



PHOENIX COLLEGE

A **MARICOPA** COMMUNITY COLLEGE

**Technology Strategic Plan
2018 - 2020**

**CTC Approved 3/29/18
College Leadership Approved XX/XX/18**

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INTRODUCTION

TECHNOLOGY VISION

Phoenix College (PC) strives to be at the forefront of technology to facilitate access and innovation. Careful planning, application of resources, and evaluation for continuous improvement will allow PC to emerge as a technology leader in the district and beyond. The College Technology Committee (CTC), by developing and administering a college technology plan, supports the wise use of technology to increase availability of diverse learning opportunities, improve educational delivery and access, support student success and retention, streamline business processes, and deliver an effective and efficient learning environment.

ALIGNMENT WITH COLLEGE STRATEGIC PLAN

Since 2016, PC has been working to develop a College Strategic Plan. While planning efforts have taken place throughout the nearly 100 year history of the college, the new planning efforts are more closely tied to budgeting operations. The Strategic Plan for the college was finalized in the Fall of 2017. As expected, the College Strategic Plan is more comprehensive, and while Technology is used throughout the college environment, the Technology Strategic Plan best is suited for the Goal 3.1 section of the college plan. This goal is to “Support the integration and sustained utilization of technology”.

The College Technology Committee is made up of faculty and staff throughout the college, who serve on the committee and provide thoughtful leadership to where the college should head technologically to support our teaching and learning needs, workforce, and infrastructure. Historically, the CTC has worked to develop annual technology plans. These were largely year-to-year operational reports that rarely resulted in the actualization of resources or encouraged the college to consider long-term strategic planning around technology. With the new College Strategic Plan now in place, the CTC has been tasked with creating a longer term Technology Strategic Plan that communicates the technology vision for the college and can inform activities and resource allocations to help the institution meet that vision. The plan covers several themes with specific goals and direct actions which will be measured to determine success. All of the individual goals align with one or more of objectives set forth in Goal 3.1 of the College Strategic Plan: Support the Integration & Sustained Utilization of Technology. The objective under this goal are: OBJ 3.1.1, Maximize the use of existing technology & support the exploration of emerging technologies to improve student success; OBJ 3.1.2, Commit to sustainable practices & funding for the optimal utilization of technology; OBJ 3.1.3, Integrate technology that optimizes the effective & efficient use of college resources. Additionally, the plan aligns with other objectives under college strategic goals 1 and 2 as outlined.

COMMON THEMES

As the CTC began to put ideas together, it became clear there were six themes under which individual goals and actions have been developed. The themes are:

Accessibility

Technology Infrastructure

Technology Resources

Teaching and Learning

Efficiency, Innovation & New Technologies

Data



STRATEGIC THEMES, GOALS, PC STRATEGIC PLAN OBJECTIVES, AND ACTIONS

ACCESSIBILITY		
<i>Phoenix College strives to ensure the students have access to and support for technology needed to be successful in the learning environment.</i>		
Goals	PC Strategic Plan Objectives	Actions
A. Maintain and evaluate Computer Lab usage	<p>3.1.1 Maximize the use of existing technology & support the exploration of emerging technologies to improve student success.</p> <p>3.1.3 Integrate technology that optimizes the effective & efficient use of college resources.</p> <p>Other Alignment Opportunities: 1.2.3 Identify, mitigate, & eliminate barriers to achieving a college Education.</p> <p>1.2.4 Develop institutional awareness of student needs & a culture of accessibility & student support.</p>	<ol style="list-style-type: none"> 1. Maintain computer labs throughout the college providing hardware and software resources for students to use outside of classroom time. 2. Evaluate computer lab usage throughout the college, capturing data on usage to inform the appropriateness of extended lab hours, unrestricted access to labs in various departments, allocation of resources for the support of and staffing of computer labs.
B. Promote inclusion through the deployment of accessible technological assets	<p>3.1.1 3.1.3</p> <p>Other Alignment Opportunities: 1.2.3 Identify, mitigate, & eliminate barriers to achieving a college Education.</p> <p>1.2.4 Develop institutional awareness of student needs & a culture of accessibility & student support.</p>	<ol style="list-style-type: none"> 1. Collaborate with District teams, Disability Resource Services (DRS), and faculty leadership to inform the ADA compliance of instructional materials, resources, technologies, and courses. 2. Develop a process and resource to support faculty in ensuring all online, hybrid, web-enabled, and resource courses meet 504 and 508 standards. 3. Develop a process and resources to ensure future website development and content are compliant with the Web Content Accessibility Guide (WCAG) 2.0. 4. Include ADA practices in the design of learning space technology.
C. Develop a support structure for student use of technology	<p>3.1.1 3.1.3</p> <p>Other Alignment Opportunities: 1.2.3 Identify, mitigate, & eliminate barriers to achieving a college it Education.</p> <p>1.2.4 Develop institutional awareness of student needs & a culture of accessibility & student support.</p> <p>2.3.3 Prepare students with the skills & abilities to be competitive in high demand fields.</p>	<ol style="list-style-type: none"> 1. Work collaboratively with student and academic affairs to identify strategies for orienting students to key technology systems including Gmail and Canvas Learning Management Solution (LMS). 2. Make available an assessment for student technology fluency and provide support mechanisms to increase student technology fluency. 3. Develop effective, high-touch mechanisms leveraging technology to enable student affairs to support students online and on campus.. 4. Work collaboratively with student and academic affairs to create an online student orientation, expanding upon the current Beartrax program. 5. Build and maintain a student technology knowledge base to support student technology skills and needs.

		<ol style="list-style-type: none"> 6. Explore a shared space for student technology support adopting a model of “Students helping students” where they can develop their technical skills and receive the technical support needed to be successful in pursuing their academic goals.
<p>D. Provide a functional, comprehensive, and user-friendly website</p>	<p>3.1.1 3.1.3</p> <p>Other Alignment Opportunities: 1.2.3 Identify, mitigate, & eliminate barriers to achieving a college Education.</p> <p>1.2.4 Develop institutional awareness of student needs & a culture of accessibility & student support.</p>	<ol style="list-style-type: none"> 1. Develop a standard framework for college departments to use for creating and updating web pages; providing a consistent and professional look and feel for the college website. 2. Maintain a modern, functional, and engaging website for the college, providing clear and easy to access information for students, faculty, staff and community members. 3. Create a Web Oversight Committee, which serves as the advisory group for the college website, providing direction and guidance for the ongoing development of our online presence. 4. Create an online resource which allows students to clearly see mapped out degree plans and the course sequences necessary to achieve their academic goals. 5. All future development of online assets will be with a responsive design that better serves mobile users accessing content from smartphones, tablets, or other mobile devices. 6. When acquiring new technology, evaluation of products or services for responsive design to address mobile users.



TECHNOLOGY INFRASTRUCTURE

Phoenix College is committed to maintaining and improving its technology infrastructure to support the teaching and learning environment.

Goal	PC Strategic Plan Objective	Actions
<p>A. Support and maintain a robust network</p>	<p>3.1.1 Maximize the use of existing technology & support the exploration of emerging technologies to improve student success.</p> <p>3.1.3 Integrate technology that optimizes the effective & efficient use of college resources.</p>	<ol style="list-style-type: none"> 1. Collaborate with District Office to increase bandwidth provided to the college; collecting relevant data on bandwidth needs and identifying opportunities for improvement. 2. Increase bandwidth within the PC network for off site locations (Nursing, Healthcare Education, and Phoenix College Preparatory Academy). 3. Explore participation with Internet2, with possible adoption of a connection to the Sun Corridor Network, increasing services and availability of network connectivity. 4. Evaluate the current wireless network, ensuring appropriate placement of Access Points, and appropriate wireless coverage throughout the college to improve consistent access and performance. 5. Acquire a real-time network, server and application monitoring solution for the college's infrastructure and production services. 6. Develop a 3-5 year plan for the network, planning for future growth and opportunities not yet attainable.
<p>B. Support and maintain server technologies</p>	<p>3.1.1 3.1.3</p>	<ol style="list-style-type: none"> 1. Adopt a model of running operating systems for servers, which are within the last two major releases. 2. Develop and establish resource allocation for supporting a refresh cycle for hardware for storage, servers, and other networked resources. 3. Collaborate with District Office and sister colleges to consolidate services which are like for like.
<p>C. Evaluate and improve our Disaster Recovery Plan</p>	<p>3.1.1 3.1.3</p>	<ol style="list-style-type: none"> 1. Annually review and test Disaster Recovery plans. 2. Expand Disaster Recovery and Business Continuity plans to include cloud based services, District Office, and Airpark data center. 3. Replace current Disaster Recovery software, with the adopted standard software throughout the District.
<p>D. Improve our Access Card Security System</p>	<p>3.1.1 3.1.3</p>	<ol style="list-style-type: none"> 1. Increase the number of access card/badge ready rooms throughout the college. 2. Improve the scheduling process for locking and unlocking doors throughout the college, which are already on the access card system.
<p>E. Improve our Printing systems and processes</p>	<p>3.1.1 3.1.3</p>	<ol style="list-style-type: none"> 1. Invest in the college printer fleet, replacing older printers with new workgroup printers and/or multifunction devices. 2. Replace the existing pay-for-print system increasing the flexibility of student printing throughout the college. 3. Decrease the number of printers within the printer fleet by 20%.

TECHNOLOGY RESOURCES

Phoenix College is committed to the sustainability and maintenance of its excellent technology resources.

Goal	PC Strategic Plan Objective	Actions
<p>A. Support a technology refresh cycle</p>	<p>3.1.1 Maximize the use of existing technology & support the exploration of emerging technologies to improve student success.</p> <p>3.1.2 Commit to sustainable practices & funding for the optimal utilization of technology.</p> <p>3.1.3 Integrate technology that optimizes the effective & efficient use of college resources.</p>	<ol style="list-style-type: none"> 1. Establish a resource allocation plan to support the replacement of faculty/staff computers/laptops every 5/6 years, upgrading internal components where possible to extend the life of the hardware when necessary. 2. Establish a resource allocation plan to support the replacement of classroom lab computers every 5/6 years, upgrading internal components where possible to extend the life of the hardware when necessary. 3. Replace all technology equipment on a regular cycle, based on its useful lifespan as defined within its respective context, including printers, scanners, multi function devices. 4. Evaluate user need, add, upgrade, and maintain instructor stations to meet instructional needs for technology in the classroom and enhance student learning.
<p>B. Commit to sustainability practices</p>	<p>3.1.1 3.1.2 3.1.3</p>	<ol style="list-style-type: none"> 1. Promote and adopt technologies that foster more sustainable business practices, such as workgroup printing, digital faxing, and digital document processing. 2. Continue to purchase energy efficient computers and monitors and other technology equipment as appropriate. 3. Seek technology manufacturers and vendors that support sustainable practices.
<p>C. Establish an Information Security Office</p>	<p>3.1.1 3.1.2 3.1.3</p>	<ol style="list-style-type: none"> 1. Hire an Information Security Professional dedicated to PC or leverage professional services to better position the college for proactive and reactive responses related to information security risks. 2. Work collaboratively with the Maricopa District Office Information Security team to develop clear and efficient information security directives, procedures, and best practices (including the selection and purchasing of technology software). 3. Develop and implement an Information Security Awareness program for students, staff, and faculty. 4. Work collaboratively with Maricopa Public Safety, local to PC, to inform, and maintain awareness of security risks to the campus community.
<p>D. Develop and support information technology staffing</p>	<p>3.1.1 3.1.2 3.1.3</p>	<ol style="list-style-type: none"> 1. Evaluate the IT organization and determine single points of failure. 2. Establish a cross training process to ensure mitigation of single points of failure. 3. Document practices and procedures for each area of the IT organization, allowing for an on-boarding process.



TEACHING & LEARNING

Phoenix College supports the purposeful integration of technology in the teaching and learning experience.

Goal	PC Strategic Plan Objective	Actions
<p>A. Support instructional technology</p>	<p>3.1.1 Maximize the use of existing technology & support the exploration of emerging technologies to improve student success.</p> <p>3.1.2 Commit to sustainable practices & funding for the optimal utilization of technology.</p> <p>3.1.3 Integrate technology that optimizes the effective & efficient use of college resources.</p> <p>Other Alignment Opportunities 3.3.3 Build an engaged & empowered college community.</p>	<ol style="list-style-type: none"> 1. Support and maintain a staffing model for the Center for Teaching and Learning (CTL) which is conducive for providing instructional and non-instructional support to faculty and staff. 2. Provide operationalized funding for instructional technology software as determined by need, use, and program review.
<p>B. Improve usage of the LMS & support eLearning excellence</p>	<p>3.1.1 3.1.3</p>	<ol style="list-style-type: none"> 1. Increase usage of Canvas for all course modalities to provide students with online course materials, schedule of assignments, syllabus, and grading. 2. Continue to offer online and in-person LMS training for faculty; explore new modalities of delivery and just-in-time training. 3. Develop and offer professional development for faculty (online readiness, design and delivery expectations, instructional methodologies, etc.) to support quality assurance and innovation in our eLearning program offerings. 4. Support alternative format instructional methodologies through the sustained operationalization of technologies that engage learners and leverage analytics to improve student success outcomes. 5. Establish and implement a college wide e-learning plan which addresses the coordination and support needs (resources and staffing) to maintain and further develop the excellence of our eLearning programs, meeting any HLC requirements. <ol style="list-style-type: none"> a. Refine and adopt PC e-learning Expectations to meet learner needs and close the online success gap. 6. Investigate and communicate ways to create a more sustainable proctored test solution for students in all disciplines.
<p>C. Support lecture capture and simulation labs</p>	<p>3.1.1 3.1.3</p>	<ol style="list-style-type: none"> 1. Evaluate user need, research alternatives, and implement a solution for the existing, aging lecture capture solution at the college. 2. Develop a standardized process for capturing, storing, and presenting accessible on-campus lectures, simulations, public speaking, and other teaching and learning capture needs.



<p>D. Expand institutional internships</p>	<p>3.1.1 3.1.3</p> <p>Other Alignment Opportunities: 2.3.2 Align with industry needs & address emerging fields.</p> <p>2.3.3 Prepare students with the skills & abilities to be competitive in high demand fields.</p>	<p>1. Expand the current internship program within the college to allow for students to get hands on training and opportunities after completion of courses related to information technology, data analysis, etc.</p>
<p>E. Partner to offer technology focused programs</p>	<p>3.1.1 3.1.3</p> <p>Other Alignment Opportunities: 2.3.2 Align with industry needs & address emerging fields.</p> <p>2.3.3 Prepare students with the skills & abilities to be competitive in high demand fields.</p>	<p>1. Collaborate and support Academic Affairs, specifically working with faculty and leadership to develop technology focused programs, which could meet the need and demands of the workforce and college community.</p> <ul style="list-style-type: none"> a. Cybersecurity program b. Apple coding classes c. Health Information Management



EFFICIENCY, INNOVATION & NEW TECHNOLOGIES

Phoenix College continuously improves our use of technology and supports innovation to address challenges and create opportunities to meet institutional outcomes.

Goal	PC Strategic Plan Objective	Actions
A. Support emerging technology and innovation	<p>3.1.1 Maximize the use of existing technology & support the exploration of emerging technologies to improve student success.</p> <p>3.1.2 Commit to sustainable practices & funding for the optimal utilization of technology.</p> <p>3.1.3 Integrate technology that optimizes the effective & efficient use of college resources.</p>	<ol style="list-style-type: none"> 1. Develop a sustainable funding model for technology innovation at the college. 2. Maintain budget to allow for the purchase of additional software/hardware to meet academic and/or administrative needs.
B. Support technology training	<p>3.1.1</p> <p>3.1.3</p>	<ol style="list-style-type: none"> 1. Support and staff the ongoing training of students, faculty, and staff in the use of instructional and productivity technologies to increase effectiveness and further adoption and innovation. 2. Increase the use of technology through alternative and applied professional development experiences for both faculty and staff. 3. Collaborate across the college to effectively deploy new technologies.
C. Develop and maintain communication practices and transparency	<p>3.1.1</p> <p>3.1.3</p>	<ol style="list-style-type: none"> 1. Implement an ITIL change control process where technology changes are discussed and documented. 2. Improve communication to college community of technology changes occurring within classrooms, labs, and other college spaces. 3. Maintain an up-to-date hardware and software standards guide for college purchasing. 4. Develop a knowledge base for prompt technology resource assistance.
D. Support Open Educational Resources (OER)		<ol style="list-style-type: none"> 1. Increase the awareness of OER materials. 2. Create functional support teams (Library, IT, and CTL) and resources to support faculty interested in developing or adopting OER materials.



DATA

Phoenix College is committed to supporting the collection and use of data to support decision making.

Goal	PC Strategic Plan Objective	Actions
A. Support data governance	<p>3.1.1 Maximize the use of existing technology & support the exploration of emerging technologies to improve student success.</p> <p>3.1.3 Integrate technology that optimizes the effective & efficient use of college resources.</p>	<ol style="list-style-type: none"> 1. Develop a data governance plan for understanding and leveraging data for predictive analytics for student success. The plan will include the identification of data systems, analysis of administration and access to data, understanding what questions we want the data to answer. <ol style="list-style-type: none"> a. Provide more information to the college about existing data classification standards and best practices for data storage and data delivery. b. Clarify the appropriate application of tools that currently exist. Develop goals for data collection with each system. Remove barriers that impede further deployment and increase usage of systems where data can be collected. <ol style="list-style-type: none"> i. CRM (Customer Relationship Management) ii. QLess (Queuing system for student services) iii. SPOL (Strategic Planning Online) iv. Canvas (Learning Management System) v. Math AS Integration vi. Google Apps
B. Leverage Electronic Document Management	<p>3.1.1</p> <p>3.1.3</p>	<ol style="list-style-type: none"> 1. Evaluate current process for paper document management, adopt use of electronic document management where feasible. <ol style="list-style-type: none"> a. Dynamic Forms b. App Extender/Kofax 2. Work with District to adopt the Maricopa District selected solution for electronic document management. 3. Promote use of Google Apps for Education support a PC Green initiative.
C. Create and maintain Analytics, Dashboards & Reporting	<p>3.1.1</p> <p>3.1.3</p>	<ol style="list-style-type: none"> 1. Publish a college wide dashboard to inform Departmental Review, staffing prioritization, and budget allocation; supporting the Institutional Research department communication of key data metrics. 2. Leverage google analytics more fully to better understand our web presence and communication to constituents. 3. Develop a plan for real-time analysis of student performance.
D. Develop a common understanding of how to access, request and use data in decision making	<p>3.1.3</p>	<ol style="list-style-type: none"> 1. Commit to common metrics used for evaluation of performance across the college. <ol style="list-style-type: none"> a. Staffing Process Metrics b. Go/No Go c. IE Council Data Dictionary

		<ol style="list-style-type: none"> 2. Pilot Departmental Review cycle <ol style="list-style-type: none"> a. Establish cycle of investigation, intervention and evaluation (MCC Informed Improvement) into new review cycle. 3. Improve accessibility of data and professional growth opportunities around the use of data. <ol style="list-style-type: none"> a. Provide campus-wide trainings on how to access, request, and use data. b. Develop “Cool data of the month” concept to encourage informational data sharing. c. Develop a common process for the development, deployment, and reporting of results for surveys.
E. Utilize technology to improve course delivery	3.1.1 3.1.3	<ol style="list-style-type: none"> 1. Implement an electronic course evaluation tool. 2. Implement and develop reports from scheduling systems (x25) to inform course scheduling. 3. Implement the use of electronic waitlists for all classes.

CONCLUSION

Now that the Technology Strategic Plan has been set for the next two years, Phoenix College will work to achieve our plan. However, PC also expects and anticipates numerous changes over this time period. A few of these changes includes a new College President, Maricopa system-wide [Transformation](#) efforts, changes in available technology, and the new funding model for the college. As these changes occur, PC recognizes the need to adapt to changes and maintain the Technology Strategic Plan. As a result, the College Technology Committee will continue to review and maintain the Technology Strategic Plan through appropriate lifespan. This will include annually reviewing the plan, evaluating the status of each goal and action, allowing for revisions, updates and adaptations to the plan.

APPENDIX

Informed Improvement -

Internet2 - <https://www.internet2.edu/about-us/>

SPOL - [Strategic Planning Online](#), Phoenix College's strategic planning software.

Sun Corridor Network - <https://suncorridornet.org/>

Transformation - The Maricopa County Community College District is embarking on an exciting transformation that will define Maricopa as a national leader in higher education and a driving force for economic and workforce development in Arizona. We have a responsibility to meet the economic, workforce, and education needs of local employers and residents, and this transformation will ensure we can fill that role for years to come. <https://www.maricopa.edu/>

Useful life cycle - Is defined as the length of time technology is used for before replacement. MCCCDC has determined the useful life cycle for technology is as follows:

Technology	Duration
Desktop/Laptop computers	5/6 years
Audio visual (projectors, controls, document cameras)	7 years
Servers	5/6 years
Network (switches, access points, telcom)	8 years
Storage	5/6 years
Printer/Copier	8/10 years

Web Content Accessibility Guide (WCAG) 2.0 - <https://www.w3.org/TR/WCAG20/>