

Engineering Student Technology Committee (ESTC):
(<http://www.engr.colostate.edu/ESTC/>)

Meeting minutes for April 16, 2003 - Eng. Conference Room - 7:45am

Present: Morgan Defoort (ME), Prof. Garcia (CE), Miranda Grote (intra)
Tim Hinerman (ME), Shawn Klawitter (ChemE), Kate McDonnell (ECE),
Arun Nair (CE), Mark Ritschard (ENS), Prof. Siller (Academic Affairs),
David Wiegandt (ECE) - chair, Prof. Wilmsen (ECE)

Absent: Derek Akerhielm (ChemE), Kat Christian (CE), Michael Flick (CE),
David Hodge (ChemE), Jennifer Meints (intra), J. P. Murray (ECE),
Derek Reding (ME), Prof. Sakurai (ME), Prof. Wickramasinghe (ChemE)

Guest: Prof. Fontane (CE)

- Corrections to previous meetings minutes (4-9-03)
none

- Committee Membership

Ritschard reminded the committee that half of the committee turns over every year. A review of the committee web site (see link above) shows what positions are open next year. In addition, David Wiegandt is graduating; his position will also need a replacement. Ritschard will send a note to departments heads requesting new members.

- GIS lab

Prof. Fontane visited the committee on behalf of CE to discuss the GIS lab. He said that the department does not object to opening up

the lab from 5pm to 8am, pending the availability of file space. He indicated that although saving large files to the hard disk had been a concern, the space available via T:\classes, T:\projects, or even increases in U: drive space will accommodate the need to store larger files. He also indicated that CE may be interested in reserving an extra hour in the evening, just in case the alternative ways of storing files doesn't work. The idea is that a specific request from CE would be made to reserve the lab from 5pm to 6pm.

Hinerman asked about the utilization of the lab during the day and Wiegandt, Garcia, and Fontane all indicated that it is heavily used for classes. The lab is especially busy on Tuesdays and Thursdays because of labs.

After more discussion, Hinerman moved and Defoort seconded that the committee continue to fund equipment in the lab and that the committee only request the lab be opened from 6pm to 8am. The motion passed unanimously. The committee then requested that ENS start opening the lab from 6pm to 8am at the end of this semester.

- Budget

Ritschard distributed spreadsheets (attached) showing both the expenditures to date for this fiscal year and a proposed budget for next year. The spreadsheet also shows the algorithm used to calculate how much funding goes to each department. The changes proposed were:

- 1) No funds for Advance Purchases
Sufficient funds have been set aside over time to allow for flexibility in making purchases against the next year's budget.
- 2) Reduction of Assistive Technology by \$500
Annual savings in miscellaneous categories can be used to cover amounts beyond the proposed \$2000.
- 3) Increase in Computer Lab Equip. Replacement by \$40,000
Per the spreadsheet distributed last week, this amount was proposed to show the affect on the budget of continuing to fund all existing lab equipment. Included in the handout was a table with a proposed change in funded equipment to increase the number of graphics workstations in the labs.
- 4) Increase in Laboratory Maintenance by \$5,000
Ritschard requested the extra \$5,000 as it more accurately reflects annual expenditures in this category. His estimate last year was too low, resulting in this year's deficit in this category.
- 5) Increase in Student Wages by \$5,000
ENS would like to hire an additional student technician to help support the labs.
- 6) Decrease in Atmospheric Science by \$1,000
The decrease more accurately reflects the actual revenue generated by Atmos.
- 7) Increase of \$10,000 to remaining departments
Ritschard pointed out that software costs are high and departments could use the extra help in paying for software.
- 8) Increase in Scholarships of \$5,000

This is part of the increase in the semester charge.

The discussion included a desire to perhaps recalculate departmental funding in a way that would more accurately reflect the number of intra-departmental majors. Suggestions included counting such majors as half in their home department and half in their program. There was also discussion about the need to maintain an appropriate level of strategic initiative funding, since \$25,000 of next year's budget is already allocated.

After more discussion, Defoort moved and Hinerman seconded that the budget be passed as proposed (including the proposed change in equipment) with four exceptions: 1) the increase for Computer Lab Equip. Replacement would be \$35,000, 2) the cost for the plasma display be reduced to \$3,800, 3) all monitors outside of the GIS lab be reduced to 19" monitors, and 4) the increase in departmental funding would be \$5,000. The resulting \$10,000 would be allocated to Strategic Funding. The motion passed unanimously.

- Next year's committee chair

Wiegandt noted that both Hinerman and Klawitter were nominated to chair the committee. After both stated their position, they left the room and the remaining members discussed the candidates. Wiegandt called for a show of hands and Klawitter received the majority. Both Wiegandt and Ritschard will work with Klawitter to prepare him for next year. The committee thanked Wiegandt for two excellent years of chairing and thanked him for his hard work.

The next meeting will be called by Klawitter during the Fall 2003 semester.

Respectfully submitted by
Mark Ritschard



Charges for Technology

College of Engineering

Budget Planning for Fiscal Year 2004

	FY03	Proposed FY04
Advance Purchases	\$22,000	
Assistive Technology	\$2,500	\$2,000
Business Expenses	\$3,000	\$3,000
Central Services & Systems	\$249,000	\$299,000
Computer Lab Equip. Replacement	\$100,000	\$140,000
Laboratory Maintenance	\$15,000	\$20,000
Network Maintenance	\$4,000	\$4,000
Server Maintenance & Support	\$70,000	\$70,000
Student Wages	\$60,000	\$65,000
Department Allocations	\$116,000	\$125,000
Atmospheric Science	\$20,000	\$19,000
Chemical Engineering	\$12,650	\$13,200
Civil Engineering	\$30,750	\$34,200
Electrical & Computer Engineering	\$15,500	\$18,000
Intra-departmental majors	\$3,000	\$3,000
Mechanical Engineering	\$34,100	\$37,600
Scholarships	\$50,000	\$55,000
Strategic Initiatives	\$47,500	\$36,000
Backup of Student File System		
Internet Café	\$21,200	
Remote Lab Access		
Other	\$26,300	
	Budget: \$490,000	\$520,000
Actual/Projected Tech Charge Revenue	\$508,886	\$517,511

Charges for Technology
College of Engineering

Budget Planning for Fiscal Year 2004
all expenses as of April 15, 2003

<i>Budget:</i>	Assistive Technology	
Fiscal Year 2002-2003 Budget:		2,500
Fiscal Year 2002-2003 Expenses:		
Assistive Technology	<u>2,048.00</u>	
	2,048.00	
		452.00
<i>Proposed Budget for FY04</i>	2,000.00	

<i>Budget:</i>	Business Expenses	
Fiscal Year 2002-2003 Budget:		3,000
Fiscal Year 2002-2003 Expenses:		
Bad Debt	1,376.64	
Credit Card Expenses	<u>1,801.91</u>	
	3,178.55	
		178.55
<i>Proposed Budget for FY04</i>	3,000.00	

<i>Budget:</i>	Scholarships	
Fiscal Year 2002-2003 Budget:		50,000
Fiscal Year 2002-2003 Expenses:		
Scholarships	<u>45,950.50</u>	
	45,950.50	
		4,049.50
<i>Proposed Budget for FY04</i>	55,000.00	

<i>Budget:</i>	Central Services & Systems	
<i>Category:</i>	Server Maintenance & Support	
Fiscal Year 2002-2003 Budget:		70,000
Fiscal Year 2002-2003 Expenses:		
Backup tapes	295.00	
Citrix farm build server	772.31	
Citrix servers for Virtual Lab	18,168.17	
Dedicated domain controller	1,726.45	
DHCP server	1,246.50	
Graduate Citrix Farm	2,766.00	
Server Maintenance	5,640.33	
Server Software	102.37	
Server upgrades	6,435.00	
Spectralogic tape backup library	5,095.55	
Sun Fire Server	16,114.86	
UPS replacement - student file server	4,633.55	
	62,996.09	
		7,003.91
<i>Proposed Budget for FY04</i>	70,000	

Total Budget This Page	125,500
Total Expenses This Page	114,173.14
Balance, This Page	11,326.86
<i>Proposed Budget This Page</i>	130,000
<i>Change over FY03</i>	+ 4,500

Charges for Technology

College of Engineering

Budget Planning for Fiscal Year 2004
all expenses as of April 15, 2003

<i>Budget:</i>	Department Allocations	<i>Budget:</i>	Department Allocations
<i>Category:</i>	Atmospheric Science	<i>Category:</i>	Civil Engineering
Fiscal Year 2002-2003 Budget:	18,719	Fiscal Year 2002-2003 Budget:	30,750
Fiscal Year 2002-2003 Expenses:		Additional Lab Funding	7,000.00
Fluent License Renewal	742.50	Fiscal Year 2002-2003 Expenses:	
Hard Disk	172.89	ARCview license renewal	1900
Laptop Computer	2,359.34	Autocad license renewal	3754.4
Modem Access for graduate students	804.00	Data Acquisition Cards	4387.13
Network Cable	32.15	Dreamweaver license renewal	863.36
Portable Projector	3,548.80	Fluent License Renewal	1732.5
Replacement: Projector Remote	112.00	GIS paper	101
Smart Board	2,318.00	GIS printer maintenance and repair	139.5
Weather Tap Subscription	348.00	GIS software	76
Wireless hubs for classrooms	1,517.06	GIS toner, fusers, and drum/transfer kit:	730.51
	11,954.74	Maple license renewal	1875
		Microsoft Office & Windows license ren	3511.69
		Network wireless cards	723.39
		PhotoShop license renewal	843.13
		Signal Conditioning for DAC	2564.25
		Triaxial cells for Geotech lab	3556.23
			26,758.11
<i>Proposed Budget for FY04</i>	19,000.00		10,991.89
		<i>Proposed Budget for FY04</i>	34,200.00
<i>Budget:</i>	Department Allocations	<i>Budget:</i>	Department Allocations
<i>Category:</i>	Chemical Engineering	<i>Category:</i>	Electrical & Computer E
Fiscal Year 2002-2003 Budget:	12,650	Fiscal Year 2002-2003 Budget:	15,500
<i>Balance Forward from FY01</i>	384.51	<i>Balance Forward from FY01</i>	1,094.24
<i>Additional Lab Funding</i>	2,500.00	<i>Additional Lab Funding</i>	7,000.00
<i>Student Employee help from ENS</i>	7,000.00	Fiscal Year 2002-2003 Expenses:	
Fiscal Year 2002-2003 Expenses:		Crystal Radio Kits	149.25
Aspen license renewal	1,000.00	Ghost license upgrade	54.21
Computer supplies	522.57	Laboratory supplies	891.21
Computer upgrades	526.98	Mathcad license renewal	1600
Data acquisition equipment	825.00	Mentor Graphics license renewal	6000
Dreamweaver license renewal	370.02	Microsoft Office & Windows license ren	3365.51
Fluent License Renewal	742.50	Monitors for C207 (three used 19" Sun	750
iGrafx Flowcharter	381.00	Paper	331
Lock-down kits	368.00	PhotoShop license renewal	421.56
Maple license renewal	625.00	Printer repairs	469.54
Microsoft Office & Windows license renev	1,041.03	Synopsis license renewal	2500
Monitor (17" flat-panel)	489.80	Toner, fusers, and drum/transfer kits	250.35
Network improvements	775.84		16,782.63
Paper	61.90		
PhotoShop license renewal	421.57		
Polymath license renewal	100.00		
Printer Repairs	450.00		
Printers for graduate students	199.98		
Printing Supplies	105.98		
Sunray project	651.10		
Tangent Computers	12,530.80		
VTex Pro	412.00		
	22,601.07		
		<i>Proposed Budget for FY04</i>	18,000.00
			6,811.61
<i>balance forward</i>		Total Budget This Page	77,619
<i>Proposed Budget for FY04</i>	13,200.00	<i>Balance Forward, This Page</i>	1,478.75
		<i>Additional Funding, This Page</i>	23,500.00
		Total Expenses This Page	78,096.55
		<i>Balance, This Page</i>	24,501.21
		<i>Proposed Budget This Page</i>	84,400.00
		<i>Change over FY03</i>	+ 6,781

Charges for Technology

College of Engineering

Budget Planning for Fiscal Year 2004
all expenses as of April 15, 2003

<i>Budget:</i>	Department Allocations	
<i>Category:</i>	Intrdepartmental Majors	
Fiscal Year 2002-2003 Budget:		3,000
<i>Balance Forward</i>		6,000.00
Fiscal Year 2002-2003 Expenses:		
Environmental Engineering Lab	9,000.00	
		0.00
Proposed Budget for FY04	3,000.00	

<i>Budget:</i>	Department Allocations	
<i>Category:</i>	Mechanical Engineering	
Fiscal Year 2002-2003 Budget:		34,100
<i>Balance Forward</i>		19,053.53
<i>Additional Lab Funding</i>		7,000.00
Fiscal Year 2002-2003 Expenses:		
Algor license renewal	780.05	
Fluent License Renewal	1,732.50	
FSAE project	19,210.07	
Machine Shop Equipment	589.00	
Mathcad license renewal	1,600.00	
Microsoft Office & Windows license renew	3,965.65	
Minitab license renewal	341.25	
Pro/E license renewal	2,500.00	
Projects (MS) licenses	350.85	
Solidworks license renewal	2,500.00	
Star-CD license renewal	2,166.00	
Teksoft Procram license renewal	200.00	
Wave license renewal	1,513.79	
	37,449.16	
		22,704.37
Proposed Budget for FY04	37,600.00	

Total Budget This Page		37,100
<i>Balance Forward, This Page</i>		25,053.53
<i>Additional Funding, This Page</i>		7,000.00
Total Expenses This Page		46,449.16
<i>Balance, This Page</i>		22,704.37
<i>Proposed Budget This Page</i>	40,600.00	
<i>Change over FY03</i>		+ 3,500

Department Allocations Budget Calculation for FY04

1959 Students enrolled in the College of Engineering in AY03

	students*	%
Atmos	78	3.98%
ChemE	153	7.78%
CE	546	27.85%
ECE	496	25.29%
ME	609	31.09%
Open	79	4.01%
	1959	100.00%

*average enrollment of fall and spring semesters

1803 students in ChemE, CE, ECE, and ME

	students	%
ChemE	153	8.46%
CE	546	30.26%
ECE	496	27.49%
ME	609	33.79%
	1803	100.00%

1307 students in ChemE, CE, and ME

	students	%
ChemE	153	11.67%
CE	546	41.74%
ME	609	46.60%
	1307	100.00%

	Lab Management	Software	Maintenance	TOTAL	Allocation
ChemE	\$4,783.86	\$3,384.19	5000	\$13,168.04	\$13,200.00
CE	\$17,112.09	\$12,105.41	5000	\$34,217.50	\$34,200.00
ECE	\$2,000.00	\$10,995.84	5000	\$17,995.84	\$18,000.00
Intra			3000	\$3,000.00	\$3,000.00
ME	\$19,104.06	\$13,514.56	5000	\$37,618.62	\$37,600.00
	43,000.00	40,000.00	23,000.00	\$106,000.00	\$106,000.00
		+10,000			

Charges for Technology

College of Engineering

Budget Planning for Fiscal Year 2004

all expenses as of April 15, 2003

Budget: **Central Services & Systems**
Category: **Laboratory Maintenance**

Fiscal Year 2002-2003 Budget: **15,000**

Balance Forward 2,258.46

Fiscal Year 2002-2003 Expenses:

Card Readers	1,595.19
Computer Maintenance and Repair	857.81
Extension Cords for Café	66.36
Help Desk Supplies	63.81
Laptop docking stations	781.70
Lock Changes (permanently locking doors)	2,733.69
MS Windows Upgrade Advantage	3,500.00
Paper	2,676.85
Printer Maintenance & Repair	1,969.05
Shop Supplies	145.24
Symantic Antivirus (Qty 155)	1,170.60
Telephone Service	481.42
Toner, fusers, and drum/transfer kits	7,328.25
Wireless mouse for LMDS	42.00
	23,411.97

6,153.51

Proposed Budget for FY04

20,000.00

Budget: **Central Services & Systems**
Category: **Network**

Fiscal Year 2002-2003 Budget: **4,000**

Balance Forward 1,337.83

Fiscal Year 2002-2003 Expenses:

Network Cabling & Connectors	3,179.80
Network Switches	813.14
Underground Fibre Charge (ACNS)	1,380.00
	5,372.94

35.11

Proposed Budget for FY04

4,000.00

Budget: **Central Services & Systems**
Category: **Student Wages**

Fiscal Year 2002-2003 Budget: **60,000**

Fiscal Year 2002-2003 Expenses:

<i>Technician</i>	Crane, Andrew	4,486.70
<i>Consultant</i>	Fleming, Ryan	1,981.95
<i>Consultant</i>	Forsling, Henrik	3,236.09
<i>Technician</i>	Dan Herrick	29.32
<i>Consultant</i>	Hoops, Matthew	1,913.96
<i>Consultant</i>	Liberatore, Joe	674.24
<i>Senior Technician</i>	Loyd, Sean	5,137.82
<i>Former Technician</i>	Malander, Joel	1,661.82
<i>Consultant</i>	Raza, Abdul	1,854.89
<i>Senior Consultant</i>	Saikia, Ranjan	4,398.57
<i>Consultant</i>	Satyasekaran, Praveen	2,736.73
<i>Consultant</i>	Skinner, Sara	1,067.98
<i>Technician</i>	Thangaraj, Charles	4,191.57
<i>Consultant</i>	Vallely, Justin	2,375.97
	<i>wages yet to be paid</i>	24,715.09
		60,462.70

462.70

Proposed Budget for FY04 **65,000.00**

*extra \$5,000 would permit ENS
to hire an additional technician*

Total Budget This Page **79,000**

Total Expenses This Page **89,247.61**

Balance, This Page **10,247.61**

Proposed Budget This Page **89,000.00**

Change over FY03 + 10,000

Charges for Technology

College of Engineering

Budget Planning for Fiscal Year 2004
all expenses as of April 15, 2003

Budget: Central Services & Systems
Category: Computer Lab Equipment Replacement

Fiscal Year 2002-2003 Budget: 100,000

Fiscal Year 2002-2003 Expenses:

Digital Sender	2,475.92
Monitors	39,984.45
Broken Equipment Replacement	2,560.60
Projection Equipment	7,914.41
Standard Lab Computers	37,207.63
Standard Printers	10,035.42
	100,178.43

178.43

Proposed Budget for FY04 140,000

2002-2003 Budget Algorithm

	computers	printers	cost	
AERC	5	1	12,000	
Allison Hall	4	0	7,200	
Anderson Lab	80	3	153,000	
Design Studio	42	7	96,600	
Electronic Classroom	35	1	66,000	
ERC lab	10	1	21,000	
GIS lab	21	1	40,800	
Internet Café	26	1	49,800	
	223	15	446,400	
average computer	1,800		Annual Cost	
average printer	3,000		111,600	

Budget: Strategic Proposals

Fiscal Year 2002-2003 Budget: 47,500

Balance Forward 25,214

Budget Additions 24,490

Fiscal Year 2002-2003 Expenses:

Citrix farm network	2,487.10
Citrix farm terminal services licenses	6,249.05
Compute Power	5,000.00
Departments: additional lab funding	23,500.00
EECL computer lab	10,000.00
Environmental Engineering Lab	11,000.00
ERC printer	2,883.49
Graduate Citrix Farm	9,000.00
Internet Café	24,740.09
Loaner Laptop	1,567.93
Signs for Labs indicating funding	121.15
	96,548.81

655.10

Proposed Budget for FY04 36,000.00

Total Budget This Page 197,204

Total Expenses This Page 196,727.24

Balance, This Page 476.67

Proposed Budget This Page 176,000

Change over FY03 + 28,500

Charges for Technology

College of Engineering

Budget Planning for Fiscal Year 2004

Existing Computer Lab Equipment	computers	graphics workstations	thin clients	19" flat panel	21" Trinitron	19" Trinitron	printers	scanners	digital senders	projectors	plasma	Equip. Value	Avg. life cycle	Annual 4yr Repl. Cost
	AERC	5	0	0	0	0	5	0	0	0	0	0	8,750	4.0
Allison Hall	1	0	4	0	0	5	0	0	0	0	0	7,150	4.0	1,788
Anderson Lab	81	0	0	0	0	81	3	4	1	0	0	156,370	4.0	38,978
Design Studio	42	0	1	0	42	1	13	6	0	0	1	143,230	4.1	34,863
Technical Shop	4	0	0	1	0	4	0	0	0	0	0	7,900	4.0	1,975
Electronic Classroom	0	13	22	0	35	0	1	0	0	1	0	119,600	4.4	27,337
ERC lab	3	0	7	0	0	10	1	0	0	0	0	18,200	4.0	4,496
GIS lab	21	0	0	0	21	0	5	0	0	1	0	61,200	4.1	14,912
Internet Café	1	0	25	25	0	1	1	0	1	1	0	56,450	4.0	14,113
	158	13	59	26	98	107	24	10	2	3	1	578,850	4.1	140,449

Cost life cycle

computer	1,300	4	(all costs included: dual server (UNIX & Win) support and all licenses)
graphics workstation	5,500	6	
thin-client	900	4	
19" flat panel display	900	4	
21" Trinitron monitor	600	4	
19" Trinitron monitor	450	4	
printer	3,500	5	
scanner	430	4	
digital sender	2,400	3	
projector	3,800	4	
plasma display	14,000	5	

Charges for Technology

College of Engineering

Budget Planning for Fiscal Year 2004

Proposed Funded Equipment	computers	graphics workstations	thin clients	19" flat panel	21" Trinitron	19" Trinitron	printers	scanners	digital senders	projectors	plasma	Equip. Value	Avg. life cycle	Annual 4yr Repl. Cost
	AERC	5	0	0	0	0	5	0	0	0	0	0	8,750	4.0
Allison Hall	1	0	4	0	0	5	0	0	0	0	0	7,150	4.0	1,788
Anderson Lab	61	0	20	0	0	81	3	4	1	0	0	148,370	4.0	36,984
Design Studio	30	12	1	0	42	1	13	6	0	0	1	193,630	4.4	44,426
Technical Shop	4	0	0	1	0	4	0	0	0	0	0	7,900	4.0	1,975
Electronic Classroom	0	24	0	0	20	0	1	0	0	1	0	151,300	5.1	29,870
ERC lab	3	0	7	0	0	10	1	0	0	0	0	18,200	4.0	4,496
GIS lab	21	0	0	0	21	0	3	0	0	1	0	54,200	4.1	13,333
Internet Café	1	0	25	25	0	1	1	0	1	1	0	56,450	4.0	14,113
	126	36	57	26	83	107	22	10	2	3	1	645,950	4.2	149,172

Cost life cycle

computer	1,300	4
graphics workstation	5,500	6
thin-client	900	4
19" flat panel display	900	4
21" Trinitron monitor	600	4
19" Trinitron monitor	450	4
printer	3,500	5
scanner	430	4
digital sender	2,400	3
projector	3,800	4
plasma display	14,000	5

(all costs included: dual server (UNIX & Win) support and all licenses)