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# Technology Plan

## I. WHAT WE BELIEVE:

Students need to be able to use a wide variety of technological tools to enhance their future success as students and workers.

It is imperative for all students to have access to information via technology as a basis for lifelong learning.

It is essential for all learners, including educators, to process and manage information through the skillful use of technology.

Skillful use of technology supports the development of process skills such as flexibility, adaptability, critical thinking, problem solving and collaboration which are essential to success in our rapidly changing information age.

Networked technology systems permit efficient and effective communications within and outside the college.

Technology allows us to better serve the diverse learning styles of our students and educate them for a wider range of intelligence (e.g., verbal/linguistic, logical/mathematical, visual/spatial, bodily/kinesthetic, musical, interpersonal, and intrapersonal -- H. Gardner).

Technology maximizes productivity and efficiency and enables schools to better prepare students for future learning.

Our institution must prepare students for today's workplace and the workplace of the future.

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## II. ESSENTIAL INGREDIENTS

The mission of Trenholm State Technical College, in partnership with the community, is to provide students with the knowledge, skills, and qualities required to be successful in a diverse society.

To achieve its mission, the college is working towards the achievement of the following goals:

1. To ensure access to quality career preparation and life-long learning for all persons, without regard for age, gender, ethnicity, religion, or disability.
2. To provide opportunities for individuals to receive certificates, associate degrees, and industry recognized credentials in current and emerging occupational and technical fields.
3. To enhance economic development in the region through programs and services for area employers and the community.
4. To meet the needs of a variety of community-based populations through credit, non-credit, and basic education courses, offering flexible schedules and convenient instructional sites; and making available services, activities, and other resources.
5. To improve the effectiveness and efficiency of career preparation for students by providing appropriate assessments and career counseling services, and by implementing articulation agreements with local school systems and universities.
6. To develop faculty and staff who are competent, professional, and enthusiastic in advancing the mission of the College.
7. To institutionalize the strategic planning process to allocate, develop, and maintain college resources, and undertake strategic reviews of all programs and services to ensure the long-term viability of the College.
8. To integrate the most up-to-date technological, andragogical, curricular and environmental resources into its teaching, service, support, and administrative functions.
9. To establish an environment which is safe, healthy, aesthetically pleasing, accessible to students, and otherwise conducive to learning?

### III. KEY COMPONENTS

#### **DEVELOPMENT OF LIFELONG LEARNERS**

Assures skillful use of technology to support the development of lifelong learning skills and process skills such as: flexibility, adaptability, critical thinking, problem solving, and collaboration which are essential to success in our rapidly changing information age.

#### **LIFELONG LEARNERS ARE:**

Responsible for their own learning

Skilled in accessing & processing information

Confident in using technological tools

Able to solve complex problems alone or collaboratively

Capable of being creative and innovative

Able to communicate locally, nationally, and world-wide

#### **PLANNING PROCESS FOR STAFF TRAINING**

Provide introduction to networked systems.

Ensure Faculty and Staff is aware of available technology through professional development.

Supports using basic network software.

Incorporates training for new curriculum with technology applications.

#### **EQUAL ACCESS FOR THE LEARNING COMMUNITY**

Establishes basic technological networking capabilities provided at all sites.

Provides for minimum standards of hardware and software for all students, staff, and sites.

Assures that all students, staff and sites will be provided with and have equal access to minimum standards of hardware and software.

Expands and enhances voice communications to provide student/faculty/community greater access to school information.

Enables students/faculty/community via telecommunications, access to school learning resources, classroom lessons/assignments, and school information 24 hours a day.

Provides the learning community with greater opportunity for interaction, collaboration and information exchange. The school will become a vital meeting place for a host of community services.

Promotes equitable access to learning technology as a community investment and encourages an active partnership between schools, businesses, homes and the community.

### **INTEGRATION OF TECHNOLOGY IN THE CLASSROOM**

Expands classroom tools for teaching and learning.

Provides for the integration of multiple resources for existing and emerging curriculum.

Enables learning community to communicate more effectively, access and process information, and work productively.

Links the classroom with educational resources within the building, community and worldwide.

Creates a collaborative environment for project oriented activities.

Increases the productivity of students as they work toward attaining learning outcomes.

Encourages the use of multimedia tools enabling students to become active and experiential learners.

Enables learning to involve partnerships within the school, among schools, and with other organizations.

### **SUPPORT FOR INSTRUCTIONAL CHANGE**

Facilitates access to collegial support and best practice information from a wide variety of resources.

Expands the variety of teaching tools and strategies to support diverse learning styles.

Supports productive and efficient management of student information, assessment and portfolio data.

Increases support for emerging instructional strategies: inter-disciplinary, collaborative, and active learning options.

Enables curriculum, instruction and assessment to be developed and aligned with each other.

Provides a system that helps students, parents and teachers work together to support educational outcomes.

PROPOSED LEARNING OPPORTUNITIES AND TECHNOLOGY ENHANCEMENTS



## Advanced Technology Education Center

### Library Tower

Goal I of the technology plan involves short-term, non-credit courses specifically designed for business and industry. This table below addresses locating specific classroom space for new computer lab, hardware and software requirements, software licensing, costs, course offerings, and project timelines.

Space Requirements	Hardware	Software	Instructors	Curriculum	Start-up	Costs
TBA	TBD	TBD	TBD	CATIA	TBD	TBD
Classroom 3 <sup>rd</sup> Floor Library Tower	20 Gateway Pentium IV 2.0 GHZ  Existing AS/400 Hardware	IBM Partnership in Education  ACCESS 400 Sponsorship  Software ???	TBD	AS/400 System Operator	March 2006	TBD

## **Streaming Video Server To Enhance Distance Education Program**

Goal II of this plan involves the purchase, configuration and implementation of a streaming media server to enhance the distance learning program via the web. This plan addresses hardware and software requirements, software licensing, costs, and project timelines. Streaming video server to be housed in Library Tower accessible internally and externally.

<b>Hardware</b>	<b>Software</b>	<b>Instructors</b>	<b>Curriculum</b>	<b>Start-up</b>	<b>Costs</b>
Zeon Class Server to Host Streaming media	Tegrity or Real Media Licensing Requirements	Deans Instruction, EMT and General Ed Instructors  Web CT Training in course development	All Courses Currently being taught can take advantage of this new technology	February 2006	\$15,000

Goal  
**3**

## Network Based Video Surveillance System

Goal 3 of this plan involves the purchase, configuration and implementation of a network based video surveillance system. This system will be integrated into the existing college IP network with the sole purpose of recording activities within strategic locations of the college to enhance college safety and security. Locations identified will have a network based camera/s, mounting hardware. Recording of camera information to be performed centrally to a digital video recording system to be housed at one of the college's primary locations. It is expected this system will be ready for implementation by Summer 2006.

Hardware	Software	Used By	Curriculum	Start-up	Costs
IP Network Based Cameras  Digital Video Recording System (DVR)	DVR Software	Security Coordinator and Administrator	N/A	January 2006	\$35,000

# 4

## DLT Backup Tape Library System

The college network growth has been substantial over the last two years. We have added a number of data and administrations systems which require a more robust tape backup system than the one currently in use. The system we purchased over two years ago was a stop gap measure to ensure the integrity of data used within the college. The solution we are proposing involves a rotating tape library with a large storage capacity in the range of 100 - 200 Gigabytes. This solution will allow us to store tapes offsite to ensure a restoral capability and have a useful life of 3 to 5 years.

Hardware	Software	Location	Timeline	Costs
Back-up Tape Library	None	Trenholm Campus A/B building renovation	February 2006	\$15,000
Tape media for daily, weekly, and monthly backup.		Trenholm Campus A/B building renovation	November 2004	\$2500



## PC Hardware/Software Lifecycle

### Trenholm and Patterson Campuses

All PC hardware and software will have a campus lifecycle on average of four to six years from date of purchase depending on program and availability of funds. The current goal for minimum processor speed, operating system, hard drive capacity, network speed are: Pentium IV, 1.5 GHZ, Microsoft windows XP Professional, disk space of 80 GB, and 10/100 network interface card. The table below lists by campus lab, administrative function, a planned replacement schedule for hardware and software. The minimum software configuration for all college PCs will be Microsoft XP Professional, Microsoft Office XP, Acrobat Reader, Microsoft Outlook, Ultimate Zip (archiving software). When PCs are removed/replaced from one lab they are evaluated for use in other areas.

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#### Patterson Campus

<u>Function/Lab</u>	<u>Room</u>	<u>Hardware Software</u>	<u>Quantity</u>	<u>Year Installed</u>	<u>Replacement Schedule</u>
FIT lab	B105	P4 2.8 ghz	18	2004	
Open Student Lab	B111	P4 2.66 ghz	20	2004	
Cobol-RPG Lab	B112	PIII 500 mhz	15	1998	
Cosmotology	C103	P233 mhz	3	1997	2004
Cosmotology	C103	486DX2-66 mhz	1	1990	2003
Drafting	C114	PIII 933 mhz	13	2000	2004
Drafting	C114	P4 1.7 ghz	13	2002	2006
MIS Instructional Lab	E101A	P4 2.66 ghz	22	2004	
MIS Microsoft Lab	E101B	P4 2.66ghz	22	2003	
MIS Cisco Lab	E101C	P4 1.66 ghz	20	2002	2006
MIS Instructional Lab	E101D	PIII 866 mhz	20	2000	2005
Interior Design	E102	P75 mhz	4	1995	2004
Interior Design	E102	P4 2.8 ghz	1	2004	
Student Support Services	Trailer	PIII 866 mhz	2	2000	2004
Student Support Services	Trailer	P4 1.66 ghz	4	2002	2006
Student Support Services	Trailer	P4 1.8ghz	4	2004	
Air Conditioning	E103	P4 3 ghz	20	2005	
Industrial Maintenance	E104	P4 1.66 ghz	4	2002	2006
Machine Tool Tecnology	F102A	P4 2.0 ghz	10	2002	2006
Auto Mechanics	G101C	P4 1.8 ghz	20	2002	2006
Carpentry	H101A	PIII 500 mhz	2	2004	
Welding	H102A	P233 mhz	3	1997	2003

<u>LEC</u>	<u>J106A</u>	<u>PIII 600 mhz</u>	<u>20</u>	<u>1999</u>	-	<u>2005</u>
<u>LEC</u>	<u>J106B</u>	<u>PIII 600 mhz</u>	<u>20</u>	<u>1999</u>	-	<u>2005</u>
<u>Graphic Arts</u>	<u>K101</u>	<u>MAC G3</u>	<u>22</u>	<u>1995</u>		<u>2005</u>
<u>Graphic Arts</u>	<u>K101</u>	<u>EMAC G4</u>	<u>12</u>	<u>2004</u>		
<u>Graphic Arts</u>	<u>K101</u>	<u>EMAC G4</u>	<u>4</u>	<u>2003</u>		
<u>Graphic Arts</u>	<u>K101</u>	<u>IMAC G3</u>	<u>8</u>	<u>2001</u>		
<u>Radio/TV</u>	<u>K101</u>	<u>MAC G5</u>	<u>2</u>	<u>2004</u>		
<u>Radio/TV</u>	<u>K101</u>	<u>MAC G4</u>	<u>1</u>	<u>2003</u>		
<u>Radio/TV</u>	<u>K101</u>	<u>EMAC G4</u>	<u>4</u>	<u>2004</u>		
<u>Diesel Mechanics</u>	<u>L101A</u>	<u>P4 2.66 ghz</u>	<u>5</u>	<u>2004</u>	-	-
<u>Industrial Electronics</u>	<u>M102</u>	<u>PIII 500 mhz</u>	<u>12</u>	<u>2004</u>		
<u>Industrial Electronics</u>	<u>M102</u>	<u>PII 350 mhz</u>	<u>5</u>	<u>1998</u>	-	-
<u>PC Hardware Lab 1</u>	<u>M101-1</u>	<u>PII 350 mhz</u>	<u>9</u>	<u>1998</u>	-	<u>2004</u>
<u>PC Hardware Lab 2</u>	<u>M101-2</u>	<u>PII 350 mhz</u>	<u>16</u>	<u>1998</u>	-	<u>2004</u>
<u>PC Hardware Lab 3</u>	<u>M101-3</u>	<u>P4 2.0 ghz</u>	<u>12</u>	<u>2004</u>		

**Trenholm  
Campus**

Function/Lab	Room	Hardware Software	Quantity	Year Installed	Replacement Schedule
<u>MIS Instructional Lab</u>	<u>L212</u>	<u>P4 1.66 ghz</u>	<u>20</u>	<u>2002</u>	<u>2006</u>
<u>MIS Instructional Lab</u>	<u>L210</u>	<u>P4 1.66 ghz</u>	<u>15</u>	<u>2003</u>	<u>2007</u>
<u>MIS Instructional Lab</u>	<u>L211</u>	<u>P4 1.66 ghz</u>	<u>15</u>	<u>2003</u>	<u>2007</u>
<u>Medical Assist Lab</u>	<u>L308</u>	<u>P4 1.66 ghz</u>	<u>15</u>	<u>2002</u>	<u>2006</u>
<u>GET Lab</u>	<u>L309</u>	<u>P4 2.8 ghz</u>	<u>21</u>	<u>2004</u>	- <u>2008</u>
<u>Workforce Development</u>	<u>L315</u>	<u>P4 1.66 ghz</u>	<u>20</u>	<u>2003</u>	<u>2007</u>
<u>EMT Lab</u>	<u>E101</u>	<u>P4 1.66 ghz</u>	<u>6</u>	<u>2002</u>	<u>2006</u>
<u>ABE Lab</u>	<u>H102</u>	<u>P4 1.66 ghz</u>	<u>15</u>	<u>2002</u>	<u>2006</u>
<u>LEC</u>	<u>C105</u>	<u>P4 2.0 ghz</u>	<u>15</u>	<u>2003</u>	<u>2007</u>
<u>LEC</u>	<u>C105</u>	<u>P4 2.8 ghz</u>	<u>6</u>	<u>2004</u>	<u>2008</u>
<u>Culinary Lab</u>		<u>P4 2.4 ghz</u>	<u>25</u>	<u>2003</u>	<u>2007</u>
<u>Dental Lab</u>	<u>J</u>	<u>PIII</u>	<u>4</u>	<u>1999</u>	
<u>Medical Assist Lab</u>	<u>J</u>	<u>Compag</u>	<u>12</u>	<u>1997</u>	- <u>2006</u>
<u>Medical Assist Lab</u>	<u>J</u>	<u>PIII</u>	<u>6</u>	<u>1999</u>	- <u>2006</u>
<u>Medical Assist Lab</u>	<u>B113</u>	<u>P4 3 ghz</u>	<u>26</u>	<u>2005</u>	- <u>2006</u>
<u>SSS Lab</u>	<u>C</u>	<u>P4 1.66 ghz</u>	<u>20</u>	<u>2002</u>	<u>2006</u>
<u>Horticulture Lab</u>		<u>ConStar</u>	<u>2</u>	<u>1997</u>	- <u>2004</u>

**Hayneville  
Campus**

Function/Lab	Room	Hardware Software	Quantity	Year Installed	Replacement Schedule
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FIT Lab

Trailer

P4 2.8 ghz

18

2004

# 6

## Multi-Media Smart Classrooms

### Patterson/Trenholm Campuses

Goal seven requires the installation of ten smart classrooms to enhance course delivery. The classrooms will consist of a ceiling mounted LCD projector, projector screen, Smart Technologies Sympodium, and a PC connected to the Internet. We anticipate a portion of this project to be completed by December 31, 2004. Installation locations include classrooms in the A/B building under renovation, Trenholm Campus Building J, Patterson Campus B/C. Existing Smartboard technology will be relocated to mechanical shop classrooms. Another ten rooms will be scheduled for upgrade over the next 12 to 14 months.

Hardware	Software	Curriculum	Start-up	Cost (Estimate)
Smart Technologies Sympodium Internet Enabled Desktop Document Camera Minimum 3200 lumen ceiling mounted LCD projector Mounted projector screen. Associated mounting hardware	Control software	N/A	Nov-Dec 2005	\$79,000

# 7

## **Retrofit Computer Labs and Teleconference Rooms With Electro-Mechanical Locks**

### Patterson/Trenholm Campuses

To provide better access and protection to our valuable technology resources, we will retro-fit computer labs and video teleconference rooms with electro-mechanical locks.. Each instructor or person with a need for access to a given lab will be assigned a plastic swipe card for access. This will eliminate the need for keys and delaying classes because a room is locked and a key cannot be found. Further it will ensure that our labs will not be abused or occupied without supervision. The table below identifies rooms to be immediately fitted with this technology. The area of greatest concern is the Library Tower.

<b>Room/Lab</b>	<b>Campus Location</b>	<b>Implementation</b>	<b>Cost</b>
317 Teleconference	Library Tower	Spring 2006	500.00
214 Multi-media	Library Tower	Spring 2006	500.00
Building D	Patterson D	Spring 2006	500.00
Lab 212	Library Tower	Spring 2006	500.00
Lab 315	Library Tower	Spring 2006	500.00
Lab 308	Library Tower	Spring 2006	500.00
Lab	Library Tower	Spring 2006	500.00
B111	Patterson Campus	Spring 2006	500.00
Lab 310	Library Tower	Spring 2006	500.00
Lab 211	Library Tower	Spring 2006	500.00
Lab 210	Library Tower	Spring 2006	500.00
C115	Patterson B/C	Spring 2006	500.00
B105	Patterson FIT Lab	Spring 2006	500.00
C114	Patterson Drafting	Spring 2006	500.00

LEC 106A/B	Patterson Campus	Spring 2006	1000.00
Cisco Lab E101C	Patterson Campus	Spring 2006	500.00
Graphics Arts K101	Patterson Campus	Spring 2006	500.00
Radio TV K102	Patterson Campus	Spring 2006	500.00
MIS E101A	Patterson Campus	Spring 2006	500.00
MIS E101B	Patterson Campus	Spring 2006	500.00
MIS E101D	Patterson Campus	Spring 206	500.00

# 8

## Document Imaging System

Due to the growth in the college the time has come to convert student records to an electronic format. This process will require existing records to be scanned and converted and all future records will be converted. Documents will be indexed by student number, first name, then last name. The cost of the software and record conversion is a Title IIIB objective. Based on our research, the initial cost for such a system can vary from a little as 25,000 to exceeding \$150,000. We have identified a local company with a good reputation to design and implement such a system for the college with a reasonable cost below \$25000, which does not include the cost of current record conversion. The record conversion has been estimated at .08 cents per page.

Hardware	Software	Location	Timeline	Costs
Imaging Server	None	Trenholm Campus Library	February 2006	\$7,500
Imaging Software		Trenholm Campus Library	February 2006	\$10,000
Records Conversion	\$.08/page	Patterson Trenholm Campuses	February September 2006	Unknown