

June 30, 2005

To: Craig Schnell, Provost  
Thomas Riley, Dean AHSS

From: Dale Sullivan, English  
Kevin Brooks, English

Subject: Proposed Computer Lab for English

Kevin Brooks and I have been drawing together the attached proposal for a computer lab dedicated to the teaching of English, primarily writing courses. We envision a flexible arrangement with laptops in South Engineering 314. At first, the room would have one fewer sections per week scheduled in it, but we would expect to increase its use as a classroom as we move to hybrid courses (one day in class, the others online). This computerized room would also serve as a teaching lab, a production lab, and a usability lab. The details are discussed in the attached proposal.

So far we have met with representatives from ITS, who are very interested in the concept, but it is a great enough departure from the way they do things that they are still discussing whether or not they can support it. We have also met with Trinka Rogne from Construction Management who is drawing up a plan to remodel SE 314. We do not yet have an estimate or design from her yet, but we should have a preliminary plan by July 5.

Based on our research, the lab, with computers, wireless connections, new tables, and chairs, will be cost about \$58,800 plus remodeling. Although we have put possible furnishings in the appendices, we are not entirely committed to these tables, chairs, and cameras. We include them to help support the reliability of our estimates.

We are very excited about this design and hope that ITS will determine that they can support it.

# **English Multimedia Classroom and Teaching Lab**

## **The English Department's Need for a Computer Lab**

As the English department has advanced in the fields of rhetoric, writing, and technical communication, we have become increasingly aware of limitations posed by our lack of lab space. Three factors have come together to indicate that it is time for the English department to have a dedicated computer lab.

First, much current writing instruction takes place in computerized environments. Our MA program is exemplary in preparing students to teach writing, but we have been able to do this without a teaching lab. We anticipate that the new Ph. D. in Rhetoric, Writing & Culture will be approved, and when it is, we will have an even greater need for a teaching lab. Preparing graduate students to teach in computerized environments requires dedicated lab space with access to current technology.

Second, in an effort to give our graduates employable skills along with a strong grounding in the Humanities, we are moving our writing program increasingly in the direction of professional and technical writing. In the field of professional and technical communication, most advanced instruction consists of assigning students projects that require them to work with authoring and production software of various kinds. Technical documents now appear in a variety of forms, including web pages that incorporate video and audio clips, multimedia CDs or DVDs, hardcopy books or booklets, online and embedded Help files. Learning to produce such material occurs at the same time students learn to use the tools of production. The production cycle in technical communication ends when usability testing has demonstrated that the material is effective and usable.

Third, the new general education vertical writing curriculum will consist of several discipline-specific writing classes at the 300 level. These classes will serve the university, but they will also provide our Ph. D. students with teaching experience in advanced writing. Most of these courses are best taught in computerized environments, and the dedicated English lab will provide space for training TAs to teach these classes in other labs around campus.

## **Proposed Solution: A Multi-Purpose, Wireless Lab**

For these reasons, the English department needs a lab space that functions as a (1) classroom, (2) teaching lab, (3) production lab, and (4) usability lab. We envision a highly flexible space for teaching, for classroom research, and for production and testing of materials. This classroom model is based on flexible classrooms in Stanford's Wallenberg Hall: <http://wallenberg.stanford.edu/exploring/room123.html>. By opting for a wireless lab; equipping it with laptop computers, smart boards, projectors, cameras; and furnishing it with easily movable tables and chairs, we can create a multi-purpose lab that

will meet our needs at the present time and set the stage for future growth and development.

### **General Parameters of the Multi-Purpose Lab**

- Student capacity of 20-24 students, converting an awkward teaching space in South Engineering 314 into a high-tech, well-designed classroom environment.
- Classroom designed to support English 110, 120, English 320 courses, as well as multimedia intensive courses like “Introduction to Film,” “Film Genres,” “Visual Culture and Language,” graduate courses in professional communication and usability testing, etc. This classroom will play an important role in the graduate program.
- A Smart Board will allow instructors to write on digital texts of all kinds: websites, sample papers, still images, video images—all these activities that are fundamental to teaching critical reading can only be accomplished in awkward ways with current projectors used in classrooms.
- Small collapsible tables, wireless laptops, usability station, video editing station--these provide maximum flexibility for activities ranging from teacher presentation to small group work to individual work.
- An after-hours learning environment promoted among English majors, although not exclusively for English majors. This space can function as the equivalent to art and architecture studios, science labs, and other productive work spaces on campus.

### **The Laptop Advantages**

Although the university normally sets up desktop PC labs, we are proposing that this lab be a wireless laptop lab with a storage cabinet that can store up to 32 computers. There are several advantages to laptops, especially in a dedicated lab closely monitored by the English Department.

- Wireless laptops in mobile cabinets for appropriate use during a class period, rather than committing to a full class period in a computer cluster or a traditional classroom.
- Laptops allow for better continuation of face-to-face interaction among students and teacher-student than in traditional clusters where large monitors inhibit interaction.
- Laptops are sufficiently powerful for typical in-class activities: web searches, peer review, collaboration on print documents.
- Laptop distribution during a class period can be controlled, rather than the all-or-nothing approach we use now (either in or out of a cluster). One laptop for a pair of students or one laptop for a small group makes more sense than one laptop per student in some cases.
- Laptops can be shared and passed around within group projects.
- A mobile laptop cabinet could serve other classrooms in South Engineering when not booked by an instructor in SE 314.

- A laptop cart could enable student check-out during the evening , just as students can now check out video equipment, cameras, etc. from the ITS Service Center. The procedures and risks would be the same.
- Laptops with sound cards will support many of the multimedia assignments in English courses; some projects, like Dr. Mark Aune’s multimedia Shakespeare assignment, are currently restricted by the lack of a sound card in clusters.
- Flexible off-hour work space: students can come to SE 314 to use laptops extensively, to have a laptop available for occasional use and reference while taking advantage of good additional table space, groups can work effectively in a variety of arrangements, students can bring in their own laptops to a good work space with a wireless hub.
- Students with their own laptops will be encouraged to bring them to class, increasing the value and convenience of their laptop use. Classrooms on campus need to start designing desk space for appropriate laptop use.

### **Using the Space as a Teaching Lab**

This room would be more than a computerized classroom. It will have equipment in it to record teachers so that they can study their presence and presentation styles.

- The English department would work with the registrar to schedule all GTAs in SE 314 for one course each year (or as regularly as possible) in order to ensure that GTAs are being trained in a multimedia classroom.
- The video recording equipment at the usability station and video editing station can be used to record class periods directly to the G5 hard drive for easy review, editing, and production of video components for teaching portfolios.
- This dedicated lab will help us do research on the teaching of writing. In addition to being able to capture the classroom experience in SE 314, the English department will conduct sustained research on the effects of classroom spaces, comparing the effectiveness of this new space with traditional classroom spaces and computer cluster spaces.

### **Using the Space as a Computerized Classroom**

The English department would have control over scheduling classes in this lab, and we would agree to schedule 12 sections a week in that room. Presently, the room is scheduled for 13 sections a week (see appendix A), so this proposal will reduce its use as a classroom by only 1 section a semester. In exchange for the room’s reduced usefulness as a classroom, we will be able to use the room far more efficiently because we will also be able to use it as a teaching lab and as production-usability lab during the hours that it is not used as a classroom.

As we move toward “hybrid” classes—classes taught in face-to-face environments once a week and online the rest of the time—the flexibility of this space would make it possible for us to schedule as many as 30 hybrid sections (6 a day for each of 5 days) in this room and still reserve the room for teaching and production lab purposes up to 9 or 10 hours a day. If we were to do this, we would actually increase the room’s usefulness as a classroom by 17 sections.

## **Using the Space as a Usability Lab and as a Video Production and Editing Lab**

During the hours the room is not being used as a classroom or teaching lab, it would be available to students in our classes to work on class projects, most of which require access to up-to-date computer equipment and software. Two sets of laptops will be available in the lab: the MAC digital-media cart includes 8 laptops capable of doing video editing, 3 camcorders, 5 digital still cameras, a scanner, a projector, and other equipment (see Appendix B); and a 20 pack of iBooks for basic use. These would be stored in a mobile cart capable of storing 32 computers (See Appendix C). These computers can be checked out and used at different stations in the room. The video production and editing equipment is mobile: it can be checked out and used anywhere in the room. However, the MAC desktop computer in the usability lab would also have video editing capabilities for large projects.

The usability lab, however, would be a small self-contained room in one corner, with its own door from the outside, as well as an entrance from within the classroom. Because it is a separate room, usability tests could be conducted even as classes are going on. This station would have a camera for recording users, and this camera could also be turned to the classroom for use during “teaching lab” time (the usability lab room would have large windows). The usability lab would have two desktop computers, one Dell Dimension™ XPS Gen 5 one MAC G5. These computers are a necessary supplement to the laptops because usability testing of websites, interactive digital material, and even basic Word or PDF documents ideally will be conducted on both Windows and Mac computers, desktops and laptops. The Dell is capable of High End computer gaming, which, as part of a usability lab, could facilitate research on gaming’s educational potential.

- The usability station would be available to instructors as part of their classes if they reserved the station.
- The usability station would be available in off-hours for student projects and scholarly research.
- The video recording equipment would be available to instructors for recording class, review of performance, and video editing of teaching material.

## **Our Long Term Vision**

Although the initial set up of this lab would break with traditional practice here at NDSU and although it will be slightly more expensive than the typical lab, it will be far more versatile, and it will be less costly in the long run.

- The laptops may need to be replaced only once, at the most twice, if we can get three years use of them: students in 6-9 years will almost certainly be bringing laptops or other wireless devices to class by 2010, when NDSU is a wireless campus.
- The teaching and learning space will remain flexible and adaptable as students’ technology needs and practices change.
- The teaching and research lab function will remain important and in fact will be actively engaged in studying the changing classroom dynamics.

- Training and supervision of GTAs can be improved considerably. GTAs’ skills will be significantly expanded, and video edited displays of their teaching will be available for program assessment and their own professional development.
- The English department will have a teaching space that meets a variety of needs currently under-served. Our instructors currently have limited access to clusters, and rely on an “all or nothing” approach to the use of cluster time. Computer classrooms on campus generally do not have stations with sound activated on computers, which limits and in some cases prohibits the kinds of assignments we would like to use. The Mac labs on campus do not burn DVDs; as the English department expands its use of video production assignments, it will be necessary to have more computers capable of not only video editing, but also DVD burning.

### Cost Estimate

iBook Wireless Mobile Lab 20-pack		\$23,659
Mobile Digital Media Studio		\$17,391
Smartboard	1	\$1,000
G5 + software	1	\$4,000
Dell Dimension XPS Gen 5	1	\$5,000
Projector & cart	1	\$600
Double tables	13	\$2,380
Chairs	28	\$3,920
Security camera		\$300
Removal of chalk boards/asbestos		\$3,400
Remodeling		Unknown
Air conditioner	1	\$500
<b>Total</b>		\$62,150
		plus
		unknown

The major portion of remodeling expense is the removal of asbestos, listed above (\$3,400). The estimate is attached as Appendix H.

## Appendix A

### South Engineering 314 Use Report

BUILDING	ROOM	TERM	SESS	BEGIN DATE	END DATE	SEATING
SE	314	20061	OCO	08-22-2005	12-16-2005	36

BEGIN TIME	END TIME	MEETING DAYS	DEPT	CRSE	CALL	LIMIT	ENRLD	PARTIAL TERM MEETING DATES
08:00 AM	08:50 AM	R	MATH	266	2587	0	0	
09:00 AM	09:50 AM	MTWF	CLAS	151	2188	20	18	
10:00 AM	10:50 AM	TR	MATH	166	2545	30	30	
10:00 AM	10:50 AM	MWF	ENGL	110	2233	0	0	
11:00 AM	11:50 AM	MTWF	CLAS	101	2187	36	14	
12:00 PM	12:50 PM	MWF	MATH	265	2570	32	32	
12:30 PM	01:20 PM	TR	MATH	166	2549	30	30	
01:00 PM	01:50 PM	MWF	CLAS	251	2190	20	4	
02:00 PM	02:50 PM	MWF	ENGL	110	2281	22	0	
02:00 PM	03:15 PM	TR	ENGL	110	2328	22	1	
03:00 PM	03:50 PM	WF	UNIV	189	2642	20	0	08-24-05 10-14-05
03:30 PM	04:20 PM	T	MATH	146	2503	0	0	
04:00 PM	04:50 PM	R	MATH	103	2452	0	0	

## Appendix B

# Mobile Digital Media Studio

Apple's Mobile Digital Media Studio is an ideal solution for bringing digital learning to your school. With this mobile lab, teachers and students have access to powerful and durable iBook computers and a collection of the latest digital tools for creating exciting classroom digital projects.



iLife '05, Apple's suite of digital media tools, is included on every new Mac. This mobile lab also includes Final Cut Express HD for students who are ready for a more advanced video editing tool. [Learn more](#) about this solution.

part number	description	quantity
T9913LL/A	Macintosh iLife 04 in the Classroom	1
M9628LL/A	iBook 14TFT/1.33GHz/256SD/60G/SuperDrive/APX	8
M8799LL/A	AirPort Extreme Base Station (with modem and antenna port)	1
T4710LL/B	Bretford Digital Media Cart	1
M9732Z/A	Final Cut Express HD	8
M9696Z/A	GarageBand Jam Pack 1	8
TC160LL/A	Canon A510 Digital Still Camera - 3.2 Megapixel	1
TC161LL/A	Canon ZR100 DV Camcorder	3
TA768LL/A	Canon CanoScan LiDE 35 Scanner	1
T9395LL/A	InFocus X2 Projector	1
TB670LL/A	M-Audio O2 25-key USB MIDI Controller	1
TB391II/a	LaCie Mobile Hard Drive, Design by F.A. Porsche - 40GB	3
T6638LL/A	Canon Delux Tripod 200	1
TA098LL/A	M-Audio Studiophile DX4 Speakers	1
T9238LL/A	Plantronics DSP-500 - USB Multimedia Headset	4
T7191LL/A	Verbatim DataLifePlus CD-R 52x 80 Minute 50-Pack Spindle	1
T6173LL/B	JVC 60-Minute MiniDV Tapes (3-Pack)	3
T3519G/A	Belkin 14ft Ethernet CAT 5e, RJ45 Cable	1
T4077G/A	Belkin 6' Pro Audio Cable, 3.5mm male to 3.5mm male	1
T6898LL/A	Belkin 6ft A to B USB Cable	2
M8706G/A	Apple FireWire Cable Kit (4 to 6 pin - 1.8m)	3

NOTE: Wireless Internet access requires AirPort Extreme Card, AirPort Extreme Base Station, and Internet access (fees may apply). Some ISPs are not currently compatible with AirPort.

For Final Cut Express HD, 384MB of RAM is required (512MB is recommended), so your iBook computers need to be custom configured with additional memory when ordering them. A DVD drive is required to install Final Cut Express HD, GarageBand and iDVD, and burning DVDs using iDVD requires an Apple SuperDrive.

Bundle price: \$17,391.30

## Appendix C

### iBook Wireless Mobile Lab (20-Pack)

The iBook Wireless Mobile Lab combines the management and control of a computer lab, the freedom of portable computers, and the power of the Internet into a simple, affordable, rolling solution. The 20-Pack includes: (20) AC power adapters with cords and duckheads, (4) modem cables, (4) VGA adapter cables and (4) composite & S-video output cables. In addition, the iBook Wireless Mobile Lab includes:

- (20) iBooks 12.1" TFT XGA display, 1.2 GHz PowerPC G4 processor, 256MB memory, 30GB hard drive, Combo (DVD-ROM/CD-RW), 10/100Base-T Ethernet, 56K, AirPort Extreme card; (1) Bretford Mobile Cart (holds and charges up to 32 Apple laptops);
- (1) HP LaserJet 1320N Ethernet laser printer; (1) AirPort Extreme Base Station;
- (1) AppleRemote Desktop v2.2 and
- (2) Ethernet cables

B9765LL/A iBook Wireless Mobile Lab (20-Pack) 19999.00

-or-

B9766LL/A iBook Wireless Mobile Lab (20-Pack) with AppleCare Protection Plan-Auto Enroll for each iBook System 23659.00

AppleCare Protection Plan extends your built-in AppleCare coverage to a full three years from the purchase date of your new Apple product.

## Appendix D: Computer Tables

<http://www.classroomfurniture.com/concordcomputer.htm>



### Concord Model 5020

#### 60x30x29 Double Computer Lab Table

3/4" Laminate top. Vinyl T-mold edge banding. Case of 1. Bold, contemporary look featuring 2 1/4" OD chrome and tubular legs. Gray top with black frame. Also see [accessories](#).

**Compare at List Price:** \$343.00

	<b>Quantity</b>	<b>Your Price</b>
<b>Questions, Quotes Or Orders?</b> Please Call Us <b>800.327.3380</b> "We Make It Easy..."	1-4	\$211.08
	5-8	\$196.00
	9-51	\$182.93
	52+	\$171.50

## Appendix E: Chairs

<http://www.classroomfurniture.com/office.htm#4500>

**Virco's Egg® Series** gives you a selection of features for educational, conference, training and related settings. Three Egg models with gently contoured, oval-shaped backs add value and variety to your menu of seating choices.

The Manager's Egg comes with standard Wing arms and a synchro-tilt mechanism for enhanced reclining ease. The Operator's Egg has a multi-task mechanism that allows its back and seat pan to be adjusted independently. Task Egg chairs have independent back height and back depth adjustment.

*All Prices Include 3% Prepaid Cash Discount.*



### **Model 4500**

Task Egg pneumatically adjustable mobile chair with upholstered seat & back.

**Compare at List Price:** \$335.00

<b>Quantity</b>	<b>Your Price</b>
1-22	\$137.29
23-72	\$147.68 <i>Shipping Included</i>
73-153	\$137.72 <i>Shipping Included</i>
154+	\$127.83 <i>Shipping Included</i>

[Click Here For Color Charts & Shipping Time](#)

Questions, Quotes  
Or Orders?

Please Call Us

**800.327.3380**

"We Make It Easy..."



## Appendix F: Security Camera

[www.polarisusa.com](http://www.polarisusa.com)

**VPD-DN01**



**\$279.95**

Introducing the brand new TRUE DAY NIGHT DOME, Vari-focal board camera from PolarisUSA Video!

This 24V AC TRUE Day/Night camera packs a powerful punch with 480 TVL of resolution, a Vari-focal Auto Iris lens, and a built-in IR cut-off filter that is mechanically switched during periods of low light. This feature allows high IR sensitivity during low light periods and quality color video under normal lighting conditions.

Cameras that do not have mechanically controlled cut-off filters are NOT true Day/Night cameras in that their low light sensitivity and their ability to be properly used with IR Illuminators suffers.

Auto-Iris lenses work well in conjunction with true Day/Night cameras because they allow for wide changes in light during the day as well as opening the iris for low light conditions. While the automatic iris control helps, it is the cut-off filter and change to Black & White mode that differentiate TRUE Day/Night cameras from standard Auto-Iris cameras.

Included in this model is the Impact-Resistant, Hardened Vandal-Proof dome! With it's sturdy die-cast housing and smoked dome, this housing protects the high-end DAY/NIGHT camera from being destroyed by predators, as well as not allowing them to see where the camera is being positioned while still maintaining perfect, crystal-clear quality video whether it be Day-time or pitch-black dark!

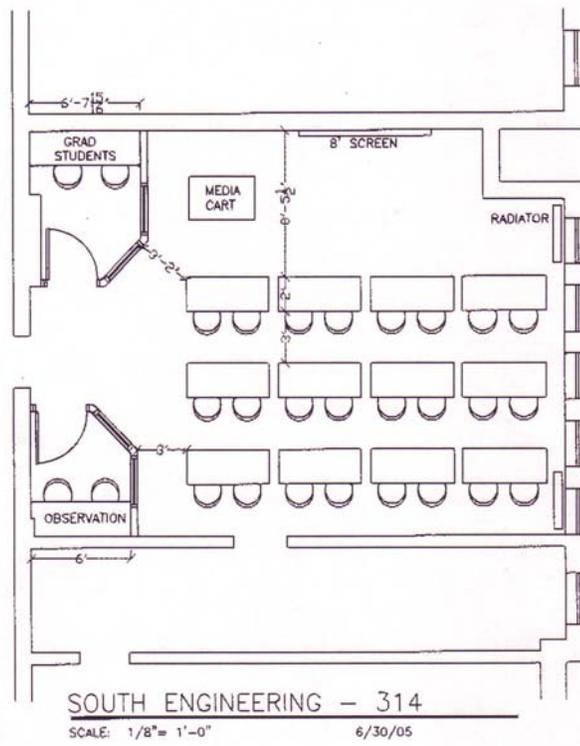
This camera is the first in the market of its type. Used for all sorts of applications from Day/Night Security Surveillance for mobile and custom applications, or Bank/ATM transactions. Also a great camera to mount in your own custom housings to create your own TRUE HIGH RESOLUTION 24V AC DAY/NIGHT CAMERA! Call for bulk pricing.

This product requires a 24V AC power supply, sold separately.

# Appendix G: Drawing of SE 314 as Lab

Jun. 30. 2005 3:24PM NDSU PHYSICAL PLANT

No. 4874 P. 2



# Appendix H: Estimate of Cost to Remove Asbestos

PROJECT # PR000196

## Facilities Management Project Budget Estimate

DATE: 08-15-05

Requesting Department English Department

Contact person/phone number Dale Sullivan 231-7144

Building South Engineering Room 314

Description: Remove chalkboards and present material.

ESTIMATE:\$ 3,400.00

Authorized by Facilities Management Mark Dall 8/16/05  
(date)

Please review above estimate and verify quantities and scope of work. Changes in quantities and scope of work may result in additional costs. Changes to project scope will require departmental authorization before any additional work will be performed. Prices for materials are subject to change. Departments will be notified of any cost increases prior to materials being purchased.

Note this is ONLY a project estimate and actual costs incurred will be billed. If estimate is not returned in 60 days it will be removed from our estimating queue and your service/estimate request will need to be Resubmitted. If you wish to use a different funding source than you provided on estimate request, please list below. You may use multiple funding sources split by %.

requesting Department Authorization: \_\_\_\_\_  
(date)

FUND \_\_\_\_\_ DEPT \_\_\_\_\_ ACCOUNT \_\_\_\_\_ PROGRAM \_\_\_\_\_ PROJECT \_\_\_\_\_

RETURN TO FACILITIES MANAGEMENT UPON ACCEPTING OR REJECTING THIS ESTIMATE.  
SIGNING THIS FORM INDICATES YOUR PERMISSION TO PROCEED WITH THE PROJECT.