Citrus Community College District Information Technology Master Plan 2017-2022

Year 3 - 2019-2020

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Technology Planning Overview

As stated in the college mission statement, "Citrus College provides innovative educational opportunities and student support services that lead to the successful completion of degrees, transfer, career/technical education and basic skills proficiency. To this end, technology supports multiple aspects of learning, teaching, and student support as well as provides the foundation and infrastructure for administrative and business processing. 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.

Citrus College integrates technology planning into the overall planning process as described in the Integrated Planning Manual (Appendix C). The Information Technology Master Plan is part of the overall planning process and identifies major information systems and technology 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 College Information Technology Committee (CITC) develops the Information Technology Master Plan. CITC ensures that the technology master plan respond to the Strategic Plan and to the technology standard in the Accrediting Commission for Community and Junior Colleges (ACCJC) of the Western Association of Schools and Colleges accreditation standard. In addition to considering the College planning objectives, CITC completes a strengths, weaknesses, opportunities, and threats (SWOT) analysis to ensure that new opportunities provided by technology advancement are appropriately included in technology planning.

The CITC also evaluates and revises the Information Technology Master Plan on an annual basis. The Information Technology Master Plan is therefore 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 College.

Once the technology needs are defined and prioritized via this planning process, the implementation of the projects and the resources needed to support them are 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.

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)
- Dean of Enrollment Services (or designee)
- Dean of Career, Technical and Continuing Education
- Dean of Social and Behavioral Sciences, Online Education
- Digital Communications and Publications Supervisor (or designee)
- Director of Fiscal Services (or designee)
- Director of Human Resources (or designee)
- Director of Institutional Research, Planning and Effectiveness (or designee)
- Executive Director of Communications and External Relations
- Supervisor of Online Education/Library Services
- Management Team representative
- 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 and strategic planning processes. 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
March/ April	Finalize and approve new Information Technology Plan Master
June	Next fiscal year budget requests made based on planning goals and objectives

Factors Driving Information Technology Planning

The Information Technology Master Plan responds to the Strategic Plan and to the technology standard in the Accrediting Commission for Community and Junior Colleges (ACCJC) of the Western Association of Schools and Colleges accreditation standard as well as to the SWOT analysis conducted by the CITC.

Citrus College Strategic Plan

The 2016 – 2021 Citrus College Strategic Plan was introduced with a single goal -
Strategic Plan Goal - Increase Student Success and Completion.

Eleven focus areas were included in the plan with Focus Area 8 providing direction for college technology –
Focus Area 8 - Citrus College will keep pace with technologies that promote an efficient and effective educational and administrative environment.

For each focus area specific strategies were developed to provide direction for planning and implementing operational goals. Within Focus Area 8 were three strategies -
Strategy 8.1 - Optimize the use of technology in teaching and learning to support innovative teaching practices.

Strategy 8.2 - Provide a robust, secure, accessible technology infrastructure, which is adequately funded, to improve and facilitate college processes and provide data resources relevant to institutional decision making.

Strategy 8.3 -Improve student success through strategically leveraging technologies that support student success initiatives.

In addition to the focus area and strategies, each year an Annual Implementation Plan will be developed.   Technology projects will be defined not only for strategic within Focus Area 8, but may also come from the ten other focus areas. The annual implementation plan projects will need to be incorporated into the Technology Master Plan and the TeCS Department will work in partnership with other college departments and academic divisions to implement those strategies.

Accreditation Standards -

The current Accrediting Commission for Community and Junior Colleges (ACCJC) of the Western Association of Schools and Colleges accreditation standard were implemented on June 2014. Standard III – Resources included the standards for technology. This standard ensures that "institution effectively uses its human, physical, technology, and financial resources to achieve its mission and to improve academic quality and institutional effectiveness".

The standards for technology are defined in Standard III C. This standard has five parts that address services, facilities, hardware and software; technology infrastructure; safety, reliability and security; technology staffing; and policies and procedures. The details of the standards are:

C. Technology Resources

1. Technology services, professional support, facilities, hardware, and software are appropriate and adequate to support the institution's management and operational functions, academic programs, teaching and learning, and support services.

2. The institution continuously plans for, updates and replaces technology to ensure its technological infrastructure, quality and capacity are adequate to support its mission, operations, programs, and services.

3. The institution assures that technology resources at all locations where it offers courses, programs, and services are implemented and maintained to assure reliable access, safety, and security.

4. The institution provides appropriate instruction and support for faculty, staff, students, and administrators, in the effective use of technology and technology systems related to its programs, services, and institutional operations.

5. The institution has policies and procedures that guide the appropriate use of technology in the teaching and learning processes.

CITC SWOT Analysis

During the development of the 2017-2022 Technology Master Plan, 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**	**Leverages** - Third party applications filling processing gap - Infrastructure being brought up to date - New staff members in TeCS - Chancellor's Office providing products	**Constraints** - Funding availability may not remain consistent - Need to increase staff and faculty training for new products - Need to increase security for end users - Expanding social media
	Threats	**Vulnerabilities** - Upgrades the Ellucian platform to new Banner version - More reporting requirements -	**Problems** - Maintaining a secure environment - Staff salary – matching industry standard for future staffing -

2017-2022 Technology Goals

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

Technology Area	Goals
I. Administrative Information Systems	A. Upgrade to Banner 9 B. Expand reporting environment C. Implement third party software applications that compliment Banner environment
II. Educational Technology	A. Expand online options for student access B. Implement new instructional support applications
III. Network, Infrastructure and Telecommunications	A. Increase security B. Continue upgrades to infrastructure
IV. Operations and Support Service	A. Increased training options and opportunities
V. Web Environment	A. Upgrade college web page B. Expand use of social media

Implementation Objectives 2019 - 2020

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

1. Administrative Information Systems (AIP 8.2)

Goal 1A: Upgrade to Banner 9

> Strategies and Objectives
> 1. Implement Banner 9 self-service

Goal 1B: Expand reporting environment.

> Strategies and Objectives
> 1. Develop reports and systems to maximize allocations under the new funding formula
> 2. Expand the use of PowerBI for analytics

Goal 1C: Implement third party software applications that compliment Banner environment

> Strategies and Objectives
> 1. Continue implementation of InfoSilem for Course Scheduling **(AIP 8.3)**
> 2. Continue implementation of the CornerStone Learning Management System
> 3. Complete the development of an online application for the Nursing program

2. Educational Technology (AIP 8.3)

Goal 2A: Expand online options for student access

> Strategies and Objectives
> 1. Complete implementation of the Ready Education Mobile App

Goal 2B. Implement new instructional support applications

> Strategies and Objectives
> 1. Explore a Case Management system for students (such as Starfish)
> 2. Explore technologies for classroom teleconferencing **(AIP 8.1)**

Implementation Objectives 2019 – 2020

3. Network, Infrastructure and Telecommunications (AIP 8.2)

Goal 3A: Increase security

> Strategies and Objectives
> 1. Pilot two-factor authentication for administrative systems
> 2. Complete an in-depth security assessment (coordinated with the CCC Chancellor's Office)
> 3. Complete the implementation of the PacketFence Network Access Control system

Goal 3B: Continue upgrades to infrastructure

> Strategies and Objectives
> 1. Continue replacement of classroom projectors (as funding permits)
> 2. Continue desktop computer replacement (as funding permits)
> 3. Explore a Containerized Data Center solution

4. Operations and Support Services (AIP 8.2)

Goal 4A: Increased training options and opportunities

> Strategies and Objectives
> 1. Provide training for new functionality in Banner 9
> 2. Provide training for Ready Education Mobile App communication
> 3. Provide training for InfoSilem Course Scheduling

5. Web Environment (AIP 8.2)

Goal 5A: Upgrade college web page

> Strategies and Objectives
> 1. Explore website conversion from Sharepoint to another platform
> 2. Implement pages to support Guided Pathways **(AIP 8.3)**

Goal 5B: Expand use of social media

> Strategies and Objectives
> 1. Leverage communications options in the Ready Education Mobile App

2017-2018 Technology Planning Accomplishments

Note: Technology and Computer Services submitted an Annual Program Review for 2017 on March 31, 2018; a Comprehensive Program Review for 2012 – 2017 on August 15, 2018, and submitted an Annual Program Review for 2018 on December 14, 2018. Updates and accomplishments for 2018-19 were included in these documents.

1. Administrative Information Systems

Goal 1A: Upgrade to Banner 9 – Admin Pages in Production; Self Service in Progress
1.   Develop Implementation Plan for conversion to Banner 9 Done
2.   Begin Banner 9 implementation plan Done
Goal 1B: Expand reporting environment.
1.   Expand use of Argos Reporting Done
2.   Expand reporting for Degree Works Done
Goal 1C: Implement third party software applications that compliment Banner environment
1.   Continue implementation of Maxient for student discipline Done
2.   Continue implementation of Org Sync for student activities Done
3.   Begin implementation of Parchment Replaced with eTranscript CA

2. Educational Technology

Goal 2A: Expand online options for student access
1.   Continue implementation of new portal Done – Portal Live Fall 2017
2.   Continue implementation of Dublabs Done – Mobile App Live Summer 2017
Goal 2B. Implement new instructional support applications
1.   Continue implementation of Courseleaf for both catalog and curriculum Done – CourseLeaf Live Summer 2017
2.   Continue implementation of Canvas Done – Canvas Live Summer 2017
3.   Begin implementation of Taskstream Done – TaskStream Live Fall 2017
4.   Upgrade all classroom podium systems (150 systems) Done – November 2017

3. Network, Infrastructure and Telecommunications

Goal 3A: Increase security
1.   Update firewall security to allow use of cloud file sharing tools Done – May 2017
         Goal 3B: Continue upgrades to infrastructure

1.   Optimize wireless deployment Outdoor Wireless – Aug 2018; Guest Access in progress
2.   Deploy Windows 10 Done – 61% of desktops now on Windows 10

4. Operations and Support Services

Goal 4A: Increased training options and opportunities
1.   Ensure training is in place for all new applications Done – Argos; Portal; Banner 9

5. Web Environment

Goal 5A: Upgrade college web page
1.   Review and update current web page structure Done – New Website Live Feb 2018
Goal 5B: Expand use of social media
1.   Expand use of SARS texting Done. Enhanced with text messaging from Rave (Fin Aid)
2.   Expand use of Facebook and other options for student communication Done

Appendix A – SWOT Analysis

Appendix A - SWOT Analysis Details

A S.W.O.T Analysis (Strength-Weakness-Opportunity-Threat) identifies and analyzes the strengths, weaknesses, opportunities and threats an organization faces in the near and short/long term depending upon organizational goals and objectives

Step 1 – Look at internal factors, strengths and weaknesses of an organization
- Strengths **-** Positive tangible and intangible attributes, internal to an organization that are within the organization's controls

- Weaknesses - Factors that are within an organization's control that detract from its ability to attain the desired goal and which the organization can improve

Step 2 – Look at external factors, opportunities and threats that exist in the external environment
- Opportunities **-** External attractive factors that represent the reason for an organization to develop and that will propel the organization. Opportunities are potential future strengths.

- Threats - External factors, beyond an organization's control, that could place the organization mission or operation at risk; items are often classify them by their "seriousness" and "probability of occurrence". Threats are potential future weaknesses.

Step 3 – Review your SWOT matrix with a view to creating an action plan to address each of the four areas. Pair and internal with an external factor to define areas for action
- Leverages (Strengths + Opportunities) "Positional advantage; power to act effectively" when internal strengths combine with external opportunities

- Vulnerability (Strengths + Threats) "Susceptible to injury or penalties; insufficiently defended; liable to succumb to temptation" when external threats combine with internal strengths

- Constraints (Weakness + Opportunities) "The state, quality or sense of being restricted to a given course of action or inaction" when external opportunities combine with internal weaknesses

- Problems (Weakness + Threats) "A question or situation that presents uncertainty, perplexity, or difficulty" when external threats combine with internal weaknesses

Appendix A – SWOT Analysis

SWOT Analysis Input

- Strengths
  - New Staff: 3 programmers (2 are SSSP funded), 3 Tech Support staff (2 are SSSP funded) and 1 part-time tech support
  - Technology Education for Students
  - Campus Emergency System in place (3 tier)
  - Wireless expansion in process
  - Cell phone coverage in buildings
  - Products that are filling in gaps
  - Infrastructure brought up to date
- Weaknesses
  - Availability of equipment and funding
  - Expand technology education (faculty, staff, student)
  - Demand for technology projects
  - Products that need interface with Banner
  - End User Security
  - Wireless access for printing
  - Print Management
  - Turnover of staff (CISO, supervisor, staff)
  - Disk space
  - Office space issue
  - Off-site backup system
- Opportunities
  - Chancellor's office system wide projects
  - Ellucian expanding products
  - Canvas to replace BlackBoard
  - Social Media
  - Cloud
  - eBooks, Hero
  - OER
  - Professional support groups
- Threats
  - Maintain Security (Virus, DropBox)
  - Ellucian products
  - Demand for Reporting
  - Social Media
  - New technologies (devices, software)
  - Changing technology landscape
  - Salary (match the industry)

Appendix B – Planning Schedules Integration

Appendix B – Planning Schedules Integration

	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2021-2022	2022-2023
Accreditation							
Annual Reports		Annual Report	Annual Report	Annual Report	Annual Report		Annual Report
Accreditation 2015	Report- Summer 2015 Visit - Fall 2015						
Accreditation 2022				Writing Report	Writing Report	Report- Summer 2012 Visit - Fall 2022	
Strategic Plan							
2011-2016	Year 5 - AIP						
2017-2022	Write New Plan	Year 1 - AIP	Year 2 - AIP	Year 3 - AIP	Year 4 - AIP	Year 5 - AIP	
2023-2028						Write New Plan	Year 1 - AIP
Educational & Facilities Master Plan 2011-2020 2021-2030	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10 Write new plan	Year 1
Technology Plan							
2013-2017	Year 3 - Annual Update	Year 4 - Annual Update					
2018-2023		Write New Plan	Year 1 - New Plan	Year 2 - Annual Update	Year 3 - Annual Update	Year 4 - Annual Update	Year 5 - Annual Update

Appendix C – Integration Planning Flow Chart

INTEGRATED PLANNING MODEL

An ongoing and systematic cycle of evaluation that ensures the improvement of institutional effectiveness

Mission, Vision, Values
Serve as the basis for all college planning

Citrus College

Strategic Plan
Guides the direction of the college's energies and resources

Board Goals
Identify the Board's role in accomplishing institutional goals and strategic objectives

Educational and Facilities Master Plan
Charts the college's long-term course toward accomplishing its mission, vision, and values

Institutional Support Plans
Developed to support the goal and strategies from the strategic plan not addressed in the Educational and Facilities Master Plan

Enrollment Management Plan
Ensures student enrollment produces sufficient resources and course offerings meet student needs, leading to completion

Human Resources Plan
Meets the strategic objectives aligned with Human Resources

Technology Plan
Guides the implementation of technology at the college

Instructional Program Review
Vehicle for ongoing integration of the needs and recommendations for the college's instructional programs

Annual Implementation Plan/ Progress Report
Establishes the timeline for achieving the institutional goal; reports the progress of the activities in the annual plan

Sustainability Plan
Actualizes the strategic objectives regarding sustainability

Academic Support Program Review
Vehicle for ongoing integration of the needs and recommendations for the college's academic support programs

Resource Allocation
Links program reviews and strategic planning to resources needed to accomplish the institutional goal

Institutional Support Program Review
Vehicle for ongoing integration of the needs and recommendations for the college's institutional support programs

Plan Implementation
Manages timelines, assesses levels of success, and reports activities and results

Student Services Program Review
Vehicle for ongoing integration of the needs and recommendations for the college's student services programs

Assessment
A systematic process to document progress, review planning components and make modifications

Program Improvement
Uses assessment findings to make necessary changes which prompt the next cycle

Reviewed and Reapproved by IEC on May 21, 2018