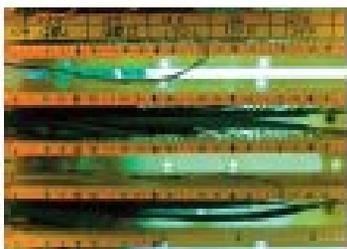




Citrus College



Technology Master Plan

2009-2014

Adopted 2011



Citrus College District
Information Technology Master Plan
2009-2014

2011 Update



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Planning Overview

The Citrus Community College District Information Technology Master Plan identifies major information systems and technology goals. This formal technology plan will not only guide the implementation of technology at the college, but support of the Educational Master Plan and the Citrus College Strategic Planning Goals. The plan encompasses the development, management, operation, maintenance, and evaluation of the infrastructure, administrative information systems, operations support, and management of web resources. The Information Technology Master Plan is a living document. As projects are completed, as new priorities arise, and as strategies change the objectives contained in the plan will be modified to reflect the needs of the Citrus Community College District.

Planning for the college's technology needs is integrated into the college's program review, governance and planning processes. The Campus-wide Information Technology Committee (CITC) developed the first version of a college-wide Information Technology Master Plan during the spring of 2009. The plan is based on a SWOT (Strength-Weakness-Opportunity- Threat) analysis conducted by the committee. That information was then integrated with the technology needs defined in the Educational Master Plan, the Facilities Master Plan and the college's Strategic Planning Goals.

The CITC will evaluate and revise the Information Technology Master Plan on an annual basis. Once the technology needs are defined and prioritized via the planning process, the implementation of these resources is coordinated between the college-wide functional areas and the Technology and Computer Services Department (TeCS). This inclusive method allows the college to most effectively apply funding sources (general budget, instructional equipment, matriculation, construction, bond and grants) to comprehensively meet technology needs.

Long term planning for technology infrastructure needs is coordinated in governance committees. The Physical Resources Committee coordinates long term planning for technology infrastructure needs. At these meetings multimedia, networking, telecommunications, and other technology needs are discussed including new construction, remodeling, and moving of technology resources and relocation of employees. The Construction Projects Committee manages the implementation of these major projects.

Background

Technology in the Citrus Community College District is an integral component of multiple aspects of learning, teaching and student support as well as the foundation and infrastructure for administrative and business processing. Students utilize technology to apply to the college, register for classes, and complete coursework. Faculty use technology to develop curriculum, obtain class rosters, input course grades and provide a distance-learning environment. Staff employ technology for purchasing, scheduling, managing student data, communicating, and managing their daily work. Managers rely on technology for data and statistical analysis to support planning and decision-making.

To meet the expanding integration of technology in these aspects of college life, Citrus College has chosen to focus its technology resources on the implementation of available technology applications. This change to a technology "implementation" environment is a major departure from prior technology efforts of developing and supporting institutionally created, i.e. "home-grown", applications. The most important step for this change taken during the current reporting period was the implementation of Sungard's Banner Enterprise Resource Planning (ERP) system. The Banner System, known at Citrus College as WingSpan, is an essential component of the college's administrative system.

The change in technology focus was accompanied by a change in technology decision-making. Functional area managers and staff from student, instruction and administrative services now partner with the TeCS Department to plan and implement technology projects. Also, in support of this change in focus, technology is integrated into many aspects of governance at Citrus College. The technology governance committee, the CITC, was formed to develop policies and procedures related to technology and to undertake technology planning for the college. In addition to the CITC, the TeCS Department has representation on many governance committees: Physical Resources, Fiscal Resources, Institutional Research, Educational Programs, and Steering. Also the Chief Information Services Officer (CISO) attends the President's Cabinet Meetings and Board of Trustee meetings.

Factors Driving Information Technology Planning

The CITC conducted a Strengths – Weaknesses – Threats – Opportunities (SWOT) analysis to examine the college’s internal technology environment in light of external factors. From this analysis CITC identified areas to address in planning. The results of the SWOT analysis are presented in the table below.

SWOT		Internal Factors	
		Strengths	Weaknesses
External Influences	Opportunities	<p><u>Leverages</u></p> <ul style="list-style-type: none"> - Students able to work online - Web presence with Blackboard and Wingspan - Creative Marketing - Infrastructure included support of statewide CENIC system 	<p><u>Constraints</u></p> <ul style="list-style-type: none"> - Need to make more services available online - Need to increase redundancy in infrastructure – requires funds - Need to increase network availability
	Threats	<p><u>Vulnerabilities</u></p> <ul style="list-style-type: none"> - Constantly changing software versions - Budget constraints - More reporting requirements - Basic accessibility 	<p><u>Problems</u></p> <ul style="list-style-type: none"> - Lack of staffing - Budget cuts - Availability of computer labs

Advisory Committee

Collegewide Information Technology Committee

The purpose of the Collegewide Information Technology Committee (CITC) is to develop, oversee, and review the implementation of campus-wide policy and planning efforts pertaining to the use of computers and information technology at Citrus College. The CITC will:

- Act as a focal point for input from all campus constituencies on computer and technology related issues.
- Act as a communication conduit for computer and technology related issues.
- Advise the Steering Committee on policy and planning matters pertaining to computer and technology use.

Composition of Committee

- Chief Information Services Officer (Chair)
- Network, Central Computing and Telecommunications Systems - Supervisor
(Alternate Chair)
- Technology Operations and Support Services Supervisor (Alternate Chair)
- Director of Development and External Relations (or designee)
- Director of Finance & Administrative Services (or designee)
- Director of Human Resources (or designee)
- Dean of Admissions and Records (or designee)
- Dean of Business, CSIS and Distance Education
- Distance Education Supervisor
- ERP Coordinator
- Supervisor/Confidential Representative
- Faculty Representative(s)
- Classified Representative(s)
- Associated Students of Citrus College (ASCC) Representative(s)

Annual Planning Timeline

This Annual Planning Timeline outlines the major tasks that the CITC will undertake to support technology planning for Citrus College. This timeline is designed to integrate with the college's budget process. Technology strategies and objectives for the next fiscal year will be in place prior to the beginning of the budget process and will be available to make informed budget decisions.

September	Evaluate implementation of plan from previous fiscal year
October	Gather further data as needed and update Planning Goals and Objectives for next fiscal year
November/ December	Develop draft Information Technology Master Plan for next fiscal/ year
January/ February	Finalize and approve new Information Technology Plan Master
April/May	Next fiscal year budget requests made based on planning goals and objectives

2009-2014 Technology Goals

The technology goals presented below represent the long term goals for technology at Citrus College and provide a common basis for yearly technology planning.

Technology Area	Goals
I. Administrative Information Systems	<ul style="list-style-type: none"> A. Provide appropriate technology and work flow to support department and division processes and functions B. Provide student centered services and support for the matriculation processes C. Provide a self-service reporting environment that allows users to dynamically gather and present information D. Implement technical support processes that improve the efficiency of services and support for faculty and staff
II. Educational Technology	<ul style="list-style-type: none"> A. Support integration of technology in classrooms, teaching labs and online instructional environments based on curricular and instructional needs
III. Network, Infrastructure and Telecommunications	<ul style="list-style-type: none"> A. Provide reliable and secure technology services for voice, data and video services
IV. Operations and Support Service	<ul style="list-style-type: none"> A. Provide a service oriented organization to meet the growing demand for technology support
V. Web Environment	<ul style="list-style-type: none"> A. Provide tools for users to manage the content of their web pages B. Provide an intranet environment that encourages communication and information sharing C. Provide an internet environment that provides the college with a current, accurate and relevant web presence

Implementation Objectives 2011-2012

Implementation Objectives 2011-2012

Each year, implementation strategies and objectives will be defined in support of the long term technology goals.

1. Administrative Information Systems

Goal 1A: Provide appropriate technology and work flow to support department and division processes and functions

1. Update campus parking permit issue software process, assist campus safety in evaluating and implementing new parking permit software and procedures.
2. Provide data conversion of Haugh Performing Art Center customer database for new online ticket sales product (tessitura).
3. Provide financial interfaces between Financial Aid and campus Bookstore.

Goal 1B: Provide student centered services and support for the matriculation processes

Strategies and Objectives

1. Student Portal
An online student portal, MyWingSpan, will be launched
2. Update and maintain cut scores and course placements in accuplacer

Goal 1C: Provide a self-service reporting environment that allows users to dynamically gather and present information

Strategies and Objectives

1. Expand Reporting
Expand the self-service reporting environment so that offices and departments can generate reports as needed
2. Convert data remaining on legacy system
Move the last of the legacy data to the Banner WingSpan or appropriate database so that data is available for research and reporting

Implementation Objectives 2011-2012

2. Educational Technology

Goal 2A: Support integration of technology in classrooms, teaching labs and online instructional environments based on curricular and instructional needs

Strategies and Objectives

1. Desktop Videoconferencing
Provide training for staff and instructors on use of videoconferencing via desktop computers.
2. Classroom content streaming and archiving
Provide training and assistance to instructors and staff in appropriate use of equipment to record and stream live presentation over the web (MediaSite)
3. Presentation technology updates for the classroom
Update instructional equipment in classes replacing outdated projectors and adding document projectors and web cameras where appropriate
4. Replace and expand student use computers in the Learning Resource Center using desktop virtualization technologies.

3. Network, Infrastructure and Telecommunications

Goal 3A: Provide reliable and secure technology services for voice, data and video services

Strategies and Objectives

1. Server and Desktop Virtualization
Continue virtualization of Campus computing resources, both server and desktop
2. Blade Servers (power and space savings)
Upgrade existing servers using blade and virtual technology
3. Building level network capacity upgrades
Upgrade network connections to buildings (IS, AC, PC, VT, LL)
4. Server Room power backup

Implementation Objectives 2011-2012

Install generator to provide backup power for servers and environment.

5. Web vulnerability filtering
Install edge monitoring and filtering for spyware and web vulnerability
6. Wireless network expansion
Install additional wireless network access points in buildings (IS, PS)

4. Operations and Support Services

Goal 4A: Provide a service oriented organization to meet the growing demand for technology support

1. Response time for reported problems
Analyze response time by work order category and develop process improvements where needed
2. Expanded training opportunities
Investigate training needs and explore options to effectively meet those needs
3. Maintaining accurate desktop inventory
Establish repeatable and reliable procedures for maintaining desktop inventory

5. Web Environment

Goal 5A: Provide tools for users to manage the content of their intra- and internet web pages

1. SharePoint services
Train end users on new tools provided with the SharePoint environment
2. Provide and train end users video streaming and storage for virtual learning environments (EduStream)

Goal 5B: Provide an intranet environment that encourages communication and information sharing

1. Update intranet
Update intranet to new Sharepoint environment to provide enhanced communication and document sharing.

Implementation Objectives 2011-2012

Goal 5C: Provide an internet environment that provides the college with a current, accurate and relevant web presence

1. Update front page
Redesign the front page of the college web site to allow more information to be presented in a dynamic manner while still maintaining a simplistic design
2. Expand use of new platform
Train users of web platform to enable them to appropriately choose and effectively present information

Strategic Plan Accomplishments 2010-2011

2010-2011 Accomplishments

1. Administrative Information Systems

Goal 1A: Provide appropriate technology and work flow to support department and division processes and functions

1. Banner Workflow - Implement Workflow capabilities in Banner	Training provided in June 2010. Three flow automated for Human Resources
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Goal 1B: Provide student centered services and support for the matriculation processes

1. Student Email & Cloud Storage The college will supply students with college generated email addresses and associated storage	Full implementation of email for students completed November 2010
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Goal 1C: Provide a self-service reporting environment that allows users to dynamically gather and present information

1. Expand Reporting – Expand the self-service reporting environment so that offices and departments can generate reports as needed	Crystal reports created for
2. Degree Audit - Implement tools and applications that provide degree audit capability	Degree audit tool purchased. Implementation to start Summer 2010

2. Educational Technology

Goal 2A: Support integration of technology in classrooms, teaching labs and online instructional environments based on curricular and instructional needs

1. Training Program for Videoconferencing Develop and implement training program to assist faculty and staff using videoconferencing equipment.	Faculty trained in
2. Virtualization Expansion a. Expand virtualized desktop environment to LS 120 b. Relocate STEM centers to provide more space for Remote Tutoring	

Strategic Plan Accomplishments 2010-2011

3. Network, Infrastructure and Telecommunications

Goal 3A: Provide reliable and secure technology services for voice, data and video services

1. Server and Desktop Virtualization With support of the STEM grant, pilot desktop and server virtualization	Virtualization servers and desktops
2. Data Storage - Expand and consolidate server storage capacity (SANS)	
3. Network Backbone redundancy Install upgraded network equipment to provide greater redundancy and connectivity between buildings	
4. Building level network capacity upgrades - Upgrade network connections to 4 buildings (WA, LI, AD, PE, CS, LS)	Building upgrades completed in spring 2011
5. Email archiving - Install necessary equipment to comply with upcoming legal requirements	
6. Server Room Power Backup - Install generator to provide backup power for servers and environment.	Generator implementation
7. Redundancy for Spam Filtering Install 2 nd SOPHOS device for increased capacity and redundancy	
8. Web vulnerability filtering - Install edge monitoring and filtering for spyware and web vulnerability	
9. Network Traffic Monitoring Add new tools to effectively monitor and report network and internet usage	
10. Wireless network expansion - Install additional wireless network access points in Library (LI)	
11. Call Signal Amplifiers - Install signal amplifiers in CFI to support emergency radio communication	
12. Electronic Signage Provide message boards for general information	

Strategic Plan Accomplishments 2010-2011

4. Operations and Support Services

Goal 4A: Provide a service oriented organization to meet the growing demand for technology support

1. Response time for reported problems Analyze response time by work order category and develop process improvements where needed	
2. Expanded training opportunities Investigate training needs and explore options to effectively meet those needs	
3. Move Student Services office into new Student Services Building	Moves completed May – June 2010
4. Increase Support Capabilities Increase number of support personnel, including support for after hours, as funding permits	Add support for implementation of podium systems
5. Desktop Replacements - Implement desktop replacement cycle to extend funding available	

5. Web Environment

Goal 5B: Provide an intranet environment that encourages communication and information sharing

1. Update intranet - Update intranet to new Sharepoint environment to provide enhanced communication and document sharing.	
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Goal 5C: Provide an internet environment that provides the college with a current, accurate and relevant web presence

1. Administrative Procedure for Web Pages Develop administrative procedure that guides development of internet web pages	Draft procedure completed Spring 2011. To be finalized Fall 2011.
2. Expand use of new platform Continue to train users of web platform to enable them to appropriately choose and effectively present information	Users trained in new web platform as web pages are updated.

Strategic Plan Accomplishments 2009-2010

2009-2010 Accomplishments

1. Administrative Information Systems

Goal 1A: Provide appropriate technology and work flow to support department and division processes and functions

1. Conversion to Banner 8 Convert Sungard's Enterprise Resource Planning (ERP) System Banner to Version 8 to provide new processing options and an upgraded database	Completed April 2010.
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Goal 1B: Provide student centered services and support for the matriculation processes

1. Student Email & Cloud Storage The college will supply students with college generated email addresses and associated storage	Piloting emails for Summer semester 2010.
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Goal 1C: Provide a self-service reporting environment that allows users to dynamically gather and present information

1. Expand Reporting – Expand the self-service reporting environment so that offices and departments can generate reports as needed	Crystal reports created for
2. Convert data remaining on legacy system Move the last of the legacy data to the Banner WingSpan or appropriate database so that data is available for research and reporting	Legacy data tables established in Banner Oracle database. Tested data conversion

Strategic Plan Accomplishments 2009-2010

2. Educational Technology

Goal 2A: Support integration of technology in classrooms, teaching labs and online instructional environments based on curricular and instructional needs

1. Desktop Videoconferencing Provide infrastructure for instructional and administrative videoconferencing via desktop computers	Conferencing equipment installed in CI 158 and operational in Fall, 2009.
2. Live Remote Tutoring Pilot live remote tutoring for math courses	Tutoring equipment installed in STEM center and operational in Fall, 2009.
3. Classroom content streaming and archiving Provide infrastructure to record and stream live presentation over the web	Equipment installed in CI 158. Testing and training in progress.
4. Presentation technology updates for the classroom Update instructional equipment in classes replacing outdated projectors and adding document projectors	Equipment replaced in rooms

Strategic Plan Accomplishments 2009-2010

3. Network, Infrastructure and Telecommunications

Goal 3A: Provide reliable and secure technology services for voice, data and video services

1. Server and Desktop Virtualization With support of the STEM grant, pilot desktop and server virtualization	Virtualization servers and desktops implement in STEM center for Fall 2009.
2. Blade Servers (power and space savings) Upgrade existing servers using blade and virtual technology	In progress with goal to virtualized at least 10 servers per year.
3. Network Backbone redundancy Install upgraded network equipment to provide greater redundancy and connectivity between buildings	Equipment purchased. To be installed and configured in spring 2010.
4. Building level network capacity upgrades Upgrade network connections to 4 buildings (ED, PS, PA, LB)	Building upgrades completed in spring 2010.
5. Voice over IP and Desktop Unified Messaging - Upgrade campus phone and voicemail systems to provide integrated and mobile technologies	Phone system upgrade completed December 2009.
6. Wireless network expansion Install additional wireless network access points in 5 buildings (MA, FH, TD, TE, LI)	Wireless expansion completed in 4 buildings (MA, FH, TD, TE).

Strategic Plan Accomplishments 2009-2010

4. Operations and Support Services

Goal 4A: Provide a service oriented organization to meet the growing demand for technology support

1. Maintaining accurate desktop inventor Establish repeatable and reliable procedures for maintaining desktop inventory	Desktop inventory completed Spring 2010.
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5. Web Environment

Goal 5A: Provide tools for users to manage the content of their intra- and internet web pages

1. SharePoint services Train end users on new tools provided with the SharePoint environment	New web environment implemented Fall 2009.
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Goal 5C: Provide an internet environment that provides the college with a current, accurate and relevant web presence

1. Update front page Redesign the front page of the college web site to allow more information to be presented in a dynamic manner while still maintaining a simplistic design	New web front page implemented Spring 2010.
2. Expand use of new platform Continue to train users of web platform to enable them to appropriately choose and effectively present information	Users trained in new web platform as web pages are updated.