



Citrus Community College District Information Technology Master Plan 2021-2026

Year 2 – 2022-2023

Initial Plan Approved by the College Information Technology Committee (CITC) 09/10/21

2022-23 Update approved by CITC 06/13/22

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Technology Planning Overview

As stated in the college mission statement, "Citrus College provides students with quality educational experiences and support services that lead to the successful completion of degrees, transfer, certificates, career/technical education and basic skills proficiency." Technology plays a key role in enabling this mission in every part of the organization.

Accessible, effective and innovative technology is critical in the application, financial aid, educational planning, registration, learning and academic support activities throughout the student's academic career at the college. Faculty and staff rely on an available and reliable technology infrastructure to teach their courses, conduct meetings, communicate effectively, and conduct administrative activities.

Citrus College integrates technology planning into the overall planning process as described in the Integrated Planning Manual. 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 responds to the Educational and Facilities Master Plan, 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 incorporates industry research from EDUCAUSE and other trusted sources 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 district policy and planning efforts pertaining to instructional and institutional information technology at Citrus College. The committee oversees and responds to accreditation recommendations related to technology policies and planning in Standard III C. The committee also acts as a communication conduit for technology related issues and a focal point for input from district constituencies on computer and technology related issues.

The CITC will:

- Advise the Steering Committee on policy and planning matters pertaining to computer and technology use.
- Develop, review, and update the district computer and technology board policies and related administrative procedures.
- Communicate policy, procedures, and plans to college constituents to keep them informed of technology matters on campus.

Composition of Committee

Membership on the committee will be made with a commitment to diversity, equity, and inclusion.

Chief Information Services Officer (Chair)

Enterprise Systems Supervisor (Alternate Chair)

Technology Operations and Support Services Supervisor (Alternate Chair)

Dean of Counseling Programs and Services

Dean of Career, Technical and Continuing Education

Dean of Social and Behavioral Sciences, Online Education

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 Master Plan
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 Educational and Facilities Master Plan, 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. Industry research from EDUCAUSE and other trusted sources also inform the planning process.

[Citrus College Educational and Facilities Master Plan 2020 – 2030¹](#)

The Citrus College Educational and Facilities Master Plan (EFMP) supports the college’s mission, vision and values, and serves as a long-range roadmap for the future. Developed in concert with the college’s strategic plan, the 2020-2030 EFMP guides the long-term educational, student support services, technology and facilities needs of the college.

Recommendations from the EFMP pertaining to technology include the following items:

[Broaden instructional modalities to reach beyond traditional district boundaries](#)

To further extend its reach beyond jurisdictional boundaries, Citrus College can leverage digital technologies by offering more distance/online education classes and hybrid classrooms which can enable students in remote locations to interact in real time with faculty and their on-campus classmates.

[Enhance technological infrastructure to support educational technology needs](#)

To support a technology-based learning environment across the campus, the underlying information technology (IT) infrastructure needs to undergo periodic assessments and be modernized as needed to keep pace with the expectations and needs of both students and faculty.

[Provide interactive teaching and learning spaces](#)

The advent of information technology is reshaping the nature of the traditional classroom transforming it into a teaching and learning space designed to utilize new capabilities and functions, including more collaborative, team-teaching oriented learning modalities. New classrooms need to be designed to support these new capabilities and styles of learning.

[Build technology-enhanced classrooms enabling students to attend a class either in-person or online](#)

New classroom capabilities should include real time or synchronous interaction among and between students in the actual classroom and other students participating in the class from

¹ <https://www.citruscollege.edu/info/reports/Documents/CitrusEdandFacilitiesMP2020-2030.pdf>

their homes and other remote locations. This will support overall student enrollment while greatly improving overall facility utilization as there can potentially be more students in the virtual classroom than in the physical classroom.

Citrus College Strategic Plan

The 2021 – 2026 Citrus College Strategic Plan continues with a single overarching 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 anticipate and address technological needs that foster 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 two strategies:

Strategy 8.1: Improve student success through the effective use of technology in teaching and learning

Strategy 8.2: Provide a robust, secure, accessible technology infrastructure to streamline and improve college processes and provide data resources relevant to institutional decision-making.

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 Standards²

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.

² <https://accjc.org/eligibility-requirements-standards-policies/>

EDUCAUSE Top Ten Issues and Emerging Trends

EDUCAUSE is a nonprofit association whose mission is to advance higher education through the use of information technology. This premier association is comprised of over 100,000 individual members from over 2,000 member organizations and is the largest community of technology leaders in higher education.

Each year the organization publishes a list of 'Top Ten Issues,' informed by a nation-wide survey and the expert opinions of senior professionals on the EDUCAUSE issues committee. Following are the top 10 issues of most concern to community colleges in 2020³:

Information security strategy: Developing a risk-based security strategy that effectively detects, responds to, and prevents security threats and challenges

Privacy: Safeguarding institutional constituents' privacy rights and maintaining accountability for protecting all types of restricted data

Student retention and completion: Developing the capabilities and systems to incorporate artificial intelligence into student services to provide personalized, timely support

Digital integrations: Ensuring system interoperability, scalability, and extensibility, as well as data integrity, security, standards, and governance, across multiple applications and platforms

Disaster recovery and business continuity: Developing options for the continued delivery of core institutional services in light of the growing risks of operational disruptions

Holistic student success: Applying technology and data, including artificial intelligence, to understand and address the numerous contributors to student success, from finances to health and wellness to academic performance and degree planning

Improved enrollment: Using technology, data, and analytics to develop an inclusive and financially sustainable enrollment strategy to serve more and new learners by personalizing recruitment, enrollment, and learning experiences

Student-centric higher education: Creating a student-services ecosystem to support the entire student life cycle, from prospecting to enrollment, learning, job placement, alumni engagement, and continuing education

Sustainable funding: Developing funding models that can maintain quality and accommodate both new needs and the growing use of IT services in an era of increasing budget constraints

³ <https://www.educause.edu/research-and-publications/research/top-10-it-issues-technologies-and-trends/2020>

Higher education affordability: Aligning IT organizations, priorities, and resources with institutional priorities and resources to achieve a sustainable future

For the 2021 'Top Ten Issues' list⁴, EDUCAUSE departed from the format of prior years. In response to the COVID-19 pandemic, three Top IT Issues lists were developed, with 5 issues within each scenario as follows:

Restore: Focused on a return to pre-pandemic conditions

- Cost Management: Reducing institutional costs and increasing workforce efficiency
- Online Learning: Strengthening online and hybrid education
- Financial Health: Revising budget models and IT governance
- Affordability and Digital Equity: Providing increased support for students' technology needs and enabling technology availability
- Information Security: Providing information security leadership

Evolve: Focused on adapting to the new normal

- Student Success: Advancing student support services to help students attain academic and career goals
- Equitable Access to Education: Providing technologies, support and policies for diverse users
- Online Learning: Progressing from emergency remote teaching to online learning
- Information Security: Developing a cybersecurity operations strategy
- Financial Health: Partnering to develop new funding sources

Transform: Focused on redefining the institution

- Institutional Culture: Contributing to a culture of transformation
- Technology Alignment: Identifying and applying sustainable digital strategies and innovations
- Technology Strategy: Developing an enterprise architecture that keeps pace with strategic change
- Enrollment and Recruitment: Exploring and implementing creating, holistic recruitment solutions
- Cost Management: Focusing on digital transformation

The 'Evolve' scenario appears to be most closely aligned with the objectives articulated in the EFMP and Strategic Plan at Citrus College.

⁴ <https://www.educause.edu/research-and-publications/research/top-10-it-issues-technologies-and-trends/2021>

2021 – 2026 Technology Goals

In response to the objectives identified in the EFMP, the strategic plan, accreditation standards, and industry consensus, long-term goals for technology at Citrus College for the next five years are categorized and listed below. These broad goals will provide a common basis for annual technology planning.

1. Administrative Information Systems

- A. Implement third party software applications that complement the Banner ERP environment
- B. Prepare for the expiration of the current Ellucian contract in 2024
- C. Plan for replacement of key personnel to ensure continuity
- D. Foster and support a remote and flexible work environment

2. Educational Technology

- A. Foster and support an online, remote, and hybrid learning environment
- B. Upgrade and install modern classroom technology in current and future classrooms
- C. Improve technologies for educational planning and guided pathways implementation
- D. Implement new instructional support applications

3. Technology Operations and Support Services

- A. Identify training needs and provide opportunity for training in technology
- B. Implement and leverage a modular data center to provide a robust technology infrastructure
- C. Upgrade network infrastructure to support current technology needs

4. Security, Resiliency and Accessibility

- A. Implement and optimize systems to ensure the security of our information technology
- B. Upgrade hardware and software on a regular basis to ensure currency and mitigate threats
- C. Monitor threats, test failover and ensure our ability to recover from incidents
- D. Foster accessibility in our information technology through awareness and training

Implementation Objectives 2022 – 2023

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

1. Administrative Information Systems

Goal 1A: Implement third party software applications that complement the Banner ERP environment

1. Ensure a successful implementation of Nelnet for payment processing
2. Complete the implementation of Zendesk
3. Complete a successful migration to the new BEST system for Fiscal Services and Human Resources
4. Implement the CCCApply Noncredit application
5. Ensure a successful implementation of BoardDocs for the Board of Trustees
6. Expand automated processing for Financial Aid to support increased student disbursements

Goal 1B: Prepare for the expiration of the current Ellucian contract in 2024

1. Facilitate meetings with Ellucian and college leadership to discuss the future ERP environment post 2024.

Goal 1 C: Plan for replacement of key personnel to ensure continuity

1. Hire a new Programmer Analyst to fill the current vacancy

Goal 1D: Foster and support a remote and flexible work environment

2. Educational Technology

Goal 2A: Foster and support an online, remote, and hybrid learning environment

1. Zoom link for real-time help desk support

Goal 2B: Upgrade and install modern classroom technology in current and future classrooms

1. Complete the upgrades of technology in LB and LH
2. Facilitate the installation of classroom technology in the ED building

Goal 2C: Improve technologies for educational planning and guided pathways implementation

1. Upgrade to the current version of DegreeWorks

Goal 2D: Implement new instructional support applications

1. Complete the implementation of CVC integration and Course Exchange via the Ethos API platform in support of the CVC-OEI project.

3. Technology Operations and Support Services

Goal 3A: Identify training needs and provide opportunity for training in technology

1. Encourage all staff to complete online Cyber Security Awareness Training
2. Provide training on Windows 11

Goal 3B: Implement and leverage a modular data center to provide a robust technology infrastructure

1. Complete the installation of the modular data center

Goal 3C: Upgrade network infrastructure to support current technology needs

1. Assess and advocate for upgraded switches in each building
2. Improve Wi-Fi reception in PA, VT, RA

4. Security, Resiliency and Accessibility

Goal 4A: Implement and optimize systems to ensure the security of our information technology

- 1.

Goal 4B: Upgrade hardware and software on a regular basis to ensure currency and mitigate threats

1. Maintain a hardware and software inventory to identify and minimize vulnerable systems
2. Conduct monthly software upgrades
3. Plan for and begin a rollout of the Windows 11 Operating System

Goal 4C: Monitor threats, test failover and ensure our ability to recover from incidents

1. Implement Splunk to improve our ability to detect threats

Goal 4D: Foster accessibility in our information technology through awareness and training

1. Encourage all staff to complete online Accessible Technology training

2021 – 2022 Technology Planning Accomplishments

1. Administrative Information Systems

Goal 1A: Implement third party software applications that complement the Banner ERP environment

1. Ensure a successful implementation of Accessible Information Management (AIM) for DSP&S – **In Progress; expected completion Summer 2022**
2. Implement a new system for tracking service requests – **Phase 1 of ZenDesk Completed**
3. Develop electronic processes to ensure the successful migration to the new BEST system for Fiscal Services – **In Progress; expected completion Summer 2022**

Goal 1B: Prepare for the expiration of the current Ellucian contract in 2024

1. The CISO will monitor developments in the system-wide ERP project in discussion at the Systemwide Architecture Committee (SAC) and the Telecommunications and Technology Advisory Committee (TTAC) and update the CITC. – **Completed**

Goal 1 C: Plan for replacement of key personnel to ensure continuity

1. Hire and train a new Enterprise Systems Supervisor to replace retiring staff member - **Completed**
2. Hire a new Programmer Analyst to fill the current vacancy – **incomplete; another recruitment attempt will occur in 2022-23.**

Goal 1D: Foster and support a remote and flexible work environment

1. Ensure the successful installation of new hardware for the VMware remote desktop environment - **Completed**

2. Educational Technology

Goal 2A: Foster and support an online, remote, and hybrid learning environment

1. Ensure the installation of Meeting Owl cameras in every classroom - **Completed**

Goal 2B: Upgrade and install modern classroom technology in current and future classrooms

1. Proceed with the acquisition and installation of new switching technology in classrooms where the equipment is failing – **In Progress, expected completion of phase 1 Summer 2022**

Goal 2C: Improve technologies for educational planning and guided pathways implementation

1. Provide technical assistance in the development of program maps through CourseLeaf - **Completed**
2. Provide technical assistance in the development of a student-centered checklist - **Completed**

Goal 2D: Implement new instructional support applications

1. Provide technical assistance for the college's participation in the CVC-OEI consortium – **In Progress**

3. Technology Operations and Support Services

Goal 3A: Identify training needs and provide opportunity for training in technology

1. Implement a process to encourage all staff to complete online Cyber Security Awareness Training - **Ongoing**

Goal 3B: Implement and leverage a modular data center to provide a robust technology infrastructure

1. Complete the installation of the modular data center – **Delayed; expected completion December 2022**

Goal 3C: Upgrade network infrastructure to support current technology needs

1. Complete the installation of wireless access points to extend wireless coverage to the parking lots – **Delayed due to supply chain issues; expected completion Fall 2022**

4. Security, Resiliency and Accessibility

Goal 4A: Implement and optimize systems to ensure the security of our information technology

2. Implement Multi-Factor Authentication technology for Administrative Systems - **Completed**

Goal 4B: Upgrade hardware and software on a regular basis to ensure currency and mitigate threats

4. Maintain a hardware and software inventory to identify and minimize vulnerable systems - **Incomplete**
5. Conduct monthly software upgrades – **Completed/Ongoing**

Goal 4C: Monitor threats, test failover and ensure our ability to recover from incidents

2. Implement Splunk to improve our ability to detect threats - **Incomplete**
3. Conduct a security audit using an external agency - **Complete**

Goal 4D: Foster accessibility in our information technology through awareness and training

2. Encourage all staff to complete online Accessible Technology training - **Ongoing**