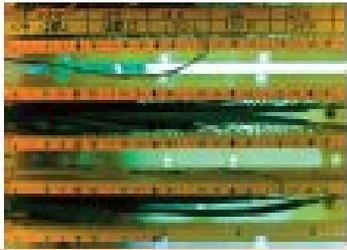




Citrus College



Technology Master Plan

2009-2014

Adopted 2012



Citrus College District
Information Technology Master Plan
2009-2014

2012 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

College Information Technology Committee

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

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 2012-2013

Implementation Objectives 2012 - 2013

1. Administrative Information Systems

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

Strategies and Objectives

1. Update campus parking permit issue software process, assist campus safety in evaluating and implementing new parking permit software and procedures.

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. Implement DegreeWorks
Begin year one of two-year implementation of DegreeWorks

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

Strategies and Objectives

1. 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

Goal 1D: Implement technical support processes that improve the efficiency of services and support for faculty and staff

Strategies and Objectives

1. Seek input from various constituencies on how to use current resources more efficiently (Strategic Plan Objective 3.1.5)

Planning References for Technology Area One

College Strategic Plan: 2011 – 2016

- Focus Area Two – Student Support and Success
- Goal 2.3 – Citrus College will enhance its supportive collegiate environment to enable students to persist and to achieve their goals of transfer, degree and certificate completion.
 - Objective 2.3.3 - Utilize technology to assist students in completing programs, including degree audit, online counseling and online educational plans
Plan 2011 – 2012, Implement 2012 – 2014

Implementation Objectives 2012-2013

- Focus Area Three – College Resources
- Institutional Goal 3.1 – Citrus College will maximize the use of existing fiscal, physical, personnel and technical resources via effective planning and resource management.
 - Objective 3.1.5 - Seek input from various constituencies on how to use current resources more efficiently
Plan 2012 - 2013, Implement 2013- 2104

CCCCO Student Success Initiative 2.3

Develop and use centralized and integrated technology, which can be accessed through campus or district web portals, to better guide students in their educational process.

Implementation Objectives 2012-2013

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. Replace and expand student use computers in the Learning Resource Center using desktop virtualization technologies.
2. Educational Technology Committee
Initiate committee in fall

Planning References for Technology Area Two

College Strategic Plan: 2011 – 2016

- Focus Area Three – College Resources
 - Institutional Goal 3.1 – Citrus College will maximize the use of existing fiscal, physical, personnel and technical resources via effective planning and resource management.
 - Objective 3.1.2 - Increase technical support for Academic Affairs and Student Services, such as providing wireless access to the whole campus; expanding online access to one's own personnel information; incorporating into technology planning a procedure for evaluating and testing new instructional technology
Plan 2011 – 2012, Implement 2012- 2104
- Focus Area Four – Learning Environment
 - Institutional Goal 4.1 – Citrus College will enhance student learning by providing a safe, accessible and attractive campus with classrooms, lab, equipment/technology and parking adequate to meet the student needs.
 - Objective 4.1.1 - Continue to maintain and improve buildings and classrooms on campus with a focus on cleanliness and repairs. Keep classrooms and technical equipment up-to-date with new instructional technologies when appropriate.
Implementation 2011 – 2012 and 2012 - 2013

Implementation Objectives 2012-2013

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
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

Planning References for Technology Area Three

College Strategic Plan: 2011 – 2016

- Focus Area Four – Learning Environment
 - Institutional Goal 4.1 – Citrus College will enhance student learning by providing a safe, accessible and attractive campus with classrooms, lab, equipment/technology and parking adequate to meet the student needs.
 - Objective 4.1.1 - Continue to maintain and improve buildings and classrooms on campus with a focus on cleanliness and repairs. Keep classrooms and technical equipment up-to-date with new instructional technologies when appropriate.
Implementation 2011 – 2012 and 2012 - 2013

Implementation Objectives 2012-2013

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

Planning References for Technology Area Fours

College Strategic Plan: 2011 – 2016

- Focus Area Three – College Resources
- Institutional Goal 3.1 – Citrus College will maximize the use of existing fiscal, physical, personnel and technical resources via effective planning and resource management.
- Objective 3.1.2 - Increase technical support for Academic Affairs and Student Services, such as providing wireless access to the whole campus; expanding online access to one's own personnel information; incorporating into technology planning a procedure for evaluating and testing new instructional technology
Plan 2011 – 2012, Implement 2012- 2104

Implementation Objectives 2012-2013

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

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.
2. Provide an online environment for annual program review input

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

1. Expand use of new platform - Train users of web platform to enable them to appropriately choose and effectively present information

Planning References for Technology Area Five

College Strategic Plan: 2011 – 2016

- Focus Area Three – College Resources

- Institutional Goal 3.1 – Citrus College will strengthen the campus culture of planning and informed decision making by maximizing the use of research, program review and student outcomes assessment.

- Objective 3.1.1 - Make data needed for decision making readily available and easily accessible for broader understanding, including enhancing data used in program review and promoting communications and data sharing options within and across departments.

Plan 2011 – 2012, Implement 2012- 2104

- Focus Area Five – Institutional Effectiveness

- Institutional Goal 5.1 – Citrus College will strengthen the campus culture of planning and informed decision making by maximizing the use of research, program review and student outcomes assessment.

- Objective 5.1.1 - Make data needed for decision making readily available and easily accessible for broader understanding, including enhancing data used in program review and promoting communications and data sharing options within and across departments.

Plan 2011 – 2012, Implement 2012- 2104

Plan Accomplishment 2011-2012

Plan Accomplishments 2011 - 2012

1. Administrative Information Systems

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

1. Provide data conversion of Haugh Performing Art Center customer database for new online ticket sales product (tessitura).
2. 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. 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. 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
 - a. 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

Plan Accomplishment 2011-2012

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
Install generator to provide backup power for servers and environment. – Planning began for generator installation working with engineers and architects.
5. Web vulnerability filtering
 - a. Install edge monitoring and filtering for spyware and web vulnerability
6. Wireless network expansion
 - a. 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. Training provided for desktop operations upgrades and new office suite.
3. Maintaining accurate desktop inventory - Establish repeatable and reliable procedures for maintaining desktop inventory

Plan Accomplishment 2011-2012

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.

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

Plan Accomplishments 2010-2011

Plan Accomplishments 2010 - 2011

1. Administrative Information Systems

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

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

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. 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 infrastructure for instructional and administrative videoconferencing via desktop computers

2. Live Remote Tutoring

Pilot live remote tutoring for math courses

3. Classroom content streaming and archiving

Provide infrastructure to record and stream live presentation over the web

4. Presentation technology updates for the classroom

Update instructional equipment in classes replacing outdated projectors and adding document projectors

5. Social Networking (Second Life, LinkedIn, Twitter)

Plan Accomplishments 2010-2011

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
With support of the STEM grant, pilot desktop and server virtualization
2. Blade Servers (power and space savings)
Upgrade existing servers using blade and virtual technology
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 buildings and new construction (LI, TD, TE, LS, LH, CS, RG, SS, MG)
5. Email archiving
Install necessary equipment to comply with legal requirements
6. Redundancy for Spam Filtering
Install 2nd SOPHOS device for increased capacity and redundancy
7. Network Traffic Monitoring
Add new tools to effectively monitor and report network and internet usage
8. Voice over IP and Desktop Unified Messaging
Upgrade campus phone and voicemail systems to provide integrated and mobile technologies
9. Wireless network expansion
Install additional wireless network access points in 5 buildings and new construction (MA, LI, LH, LS, ED, MG, SS)

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. 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

2. SharePoint services
Train end users on new tools provided with the SharePoint 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.

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

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

Plan Accomplishments 2009-2010

Plan Accomplishments 2009 - 2010

1. Administrative Information Systems

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

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 Banner system conversion to Version 8 completed April 2010.

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

Strategies and Objectives

Expand Reporting - Expand the self-service reporting environment so that offices and departments can generate reports as needed
Crystal reports created for Instructional and Student Services Users.

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

6. Desktop Videoconferencing
Provide infrastructure for instructional and administrative videoconferencing via desktop computers
7. Live Remote Tutoring
Pilot live remote tutoring for math courses
8. Classroom content streaming and archiving
Provide infrastructure to record and stream live presentation over the web
9. Presentation technology updates for the classroom
Update instructional equipment in classes replacing outdated projectors and adding document projectors
10. Social Networking (Second Life, LinkedIn, Twitter)
Provide ability for faculty to experiment with Social Networking as an instructional tool

Plan Accomplishments 2009-2010

3. Network, Infrastructure and Telecommunications

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

Strategies and Objectives

10. Server and Desktop Virtualization
With support of the STEM grant, pilot desktop and server virtualization
11. Blade Servers (power and space savings)
Upgrade existing servers using blade and virtual technology
12. Network Backbone redundancy
Install upgraded network equipment to provide greater redundancy and connectivity between buildings
13. Building level network capacity upgrades
Upgrade network connections to 5 buildings (ED, PS, PA, WA, LB)
14. Email archiving
Install necessary equipment to comply with upcoming legal requirements
15. Server Room power backup
Install generator to provide backup power for servers and environment.
16. Redundancy for Spam Filtering
Install 2nd SOPHOS device for increased capacity and redundancy
17. Web vulnerability filtering
Install edge monitoring and filtering for spyware and web vulnerability
18. Network Traffic Monitoring
Add new tools to effectively monitor and report network and internet usage
19. Voice over IP and Desktop Unified Messaging
Upgrade campus phone and voicemail systems to provide integrated and mobile technologies
20. Wireless network expansion
Install additional wireless network access points in 5 buildings (LI, FH, TD, TE, AA)

Plan Accomplishments 2009-2010

4. Operations and Support Services

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

4. Response time for reported problems
Analyze response time by work order category and develop process improvements where needed
5. Expanded training opportunities
Investigate training needs and explore options to effectively meet those needs
6. 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

2. SharePoint services
Train end users on new tools provided with the SharePoint environment

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

2. 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

4. 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
5. Expand use of new platform
Train users of web platform to enable them to appropriately choose and effectively present information