

Engineering Student Technology Committee
March 23, 2006

Electronic Classroom, 8:00am

Present: Scott Chase (ME), Prof. Tom Chen (ECE), Laura Ciasto (Atmos), Tricia Dize (intra), Klaus Hartinger (ECE), Kelley Johnson (Atmos), Amanda Kaiser, *chair* (ME), Brian Lee (intra), Scott Lynn (CBE), Evan Mueller (CBE), Mark Ritschard (ENS), Audrey Twiford (ME)

Absent: Prof. David Alciatore (ME), Prof. Antonio Carraro (CE), Prof. Jeff Collett (Atmos), Mike Floren (CBE), Henrik Forsling (CE), Kendra Gabbert (CE), Heidi Shray (ECE), Dr. Tom Siller (Academic Affairs), Prof. David Wang (CBE), *unfilled - undergraduate* (Civil), *unfilled - undergraduate* (ECE)

- Introductions

Kaiser opened the meeting with introductions and an overview of today's meeting.

- Review of Minutes from Meetings of 3/2/06 & 3/9/06

Minutes from both meetings were approved as written.

- 2006-2007 Budget & Charge

Ritschard presented an overview of the current budget and each major category per the spreadsheet distributed after last week's meeting. The committee started with the "Server Maintenance and Support" category and Ritschard provided an overview of each service. Discussion focused on whether all services need to be on a four year replacement cycle and Ritschard agreed that longer cycles could be utilized for some services. Hartinger then moved, and Mueller seconded, that the "Server Maintenance and Support" budget be set at \$85,000. The motion passed unanimously.

The committee then reviewed the lab equipment spreadsheet in detail and Ritschard presented the changes proposed by ENS staff. Chase moved, and Lynn seconded, that the life cycle for all monitors be increased to 5 years. The motion passed unanimously. This was the only change made to the Computer Lab Equipment Replacement budget as proposed by ENS, setting it at \$120,000.

As a result of the changes made above, an additional \$16,000 became available. Based on previous discussions on the importance of these funds for the departments, Hartinger moved, and Chase seconded, that the department allocation remain at \$135,000 as it was last year and that the remaining funds be placed in Strategic Initiatives. The motion passed unanimously.

There was also discussion on whether to raise the charge above \$142 per semester. However, in the absence of major projects, the committee felt increasing the charges was not justified. Hartinger then moved, and Chase seconded, that the budget be accepted as discussed so far. It was approved with one abstention. The approval set next year's budget at \$460,000, with no change in the semester charge, as follows:

Assistive Technology	\$ 2,000
Business Expenses	\$ 1,000
Central Services & Systems	
Computer Lab Equip. Replacement	\$120,000
Laboratory Maintenance	\$ 31,000
Network Maintenance	\$ 6,000
Server Maintenance & Support	\$ 85,000
Student Wages	\$ 65,000
Department Allocations	
Atmospheric Science	\$ 20,000
Chemical Engineering	\$ 19,200
Civil Engineering	\$ 33,400
Electrical & Computer Engr.	\$ 16,800
Intra-departmental majors	\$ 5,000
Mechanical Engineering	\$ 40,600
Strategic Initiatives	\$ 15,000

The next meeting will be on a Thursday in April, to be announced by Kaiser, at 8:00am in the Electronic Classroom. The meeting adjourned at 9:10am.

Respectfully submitted,
Mark Ritschard

Charges for Technology

College of Engineering

Budget Planning for Fiscal Year 2007

	FY06	Proposed FY07	Diff. from FY06
Assistive Technology	\$2,000	\$2,000	\$0
Business Expenses	\$0	\$1,000	\$1,000
Central Services & Systems	\$334,000	\$307,000	(\$27,000)
Computer Lab Equip. Replacement	\$165,000	\$120,000	(\$45,000)
Laboratory Maintenance	\$23,000	\$31,000	\$8,000
Network Maintenance	\$6,000	\$6,000	\$0
Server Maintenance & Support	\$70,000	\$85,000	\$15,000
Student Wages	\$70,000	\$65,000	(\$5,000)
Department Allocations	\$135,000	\$135,000	\$0
Atmospheric Science	\$20,000	\$20,000	\$0
Chemical Engineering	\$19,700	\$19,200	(\$500)
Civil Engineering	\$31,800	\$33,400	\$1,600
Electrical & Computer Engineering	\$17,500	\$16,800	(\$700)
Intra-departmental majors	\$5,000	\$5,000	\$0
Mechanical Engineering	\$41,000	\$40,600	(\$400)
Strategic Initiatives	\$24,000	\$15,000	(\$9,000)
New Academic Village Equipment	\$10,000		
Security Cameras	\$6,000		
Unallocated	\$8,000	\$15,000	\$7,000 (carrying forward \$ -9,208K from FY06)
Budget:	\$495,000	\$460,000	
Actual/Projected Tech Charge Revenue		\$460,000	
<i>Per semester:</i>			
current charge	142.00	\$460,000	
proposed charge	142.00	\$460,000	0.0%
		\$0	

Budget Approved by Engineering Student Technology Committee on 3/23/06

Charges for Technology
College of Engineering

Budget Planning for Fiscal Year 2006
inventory accurate as of spring, 2006

red indicates equipment funded for 2005-2006
blue indicates equipment approved by ESTC on 3/23/06

Actual Lab Equipment	computers	Windows graphics wkst	UNIX compute workstations	thin clients	19" flat panel	21" Trinitron	19" Trinitron	B/W laser printer	Color laser printer	36" color plotter	60" color plotter	Regular Scanners	Large Format Scanners	Photo Scanners	Digital Senders	Projectors	Plasma Displays	Smart Boards	Equip. Value	Avg. life cycle	Annual 4yr Repl. Cost
Allison Hall	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	6,625	5	1,472
Anderson Lab	33	63	24	0	24	20	0	0	83	83	3	2	0	1	0	0	0	0	151,625	4	33,867
BC Infill (Lounge)	0	0	0	0	4	4	0	4	0	0	0	0	0	0	0	0	0	0	6,000	5	1,333
Design Studio	36	48	12	0	1	1	1	48	48	0	0	2	2	1	1	1	1	6	138,250	4	30,877
Technical Shop	3	4	1	0	0	0	1	3	0	1	0	0	0	0	0	0	0	0	8,000	5	1,756
Electronic Classroom	0	0	0	24	6	24	24	0	6	0	1	0	0	0	0	1	1	0	41,900	4	9,353
ERC lab	11	11	0	0	10	10	20	0	1	0	1	0	0	0	0	1	1	1	43,000	4	9,604
GIS lab	24	21	0	0	0	0	0	21	21	0	0	1	1	1	0	0	0	0	51,950	4	11,631
Internet Café	1	1	0	0	25	25	25	0	0	1	0	1	0	0	0	1	1	0	47,000	4	10,508
Loaner pool	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	14,400	4	3,600
MERC	0	5	5	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	25,800	4	5,783
	114	157	42	0	75	89	71	85	76	69	102	88	11	9	3	4	2	1	534,550	4.4	119,784

119,784	Cost	life cycle	
computer	1,500	4	
MS Windows graphics workstation	3,000	4	eliminate entirely
UNIX compute workstation	6,000	6	eliminate entirely
thin-client	1,100	4	(all costs included: dual server (UNIX & Win) support and access licenses)
19" flat panel display	400	5	change from 4 yrs to 5
21" Trinitron monitor	350	5	change from 4 yrs to 5
19" Trinitron monitor	225	5	change from 4 yrs to 5
black & white laser printer	3,100	4	
color laser printer	7,200	4	
36" color plotter	8,000	5	
60" color plotter	14,700	5	
regular scanner	150	4	
large-format scanner	900	4	
photo scanner	125	4	
digital sender	1,700	4	
projector	2,800	4	
plasma display	6,000	5	reduce from 13,000 to 6,000
smart board	1,600	5	

Charges for Technology

College of Engineering

Server Maintenance & Support Budget Calculation for FY07

Purpose	Server	Student share	Cost to Replace	Student Cost	(covered by Lab Equipment Replacement Budget)
Backup	Snoopy	53%	8,000	4,206	
Backup	Backup Tape Library	53%	75,000	39,427	
Card Reader Servers	doorlock servers	100%	7,000	7,000	
Compute Servers	Proposed to Replace UNIX v	82%	120,000	97,806	
Domain Servers (Accounts, DHCP, licenses)	Luke, etc.	82%	22,000	17,931	
Electronic Mail	Goku	82%	8,000	6,520	
Faculty & Staff U: & V: drives	Gohan	0%	15,000	0	
Print Quota Servers	Cerebrus	100%	3,000	3,000	
Project Space (T:\projects)	Gohan	50%	20,000	10,000	
Student U: drives & T:\classes	BlueStore	100%	80,000	80,000	
Sun Ray server	Sunfire	97%	40,000		38,667
Sun Ray Windows servers	Thin1, etc.	97%	90,000		87,000
Virtual Lab servers	Vlab1, etc.	100%	63,000	63,000	
Web server	Sunbeam	82%	8,000	6,520	
UPS	N/A	77%	40,000	30,700	
Total Student Replacement Cost				366,110	
Annual Cost for four-year cycle				91,527	

Student Population	Average		2005-2006		2004-2005	2003-2004	2002-2003	2001-2002	2000-2001					
graduate students	534	27%	536	28%	563	28%	604	29%	529	27%	505	26%	467	26%
undergraduate students	1,409	73%	1,358	72%	1,459	72%	1,470	71%	1,430	73%	1,411	74%	1,329	74%
total students	1,943	82%	1,894	81%	2,022	82%	2,074	83%	1,959	81%	1,916	82%	1,796	81%
Faculty & Staff	441	18%	448	19%	451	18%	437	17%	448	19%	430	18%	432	19%
total people	2,384		2,342		2,473		2,511		2,407		2,346		2,228	

Backups

The student share of backup costs reflect the actual student portion of all data backed up

Sun Ray services

Total Sun Rays	145	97%	120 existing, plus 25 proposed
Sun Rays used by Faculty & Staff	5	3%	
	150		
Cost of Sun Ray servers	125,667		
cost per Sun Ray	838		

**Department Allocations
Budget Calculation for FY07**

1898 Students enrolled in the College of Engineering in AY06

	students*	% by Major	% by Dept	% -Atmos
Atmos	91	4.77%	4.77%	
ChemE	122	6.40%	6.40%	6.72%
CE			25.16%	26.43%
Bio & Ag	6	0.32%		
Civil	472	24.85%		
ECE	4	0.21%	20.50%	21.53%
Computer E	80	4.22%		
Electrical	305	16.07%		
Intra-departmental			9.99%	12.20%
Biomedical	66	3.48%		
Engineering	1	0.05%		
Engineering Science	70	3.66%		
Environmental Engine	53	2.79%		
ME	599	31.54%	31.54%	33.12%
Open	31	1.63%	1.63%	1.72%
	1898	100.00%	100.00%	

*average enrollment of fall and spring semesters

1677 students in the 5 departments

	students	%
Atmos	91	5.40%
ChemE	122	7.25%
CE	478	28.47%
ECE	389	23.20%
ME	599	35.69%
	1677	100.00%

1587 students in ChemE, CE, ECE, and ME

	students	%
ChemE	122	7.66%
CE	478	30.10%
ECE	389	24.52%
ME	599	37.72%
	1587	100.00%

1198 students in ChemE, CE, and ME

	students	%
ChemE	122	10.15%
CE	478	39.87%
ME	599	49.98%
	1198	100.00%

	Lab Management	Software	Maintenance	TOTAL	Allocation	Maint by %
Atmos				\$20,000.00	20,000	
ChemE	\$11,159.92	\$3,063.35	5,000	\$19,223.26	19,200	1,680.96
CE	\$16,348.64	\$12,039.08	5,000	\$33,387.72	33,400	6,606.25
ECE	\$2,000.00	\$9,807.75	5,000	\$16,807.75	16,800	5,381.85
Intra			5,000	\$5,000.00	5,000	3,050.64
ME	\$20,491.44	\$15,089.82	5,000	\$40,581.26	40,600	8,280.30
	50,000	40,000	25,000	135,000	135,000	25,000.00
<i>ChemE, CE, ME</i>	\$41,000		50,000	50,000	50,000	
<i>ECE</i>	\$2,000		40,000	40,000	40,000	
<i>ChemE</i>	\$7,000		25,000	25,000	25,000	