

Engineering Student Technology Committee (ESTC):

Meeting minutes for April 24, 2002 - Engineering Conference Room - 8:00am

Present: Eric Mui (ECE), JP Murray (ECE), Mark Ritschard (ENS),  
David Wiegandt (ECE), Prof. Wilmsen (ECE)

Absent: Prof. Fitzhorn (ME), Prof. Garcia (CE), Kevin Harris (ME),  
Prof. Dandy (ChemE), Tim Feather (ME),  
Prof. Gessler (Associate Dean for Academic Affairs),  
Jennifer Meints (intra), Jenny Po (ChemE), Steve Sanborn (CE),  
Marcel Zibognon (CE)

- Corrections to previous meetings minutes (4-10-02)  
\*none\*.

- College of Engineering Technology Committee (CETC)  
Wiegandt reported that the CETC approved a plan to create a faculty committee that would provide an overall direction for technology in the college and serve as an advisory committee for ENS.

- Budget for Upcoming Year  
Ritschard distributed a full budget proposal, detailing expenditures for the current year and outlining a proposed budget for the coming year. After some discussion and clarification, Mui moved that the budget be approved as proposed. Murray seconded the motion and it passed unanimously. It was noted that the Strategic Initiatives category will absorb any revenue surplus or shortfall from collected student technology charges. The budget for 2002-2003 is as follows:

Advance Purchases	\$22,000
Assistive Technology	\$2,500
Business Expenses	\$3,000

Central Services & Systems		\$249,000
College Lab Equip. Replacement	\$100,000	
Laboratory Maintenance	\$15,000	
Network Maintenance	\$4,000	
Server Maintenance & Support	\$70,000	
Student Wages	\$60,000	
Department Allocations		\$116,000
Atmospheric Science	\$20,000	
Chemical Engineering	\$12,650	
Civil Engineering	\$30,750	
Electrical & Computer Engineering	\$15,500	
Intra-departmental majors	\$3,000	
Mechanical Engineering	\$34,100	
Scholarships		\$50,000
Strategic Initiatives		\$47,500
Internet Cafe	\$21,200	
Unallocated	\$26,300	
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Allocated Budget:		\$490,000

- Citrix farm status

The committee is having a hard time evaluating the new Citrix farm because it is not complete. Ritschard will ask Craig Mapel to provide the committee with access to the existing farm for a better evaluation.

- Summary of this year's work

Wiegand noted that the committee has made several important contributions during the past year:

- \* card reader on north door (to be completed this summer)
- \* Design Studio Plasma Display
- \* Design Studio telephone
- \* Internet Cafe is in the works
- \* All new systems in GIS lab
- \* 20 new computers in Design Studio
- \* New Citrix farm
- \* Student File System backup expansion

All agreed that it had been a good year.

The committee adjourned until next academic year.

Respectfully submitted by  
Mark Ritschard

## Charges for Technology

*College of Engineering*

Budget Planning for Fiscal Year 2003  
*all expenses as of April 9, 2002*

	FY02	Proposed FY03
Advance Purchases	\$22,000	\$22,000
Assistive Technology	\$2,000	\$2,500
Business Expenses	\$2,000	\$3,000
Central Services & Systems	\$226,000	\$249,000
Computer Lab Equip. Replacement	\$110,000	\$100,000
Laboratory Maintenance	\$20,000	\$15,000
Network Maintenance	\$6,000	\$4,000
Server Maintenance & Support	\$30,000	\$70,000
Student Wages	\$60,000	\$60,000
Department Allocations	\$118,000	\$116,000
Atmospheric Science	\$22,000	\$20,000
Chemical Engineering	\$14,370	\$12,650
Civil Engineering	\$31,890	\$30,750
Electrical & Computer Engineering	\$14,590	\$15,500
Intra-departmental majors	\$3,000	\$3,000
Mechanical Engineering	\$32,150	\$34,100
Scholarships	\$50,000	\$50,000
Strategic Initiatives	\$70,000	\$47,500
Backup of Student File System	\$10,000	
Internet Café	\$20,000	\$21,200
Remote Lab Access	\$40,000	
Other		\$26,300
	<b>Budget: \$490,000</b>	<b>\$490,000</b>

## Internet Café

### Proposed Budget

	Cost		Unit
	Each	Total	
1) Internet Access Bar			
1 bar itself	5,000	5,000	<b>26,400</b>
10 seating	200	2,000	
10 workstations	1,800	18,000	
1 printer	1,400	1,400	
2) Workstation Bench			
1 bench itself	2,000	2,000	<b>22,000</b>
10 seating	200	2,000	
10 workstations	1,800	18,000	
3) Conference Area			
1 table	1,000	1,000	<b>23,500</b>
2 partitions	5,000	10,000	
1 workstations	2,500	2,500	
1 display/projection	8,000	8,000	
10 seating	200	2,000	
4) Vending			
1 bench/table	300	300	<b>3,300</b>
1 actual machines	1,500	1,500	
1 plumbing	1,500	1,500	
5) café tables			
4 tables	250	1,000	<b>12,600</b>
16 seating	200	3,200	
4 swivel workstations	2,100	8,400	
6) Food/Snack sales area			
1 counter	3,000	3,000	<b>4,000</b>
1 lockable cabinets vendor?	1,000	1,000	
7) Lounge area			
2 couches	250	500	<b>6,000</b>
4 chairs	200	800	
2 lamps	100	200	
2 coffee tables	150	300	
2 retracting workstations	2,100	4,200	
		<b>Total Estimate</b>	<b>97,800</b>
	workstations (Central Budget)		-48,600
	display/Projection ( " )		-8,000
	<b>Cost to Departments</b>		<b>41,200</b>

## Charges for Technology

### College of Engineering

Budget Planning for Fiscal Year 2003  
all expenses as of April 9, 2002

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<i>Budget:</i>	<b>Assistive Technology</b>	
<b>Fiscal Year 2001-2002 Budget:</b>		<b>2,000</b>
<b><i>Fiscal Year 2001-2002 Expenses:</i></b>		
Assistive Technology	<u>2,555.00</u>	
	<b>2,555.00</b>	
		<b>555.00</b>
<i>Proposed Budget for FY03</i>	<b>2,500.00</b>	

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<i>Budget:</i>	<b>Business Expenses</b>	
<b>Fiscal Year 2001-2002 Budget:</b>		<b>2,000</b>
<b><i>Fiscal Year 2001-2002 Expenses:</i></b>		
Bad Debt	1,476.99	
Credit Card Expenses	<u>1,582.79</u>	
	<b>3,059.78</b>	
		<b>1,059.78</b>
<i>Proposed Budget for FY03</i>	<b>3,000.00</b>	

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<i>Budget:</i>	<b>Scholarships</b>	
<b>Fiscal Year 2001-2002 Budget:</b>		<b>50,000</b>
<b><i>Fiscal Year 2001-2002 Expenses:</i></b>		
Scholarships	<u>46,673.50</u>	
	<b>46,673.50</b>	
		<b>3,326.50</b>
<i>Proposed Budget for FY03</i>	<b>50,000.00</b>	

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<b>Total Budget This Page</b>		<b>54,000</b>
<b>Total Expenses This Page</b>		<b>52,288.28</b>
Balance, This Page		<b>1,711.72</b>
<i>Proposed Budget This Page</i>	<b>55,500.00</b>	
<i>Change over FY02</i>	<b>+1,500.00</b>	

**Charges for Technology**  
**College of Engineering**

Budget Planning for Fiscal Year 2003  
 all expenses as of April 9, 2002

<i>Budget:</i>	<b>Central Services &amp; Systems</b>	
<i>Category:</i>	<b>Laboratory Maintenance</b>	
<b>Fiscal Year 2001-2002 Budget:</b>		<b>20,000</b>
<i>Balance Forward</i>		967.85
<b>Fiscal Year 2001-2002 Expenses:</b>		
Hand Truck for Lab Installations	399.00	
Hardware Upgrades	636.00	
Lab Maintenance	839.41	
Paper	2,425.16	
Printer Repairs	394.51	
Security	1,021.12	
Smart Cards for Sunrays	121.00	
Software Licenses	4,497.75	
Surge Protectors	1,865.84	
Telephone Service (Anderson & LMDS)	585.39	
Toner	2,480.50	
	<u>15,265.68</u>	
		3,766.47
<i>Proposed Budget for FY03</i>	<b>15,000.00</b>	

<i>Budget:</i>	<b>Central Services &amp; Systems</b>	
<i>Category:</i>	<b>Network</b>	
<b>Fiscal Year 2001-2002 Budget:</b>		<b>6,000</b>
<b>Fiscal Year 2001-2002 Expenses:</b>		
Network Cables	80.31	
Network Cards	422.00	
Network Switches	3,350.86	
	<u>3,853.17</u>	
		2,146.83
<i>Proposed Budget for FY03</i>	<b>4,000.00</b>	

<b>Total Budget This Page</b>		<b>86,000</b>
<b>Total Expenses This Page</b>		85,727.15
<i>Balance, This Page</i>		272.85
<i>Proposed Budget This Page</i>	<b>79,000.00</b>	
<i>Change over FY02</i>	<b>- 7,000.00</b>	

<i>Budget:</i>	<b>Central Services &amp; Systems</b>	
<i>Category:</i>	<b>Student Wages</b>	
<b>Fiscal Year 2001-2002 Budget:</b>		<b>60,000</b>
<b>Fiscal Year 2001-2002 Expenses:</b>		
<i>Former Consultant</i>	Bhatt, Mukul	789.45
<i>Technician</i>	Crane, Andrew	4,830.40
<i>Consultant</i>	Fleming, Ryan	579.60
<i>Consultant</i>	Forsling, Henrik	1,961.45
<i>Technician</i>	Herrick, Dan	3,162.97
<i>Consultant</i>	Hoops, Matthew	579.60
<i>Consultant</i>	Jamshidi, Arta	579.60
<i>Former Consultant</i>	Kothandaraman, Vaishnavi	66.01
<i>Senior Consultant</i>	Liberatore, Joe	1,707.15
<i>Technician</i>	Loyd, Sean	5,215.67
<i>Senior Technician</i>	Malander, Joel	15,304.45
<i>Technician</i>	Marples, Brett	10,161.98
<i>Former Consultant</i>	McCabe, Mark	5,212.48
<i>Former Consultant</i>	Min, James	475.64
<i>Former Consultant</i>	Morgan, Travis	1,385.06
<i>Consultant</i>	Ramachandran, Sriraman	2,282.83
<i>Consultant</i>	Raza, Abdul	581.67
<i>Former Consultant</i>	Robertson, Nathan	163.48
<i>Consultant</i>	Saikia, Ranjan	2,225.58
<i>Consultant</i>	Satyasekaran, Praveen	579.60
<i>Consultant</i>	Sirdeshmukh, Ranjani	2,094.87
<i>Consultant</i>	Skinner, Sara	579.60
<i>Consultant</i>	Thangaraj, Charles VK	2,039.70
<i>Former Consultant</i>	Tuthill, Paul	369.11
<i>Consultant</i>	Vallely, Justin	579.60
<i>Former Consultant</i>	Venkatesan, Anand Kumar	187.62
<i>Former Consultant</i>	Wardell, Corrine	1,333.57
<i>Former Consultant</i>	Warren, James	66.45
<i>Former Technician</i>	Zibognon, Marcel	1,263.11
	<i>fringe pay on above</i>	250.00
		<u>66,608.30</u>

<i>Proposed Budget for FY03</i>	<b>60,000.00</b>	6,608.30
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# Charges for Technology

## College of Engineering

Budget Planning for Fiscal Year 2003  
all expenses as of April 9, 2002

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

Fiscal Year 2001-2002 Budget: **110,000**

### Fiscal Year 2001-2002 Expenses:

Broken Equipment Replacement	2,944.41
Computer Upgrades	7,881.80
Computers & thin-clients	68,258.48
Monitors	14,622.00
Printers	6,062.89
Projection	9,106.70
Service & Repair	1,123.72
	<b>110,000.00</b>

0.00

Proposed Budget for FY03 **100,000.00**

<b>Total Budget This Page</b>	<b>110,000</b>
<b>Total Expenses This Page</b>	<b>110,000.00</b>
Balance, This Page	<b>0.00</b>
Proposed Budget This Page	<b>100,000.00</b>
Change over FY02	<b>- 10,000.00</b>

### 2001-2002 Budget Algorithm

	computers	printers	cost	
Allison Hall	4	0	8,000	
Anderson Lab	102	3	207,600	
Design Studio	36	7	80,400	
Electronic Classroom	27	1	55,200	
ERC lab	10	1	21,200	
GIS lab	21	2	44,400	
	<b>200</b>	<b>14</b>	<b>416,800</b>	<b>Annual Cost 104,200</b>
average computer	2,000			
average printer	1,200			

### 2002-2003

	computers	printers	cost	
AERC	5	1	10,400	
Allison Hall	4	0	7,200	
Anderson Lab	80	3	148,200	
Design Studio	36	7	74,600	
Electronic Classroom	40	1	73,400	
ERC lab	10	1	19,400	
GIS lab	21	1	39,200	
Internet Café	27	1	50,000	<b>Annual Cost</b>
	<b>223</b>	<b>15</b>	<b>422,400</b>	<b>105,600</b>
average computer	1,800			
average printer	1,400			

**Charges for Technology**  
**College of Engineering**

Budget Planning for Fiscal Year 2003  
 all expenses as of April 9, 2002

Budget: **Central Services & Systems**  
 Category: **Server Maintenance & Support**

**Fiscal Year 2001-2002 Budget:** 30,000  
 Balance Forward from FY01 4,262.98  
 Budget added during year 10,000  
**Fiscal Year 2001-2002 Expenses:**

Citrix Servers (for Elec. Classroom)	16,538.00
ERC domain controller	2,145.30
Print Quota Server	426.72
Server Software	162.50
Server Maintenance	615.40
Spectralogic tape backup system	12,154.10
Virus Software for e-mail server	3,695.00
	<b>35,737.02</b>

0.00

Proposed Budget for FY03 70,000.00

**Total Budget This Page** 30,000  
**Total Expenses This Page** 35,737.02  
 Balance, This Page 5,737.02  
 Proposed Budget This Page 70,000.00  
 Change over FY02 + 40,000

To calculate cost-sharing, students are 88% of the college population

Server	Purpose	Student share	Cost to Replace	Student Cost
Megatera	Student U: drives	100%	135,000.00	135,000.00
Goku	e-mail	80%	20,000.00	16,000.00
Snoopy	Backup	70%	41,000.00	28,700.00
Sunray	Web server	50%	15,000.00	7,500.00
Sunray	Sunray server	100%	25,000.00	25,000.00
Akbar,etc	Citrix farm	100%	24,000.00	24,000.00
Sunray	Compute	80%	80,000.00	64,000.00
			<b>Total Student Replacement Cost</b>	300,200.00
			<b>Annual Cost for four-year cycle</b>	75,050.00

**Charges for Technology**  
College of Engineering

Budget Planning for Fiscal Year 2003  
all expenses as of April 9, 2002

<i>Budget:</i>	<b>Department Allocations</b>	<i>Budget:</i>	<b>Department Allocations</b>
<i>Category:</i>	<b>Atmospheric Science</b>	<i>Category:</i>	<b>Civil Engineering</b>
<b>Fiscal Year 2001-2002 Budget:</b>	<b>22,000</b>	<b>Fiscal Year 2001-2002 Budget:</b>	<b>31,890</b>
<b>Fiscal Year 2001-2002 Expenses:</b>		<i>Balance Forward from FY01</i>	13,395.61
Computer for Weather lab	2,848.47	<b>Fiscal Year 2001-2002 Expenses:</b>	
Digital video camera & cassettes	674.00	ArcView licenses for GIS lab	228.00
Fluent software	595.80	Autocad license renewal	3,801.09
FX-Net Software System	8,719.19	Card Reader for C213	580.00
GPS lightning protector	88.25	ERC lab improvements	1,385.30
Lab Sun monitor	1,233.16	ESRI GIS software license renewal	1,596.00
Meteorological equipment	2,318.35	Fluent software	2,085.30
Projector Bulb	465.00	Geoslope software	880.00
Spin Tank	459.29	GIS Lab computers (additional 3)	3,000.00
Student Modern Access	1,235.00	GIS Lab monitors	8,000.00
Surge protectors	34.99	GIS Lab plotter	4,001.16
	<b>18,671.50</b>	GIS Lab projector	4,299.00
		Lab Supplies	747.50
<i>balance moved to Strategic Initiatives</i>	3,328.50	Maple license renewal	1,875.00
<i>Proposed Budget for FY03</i>	<b>20,000.00</b>	Matlab license renewal	1,666.60
		Micrologger	5,462.84
		MineQL software	513.50
		Portable projector	4,159.94
		Statsoft Neural Network software	614.00
		Windows licenses for ERC Lab (Neff)	865.63
			<b>45,760.86</b>
		<i>balance forward</i>	475.25
		<i>Proposed Budget for FY03</i>	<b>30,750.00</b>
<i>Budget:</i>	<b>Department Allocations</b>	<i>Budget:</i>	<b>Department Allocations</b>
<i>Category:</i>	<b>Chemical Engineering</b>	<i>Category:</i>	<b>Electrical &amp; Computer Er</b>
<b>Fiscal Year 2001-2002 Budget:</b>	<b>14,370</b>	<b>Fiscal Year 2001-2002 Budget:</b>	<b>14,590</b>
<i>Balance Forward from FY01</i>	4,906.72	<i>Balance Forward from FY01</i>	9,325.78
<b>Fiscal Year 2001-2002 Expenses:</b>		<b>Fiscal Year 2001-2002 Expenses:</b>	
CD-R 10-pack	13.00	Autocad license renewal	201.00
Computers	2,000.00	CAE lab hardware maintenance	660.00
Computer Tool Kit	40.00	Fluent software	595.80
Computer Maintenance & Repair	4.95	Laboratory Supplies	3,222.64
Data Acquisition Equipment	3,134.30	LabView Software Renewal	401.80
Fluent software	595.80	Mathcad license renewal	1,433.48
Hard Disks	95.00	Matlab license renewal	2,282.07
HP LaserJet 5si duplex unit	292.00	Mentor Graphics Software	4,100.00
HP LaserJet 5si duplex unit installation	325.64	Monitor replacements for B109	1,000.00
Lab Maintenance	48.75	Monitor replacements for C211	1,500.00
Lab supplies	42.28	Paper	1,121.40
LabView Software Renewal	401.80	Toner	638.59
Maple license renewal	582.00	Student Employees (ENS assistance)	194.30
Matlab license renewal	471.25	Synopsis Software	2,500.00
Matlab C/C++ Math Library	195.00		<b>19,831.08</b>
Matlab Spline Toolbox	195.00		
Mouse replacement	26.40	<i>balance forward</i>	4,084.70
Paper	110.00	<i>Proposed Budget for FY03</i>	<b>15,500.00</b>
Printer Repairs	272.84		
RAM upgrades	969.00		
SAS Software license	69.30		
Student Employee: Dan Herrick	1,072.97		
Sun Ray stations	6,849.00		
Switchbox	16.82		
Windows licenses	115.37		
	<b>17,938.47</b>		
<i>balance forward</i>	1,338.25		
<i>Proposed Budget for FY03</i>	<b>12,650.00</b>		
<b>Total Budget This Page</b>	<b>82,850</b>		
<i>Balance Forward, This Page</i>	27,628.11		
<b>Total Expenses This Page</b>	<b>102,201.91</b>		
<i>Balance, This Page</i>	<b>8,276.20</b>		
<i>Proposed Budget This Page</i>	<b>78,900.00</b>		
<i>Change over FY02</i>	- 3,950		

# Charges for Technology

College of Engineering

Budget Planning for Fiscal Year 2003  
all expenses as of April 9, 2002

<b>Budget:</b>	<b>Department Allocations</b>	
<b>Category:</b>	<b>Intrdepartmental Majors</b>	
<b>Fiscal Year 2001-2002 Budget:</b>		<b>3,000</b>
Balance Forward from FY01		3,000.00
<b>Fiscal Year 2001-2002 Expenses:</b>		0.00
<i>balance forward</i>		6,000.00
<b>Proposed Budget for FY03</b>		<b>3,000.00</b>

<b>Budget:</b>	<b>Department Allocations</b>	
<b>Category:</b>	<b>Mechanical Engineering</b>	
<b>Fiscal Year 2001-2002 Budget:</b>		<b>32,150</b>
Balance Forward from FY01		4,089.25
<b>Fiscal Year 2001-2002 Expenses:</b>		
Algor license renewal	685.60	
Basic Pro Compiler	418.70	
Biaxial Mechanical Testing Machine (time)	225.00	
Centroid software & service	495.00	
Fluent software	2,085.30	
Fortran libraries	35.48	
Gas cylinder charges	16.56	
Lab Equipment	204.33	
Lab Supplies	46.59	
LabView Software Renewal	401.80	
Machine Shop Equipment	518.16	
Machine Shop Maintenance & Repair	184.32	
Machine Shop Supplies	4,097.87	
Mathcad license renewal	1,433.47	
Matlab license renewal	784.18	
Minitab license renewal	588.75	
SolidWorks license renewal	1,950.00	
Teksoft ProCam software	250.00	
	<b>14,401.11</b>	
<i>balance forward</i>		21,838.14
<b>Proposed Budget for FY03</b>		<b>34,100.00</b>

<b>Total Budget This Page</b>		<b>35,150</b>
Balance Forward, This Page		7,089.25
<b>Total Expenses This Page</b>		<b>14,401.11</b>
Balance, This Page		<b>27,838.14</b>
<i>Proposed Budget This Page</i>		<b>37,100.00</b>
Change over FY02		+ 1,950.00

## Department Allocations Budget Calculation for FY03

### 1913 Students enrolled in the College of Engineering

	students*	%
Atmos	81	4.24%
ChemE	153	7.97%
CE	515	26.90%
ECE	493	25.78%
ME	581	30.38%
Open	91	4.73%
	<b>1913</b>	<b>100.00%</b>

\*average enrollment of fall and spring semesters

### 1741 students in ChemE, CE, ECE, and ME

	students	%
ChemE	153	8.76%
CE	515	29.55%
ECE	493	28.32%
ME	581	33.37%
	<b>1741</b>	<b>100.00%</b>

### 1248 students in ChemE, CE, & ME

	students	%
ChemE	153	12.22%
CE	515	41.23%
ME	581	46.55%
	<b>1248</b>	<b>100.00%</b>

	Lab Management	Software	Maintenance	TOTAL	Allocation
ChemE	\$5,010.02	\$2,627.80	5000	\$12,637.82	\$12,650.00
CE	\$16,902.64	\$8,865.59	5000	\$30,768.24	\$30,750.00
ECE	\$2,000.00	\$8,495.12	5000	\$15,495.12	\$15,500.00
Intra			3000	\$3,000.00	<del>\$6,000.00</del> 3,000
ME	\$19,087.34	\$10,011.49	5000	\$34,098.83	\$34,100.00
	<b>43,000.00</b>	<b>30,000.00</b>	<b>23,000.00</b>	<b>\$96,000.00</b>	<b>\$96,000.00</b>

96,000