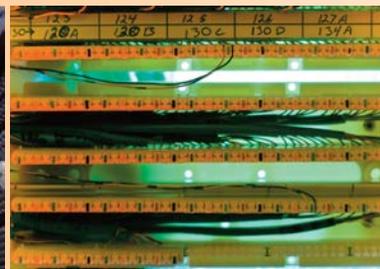




# Citrus College



## Technology Master Plan 2009-2014

Adopted Spring 2010



Citrus College District  
Information Technology Master Plan  
2009-2014

2010 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><b><u>Leverages</u></b></p> <ul style="list-style-type: none"> <li>- Students able to work online</li> <li>- Web presence with Blackboard and Wingspan</li> <li>- Creative Marketing</li> <li>- Infrastructure included support of statewide CENIC system</li> </ul>	<p><b><u>Constraints</u></b></p> <ul style="list-style-type: none"> <li>- Need to make more services available online</li> <li>- Need to increase redundancy in infrastructure – requires funds</li> <li>- Need to increase network availability</li> </ul>
	Threats	<p><b><u>Vulnerabilities</u></b></p> <ul style="list-style-type: none"> <li>- Constantly changing software versions</li> <li>- Budget constraints</li> <li>- More reporting requirements</li> <li>- Basic accessibility</li> </ul>	<p><b><u>Problems</u></b></p> <ul style="list-style-type: none"> <li>- Lack of staffing</li> <li>- Budget cuts</li> <li>- Availability of computer labs</li> </ul>

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

# Strategic Plan Objectives 2010-2011

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

### Strategies and Objectives

1. Banner Workflow  
Implement Workflow capabilities in Banner
2. Automate tracking of purchasing delivery and receipt.  
Implement tool that tracks delivery and receipt of purchased items.

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

### Strategies and Objectives

1. Student Email & Cloud storage  
The college will supply students with college generated email addresses and associated storage. Piloted Summer Semester 2010. Expand implementation to all students in fall 2010.
2. Student Portal  
An online student portal, MyWingSpan, in Banner Luminis
3. Degree Audit  
Implement tools and applications that provide degree audit capability

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

### Strategies and Objectives

1. Expand Reporting  
Continue expanding the self-service reporting environment so that offices and departments can generate reports as needed

## ***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. Training Program for Videoconferencing  
Develop and implement training program to assist faculty and staff using videoconferencing equipment.
2. Virtualization Expansion
  - a. Expand virtualized desktop environment to LS 120
  - b. Relocate STEM centers to provide more space for Remote Tutoring
3. Educational Technology Task Force  
Define chart and purpose for Educational Technology Task Force and establish group
4. iTunes U  
Expand use of iTune tools
5. Social Networking (Second Life, LinkedIn, Twitter)  
Provide ability for faculty to experiment with Social Networking as an instructional tool

### ***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  
Consolidate and expand use of server and desktop virtualization
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 6 buildings (WA, LI, AD, PE, CS, LS)
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.
7. Redundancy for Spam Filtering  
Install 2<sup>nd</sup> 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

#### ***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
4. Increase Support Capabilities  
Increase number of support personnel, including support for after hours, as funding permits
5. Desktop Replacements  
Implement desktop replacement cycle to extend funding available

## ***5. Web Environment***

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

1. Resource 25  
Expand and enhance use of Resource 25 scheduling tool
2. Upgrade online academic schedule  
Automate schedule data interface from Banner ERP system to online web schedule
3. Academic Program Design  
Upgrade and enhance design for academic program web pages

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.

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
2. Expand use of new platform  
Continue to train users of web platform to enable them to appropriately choose and effectively present information

# Strategic Plan Accomplishments 2009-2010

## 1. Administrative Information Systems

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

<p>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</p>	<p>Completed April 2010.</p>
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Goal 1B: Provide student centered services and support for the matriculation processes

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

<p>1. Expand Reporting – Expand the self-service reporting environment so that offices and departments can generate reports as needed</p>	<p>Crystal reports created for</p>
<p>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</p>	<p>Legacy data tables established in Banner Oracle database. Data conversion completed Spring 2010.</p>

## ***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

### 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).

#### ***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.