

2024-2027 Technology Plan Executive Summary

The El Camino College's 2024-2027 Technology Plan represents a strategic initiative to advance the institution's educational landscape, foster equity, and ensure resilience through technology. The plan encompasses a holistic approach, addressing diverse aspects of technology integration across the institution.

With a core commitment to inclusivity and accessibility, El Camino aims to create an enriched learning environment. Initiatives include increasing faculty adoption of the Canvas Learning Management System, expanding access to courses with low or zero textbook costs, and modernizing the campus portal for improved student resource access. Prioritizing the student experience, the plan focuses on providing ubiquitous wireless internet access, supporting students in obtaining affordable hardware and software, fostering collaboration between IT governance and student government, and ensuring students acquire essential IT skills. It also emphasizes expanding access to innovative technologies to enhance student engagement.

In the realm of teaching, El Camino seeks to create a technologically advanced and consistent teaching environment. This involves upgrading classroom technology, supporting diverse learning modalities, improving technologies for educational planning, and ensuring faculty are well-equipped with institutional technology support services. Acknowledging the evolving needs of the college community, El Camino emphasizes a consumer-focused model for its IT department. This includes developing comprehensive training roadmaps for IT staff, identifying ongoing training needs, piloting virtual student labs, and implementing streamlined customer support solutions for students and faculty.

In response to the imperative of cybersecurity and data resiliency, the plan advocates for building a skilled staff, implementing mature data governance practices, reducing data silos, and regularly upgrading hardware and software. It underscores the importance of establishing and enforcing policies to maximize compliance with data and cybersecurity standards. El Camino proactively addresses potential disruptions through robust plans for data recovery and business continuity. This involves risk assessments, business impact analyses, comprehensive recovery plans, effective communication strategies, staff training, and regular testing of these plans. The plan also envisions creating a sustainable and optimized IT environment. This includes regularly assessing and updating IT infrastructure, defining and updating policies to international standards, fostering a green IT management strategy, optimizing institutional processes through technology, and supporting a flexible work environment.

Finally, El Camino College aims to harness the potential of artificial intelligence (AI) for innovation and efficiency. This involves exploring AI applications, implementing AI solutions for student support and administrative processes, fostering AI education and literacy, and ensuring ethical and responsible AI use.

El Camino College's 2024-2027 Technology Plan reflects a comprehensive and forward-looking strategy to integrate technology seamlessly into its educational fabric, fostering an inclusive, dynamic, and resilient institution. Through these initiatives, El Camino positions itself to meet the evolving needs of its diverse community and prepare students for success in an ever-changing technological landscape.

2024-2027 Technology Goals

In response to the objectives in the Comprehensive Integrated Plan and its constituent sub-plans, accreditation standards, and industry research, long term goals for the next five years are listed below:

Goal 1 - Increase Equity and Access

These initiatives collectively aim to create a more inclusive and accessible learning environment, ensuring that students have better access to courses, resources, and technology tools while promoting faculty adoption of specific technologies like the Canvas LMS. This aligns with a broader commitment to equity and inclusivity in education.

- a) **Foster accessibility in information technology:** Provide awareness and training for both new and returning students to enhance accessibility.
- b) **Improve accessibility for all classes and online content:** Provide training and support to ensure that all classes and online content are accessible.
- c) **Canvas Learning Management System adoption:** Significantly increase faculty adoption of the Canvas Learning Management System (LMS).
- d) **Increase access to courses:** Expand access to courses by promoting Zero Textbook Cost, Low Textbook Cost, and Open Educational Resources (OERs) courses. Make these courses easily findable in the online schedule.
- e) **Enhance student access to campus resources:** Update and modernize the campus portal (My ECC) to improve student access to resources.

Goal 2 - Meet Students' Expectations and Improve their Outcomes

These initiatives collectively aim to enhance the overall student experience by providing access to necessary technologies, fostering collaboration, ensuring technology literacy, and staying attuned to student needs and preferences. Expanding access to innovative technologies reflects a commitment to staying current with technological advancements in education.

- a) **Provide high-quality ubiquitous wireless internet access:** Ensure that students have access to high-quality wireless internet in locations where they study and gather.
- b) **Facilitate student acquisition of hardware and software technologies:** Assist students in obtaining hardware and software technologies and services at education rates or for free.
- c) **Collaborate between IT governance process and student government:** Foster collaboration between the IT governance process and student government to identify new technologies and IT-related services that enhance the overall quality of student life.
- d) **Ensure students acquire necessary IT skills:** Guarantee that students acquire the necessary skills to use IT resources effectively for success in their scholarly pursuits. This may involve support services, course offerings, self-help resources, and technology literacy.
- e) **Improve data collection on student needs and preferences:** Enhance data collection methods to gather more accurate representations of the ECC student population's needs and preferences.

- f) **Expand innovative technology access for students:** Continue expanding access to innovative technologies such as Makerspace, Virtual Reality, Esports, and Recording Studio, providing students with opportunities to engage with cutting-edge tools and resources.

Goal 3 - Create a Premier Teaching Environment in All Modalities

These initiatives collectively aim to create a technologically advanced and consistent teaching environment across different modalities, ensuring that faculty have the tools and support they need to deliver high-quality education. This approach aligns with the evolving landscape of education that incorporates various modes of instruction and emphasizes the importance of technological advancements in teaching.

- a) **Foster and support high-quality Online, Live Online, Hybrid, Web-Enhanced and Hyflex learning environments:** Provide support and resources to enhance the quality of Online, Live Online, Hybrid, Web-Enhanced and Hyflex learning environments, ensuring a high standard of teaching across different modalities.
- b) **Upgrade and install modern classroom technology:** Invest in upgrading and installing modern classroom technology in both current and future classrooms to support effective teaching and learning.
- c) **Improve technologies for educational planning and guided pathways implementation:** Enhance technologies that support educational planning and the implementation of guided pathways, contributing to a more streamlined and effective educational experience for students.
- d) **Implement Classroom Design Standards:** Establish and implement Classroom Design Standards to ensure that all classrooms meet a consistent quality of instructional technology equipment, creating a standardized and optimal teaching environment.
- e) **Ensure faculty awareness and utilization of institutional technology support services:** Ensure that all faculty members are aware of and can easily leverage institutional technology support services, promoting a collaborative and supportive environment for faculty to enhance their teaching methods through technology.

Goal 4 - Adopt a Consumer-Focused Model for the IT Department

These initiatives collectively aim to ensure that the IT department is well-equipped with skilled and trained staff, leverages innovative solutions like virtual labs, and provides excellent customer support services for both students and faculty. This approach reflects a commitment to meeting the needs and expectations of the college community in a rapidly evolving technological landscape.

- a) **Develop training roadmaps for staff in ITS positions:** Create training roadmaps for staff in Information Technology Services (ITS) positions, outlining the necessary skills and knowledge they need to effectively support and serve the college community.
- b) **Identify training needs and provide opportunities for training in technology:** Continuously assess and identify training needs within the IT department and provide opportunities for ongoing training to keep staff updated on the latest technologies and best practices.

- c) **Pilot and implement virtual student labs and virtual desktops:** Pilot the use of virtual student labs and virtual desktops, with the intention to implement them if the pilot is successful. This initiative aims to provide students with virtualized environments for learning and accessing resources.
- d) **Evaluate and improve live support services for students and faculty:** Assess and enhance live support services to ensure effective assistance for both students and faculty, contributing to a positive and responsive IT support experience.
- e) **Customer support solution:** Implement a customer support solution, likely a system or process, to streamline and enhance the support experience for users, aligning with a consumer-focused approach.

Goal 5 - Create a Culture of Cybersecurity, Data Resiliency, and Business Intelligence

These initiatives collectively aim to instill a strong culture of cybersecurity, data management, and business intelligence within the institution. The focus on staff development, governance, data integration, and robust security measures demonstrates a commitment to protecting sensitive information and leveraging data for institutional improvement.

- a) **Develop a staff skilled in understanding, safeguarding, and using data:** Build a staff that possesses the necessary skills to understand, safeguard, and effectively use data, ensuring responsible and secure data practices.
- b) **Establish mature data governance practices:** Implement and foster mature data governance practices to ensure the proper management, quality, and security of data throughout the institution.
- c) **Reduce the number of data silos and facilitate analysis across multiple sources:** Work towards reducing data silos and enable the analysis of data from multiple sources, promoting a more integrated and comprehensive approach to data utilization.
- d) **Address high priority needs to improve data availability:** Prioritize addressing high-priority needs to improve data availability, supporting efforts to close equity gaps and enhance support for faculty activities.
- e) **Implement and optimize systems for information technology security:** Implement and optimize systems to ensure the security of information technology, safeguarding against potential threats and vulnerabilities.
- f) **Regularly upgrade hardware and software:** Maintain a regular schedule for upgrading hardware and software to ensure currency and mitigate cybersecurity threats associated with outdated systems.
- g) **Monitor threats, test failover, and ensure incident recovery capability:** Actively monitor cybersecurity threats, conduct failover testing, and ensure the ability to recover from incidents, contributing to a resilient IT environment.
- h) **Establish enforceable policies for compliance:** Develop and enforce policies to maximize compliance with laws, regulations, and generally accepted practices related to data and cybersecurity.

Goal 6 - Create Robust Plans and Procedures for Data Recovery and Business Continuity

These initiatives collectively aim to enhance the institution's resilience by preparing for potential disruptions and ensuring the continuity of essential functions. The focus on risk assessments, business impact analysis, communication, staff training, and regular testing reflects a proactive approach to mitigating risks and maintaining operational continuity in the face of unforeseen events.

- a) **Perform Risk Assessments:** Identify, evaluate, and prioritize the impact of business service disruptions through comprehensive risk assessments.
- b) **Perform Business Impact Analysis:** Conduct a Business Impact Analysis to identify essential college functions, critical dependencies, and determine the Recovery Point Objective (RPO) and Recovery Time Objectives (RTO).
- c) **Develop a Business Continuity and Data Recovery Plan:** Create a comprehensive plan outlining strategies and procedures for business continuity and data recovery in the event of disruptions.
- d) **Create and Implement a Communication Strategy:** Develop and implement an effective communication strategy for the business continuity and data recovery plan, ensuring clear and timely communication during disruptions.
- e) **Conduct Trainings for Staff:** Provide training for staff involved in the data recovery and business continuity process, ensuring they are well-prepared and informed about their roles and responsibilities.
- f) **Develop a Testing Regimen:** Establish a testing regimen for the business continuity and data recovery plan, regularly assessing the effectiveness of the plan and making necessary improvements.

Goal 7 - Create Sustainable and Optimized IT Resources

These initiatives collectively aim to create an efficient, sustainable, and collaborative IT environment that aligns with international standards while addressing the evolving needs of the institution. The focus on green IT, process optimization, and collaboration tools reflects a holistic approach to IT resource management.

- a) **Create and maintained a robust IT infrastructure:** Regularly assess and update wireless applications, collaborate with cellular service providers to update and enhance cellular access on Campus, and invest in the upgrade and expansion of fiberoptic networks and Intermediate Distribution Frames (IDFs).
- b) **Define and Update IT Policies, Standards, and Requirements:** Regularly review, define, and update IT policies, standards, and requirements to ensure alignment with evolving technological landscapes and institutional needs.
- c) **Bring IT Services to International Standards (ISO/IEC 20000 – COBIT 5 – ITIL):** Align IT services with international standards such as ISO/IEC 20000, COBIT 5, and ITIL, promoting best practices and optimizing service delivery.

- d) **Improve Asset Management Planning:** Enhance asset management planning to effectively manage the addition of new services, capacity expansion for existing services, and the replacement of end-of-life infrastructure.
- e) **Develop an Organization-Green IT Management Strategy:** Formulate a green IT management strategy that considers real-world power consumption requirements, incorporating processes for power reduction to enhance IT value to the college.
- f) **Create More Efficient Institutional Processes through Technology:** Optimize institutional processes through technology initiatives, such as upgrading Colleague-ERP, fully implementing web self-service, and integrating complementary third-party software.
- g) **Develop a Data Dictionary:** Establish a comprehensive data dictionary for shared understanding, facilitating faster onboarding of new staff and promoting consistent data management practices.
- h) **Foster and Support a Remote and Flexible Work Environment:** Promote and support a remote and flexible work environment, acknowledging the importance of work flexibility and providing the necessary IT resources to enable remote collaboration.
- i) **Develop New Models of Information Sharing and Communication:** Explore and implement new models of information sharing and communication that encourage collaboration, ensuring effective communication channels across the institution.
- j) **Create a Technology Environment that Fosters Collaborative Efforts:** Cultivate a technology environment that encourages collaborative efforts among different departments and stakeholders, fostering a culture of cooperation.
- k) **Expand Suite of Collaboration Tools and Ensure Awareness and Training:** Continuously expand the suite of collaboration tools for students, faculty, and staff, and ensure awareness and training programs to maximize the utilization of existing tools.

Goal 8 - Harness the Power of Artificial Intelligence (AI) for Innovation and Efficiency

These initiatives aim to leverage artificial intelligence to propel the institution forward, fostering innovation, improving student support services, and enhancing administrative processes while ensuring ethical and responsible AI use. Emphasizing education and collaboration with industry partners will contribute to a culture that embraces and maximizes the potential of artificial intelligence.

- a) **Explore and Identify AI Applications:** Conduct a comprehensive assessment to identify areas within the institution where artificial intelligence can enhance processes, improve efficiency, and drive innovation.
- b) **Implement AI Solutions for Student Support:** Integrate AI technologies to provide personalized and proactive support for students, including academic advising, career guidance, and access to resources.
- c) **Enhance Administrative Processes with AI:** Evaluate and implement artificial intelligence solutions to streamline administrative tasks, optimize resource allocation, and improve decision-making processes.

- d) **Foster AI Education and Literacy:** Develop educational programs to enhance AI literacy among faculty, staff, and students, ensuring a deeper understanding of AI technologies and their applications. Evaluate and recommend instructional uses of AI based on different disciplinary needs.
- e) **Ensure Ethical and Responsible AI Use:** Develop and implement guidelines for the ethical and responsible use of AI technologies, addressing potential biases, ensuring privacy, and maintaining transparency in AI-driven decision-making processes.