

THE PLANNING, DESIGN, AND IMPLEMENTATION OF STUDENT/LEARNER CENTERED TECHNOLOGY ENHANCED CLASSROOMS

Presented by:

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Emerging Building Technologies Conference

Las Vegas, Nevada February 3-5, 2002

February 5, 2002

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THANKS TO

Salme Steinberg	<i>President</i>
Estela Lopez	<i>Former Provost</i>
Joyce Hieshima	<i>Acting Provost</i>
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Richard Senne	<i>Manager of A/V Services</i>
Joseph Kish	<i>Assistant Vice President for Facilities Management</i>
Gary Bryan	<i>Director of Building Maintenance and Construction</i>

INTRODUCTION

Our objective was to develop two Technology Enhanced Classrooms (TECS) which would be student/learner-centered and allow for teaching and learning across all disciplines.

These rooms were to be flexible in nature and serve a variety of users. The TECs are used primarily for structured classroom activity and do not act as open labs.

The following outlines the processes and procedures we undertook to accomplish this task.

Teaching Pedagogies

- Accommodate
 - ☐ Different Learning Styles
 - ☐ Remote Learning (any time/any place)
 - ☐ Assistive Learning
- Provide for
 - ☐ Symmetric & Asymmetric Learning (flexible delivery)
 - ☐ Active Learning & Self Assessment
 - ☐ Real-Time Learning
 - Collaborative Activities
 - Actual Events via Internet
 - ☐ Simulated Experience (travel the universe without exposure to radiation or meteor interaction)

Teaching Pedagogy Technology

- On-Line Learning
 - Portal-Based (Blackboard)
 - Web-Enhanced Courses
- Distance Education (Interactive AV)
 - NSHEC: collaboration 15 local institutions
- Technology Enhanced Classrooms
 - Multimedia based and Virtual Environments
 - Internet collaboration (interactive AV)
- Technology Supported Classrooms
 - Ceiling mounted projection systems
 - Internet Access
 - stationary & mobile computing systems

Project Outline

- ▶ Needs analysis
- ▶ Project Management & Scheduling
- ▶ Environmental
- ▶ Infrastructure Improvements
- ▶ Audio/Visual Systems
- ▶ Computer Systems
- ▶ Network Systems
- ▶ Budget Plan

Web-based Faculty Input

- Web-based Communication
- User input during design
- Configuration Input
- Faculty Results

Teaching-Learning Paradigms

- T-L 1
- T-L 2
- T-L 3
- T-L 4
- T-L 5
- T-L 6

A/V Systems

- Audio/Visual Consulting

- ☐ Planning
- ☐ Developing
- ☐ Designing
- ☐ Bidding
- ☐ Monitoring

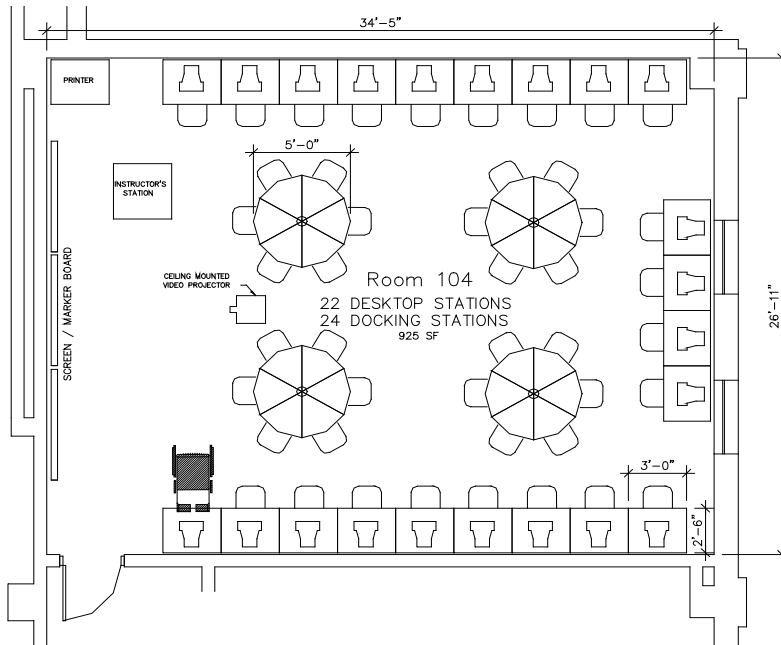
- **Audio/Visual System Procurement & Implementation**

- ☐ Scope of Work
- ☐ A/V Systems Bid Analysis

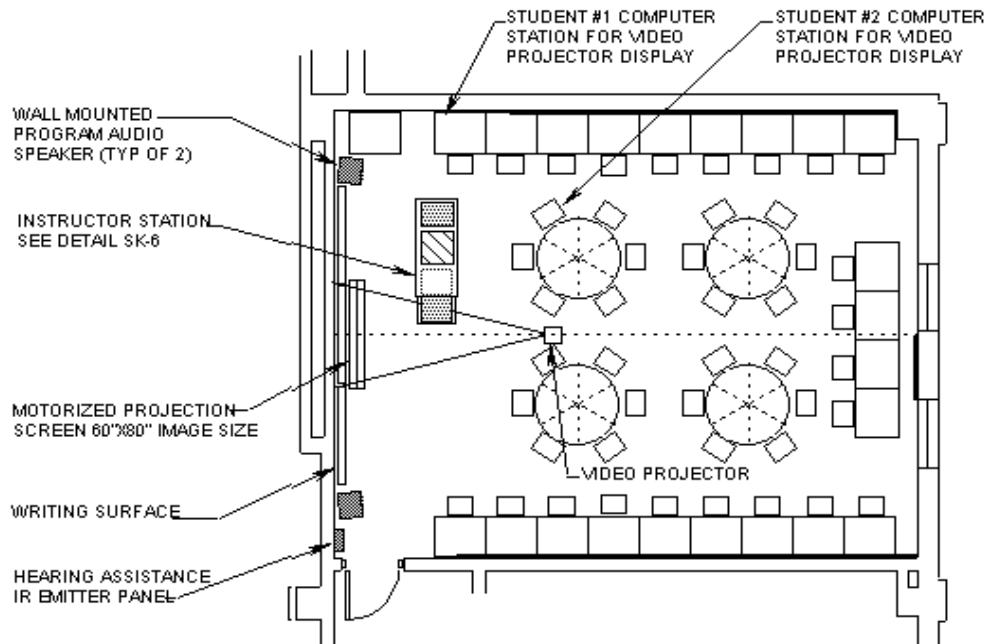
FA 104 TEC

- T/L Paradigm
- Equipment Location Plan
- Outlet Location
- Photo View 1
- Photo View 2
- Photo View 3

FA 104 T/L PARADIGM



FA 104 Equipment Location Plan



FA 104 Photo View 1



FA 104 Photo View 2



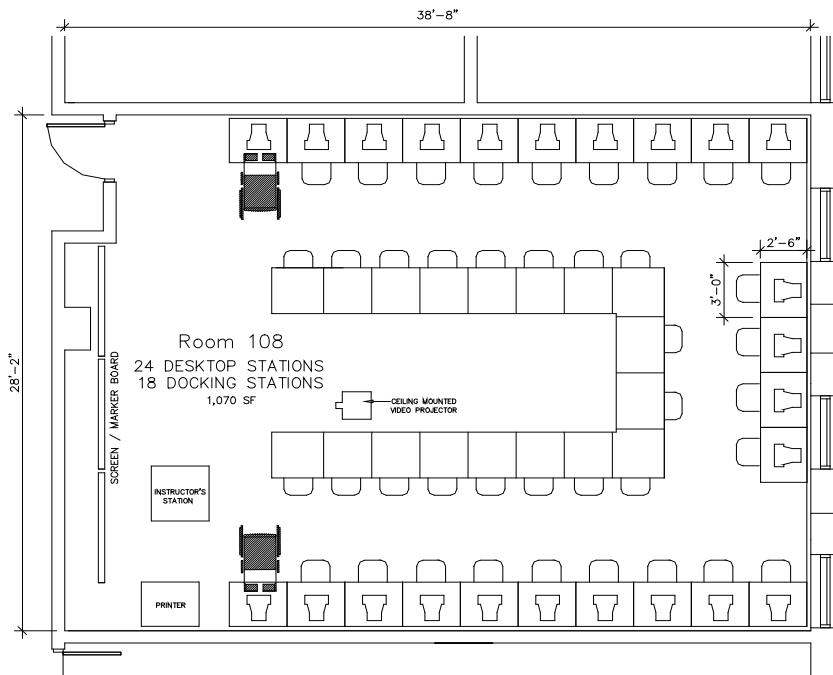
FA 104 Photo View 3



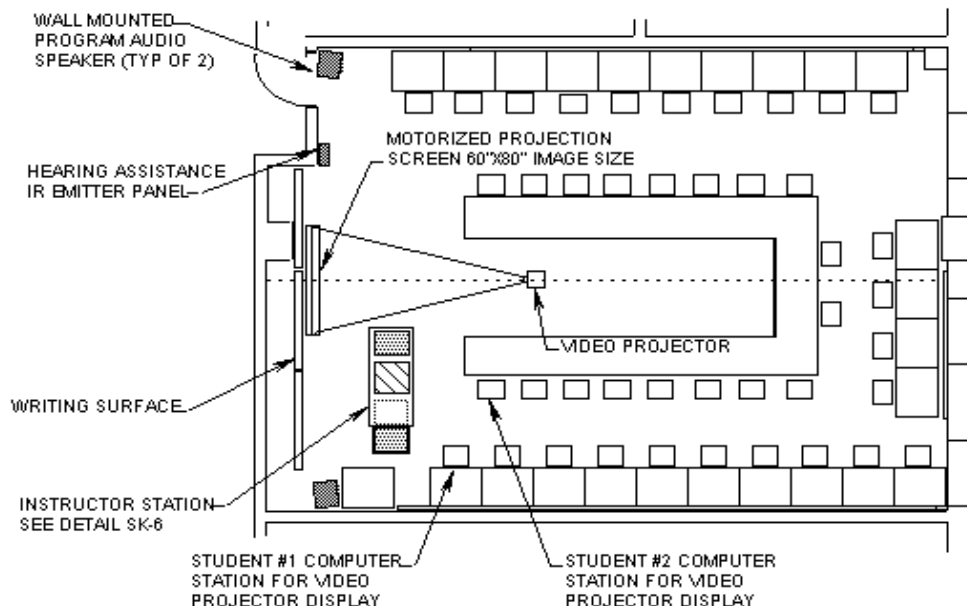
FA 108 TEC

- T/L Paradigm
- Equipment Location Plan
- Outlet Location
- Photo View 1
- Photo View 2
- Photo View 3

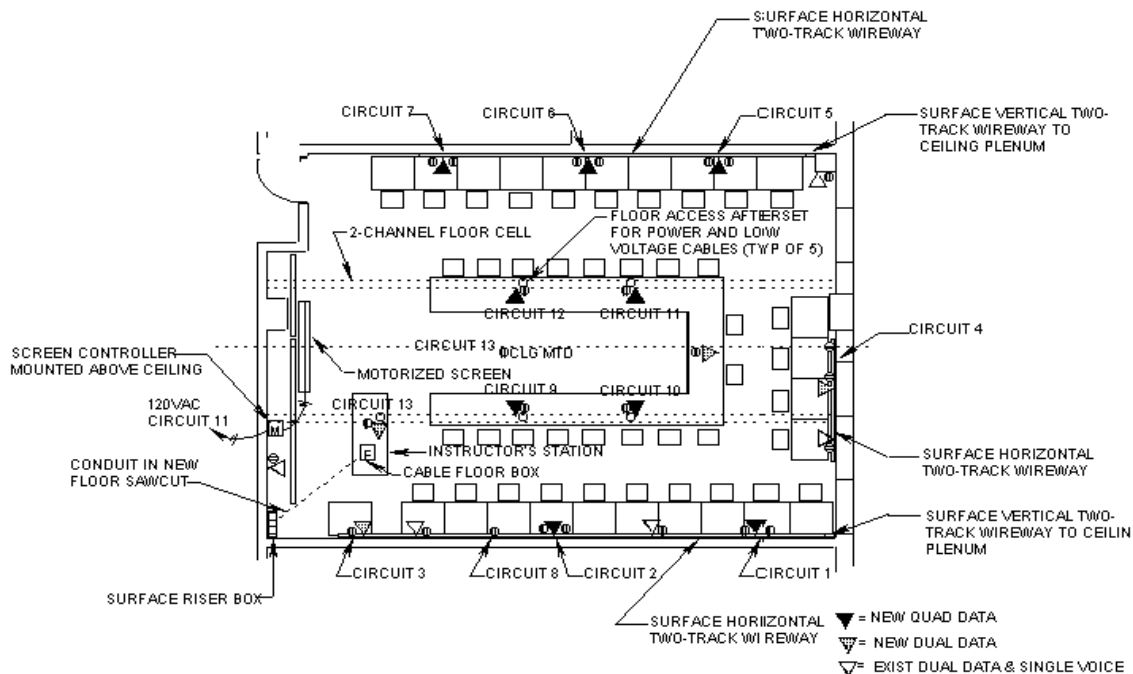
FA 108 T/L Paradigm



FA 108 Equipment Location Plan



FA 108 Outlet Location Plan



FA 108 Photo View 1



FA 108 View 2



FA 108 Photo View 3



Concluding Remarks

- **Usage Statistics**
 - FA 104 Usage Statistics
 - FA 108 Usage Statistics
- **Reflective thoughts on project**
 - Importance of faculty input
 - Importance of Plan B
- **Where we're going now**
 - Student Centered Learning
- **Way-out: Virtual T-L environments**
 - a T-L experience

Plan B

Available Rooms

Features of Rooms:

- CLS-2108
 - 20 Dell Pentium II Computers w/ CD-ROM drives and Sound Cards running Windows NT 4.0
 - Software Available: Microsoft Office 97, Corel WordPerfect Suite 8, Gamut and Yoda Access, Netscape Communicator, WS_FTP, Borland C++, Visual Basic, SPSS, Minitab, Maple, and MicroFocus.
 - Dell Pentium II w/ CD-ROM, Zip Drive, and Sound Card on a Mobile Cart
 - Projector on Mobile Cart with screen.
 - Novell Network and Internet Access
 - Access to Printer through CLS-2109
- CLS-4066 (University Computing Training Room)
 - 15 AST Pentium II Computers w/ CD-ROM drives and Sound Cards running Windows NT 4.0
 - Software Available: Microsoft Office 97, Corel WordPerfect Suite 8, Gamut and Yoda Access, Netscape Communicator, and FTP access.
 - 1 AST Pentium II Computer (Instructor's Station) w/ CD-ROM and Sound Card.
 - Overhead Projector with screen.
 - Novell Network and Internet Access.
 - Printer in room.

Plan B

FA 104 Class Schedule

FA-104

- **ENG101** *Faculty Name* **MWF: 10:00 AM to 10:50 AM**
 - Software Needs: Word Processing package, E-Mail, and Netscape.
 - Hardware Needs: Projector, individual stations for students, and Printer.
 - Other/Miscellaneous: Access to the P: drive (THE_PUB).**RECOMMENDATION:** CLS-2108 has all features to meet needs.

- **CS403** *Faculty Name* **W: 7:05 PM to 9:45 PM**
 - Software Needs: Logowriter and Visual Basic
 - Hardware Needs: Projector
 - Other/Miscellaneous: All features available in CLS-2108 except Logowriter which will be installed.**RECOMMENDATION:** CLS-2108

- **MATH304** *Faculty Name* **W: 5:40 PM to 6:55 PM**
 - Software Needs: None
 - Hardware Needs: Networked computer w/ Projector
 - Other/Miscellaneous: None**RECOMMENDATION:** Either room can meet these needs



