SKYLINE COLLEGE TECHNOLOGY PLAN

2024-2029

Technology Advisory Committee

Skyline College

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Introduction

The Skyline College Technology Plan communicates how technology is acquired, replaced, upgraded, maintained, made available, accessible, and infused into the college to support the productivity of employees and the educational environment for teaching and learning. The plan is updated every five years based on projects, initiatives, research, survey analysis, and alignment with college and district strategic plans by the Technology Advisory Committee (TAC) who keep abreast of emerging technologies and the technology needs of the varied Skyline College constituents. The technology plan is intended to be adaptive, flexible, and sustainable and provides a foundation for addressing technology prioritization and key issues in the deployment of technology for instructional, student services, and administrative functions in collaboration with college constituents.

The Skyline College Technology Plan should be used as a reference point and evidence of alignment with the college's education master plan and fulfillment of ACCJC standards for technology as it relates to decision-making on technology matters. The plan represents the vision and planning of technology integration at Skyline while providing the context and framework for meeting the ACCJC accreditation standard for technology and the college's Education Master Plan Strategic Goal #3 through the following outcomes:

- Accreditation - After reviewing the college's technology plan, an accreditation review team will be able evaluate constituents' equitable access to technology and technology training (Reference ACCJC Standard 3 Infrastructure and Resources).
- Educational Master Plan - After reviewing the college's technology plan, college constituents will be able to describe, analyze, and assess how human and fiscal resources are allocated to meet the technology needs of the college (Goal 3).

Technology Vision Supports Skyline's Mission

To empower and transform a global community of learners, Skyline College's vision for the integration of technology is to enrich the employee and teaching and learning environments while facilitating easy access to educational, productivity and student support resources.

We do this by:

1. Making technology accessible,
2. Ensuring technology works as expected,
3. Purchasing, upgrading, and replacing hardware and peripherals to support the teaching and learning infrastructure,
4. Subscribing to software that safeguards user privacy and is accessible to all users, even if mitigating parameters are employed.
5. Evaluating cost of ownership - i.e. Cost, sustainability, accessibility, privacy protection, and security equally influence planning and implementation.
6. Ensuring accreditation standards and the college's Educational Master Plan drive technology decisions
7. Allowing for innovation in teaching, learning, assessment, and support services
8. Promoting technologies that support student access, equity, and success.
9. Being responsive to changing technology needs

Governance

The Skyline College Technology Advisory Committee is the shared governance committee that engages in discussions and makes recommendations regarding all college technology matters based on total operating costs, alignment with educational master plan and accreditation standards. The Technology Advisory Committee advises and makes recommendations to the College Governance Council that ensure an accessible, secure, and reliable infrastructure. Technology needs and resources are assessed through the lens of the Education master plan, program reviews, the technology replacement practices, technology surveys, college-wide communication, institutional effectiveness, operational systems, equity, student access, and student success. The committee meets monthly throughout the fall and spring semesters and shares information with various constituency groups through membership representatives and requested reports or presentations.

Membership

The Technology Advisory Committee includes faculty representatives from instructional divisions, Distance Education Coordinator, Classified Professionals, Educational Assistance Center personnel, Media Services, administrators, associated students, and ITS. The committee is led by tri-chairs made up of the following:

- Dean of Academic Support and Learning Technologies (administrator)
- Distance Education Coordinator (faculty)

General membership consists of representatives from Associated Students of Skyline College (ASSC), Academic Senate, Classified Senate, Management Council, and ITS. The intent is to include representation from instruction and student services, as well as the direct voices of students.

Membership Responsibilities:

- Write, review, and update the technology plan every five years.
- Reinforce district security, privacy, and accessibility guidelines for technology hardware and software subscription purchases.
- Recommend, monitor, track, and assess procedures for obtaining media services and purchasing technology.
- Make allocation recommendations for the prioritization of significant college-wide technology projects.
- Design, distribute, collect, analyze, and publish the results of technology surveys as needed.

Process of Participatory Governance

The Skyline Technology Plan and committee make up, and all plan updates are approved through the various governance groups of the college. This includes the Academic Senate, Classified Senate, Management Council, Associated Students of Skyline College, and the President's Cabinet.

Technology Plan Conceptual Framework

Skyline College is committed to managing technology resources in accordance with accreditation requirements and the Master Education Plan. This plan utilizes a five-area framework from ACCJC's Standard III.C Review Criteria to ensure the technology needs of students, faculty, staff, and administrators are met adequately. The five areas of the framework are as follows:

1. *Supporting the institution's operations, academics, teaching and learning, and support services.*

The use of technology by faculty and staff is critical to realizing the vision of Skyline College. Technology resources are collaboratively managed through the district's Information Technology Services (ITS) Department and the college's Academic Support and Learning Technologies (ASLT) Division with consultation from the various participatory governance groups on campus. The district ITS Department supports the college in managing technologies for the following services: Administrative Systems • Network Services & Infrastructure • Peninsula Library System • Construction Support Services • Instructional Technology and Web Services • Computers and Media, Service and Support • Technology Training • Disaster Recovery Site • Video Surveillance Systems • Emergency Contact Systems • Building Management Systems • Telephone & Voicemail.

The college's operation is undergirded by its student information system, Banner, a suite of productivity tools, Microsoft Office 365, Zoom, Class Search, WebSmart, and other software. Academics is supported by Accudemia, OneSearch, and other academic software. Teaching and learning is supported by Canvas, Panopto, Ease Learning (Canvas Tech Support) and other educational technologies. Student services is supported by Salesforce (CRM), Degree Works, MyMajors, and other subscription software. For a complete list of software that supports our technology infrastructure, reference the ITS website.

Full-time employees are provided with standard district issued technology, itemized on the "Device Request Form" linked on the college's Media Services website menu. ITS

recommended peripherals are optional items that can be purchased by the division or department office of the employee. Part-time employees will have access to similar technologies in offices conveniently located around campus. Skyline Classrooms are outfitted with standard technologies for teaching and learning. They include projectors, screens, A/V with HDMI cables and a control panel. skylinecollege.edu

College Website

The college website skylinecollege.edu and its subdomains are overseen by Marketing, Communications and Public Relations (MCPR) and updated by employees all across campus. While the website's general architecture, user experience, style, and functionality are managed by MCPR, updating the informational content is a collaborative effort of MCPR with our various departments and campus groups. Departments should review their websites at least once per semester to ensure that all information provided is accurate, useful, and up-to-date for our students, employees, and community. Employees can request edit access to the Modern Campus content management system in order to make changes to their department's or group's web content. Alternatively, employees can review their webpages, assemble a list of updates, and request MCPR to make these changes on their behalf.

Subdomains that require different access methods include:

- events.skylinecollege.edu | Add your events yourself through the submission form
- skylineshines.skylinecollege.edu | Contact MCPR to submit an article
- catalog.skylinecollege.edu | Updated annually in April-July. Contact MCPR for any urgent edits.
- jobs.skylinecollege.edu | Submit a campus job posting through our submission forms.

Accessibility

Skyline College strives to create an inclusive environment for all individuals. In the last few years, the College has been proactively moving towards a universal approach to accessibility on campus through the following actions:

- Include Client side of networked Assistive Technology Software on images for computers used by students (e.g. campus computer labs, Library, and the Learning Center), on computers in other locations (e.g. JAWS, ZoomText Magnifier) and Kurzweil 3000 (a web-based license that is accessed through the Kurzweil 3000 cloud-based server using a username and password given to faculty/staff and students).
- Continue to increase accessibility through EAC services for students as well as through accessibility trainings offered by the CTTL in collaboration with the EAC.
- Continue to explore software options that improve or workaround the accessibility issues of electronic materials in publisher-based course management systems (for example, Course Compass and MyMathLab).
- Allow instructors to make appropriate extended time adjustments to exams and quizzes for students with approved extended time accommodations in the Canvas LMS.
- Implementation of State-purchased accessibility tools such as PopeTech

2. *Planning, updating, replacing technology infrastructure to support the college mission.*

The district ITS department supports the college's technology infrastructure in several ways. Per the ITS Strategic Plan, an ITS technician is housed on the college campus to assist with technology purchases, provide regular software updates, maintain an inventory database of technology that has been installed, and install new equipment. A centralized Help Center enables ITS to provide and track requests for assistance from faculty and staff.

Technology replacement planning for the college is supported by the district's ITS office in collaboration with the Vice President of Administrative Services. According to the ITS Strategic Plan, ITS provides equipment replacement strategy recommendations based on college funding and inventory. Computer labs are upgraded or replaced based on academic needs in consultation with deans and faculty (p13).

Schedule Replacement Criteria

a. Faculty or staff unable to efficiently perform tasks because of an outdated computer.
b. Computer is 4 or more years old and no longer meets the minimum ITS specifications.
c. Computer has a history of “more-than-usual” number of work orders.

3. *Ensuring reliable access, safety, and security throughout the college ecosystem.*

The district ITS department ensures reliable access, safety, and security for the college’s technology infrastructure. The following relevant sections are direct quotes from the ITS strategic plan (p1, 4 and 15).

The district its department ensures optimum bandwidth for file shares, banner® access, backup services. In case of primarily service outages, the districtwide interconnection is also designed to route traffic via alternate campus, to regain internet and intranet network and phone services instantly. The college campus connects to CENIC’s high-speed research and education network through primary and back up routes. The college has many wireless access points, some are located within classrooms and others are in open areas. ITS is regularly assessing campus needs and adding access points as necessary.

Network security is provided using a variety of tools and techniques. The current firewall, which the industry refers to as the next generation of firewall switches, offers various functions, including enhanced perimeter protection from denial of service (DoS), virus, and malware attacks.

The college has access to three primary VLANS in use within the district: administrative, instructional, and public. The administrative VLAN provides district employees who have appropriate authentication credentials access to banner and other electronic resources and services within the district. The instructional VLAN is for

labs and classrooms where students use college-owned equipment to access instructional resources that are local or on the internet. The public VLAN allows campus guests and students with personal network devices internet access, but they are prevented from gaining access to the other district VLAN resources.

Single Sign-On (SSO)

OneIdentity's Product "OneLogin" provides SSO user authentication to most district software including Banner 9, Canvas, Zoom, O365, Rave, Formstack, Adobe Creative Cloud, Modern Campus, ExLibris, Dropbox, and more.

ITS Data Center

To maintain the reliability of services that are hosted by ITS at the District Office, the facilities department has installed and maintains an emergency generator to provide backup electrical power to the building for as long as necessary during a power outage. For fire protection, a VESDA (Very Early Smoke Detection Apparatus) system is installed in the Computer Center. In the event of a fire or overheating of equipment, the VESDA systematically shuts down the equipment in the Computer Center and sets off the appropriate warnings. ITS conducts backups for all administrative data stored on its servers daily. Also, ITS has in place a comprehensive backup strategy to ensure that all server-based data is recoverable. This data is written to high-density tapes and disk-based systems for quick recovery. These backups are stored in an off-site location every week. ITS facilities around the District host the District's security system, ACAMS. ITS supports the network services that are required to operate this system.

Disaster Recovery Center

ITS conducts backups for all administrative data stored on its servers daily. Also, ITS has in place a comprehensive backup strategy to ensure that all server-based data is recoverable. This data is written to high density tapes that are stored in an off-site location every week. Most of the administrative systems servers have been migrated to the Oracle Cloud Infrastructure (OCI) where database and application data is backed up in multiple ways. Our systems are set up to use Oracle Database Zero Data Loss Autonomous Recovery Service for disaster recovery and for protection from ransomware attacks. The database or any application can be restored at any time even if production systems are compromised. In addition to Oracle Database Zero

Data Loss Autonomous Recovery Service we also use the Oracle Database Export features to back up the database and moving it to On-PREM for additional protection. For further redundancy OCI has been configured to store SMCCD's data primarily in one physical building while backups are stored in other buildings nearby. ITS has backup systems in place for quick recovery and replication if the data center is unavailable.

Telephone and Voicemail

SMCCCD uses a Mitel Unified Communications system to address its daily phone communication and voicemail needs. The system is deployed at SMCCCD's District Office, three college campuses, and three satellite offices. It uses VoIP protocol, runs on the SMCCCD network, and includes 1800+ desk phones, 450+ analog devices (fax lines, courtesy, and elevator phones), and 150+ Zoom phone soft clients. The Voicemail solution is NuPoint, a Mitel product. It integrates with Microsoft Exchange for voicemail message delivery to an individual's email inbox.

Employee Email

ITS maintains a comprehensive unified messaging service for the staff of the Colleges and District Office which includes voicemail and email. The system is based on Microsoft Office 365 & Mitel unified communication. The District is also using Microsoft Office 365 and Sharepoint. There are more than 3000 email accounts currently supported by the system. To reduce and control email spam, ITS is using Microsoft A5 built-in security filters.

4. Providing technology training and support for faculty, staff, students, and administrators.

Technology Support and Help Desk

Student technology support has been provided by Ease Learning, a vendor that district ITS secured to support Canvas help requests from faculty and students. Students also have access to technology support from within Canvas through the help menu on the global navigation.

The Center for Transformative Teaching and Learning (CTTL) provides instructional design and distance education training for their peers via workshops, one-to-one consultations, and hybrid office hours. The instructional technologist supports faculty with Canvas as well as other technology issues via one-on-one consultations and workshops. The CTTL also offers an audio and video production service for faculty who wish to use multimedia to enhance their courses. Additionally, Media Services, in collaboration with the instructional technologist provides classroom technology support.

Through the Center for Transformative Teaching & Learning the college assesses technology training needs of faculty and offers a series of workshops and other events to provide technology training and support. ITS Web Services offers technology workshops during Flex Days and provides one-on-one consultations with faculty and staff on a wide range of IT topics. Locally, Media Services in collaboration with the Instructional Technologist provides one-on-one trainings on how to use classroom technology. The Center for Transformative Teaching & Learning provides video studio production, as well as trainings about video editing.

Technology for teaching and learning is the purview of the Academic Senate through the Distance Education Committee, led by the Distance Education Coordinator. The committee oversees distance education resources, training, and ensures resources are available to help online instructors meet federal, state, district, and ACCJC distance education standards and regulations. In addition, training support for employees required to use the various technologies are provided through vendor resources, ITS requested training, distance education training, and training within departments.

5. *Policies and procedures regarding technology in teaching and learning.*

District Administrative Procedure

AP4105, also referenced as 6.12.1, is the policy that governs distance education for the district. In addition, Skyline college has published the Distance Education

Handbook as a reference for faculty and staff regarding all matters related to distance education at the college.

Computer and Network Board Policy

Board Policy 2.34 provides guidelines for the appropriate use of its electronic technology by employees and students.

Distance Education Handbook

The college has an up-to-date Distance Education Handbook outlining policies and procedures for the use of technology in teaching and learning. The scope of the DE Handbook covers a range of matters including, accessibility and universal design, FERPA, Copyright, Fair Use, Learning Management System and LTI use, as well as certification and recertification requirements for faculty to teach online. The DE Handbook also features information about the approval process for courses to be offered as distance education. Attendance policies and Regular Substantive Interaction are also included in the DE Handbook.

Education Master Plan

The college has an updated Education Master Plan (EMP) which provides strategic guidance to the campus community for the next four years (2024-2028). The EMP outlines six strategic goals. This Technology Plan aligns to those strategic goals.

Fiscal Resources for Technology

According to ACCJC's Accreditation Standard 3, the college implements, enhances, and secures its technology resources to support and sustain educational services and operational functions. Skyline College addresses this standard by identifying budget priorities for technology resources, both hardware and software, in order to sustain and enhance teaching, learning and support services with the ultimate goal of supporting the attainment of equitable educational outcomes by doing the following in support of the Educational Master Plan:

- Creating an ongoing process to articulate, assess, plan and prioritize college technology needs to determine optimal funding.
- Evaluating and developing processes to secure technologies to support teaching and learning, and employee productivity with a focus on total cost of ownership.

- Collaborating with ITS and Administrative Services to purchase technologies through the following fund types (not an inclusive list):
    - **Technology Fund** - New employees are provided standard district-issued technology to support their work. Technologies desired apart from the standard district issue are funded through other sources.
    - **Department Funds** - All divisions have a budget for department expenditures under the oversight of the division dean.
    - **Grant and Categorical Funds** - The college is awarded grants for specific purposes. Technologies purchased through grant funds are overseen by the grant's project lead and are used to support grant outcomes. Should the grant and or program cease, hardware and intellectual property belong to the college.

Strategies by Constituency Group with Example Activities Aligned to ACCJC Standard #3 and Skyline College's Educational Master Plan.

The Skyline Technology Plan is intended to be a fluid document that changes with the needs of the college's constituency groups. In summary, the Skyline Technology Plan is based on the following five areas that make up the conceptual framework:

1. Supporting the institution's operations, academics, teaching and learning, and support services.
2. Planning, updating, and replacing technology infrastructure to support the college mission.
3. Ensuring reliable access, safety, and security throughout the college ecosystem.
4. Providing technology training and support for faculty, staff, students, and administrators.
5. Policies and procedures regarding technology in teaching and learning.

While the plan is specific in addressing the various technology needs throughout the campus, the specific topics are broadly addressed to accommodate technology trends and advances. In this way, the Technology Advisory Committee is able to partner with the Strategic Planning and Allocation of Resources Committee in making recommendations to the College Governance Council that address technology needs in a fiscally prudent manner. The strategies by constituency group table below is intended to provide examples of activities aligned to the ACCJC Standard #3 as well as the college's Educational Master Plan. The

examples are meant to provide clarity on the technology needs of constituent groups so that their inclusion is transparent. The examples are not exhaustive and are expected to change as the needs change.

	Strategy A	Strategy B	Strategy C	Strategy D	Strategy E
	Instruction	**Student Services**	**Student Equity**	**Employee Technology**	**Collaboration ITS**
Alignment w/ACCJC Standard 3: Infrastructure and Resources	• Multimodal Classrooms • AI, AR, VR to support learning outcomes • Canvas (LMS) with LTI integrations • FLEX Days • Technology Training • Accudemia • One Search • Distance Education training	• Salesforce (CRM) • Degree Works • MyMajors • Assistive Technology Software - PopeTech, JAWS, ZoomText	• College Website	• District issued technologies • Productivity tool subscriptions • Banner • Zoom	• Administrative Services • Network Services & Infrastructure (see list of software that supports technology infrastructure) • CENIC • Single Sign-on user authentication
Alignment w/EMP Strategic Goal 3: Ensure that all students have the support and resources needed to achieve their educational goals (p.21).	• Classroom technology - i.e. projectors, screens, A/V with HDMI cables and control panels, upgrades as needed • Student used technologies in labs and library • Productivity software for specific disciplines • Peninsula Library System • Instructional Technology and Web Services • Computers and Media, Service and Support	• Tableau student engagement proactive data Dashboards		• Telephone & Voicemail - NuPoint, a Mitel product, Microsoft Exchange • Sharepoint • WebSmart, • Zoom • Class Search	• Construction Support Services • Disaster Recovery Site • Video Surveillance Systems • Emergency Contact Systems • Building Management Systems • Network Security - ACAMS, Oracle Database Zero Data Loss Autonomous Recovery Service, Oracle Cloud Infrastructure, Microsoft A5 • VLAN • VESDA - smoke detection for computer center • ITS requested training