange server, which will be utilized to enhance student communication, collaboration, and distribution of instructional materials. All servers and workstations were rebuilt utilizing the Windows 2000 operating system. Network connectivity in labs was also enhanced by a factor of 10 to 100Mb in both labs.

Table 5a: Summary of FY 01 CFT Budget – College of Business		
Revenue & Account Balance		
Item	Subtotal	Total
Revenue from CFT FY 01		\$431,371
UG @ \$100/student per Semester	\$380,000	
Grad @ \$100/student per Semester	51,371	
Carry-forward from FY 00		\$331,488
Total Revenues Available		\$762,859
Expenses (est.)		(291,493)
Non-scholarship	\$251,133	
Scholarships	40,360	
Carry-forward balance to FY 02 (est.)		\$471,367*
*Rounding error		

Table 5b: Expense Summary – CFT FY 01 – College of Business		
Item Detail		Item Total
Non-Scholarship Expenses - Subtotal		\$251,133
Servers: Hardware, Software	\$32,455	
Hardware: Workstation/PCs Including planned add-ons (e.g., ZIPs, extra monitors, mice, network cards, etc.)	\$89,375	
Software	37,603	
Peripherals (e.g., scanners, printers, plotters, LCDs, projectors)	1,200	
Supplies & Misc. (e.g., paper, toner, furniture, ergonomics)	9,000	
Network Equipment (e.g., switches, hubs, wiring, etc.)	6,000	
Maintenance	5,500	
Personnel	70,000	
Special Projects	0	
Non-computer Technology Equipment (e.g, wet labs, mixing chambers, etc.)	0	
Scholarship Expenses – Subtotal		40,360
Total Expenses (est.)		\$291,493

5. College of Engineering

5.1 Administration of Charges for Technology

In the College of Engineering, CFT are administered by the Engineering Student Technology Committee. This committee is comprised of four representatives from each department, two representatives from the engineering programs, the Associate Dean for Undergraduate Studies, and the Director of Engineering Network Services (ENS). The four departmental representatives are one faculty member, one graduate student, and two undergraduate students; the two program representatives are both undergraduate students. With a total of 20 members, the committee has a ratio of students to non-students of almost 3:1. The Engineering Student Technology Committee works with the College of Engineering Technology Committee to ensure adequate long-range planning and strategic pedagogical use of resources.

Initial appropriations for student laboratory expenses are made to ENS and the five engineering departments: Atmospheric Science, Chemical Engineering, Civil Engineering, Electrical & Computer Engineering, and Mechanical Engineering. Expenditures from the remaining pool of funds are requested via the Charges for Technology Project Proposal from college constituents. The committee then reviews these proposals and makes the final decision on approved projects and expenditures. In all cases, the Director of ENS is responsible for ensuring that all charges to the fund are valid charges per the Charges for Technology Manual.

5.2 Computer Labs

There are five college-wide computing facilities that are fully supported by the engineering CFT, one of which was added during AY 01, the Allison Hall Lab. Access to all four labs is limited to students in the College of Engineering and is controlled by card reader systems.

These labs are supported and maintained by students whose wages are paid for by the CFT. The five labs are:

Computing Lab	Location	Number		Availability
		Computers	Printers	
Allison Lab	Allison E104	4	0	When building is open
Anderson Lab	Glover 220	100	3	When building is open
Electronic Classroom	Engineering A104	27	1	24 hours
LM Design Studio	Engineering B203	36	4	24 hours
General Lab	ERC A214	10	1	When building is open

In addition, there are approximately 10 departmental computing facilities, ranging in size from 4 to 18 computers that are partially supported and maintained by the CFT. The Charges for Technology also provide maintenance and supply funds for non-computing instructional laboratories in the college. Equipment for loan, such as projectors and laptops, is also supported by the CFT.

5.3 Annual Revenue and Expenditures (Tables 7a and 7b)

Revenues of \$440,000 combined with the FY 01 \$217,000 carry-forward for a total of \$657,000 in available funds. The entire \$217,000 carry-over had already been allocated to projects and was virtually expended by the end of Summer 2001. Planned allocation disbursement of \$367,000 was encumbered (see Table 7b for detail). The remaining \$73,000 is being disbursed via the proposal process discussed above. The Student Technology Committee anticipates a FY 02 carry-forward of less than \$10,000.

The committee has voted to raise the annual charge for technology by approximately 4.98%, making the annual charge \$295.00, or \$147.50 per semester. The increase is based on the ever-increasing need for technology refresh in the departmental laboratories.

Revenue & Account Balance		
Item	Subtotal	Total
Revenue from CFT FY 01		\$440,000
UG @ \$140.50/student per Semester	\$325,600	
Grad @ \$140.50/student per Semester	114,400	
Carry-forward from FY 00		217,000
Total Revenues Available		\$657,000
Expenses (est.)		(647,000)
Non-scholarship	\$609,000	
Scholarships	38,000	
Carry-forward balance to FY 02 (est.)		\$10,000

Table 7b: Expense Summary – CFT FY 01 – College of Engineering		
Item Detail		Item Total
Non-Scholarship Expenses - Subtotal		\$609,000
Servers: Hardware, Software		\$84,500
Server maintenance	\$2,800	
Server software	2,000	
Server upgrades	18,000	
Servers	61,700	
Hardware: Workstation/PCs		\$249,000
Computer replacements	\$220,000	
Computer upgrades	6,200	
Lab back-up hardware	9,500	
New computer installations	13,300	
Software		\$108,000
Peripherals		\$10,000
Printers	\$6,200	
Scanners	1,500	
UPS	2,300	
Supplies & Misc.		\$17,500
Furniture	\$3,700	
Paper	2,900	
Surge protectors	5,200	
Toner	5,500	
Other (e.g., cleaning supplies, hardware, etc.)	200	
Network Equipment		\$12,000
Maintenance		\$27,500
Personnel		\$76,500
Special Projects		\$15,500
Lab entry security	\$12,500	
Security cables	3,000	
Non-computer Technology Equipment		\$8,500
Scholarship Expenses – Subtotal		\$38,000
Total Expenses (est.)		\$647,000

6. College of Liberal Arts

6.1 Administration of Charges for Technology

CFT are administered by the Charges for Technology Committee, which consists of four student representatives [the Vice President of the Liberal Arts College Council (LACC), one Social Science student approved by the LACC, one Arts & Humanities student approved by the LACC, one College of Liberal Arts graduate student approved by the LACC], an Associate Dean or her/his representative, and two faculty/staff members appointed by the Dean. Requests for funding are presented to the committee. The Associate Dean reviews all requests and advises the committee of any implications related to College planning goals. The committee reviews and approves all expenditures made from CFT funds within the allocation

categories determined by the Charges for Technology policy. Student members of the committee retain the majority vote in all cases. Ten percent of the fees collected are to be used for need-based scholarships.

6.2 Computer Labs

Within the college, CFT support 14 computer labs containing over 300 computers. The labs are open an average of 600 hours per week and serve over 500 students per day. An additional 223 hours per week of classes are taught in these labs. These labs directly support classes in composition, literature, creative writing, social sciences, technical journalism, technical theater, graphics design, and music theory, history and appreciation. In addition, some labs, especially Eddy 300, are open for use by any university student in any class.

6.3 Annual Revenue and Expenses (Tables 8a and 8b)

In addition to computing equipment, Charges for Technology support non-computer technology. The funds have been used to support the upgrade of the television production studio in Speech Communication. Theatre and dance students are able to utilize and learn from enhancements to the intelligent lighting system in the Music, Theatre & Dance department, while students in Journalism are able to use non-linear video editing systems and digital cameras purchased with CFT funds.

The college carried over approximately \$37,000 in CFT funds from FY 00 (Table 8a), which was unplanned and the result of a delay in filling purchase orders. Liberal Arts anticipates the expenditure of all CFT funds in FY 01, and does not plan to increase charges in FY 02.

Table 8a: Summary of FY 01 CFT Budget – College of Liberal Arts		
Revenue & Account Balance		
Item	Subtotal	
Revenue from CFT FY 01		\$426,339
UG @ \$53/student per Semester	\$377,504	
Grad @ \$53/student per Semester	48,835	
Carry-forward from FY 00		37,285
Total Revenues Available		\$463,624
Expenses (est.)		(463,624)
Non-scholarship	\$421,124	
Scholarships	42,500	
Carry-forward balance to FY 02 (est.)		0

Table 8b: Expense Summary – CFT FY 01 – College of Liberal Arts		
Item Detail		Item Total
Non-Scholarship Expenses - Subtotal		\$421,124*
Servers: Hardware, Software	\$5,700	
Hardware: Workstation/PCs	160,543	
Software	23,730	
Peripherals	21,432	
Supplies & Misc.	44,274	
Network Equipment	0	
Maintenance	24,180	
Personnel	83,004	
Special Projects	0	
Non-computer Technology Equipment	58,333	
Scholarship Expenses – Subtotal		42,500
Total Expenses (est.)		\$463,624
*Rounding error		

7. College of Natural Resources

7.1 Administration of Charges for Technology

Undergraduate and graduate students from the College of Natural Resources (CNR) College Council serve as representatives on the College Computer Committee, which initiates and oversees issues related to information technology in the CNR including CFT expenditures. Student representation consists of six students (five undergraduate, one graduate) who have final and veto authority on the expenditure of student-generated revenues. The College Council continues to be the contact point with the broader student body.

The computer lab managers make initial recommendations for CFT expenditures. The Computer Committee makes any necessary modifications necessary to ensure that the recommended purchases coincide with the overall direction of the CNR with respect to information technology.

7.2 Computer Labs

The *Computer Learning Lab* (CLL) is a PC-based facility consisting of 60 Pentium IBM compatible computers. The software suite consists of a wide variety of applications including word processing, spreadsheet, graphics, GIS, CAD, database and statistical analysis software. The *Computer Applications Lab* (CAL) is a PC-based facility consisting of 26 Pentium IBM compatible computers. The CAL was specifically designed to help minimize the conflicts between the teaching demands of the faculty and student needs for open computing by designating it as a non-teaching facility, open to students with valid CNR network access. The open hours for both the CLL and the CAL are:

- 7:00 am-Midnight, Monday through Thursday
- 7:00 am-7:00 pm, Friday
- Noon-6:00 pm, Saturday
- Noon-10:00 pm, Sunday

The *Advanced Technology Laboratory* (ATL) is a Unix-based facility consisting of 17 Sun Microsystems sparc workstations. The ATL is designed for GIS, remote sensing and statistical applications that require more resources than are available in the PC environment. The open hours for the ATL are:

- 8:00 am-8:00 pm, Monday through Thursday
- 8:00 am-5:00 pm, Friday
- Noon-5:00 pm, Saturday and Sunday

The ATL has fewer open hours compared to the PC labs because: (1) the physical location of the ATL and PC labs (different buildings) necessitates staff being present in both facilities during any open hours; (2) 'console' use of the systems in the ATL tends to drop off in the mid-evening hours; and (3) students can gain remote access to the applications running on the Unix systems from internet-connected systems via ssh, telnet or X-emulation software such as Exceed.

Access to all computer laboratories is granted to all students within the CNR as well as students outside the CNR who are taking classes that require use of the computing equipment. CNR students are given 'permanent' accounts (until graduation) whereas non-CNR students are given temporary accounts that expire at the end of each semester.

7.3 Annual Revenue and Expenses (Tables 9a and 9b)

FY 01 revenue to CNR from Charges for Technology revenue is projected at \$247,005. of which \$24,000 will be distributed as scholarships, creating a working budget of \$223,005. Revenues generated from CFT are used exclusively for supporting college-level computing laboratories that are available to students in all CNR departments.

Carry-forward: There was no carry-forward from FY 00 and none is anticipated going into FY 02.

Charges for Technology, AY 02: CNR students and the College Computing Committee have agreed that no change in the current CFT is required for AY 02 (\$100 per semester for both graduate and undergraduate students). Reduced enrollment in CNR has, however, had an impact on the replacement cycle of systems in the computing facilities, which has led the technology committee into discussions of possible increases for the following years, either a one-time increase or recurring increases of 5% or less.

Expenditures: Major purchases for the PC labs during FY 01 included: 13 replacement PC systems; an additional projection system for the west portion of the CLL; and memory upgrades for many systems due to the migration to the Windows2000 operating system. The software budget increased this year due to the upgrade to W2K, along with a development effort to increase instruction in the areas of GIS and remote sensing in the PC facilities. Also, ergonomic furniture was installed in the CLL (west side) to complete the three-year effort to upgrade all of the instruction laboratories (CLL east, CLL west and the GTL).

The Sun Microsystems matching grant program made it possible to upgrade nine CPUs in the ATL rather than the usual five systems. Also, a large format digitizer was purchased

to replace one that could not be repaired. No new software was purchased for the ATL; however, maintenance costs continued on all existing software at a cost of \$7,500.

Staffing costs for the labs (student hourly and workstudy) totaled \$77,100.

Table 9a: Summary of FY 01 CFT Budget – College of Natural Resources		
Revenue & Account Balance		
Item	Subtotal	Total
Revenue from CFT FY 01		\$247,005
UG @ \$100/student per Semester	\$202,490	
Grad @ \$100/student per Semester	44,515	
Carry-forward from FY 00		0
Total Revenues Available		\$247,005
Expenses (est.)		(247,315)
Non-scholarship	\$223,315	
Scholarships	24,000	
Carry-forward balance to FY 02 (est.)		(\$310)

Table 9b: Expense Summary – CFT FY 01 – College of Natural Resources		
Item Detail		Item Total
Non-Scholarship Expenses - Subtotal		\$223,315
Servers: Hardware, Software		0
Hardware: Workstation/PCs		\$56,400
	PC labs	\$41,850
	ATL	14,550
Software		\$22,935
	PC labs	\$15,435
	ATL	\$7,500
Supplies & Misc.		\$33,734
	PC labs	\$31,274
	ATL	2,460
Network Equipment (e.g., switches, hubs, wiring, etc.)		0
Maintenance		\$14,511
	PC labs	\$6,711
	ATL	7,800
Personnel		\$77,100
	PC labs	\$54,100
	ATL	23,000
Special Projects – PC labs (ergonomics)		\$18,635
Non-computer Technology Equipment		0
Scholarship Expenses – Subtotal		24,000
Total Expenses (est.)		\$247,315

8. College Of Natural Sciences

8.1 Administration of Charges for Technology

The College of Natural Sciences distributes Charges for Technology money according to an algorithm based on the number of majors and the laboratory contact hours generated by each department.

Departments refer to the college Charges for Technology policy manual, which is updated annually, in developing proposals. Departments solicit input and ideas from students and faculty members and work with student clubs to generate proposals. Proposals are submitted to the CNS College Council for approval. Council members represent each department and student organization in the College. The Assistant Dean serves as faculty advisor to the Council. Council members debate each proposal and question departmental representatives as to proposed usage, availability to students, possible alternatives, etc. The Council has final word on approval of departmental proposals. The Assistant to the Dean monitors expenditures for compliance with university and college guidelines and adherence to approved items.

8.2 Computer Labs

The College of Natural Sciences operates a large computer lab (MacLab) in the Weber Building. The lab has approximately 60 computers. There are also CNS computer labs in Ingersoll Hall (18 computers) and Newsom Hall (15 computers), which are operated in cooperation with the Honors Program (Newsom) and the Office of Residence Life. All three college labs are open to anyone; use is not limited by college, major, or current enrollment.

Two new teaching computer classrooms were finished in FY 01 for Math and Statistics with computers purchased by CFT funds. Several of the college's departments operate student labs, with access often limited to their majors or students enrolled in their classes.

8.3 Annual Revenue and Expenses (Tables 10a and 10b)

Revenue: The College of Natural Sciences collected approximately \$569,400 during AY 01. Based on AY 01 figures, CNS undergraduate enrollment for AY 02 is projected at approximately 2,600. Anticipated revenue would thus be approximately \$520,000 (2,600 x 2 semesters x \$100/semester).

The college will not seek an increase in charges for FY 02. The CFT paid by undergraduate students will remain \$100 per semester for full-time students. Graduate students in the College of Natural Sciences are not assessed a CFT.

Carry-forward to future FYs: The carryover from FY 00 was used to purchase computers for the Math and Statistics computer classrooms. This worked well as the college could purchase identical computers and configure them all at the same time. Math and Statistics have requested a carry forward of \$25,000 to be used during Summer 2001 for the purchase of new computers to increase capacity of computer classrooms to 40 computers each.

The college is asking to carry over \$30,000 for the next one or two years to help equip a new Chemistry/Biosciences building. There was not enough money in the new construction budget to fully equip the instructional and computer labs, so the departments

are starting a savings account to equip the building, which will be finished sometime in 2002.

Expenses: Approximately 13% (\$73,217) of FY 01 CFT revenue was allocated to need-based scholarships. The remaining money was awarded in response to departmental proposals and was spent on computers and other computing equipment (\$199,500), software and licenses (\$21,000), supplies (\$20,500), maintenance (\$35,000), hourly workers (\$43,000), and laboratory and other non-computer technology (\$105,000).

Carry over funds will be used to purchase computers for the Weber classrooms, as well as purchase computers and lab equipment for the new Chemistry/Biological Sciences Building.

CFT funds were used to create two classrooms with computers for the Math and Statistics departments. These classrooms are being used to teach several Math and Statistics courses. The college was able to update teaching with the latest technological equipment, annual software licenses were renewed, and other department undergraduate computing resources were updated using these funds.

Table 10a: Summary of FY 01 CFT Budget – College of Natural Sciences		
Revenue & Account Balance		
Item	Subtotal	Total
Revenue from CFT FY 01		\$569,400
UG @ \$100/student per Semester	\$569,400	
Carry-forward from FY 00		115,357
Total Revenues Available		\$684,757
Expenses (est.)		(542,867)
	Non-scholarship	\$469,650
	Scholarships	73,217
Carry-forward balance to FY 02 (est.)		\$141,890

Table 10b: Expense Summary – CFT FY 01 – College of Natural Sciences		
Item Detail		Item Total
Non-Scholarship Expenses - Subtotal		\$469,650
Servers: Hardware, Software	\$250	
Hardware: Workstation/PCs (includes later add-ons such as ZIPs, extra monitors, mice, network cards, etc.)	173,500	
Software	21,000	
Peripherals (e.g., scanners, printers, plotters, LCDs, projectors)	11,200	
Supplies & Misc. (e.g., paper, toner, furniture, ergonomics)	20,500	
Network Equipment (e.g., switches, hubs, wiring, etc.)	3,200	
Maintenance	35,000	
Personnel	43,000	
Special Projects – Weber Lab computers purchased with FY 00 carry-forward funds	57,000	
Non-computer Technology Equipment	105,000	
Scholarship Expenses – Subtotal		73,217
Total Expenses (est.)		\$542,867

9. College of Veterinary & Biomedical Sciences

9.1 Administration of Charges for Technology

Request and Approval of Expenditures

- The CVMBS College Council sends a memo to all faculty members in the college once per semester, inviting them to submit proposals for the purchase of equipment for use in undergraduate teaching laboratory classes. Students may also make such proposals. Each faculty member or student who has submitted a proposal is asked to present his or her request at a College Council meeting, describing the type of equipment requested, the class(es) in which it will be used and the number of undergraduate students who will have access to the equipment.
- Students using the CVMBS computer lab are asked to complete surveys identifying equipment, upgrades, software, etc., that they would like to have in the computer lab. Computer lab personnel, such as the lab monitors, are also asked to submit proposals for computer equipment.
- Each proposal is then ranked by College Council, based on need, the number of CVMBS students who will use the equipment, and the total number of undergraduate students who will use the equipment. Members of the College Council then vote on each proposal and the proposal is passed by majority vote.

Student Participation in the Decision Process

- Only students on the CVMBS College Council vote on proposals. No faculty members are allowed to vote. There are usually between 10 to 15 students on College Council each year. All student members may vote on the proposals if they have attended at least two meetings in the semester during which voting takes place.
- A faculty member serves on the College Council in a strictly advisory capacity. The faculty advisor assists students with questions regarding such matters as the amount of money available to be spent, the types of expenditures that are appropriate, and fiscal year deadlines. The advisor also acts as a liaison between the College Council, the faculty and the Dean's Office.

9.2 Computer Labs

Undergraduate CFT-Supported Computer Lab

One CVMBS computer lab is supported by student Charges for Technology and is housed in the Microbiology Department. There are currently 28 computers in the lab (27 PCs and one Mac). The lab is open 73.5 hours per week (7:30 am-10:00 pm, Monday through Thursday; 7:30 am-5:00 pm on Friday; and Noon-6:00 pm on Sundays). Access to the lab is limited to undergraduate students who are enrolled in the college with a declared major in environmental health, microbiology or pre-veterinary medicine. Lab monitors can determine a student's major either by looking at the student's activity card or by referring to a master list naming all of the students enrolled as majors in the college.

Non-CFT-Supported Computer Labs

There are two additional computer labs in the college, but neither is funded by CFT. The lab in W118 Anatomy is for use by graduate and undergraduate students, but only for course-scheduled work. The lab at the Veterinary Teaching Hospital is open only to students enrolled in the professional veterinary program and is not an undergraduate computer lab.

Non-Computer Labs Supported by CFT

Charges for Technology support a number of non-computer, undergraduate teaching lab classes in the Department of Environmental Health and the Department of Microbiology. These classes are listed below:

<i>Environmental Health:</i>	EH230	Field Methods Lab
	EH320	Water Quality Lab
	EH350	Air & Industrial Hygiene Lab
	EH410	Waste Management Lab
<i>Microbiology:</i>	MB301/302	General Microbiology Lab
	MB343	Immunology Lab
	MB352	Medical Microbiology Lab
	MB425	Virology Cell Culture Lab
	MB432	Aquatic Microbiology
	MB436	Industrial Microbiology
	MB462	Parasitology and Vector Biology
	MB550	Microbial and Molecular Genetics Lab

9.3 Annual Revenue and Expenses (Tables 11a and 11b)

Table 11a: Summary of FY 01 CFT Budget – VMBS		
Revenue & Account Balance		
Item	Subtotal	Total
Revenue from CFT FY 01		\$52,000
UG @ \$100/student per Semester	\$52,000	
Carry-forward from FY 00		(2,249)
Total Revenues Available		\$49,751
Expenses (est.)		(48,159)
Non-scholarship	\$42,934	
Scholarships	5,225	
Carry-forward balance to FY 02 (est.)		\$1,592

Table 11b: Expense Summary – CFT FY 01 – VMBS		
Item Detail		Item Total
Non-Scholarship Expenses - Subtotal		\$42,934
Servers: Hardware, Software	\$0	
Hardware: Workstation/PCs	987	
Software – adobe Acrobat License Fee	\$46	
Peripherals – color printer	\$500	
Supplies & Misc. – toner and ergonomic computer tables	11,195	
Network Equipment – rewire for new computer tables	1,000	
Maintenance	439	
Personnel	20,000	
Special Projects	0	
Non-computer Technology Equipment – Inverted microscopes for Microbiology Labs	8,767	
Scholarship Expenses – Subtotal		5,225
Total Expenses (est.)		\$\$48,159

10. Intra-University Option

10.1 Administration of Charges for Technology

Requests for Expenditure Procedure: The Intra-University Council Technology Committee (IUCTC) listens to requests on an as-needed basis. The request is submitted and explained by the individual/group who desires the funds, and the committee approves or denies the request after discussion. The decision is placed in the minutes of the meeting, and the purchases are made through the HELP/Success Center with the assistance of the IS Administrator and the Office Manager.

Student Participation: The IUCTC was comprised of approximately five students who either are or have been Intra-University majors and one faculty representative (the IS administrator). Each student had an equal vote, and any individual in the committee was able to propose expenditures or represent an outside member of the University who wishes to make a request for funds.

College Planning: The HELP/Success Center works with the IUCTC to write proposals, expend funds, and plan for the future. The ongoing contact for the IUCTC is the student information systems administrator; however, the director, assistant director, office manager and IU Council faculty representative work with the committee on various projects when needed.

10.2 Computer Labs

The Intra-University Computer Lab, located in 101 Durrell Center, is open from 8:00 a.m. to 10:00 p.m. Monday through Thursday, 8:00 a.m. to 6:00 p.m. Friday and from noon to 10:00 p.m. Sunday, for a total of 76 hours per week. Access is currently available to all students; however, if IU students face a turn-away issue, restrictions may be placed on access by decision of the IUCTC. Currently, the bulk of IU

Charges for Technology (which have only been in place since Fall semester 1998) have been used for the computer lab.

Four computer lab requests for funds were granted to:

Purchase 10 computers for the Lory Student Center with an additional donation of two older computers used previously in the computer lab;

Donate twelve computers previously used in the lab to the students in the Key Academic Community program;

Donate a computer previously used in the lab to the Testing Center,; and

Purchase laptops for the Morgan Library.

New computers replaced donated computers.

10.3 Annual Revenue and Expenses (Tables 12a and 12b)

AY 02 CFT: The charge for next year will be proposed to increase from \$35.00 to \$36.00 per semester

Hardware: 14 PCs, 10 iMac Macintoshes, 20 laptops, 1 network server and a color laserjet printer were purchased following University standards and latest technological improvements.

Software: MS Office 2000, Windows 2000 and security software were purchased for lab use this year.

Supplies and miscellaneous: Most supplies (paper, printer cartridges, etc.) were on-going routine lab purchases.

Maintenance: All equipment is currently under warranty

Personnel: By decision of the Intra-University council, at least two staff members are to be present at all times: one lab assistant (generally a freshman/sophomore class status) and a lab manager (junior or senior class status with experience in management and/or computers). Managers are in charge of the lab, networking, training and web design and may incur additional hours.

Table 12a: Summary of FY 01 CFT Budget – Intra-University		
Revenue & Account Balance		
Item	Subtotal	Total
Revenue from CFT FY 01		\$180,000
UG @ \$100/student per Semester	\$180,000	
Carry-forward from FY 00		0
Total Revenues Available		\$180,000
Expenses (est.)		(180,000)
Non-scholarship	\$162,000	
Scholarships	18,000	
Carry-forward balance to FY 02 (est.)		\$0

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Table 12b: Expense Summary – CFT FY 01 – Intra-University		
Item Detail		Item Total
Non-Scholarship Expenses - Subtotal		\$162,000
Servers: Hardware, Software	\$5,881	
Hardware: Workstation/PCs (includes later add-ons such as ZIPs, extra monitors, mice, network cards, etc.)	81,206	
Software	790	
Peripherals (scanners, printers, plotters, LCDs and projectors)	3,079	
Supplies & Misc.	3,631	
Network Equipment – rewire for new computer tables	1,126	
Maintenance	0	
Personnel	65,461	
Special Projects – Assistive Technology Fee	826	
Non-computer Technology Equipment – Inverted microscopes for Microbiology Labs	0	
Scholarship Expenses – Subtotal		18,000
Total Expenses (est.)		\$180,000