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Desert Community College District

Technology Master Plan 2020 - 2025

43500 Monterey Avenue, Palm Desert, CA 92260



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Letter from the President

Since its founding in 1958, College of the Desert has grown into a vibrant, state-of-the-art center for higher education—preparing students to transfer to four-year universities or providing them with the skills they need for a successful career.

Over the last six decades, the Coachella Valley has watched as their community college has evolved to take a place among the fastest growing community colleges in California. With population increasing and demand for education rising, the College has grown to serve almost 18,000 students annually.

The following Technology Master Plan creates a foundation and vision for planning, implementation and the policy making that governs our technology usage at College of the Desert.

When extraordinary circumstances arise, like the COVID-19 pandemic, the plan provides clear guidance and lays the framework for sound decision making. On March 17, 2020, when the College and most other institutions and businesses were ordered closed through the end of April by the State and the Riverside County Public Health Department, our employees didn't head home for some extended time off. They went to work figuring out how to best utilize our technological resources to ensure teaching and learning would continue, despite the unprecedented situation that confronted us.

The endeavor went well beyond shifting all classes to an online format. Fortunately, innovation and teamwork are not in short supply at College of the Desert. In a little more than two weeks' time, all classes, including science labs were online and continuing on schedule, putting College of the Desert at the forefront of this effort statewide.

Situations like this reinforce the importance of technology in the delivery of quality education. That is why the College is partnering with technology leader CENIC to provide a world-class computing network for our students. Our future Palm Springs campus will be the hub for a high-speed, 100 gigabyte link to CENIC's nonprofit California Research and Education Network (CalREN), a high-capacity network designed to meet the unique needs of more than 20 million users.

Whether they head to a four-year university or the start of their careers, we are providing students with a solid foundation for success. No matter where their academic journey takes them, we remain committed to creating a better life for each and every student so that they can create their tomorrow.

Joel L. Kinnamon, Ed.D.
Superintendent/President



Acknowledgements

Co-Chairs

Pamela Stegeman - Instructor, Business

Sheri Willis - Executive Director, Educational Technology

Members

Anika Acosta - ASCOD Representative

Jeff Baker - Vice President, Student Services

Sara Butler - Interim Dean, Social Sciences & Arts

Tony Carrillo - Director, Fiscal Services

Dustin Culhan - Professor, Mathematics

Michael Gayle - Computer Support Specialist

Jonathan Gorges - -Instructional Computer Support Specialist

Glenn King (Ex-Officio) - Director, Network Services & Telecommunications

Thomas O'Grady - Instructor, American Sign Language

Jesus Palominos - Adjunct Faculty, Music

Marlene Reynolds - Executive Administrative Assistant, Information Technology Services, Recorder

Ilene Rubenstein - Adjunct Faculty, English

Elham Shahidi - Adjunct Faculty, English As A Second Language



Desert Community College District Mission Statements

College of the Desert's Mission

College of the Desert provides excellent educational programs in basic skills, career and technical education, certificates, transfer preparation, associate degrees, noncredit and distance education, which are continuously evaluated and improved. Our programs and services contribute to the success, learning and achievement of our diverse students and the vitality of the Desert Community College District, surrounding areas and beyond.

Technology Mission

Our mission is to create an environment where all students and staff have access to technology resources and information, to establish and maintain an effective operational environment, and to provide a secure, reliable and cost-effective infrastructure that supports the college's Strategic Master Plan.

Executive Summary

The Desert Community College District continues its progress to fully integrate various planning documents into a cohesive, college-wide planning process. The Technology Master Plan is one of three documents used to guide progress at College of the Desert. This updated 2020-2025 Technology Master Plan supports the college's Strategic Master Plan and maps technology goals and objectives to the Strategic Plan goals. It also provides a framework for technology direction, strategy, acquisition, replacement and deployment on a district-wide basis.

The Technology Master Plan (TMP) defines the district's technology mission and identifies technology goals and objectives. These goals and objectives are mapped back into the District's strategic goals. The TMP defines technology standards, criteria for acquiring new technology as well as establishing refresh cycles for equipment.

The Information Systems and Technology Committee monitors progress toward fulfilling the goals of the Plan and develops initiatives to meet the goals on an annual basis. The annual updates will be accomplished using input from the existing Educational Technology and Distance Education committee and Distance Education sub-committee.

It is noted that the extent of implementation and associated funding will be determined annually by need and the availability of funding sources.



Technology Master Plan – Introduction

COD's initial Technology Plan was written in 2010 as a report that outlined technology needs within different areas/disciplines. Primarily due to the state budget crisis, there was a lack of response to these needs and updating of critical information was abandoned.

In 2004, a \$346.5 million bond (Measure B), was successfully passed. This provided funds to improve and expand the district's educational centers and to build new classrooms, computer labs, and science labs to accommodate expanded job training and academic programs. A measurable amount of these funds enabled COD to implement state-of-the-art technology equipment and infrastructure. In 2016, a \$577.86 million bond (Measure CC) was successfully passed to continue these efforts. The acquisition of this technology and infrastructure with one-time money has created a need for a comprehensive Technology Master Plan to define a process to maintain and protect this substantial investment in technology.

This revised Technology Master Plan is an institutional approach to define an integrated process to sustain and advance the application and usage of technology and to protect COD's investment in technology. This plan covers the five (5) year period from 2020 to 2025. As a living document, it is reviewed annually by the Information Systems and Technology Committee and updated as needed. It is revisited in its entirety at the end of the fifth year. The plan provides a framework for managing COD's technology assets from one year to the next as new hardware replaces old, new software is introduced, new multimedia classrooms are added, the demands on the network increase, and pedagogical needs are identified. The purpose and scope of the Technology Master Plan is to allow flexibility, broader input into prioritization and acquisitions, and the ability to adapt to the changes and innovations in technology and circumstances in our community.



Planning Process

The purpose of effective information technology planning is to connect institutional priorities with technology goals. This approach looks at strategic planning as a process that seeks to clarify what the institution is, what it wants to be, and how technology can be employed to successfully make the transition.

Projects should be integrated within the College's greater planning process. The planning of technology projects that fit within a specific department, administrative body, or institution-wide plan should be done in coordination with that entity and in accordance with the entity's objectives.

- There should be a need and desired outcome identified and documented.
- Consideration should be given as to whether a project can be consolidated with similar requests.
- Whenever possible, the end user(s) or their closest representative(s) should be consulted prior to the finalization of the planning process, and their input should be prioritized.
- Technological improvements that reduce the overall utility for the end user (changes necessary for security purposes that negate the use of essential software, for example) must include a detailed plan to equal or exceed the previous level of utility within a reasonable amount of time.

This planning document is part of an over-arching planning process that ensures the following:

- The plan supports the district and college's statements of vision, mission and goals.
- The plan disseminates knowledge about technology needs and constraints.
- The plan addresses key institutional, academic and community needs via technology.

The following list of planning documents is used to align the priorities of the district and the College of the Desert.

- College of the Desert Strategic Master Plan
- Annual Program Review Updates
- Annual PEP's and PEP-UP's

In addition to the annual program review process, projects can be identified throughout the course of the year as opportunities present. The [Request Form for Technology Projects](#) has been created for use in helping to identify and communicate the full scope and the total cost of technology projects.



Mapping of Strategic Master Plan Goals to TMP Goals

Strategic Master Plan	Technology Master Plan
<p>Strategic Master Plan Goal 1 Student Success</p> <p>Student Success at College of the Desert is defined by the achievement of students' educational goals.</p>	<p>Technology Master Plan Goal 1</p> <p>Provide technologies to enhance and support the achievement of students' educational goals.</p>
<p>Strategic Master Plan Goal 2 Planning and Governance</p> <p>College of the Desert is committed to effective and transparent planning and governance structures by following and improving an integrated and systematic planning and governance model.</p>	<p>Technology Master Plan Goal 2</p> <p>Identify and implement tools to provide data to inform planning and governance.</p>
<p>Strategic Master Plan Goal 3 Fiscal Stability and Infrastructure</p> <p>College of the Desert is committed to the responsible and effective development and management of resources.</p>	<p>Technology Master Plan Goal 3</p> <p>Identify and research cost-effective, innovative, and emerging technology solutions.</p>
<p>Strategic Master Plan Goal 4 Teamwork, Organizational Development</p> <p>College of the Desert is committed to cultivating a collaborative culture, which fosters participatory and team development for Faculty, Staff, Students, Community and Leadership.</p>	<p>Technology Master Plan Goal 4</p> <p>Support accessible technologies across the institution.</p>
<p>Strategic Master Plan Goal 5 Economic, Workforce Development, and Community Outreach</p> <p>College of the Desert's community partnerships provide outstanding enrichment opportunities that contribute to the success and vitality of our community.</p>	<p>Technology Master Plan Goal 5</p> <p>Support business and partnership opportunities throughout the Coachella Valley that help students reach their educational and career goals.</p>



Goals and Objectives

Technology Master Plan Goal 1 Provide technologies to enhance and support the achievement of students' educational goals.	
Objective 1.1	Expand use of API's (i.e. system interfaces and integrations) from all relevant data sources, to analyze data and provide information in a format that improves decision-making for educational and career goals.
Objective 1.2	Working with existing technology-related committees, identify emerging and innovative educational technologies to test and pilot for enhanced learning.
Objective 1.3	Working with departments, identify emerging and innovative technologies to test and pilot for improved services to students.
Objective 1.4	Test and pilot emerging and innovative uses of mobile devices which improve services for students.
Objective 1.5	Proactively work with application vendor to implement new functionality into existing planning and advising systems.
Objective 1.6	Ensure adequate access to technology related to learning and educational goals.
Objective 1.7	Continue to support the use of dynamic dashboards and analytics, including the software, hardware, and cloud-based solutions needed for the creation, use and deployment of these tools.



Goals and Objectives

Technology Master Plan Goal 2 Identify and implement tools to provide data to inform planning and governance.	
Objective 2.1	Pilot and assess tools which monitor application and network performance.
Objective 2.2	Use existing Laserfiche and other technology systems to create electronic forms and define workflow to streamline processes for the district.
Objective 2.3	Working with Institutional Research, distribute surveys and evaluate responses from stakeholders relating to technology requirements, needs and future direction.

Goals and Objectives

Technology Master Plan Goal 3 Identify and research cost-effective, innovative, and emerging technology solutions.	
Objective 3.1	Research and pilot options to take advantage of the agility, performance and scalability associated with hosted (cloud) services while maintaining on premise data; i.e. blended/hybrid data center.
Objective 3.2	Investigate, research and implement appropriate open educational resources (OER) as they can be used in online, face-to-face, and blended/hybrid learning environments.
Objective 3.3	Maintain security software, policies and procedures by reviewing and adhering to evolving industry standards.
Objective 3.4	Remain current with evolving technology standards and improve technology infrastructure and software where appropriate.
Objective 3.5	Remain current with emerging productivity software and implement as needs are defined and funding is available.
Objective 3.6	Identify and implement a process to integrate funding for technology replacement into the District's budget development cycle.
Objective 3.7	Provide appropriate access to technology for faculty and staff required to complete assigned responsibilities.



Goals and Objectives

Technology Master Plan Goal 4 Support accessible technologies across the institution.	
Objective 4.1	Develop and publish inventory of instructional software including where/how used, license information, level of accessibility, and other pertinent information as identified.
Objective 4.2	Implement the next steps identified in the Meeting Institutional Accessibility Obligations document.



Goals and Objectives

Technology Master Plan Goal 5 Support business and partnership opportunities throughout the Coachella Valley that help students reach their educational and career goals.	
Objective 5.1	Leverage data from various information systems, including employers and students, to allow analysis of student outcomes and to help inform effort for future planning.
Objective 5.2	Proactively work with CENIC to procure 100 GB internet connectivity for district use for existing programs and for future business and partnership opportunities as they are identified.



Funding and Budget Process

This Technology Master Plan is created with the understanding that the extent of implementation will be determined by the availability of funding resources. Failure to refresh the Technology Replacement component of this Plan for lack of funds or any other reason will render the entire Plan obsolete over the course of just one year. This will in turn jeopardize the District's investment in technology.

It is critical when establishing budgets for procurement and acquisition of technology that a comprehensive approach is established which takes into account the total cost of ownership. As equipment ages, warranties expire, and to allow for maintenance and repair, recurrent licenses costs and fees, and other related expenditures, the Technology Master Plan aims to avoid a crisis/reactive management mode and instead foster a comprehensive and viable plan based on yearly assessments and review.

The following timeline and process is newly defined and will be used during the 20/21 budget development process.

- February
 - IT identifies Technology Replacement needs for the upcoming academic year. Replacements are subtotaled by Instructional, Non-Instructional, and Infrastructure to help identify amounts that may be funded by various sources.
- March – April
 - IT meets with Fiscal Services to review the upcoming academic year's Technology Replacement needs budget. The budget is reviewed and approved by the Vice President of Administrative Services and is brought before the Executive Cabinet for review and approval. The Technology Replacement needs budget is also brought to the Budget Sub Committee for review at this time.
- June
 - Technology Replacement needs funding are identified and are included in the preliminary budget presented to Leadership and Board of Trustees.
- September
 - The final budget is adopted by the Board of Trustees, which includes the Technology Replacement needs.

It should be noted that in addition to the general fund, the following are possible funding sources for the technology budget:

- Foundation endowments
- Instructional equipment fund
- Perkins funds
- CTE funds
- Student success and support program funds
- DSPS funds
- Redevelopment agency funds
- Guided pathways funds

Minimum Technology Standards

Purchases of new equipment or acceptance of donated systems most satisfy the established minimum technology standard. Information Technology (IT), working with input from college committees and the MAAS Company, has created a District Equipment Standards document. This document defines the minimum technology standards for:

- Faculty and Staff Computers
- Smart Classrooms
- Printers
- VoIP Phones
- Wireless Access Points
- Other technology-related equipment

Any deviation from these standards must be reviewed and approved by IT. The most current Technology Standards are posted [here](#). The minimum technology standards are reviewed and revised (if needed) on an annual basis by IT in consultation with other technology-related committees and workgroups.

Technology Refresh Cycles

COD must support a robust, reliable and cost-effective infrastructure for the delivery of information, instruction, training and all technology-based services. Technology is an essential component in the operations of the college from the delivery of curriculum, to direct classroom support, to day-to-day operations of the college.

Continuity of this type of infrastructure requires not only a one-time investment but consistent updating of all associated equipment. The Technology Replacement Plan must consider equipment lifecycles, production warranty plans, and changes in technology needed to support various types of programs.

Academic Computer Labs Replacement Cycle

To implement a successful equipment replacement cycle, all academic computer labs are categorized in one of two tiers. This tiered approach is based upon specialized equipment needs required to run discipline-specific software.

- Type 1 Lab Criteria:
 - This type of lab runs discipline specific software that requires higher-end hardware for proper software usage. These labs are on a 4 year refresh cycle which parallels the maintenance program. Replaced computers can be cycled to Type 2 labs.
- Type 2 Lab Criteria:
 - This type of lab runs basic applications which do not require running the latest hardware specifications. These labs are on a 4-6 year refresh cycle and computers taken from Type 1 labs are often used to upgrade these labs.

A breakdown of all computer labs and their tier can be found in Appendix II.

Classroom Instructor Stations

Computers used by instructors in the classroom will be replaced every 4 years. This parallels the COD production maintenance/warranty plan. Computers used by instructors in academic computer labs will be replaced at the same time that the student computers in the lab are replaced.

Multimedia (AV) Equipment

The multimedia equipment for classroom systems includes, but is not limited to, projectors, projector screens, document cameras, and media controllers. They average a lifespan of 8-10 years with upgrade to certain A/V components as technology changes or equipment wears out.

Faculty and Staff Computers

The refresh cycle for faculty and staff is every four years which parallels the production maintenance/warranty cycle. There are times when replaced staff computers are repurposed for other staff or for adjunct faculty. Requests for earlier replacement, based upon department need, can be made through the Program Review Update cycle or through the Technology Project Request form.

Student Lab and Adjunct Lab Areas

Student computer labs and adjunct faculty lab areas follow the same criteria as the Tier 2 Academic Computer Labs. These labs are on a 4 to 6 year refresh cycle and may be the recipient of replaced computers from other areas of the college.

Telephones

Telephones are replaced every 6+ years depending on licensing requirements as well as compatibility with current VoIP architecture.

Network Equipment

Network equipment is technology that provides the foundation for day-to-day operations, internet access, and relevant security. This technology encompasses firewalls, core routers, endpoint switches, wireless network and controllers, and appropriate power supplies/batteries. Refresh cycle for this equipment is every 5 to 8 years unless recommended otherwise by the manufacturer. As this equipment is critical to the consistent and secure processing of information, it will be refreshed prior to the manufacturer's end-of-support date or COD risks possible unscheduled downtime and possible security breaches.

Currently the main campus has a 10 Gbps internet connection provided through CENIC. Necessary hardware was upgraded to support these speeds. It will be necessary to replace core networking infrastructure if the District decides to increase our internet access to speeds greater than 10 Gbps.

Production Servers

COD's server configuration incorporates both physical and virtual servers creating a hybrid operating environment. This hybrid environment allows COD to rapidly respond to ongoing and changing needs of students, faculty and staff. Physical servers are placed on a 6-8 year refresh cycle taking into account manufacturer end-of-life and available production warranties.

Storage Area Network (SAN)

The current NetApp SAN was implemented in 2017. Applications and requirements to store data will continue to expand and will require additional SAN. Some of

these applications include the increased use of Laserfiche for storing documents and creating workflows, increased use of email and associated storage, file redirect to automatically backup user documents, and used of shared drives for collaboration efforts. SAN needs will be reviewed annually with recommendations for expansion made as they are identified. In addition, existing SAN devices will be replaced every 5 years based on manufacturer end-of-life and available production warranties.

Conference Rooms

Technology used in conference rooms vary by location and use. Conference room technology is often upgraded as the area is remodeled. Updates can also be made to conference rooms through the Program Review Update process. Historically, replacement for these areas has not been covered under the Technology Replacement Plan.



Technology Training

Various areas have been identified in which the district shall provide the members of the college community training opportunities in order to sustain quality instruction and services. Within our ranks, considerable talent exists that will serve as presenters during flex and other scheduled training sessions. The Information Technology department schedules monthly training sessions based on input from the annual staff survey regarding technology and training needs. Current training opportunities are identified below and descriptions are located in the [Information Technology Training Catalog](#).

- Accessibility and Universal Design
- Adobe Products (Acrobat Pro, Illustrator, Photoshop)
- Best Practices for Online Teaching
- Camtasia
- Canvas
- Chancellor's Office Tools (Datamart, Data-on-demand)
- Colleague (Datatel)/Desktop UI/WebAdvisor/Self Service/Mobile
- ConferZoom-Web conferencing
- Dashboards
- Data Security
- Email
- Emergency Management
- Galaxy
- Informer
- LinkedIn Learning (used to be Lynda.com)
- Media [Classroom Media Projectors, Elmo, AV), Phones, Wireless Network)
- Microsoft Office Products (Excel, PowerPoint, Publisher, Outlook, Word, Visio, Office 365, Teams)
- Microsoft Windows (Operating Systems, Maintenance, File Management)
- Online Education Initiative (OEI)
 - OEI Course Exchange
 - OEI Ecosystem Tools
- Printer Services
- Scantron
- Vision Resource Center
- Website (Student MyCOD Portal, SharePoint CMS for Campus Portal and Public Site)



Policies, Strategies, and Procedures

The District currently has numerous policies, strategies, and standards that address, govern, and guide instructional and information technology. These policies will be maintained to ensure accurate and appropriate content.

Below is a list of the available policies and plans.

Computer & Network Use Procedure

[Board Policy 3720](#) and [Administrative Policy 3720](#)

These policies provide the rules and regulations for the use of the district's technology equipment. It is applicable to all college employees, volunteers, and students.

DE Plan and the Online Education Initiative (OEI)

[Administrative Policy 4105](#)

Per Title 5 Section 55200, distance education means instruction in which the instructor and student are separated by distance and interact through the assistance of communication technology. All distance education is subject to the general requirements under Title 5 as well as the specific requirements of articles 55200 and 55204. In addition, instruction provided as distance education is subject to the requirements that may be imposed by the American with Disabilities Act (42 U.S.C. Section 12100 et seq.) and section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. Section 794d).

Information and Communication Technology Accessibility & Acceptable Use

[Board Policy 3725](#) and [Administrative Policy 3725](#)

College of the Desert will ensure equal access to instructional materials and information and communication technology (ICT) for all and particularly for individuals with disabilities, in a timely manner.

Provisions for Reliability, Disaster Recovery, Privacy, and Security

College of the Desert has support and maintenance contracts for all critical production systems including the phone system, firewall, core switch, Colleague, Canvas, and College portal. The IT Department maintains a security monitoring, analysis, and response firewall that allows the IT staff to monitor network traffic and block known security threats and attacks. The College has an authentication

system to validate and authorize wireless access for all users. The College has a service-level agreement to ensure the reliability of Internet connectivity.

Backups and disaster recovery of College of the Desert's network and server systems are performed nightly by a variety of applications and appliances. Primarily, the majority of server backups reside on two Barracuda appliances. A Symantec Backup Exec Server performs backups on the email system. The SharePoint web/portal server is stored to either tape or the EMC Network. In addition, multiple servers perform local backups as failover to the primary backup services.

Backup services report daily via email to the network administrator with a success or failure message. Failures are promptly addressed and repaired.

Backup storage locations include Barracuda appliances, the EMC N.A.S., the NetApp S.A.N., a Dell 2000TL tape drive system and local location. The Barracuda and EMC storage systems have redundant units at the Indio site where backup data is copied from the primary backup device. COD has approximately 40 terabytes of storage available. Tape backups are also stored offsite at Union Bank.

Backup protocols use both incremental and full backup scenarios. Critical systems are also imaged which allow recovery of the entire server in the event of total loss of data or hardware. Retention periods vary depending on the system being backed up. Duplication and compression techniques are used to reduce the size of backup space.

Redundancy is a key component for many systems in order that automatic failover may occur in the event of failure of hardware resources. This allows services to remain online 24/7 without requiring immediate attention by staff. The email servers are clustered in a database access group. In the event of failure of an entire server, email databases are transferred to other available servers automatically. The use of virtualization also allows failover of host servers where virtual servers can be automatically moved to adjacent servers in the event of hardware failure. There are a number of IT policies and procedures to ensure the access and security of the technology resources, including social media procedures.

IT maintains multiple backup servers located throughout Desert Community College District that are additionally backed up to tape. These tape backups are currently stored at an offsite location to ensure safety and availability in the event of an emergency that may occur on campus. Backups occur daily and on weekends with redundancy built into all servers.

Required upgrades to hardware and/or software are scheduled to minimize downtime for faculty, staff, and students. Significant down time is scheduled in advance, coordinated with impacted offices, and communicated to impacted constituents.

Each building has an intermediate distribution frame room where network cables are connected to a network switch that has an attached uninterruptible power supply. In case of a power failure, network equipment, including voice over internet protocol phones, remain functional for varying periods of time.

The Network Operation Center is a state-of-the-art facility created with Measure B Bond funds in 2013. It is physically secured and is accessible to only IT and Public Safety staff. The Network Operation Center is connected to a series of backup batteries. These batteries keep the servers and network appliances up and running for 20–30 minutes. In the event of a power failure, this is more than enough time than the two to three minutes needed for the backup generator to activate. The generator keeps all equipment up and running until power is restored.

College of the Desert uses a robust and secure learning management system (LMS). The LMS, Canvas, is outsourced. Through a secure connection, the District uploads all account information into the LMS on a regular basis based on current enrollments.

Technology Surveys – Feedback on Technology Needs

The District, through combined efforts of Information Technology and the Institutional Research Office, will create and publish the results of a yearly technology survey for faculty and staff in order to better identify and address technology training and needs on campus.

COD Webpage, Social Media, and Web 2.0

The college's internet page, YouTube, Facebook, and Twitter accounts are managed by the Office of Public Relations. Instructions on the procedures to add content to these is available in Appendix III.



Appendix I

2019/2020 Technology Initiatives

Associated Goal/Objective	Technology Initiative
<p>Objective 1.1 Expand use of API's (i.e. system interfaces and integrations) from all relevant data sources, to analyze data and provide information in a format that improves decision-making for educational and career goals.</p>	<p>Pharos – Paid printing for students</p>
	<p>Nelnet Payment Plan – both in Self-Service and WebAdvisor</p>
	<p>SunPass free bus passes for students</p>
	<p>Implementation of software to assist with automation; e.g. CourseLeaf for CAT and CIM, eLumen for SLO and DigARC for section scheduling</p>
	<p>Ex-Libris connection to Microsoft Azure for student access to library resources</p>
	<p>Vision Resource Center user setup and login</p>
<p>Objective 1.2 Working with existing technology-related committees, identify emerging and innovative educational technologies to test and pilot for enhanced learning.</p>	<p>Pilot Learning Glass monitor</p>
<p>Objective 1.3 Working with departments, identify emerging and innovative technologies to test and pilot for improved student services.</p>	<p>Implementation of ChatBot to provide 24/7/365 answers to frequently asked questions for Financial Aid, Admissions & Records, Veterans, and Bursar's Office</p>



	Implementation of QLess in Admissions and Records and Financial Aid for students to enter a virtual queue for Student Services
	Implementation of Cranium Cafe
<p>Objective 1.4 Test and pilot emerging and innovative uses of mobile devices which improve services for students.</p>	Pilot Ellucian Mobile App.
<p>Objective 1.5 Proactively work with application vendor to implement new functionality into existing planning and advising systems.</p>	Began implementation of additional functionality with Colleague including Batch Wage updates
	Financial Aid new CalGrant
<p>Objective 1.6 Ensure adequate access to technology related to learning and educational goals.</p>	Acquire and loan computers, web cams, hot spots and other needed equipment to students to participate in online learning associated with Covid-19
<p>Objective 1.7 Continue to support the use of dynamic dashboards and analytics, including the software, hardware, and cloud-based solutions needed for the creation, use and deployment of these tools.</p>	Test Informer to 5.2 and implement dashboard reports



2019/2020 Technology Initiatives

Associated Goal/Objective	Technology Initiative
<p>Objective 2.1 Pilot and assess tools which monitor application and network performance.</p>	<p>Implementation of InterSite to manage multiple CISCO virtual systems from one console</p>
<p>Objective 2.2 Use existing Laserfiche and other technology systems to create electronic forms and define workflow to streamline processes for the district.</p>	<p>Automate the Payroll Authorization Form process by using Laserfiche to create an electronic form with an attached workflow process</p>
	<p>Implementation of AssetWorks to track fixed assets</p>
	<p>Ongoing creation of electronic forms including Personnel Action, Financial Aid Missing Documents, Nursing Health, Contract Transmittal, Work Experience Application, Program Review, Campus Visit Request, Public Safety Academy, Lost and Found Items, MESA application, Public Safety Incident Report, President’s Student Ambassador Program Application, EOPS Intake Application, Temporary Visitor Parking Pass</p>
<p>Objective 2.3 Working with Institutional Research, distribute surveys and evaluate responses from stakeholders relating to technology requirements, needs and future direction.</p>	<p>Conducted annual Staff Technology Survey and used results to schedule upcoming training sessions</p>



	Conducted student survey to assess needs and readiness for online instruction
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2019/2020 Technology Initiatives

Associated Goal/Objective	Technology Initiative
<p>Objective 3.1 Research and pilot options to take advantage of the agility, performance and scalability associated with hosted (cloud) services while maintaining on-premise data; i.e. blended/hybrid data center.</p>	<p>Identify approach to roll-out Office 365 so that employees can take advantage of new platform to acquire Office products at no cost for home/personal use</p>
	<p>Setup and piloted use of OneDrive (shared cloud storage) for departmental and individual use</p>
<p>Objective 3.2 Investigate, research and implement appropriate open educational resources (OER) as they can be used in online, face-to-face, and blended/hybrid learning environments.</p>	<p>ConferZoom training</p>
	<p>Canvas training/online certification</p>
	<p>Implementation of Vision Resource Center</p>
<p>Objective 3.3 Maintain security software, policies and procedures by reviewing and adhering to evolving industry standards.</p>	<p>Migrate all district computers to Windows 10 (document exceptions as needed)</p>
	<p>Fax transmissions to email</p>
	<p>Implementation of additional desktop virus protection; i.e. WebRoot</p>
	<p>Migration of all Windows Servers to version 2016</p>
<p>Objective 3.4</p>	<p>Acquire and test implementation of new platform for public-facing web pages</p>



Remain current with evolving technology standards and improve technology infrastructure and software where appropriate.	
	Implementation of VEEAM backup strategies
	Upgrades to Virtual Servers to provide additional CPU and RAM
	Point-to-point connections to remote locations
	Standardized and began implementation of Laser Projector technology
	Standardized and began implementation of Extron Control systems
	Implemented Extron Room Schedulers
Objective 3.5 Remain current with emerging productivity software and implement as needs are defined and funding as available.	
Objective 3.6 Identify and implement a process to integrate funding for technology replacement into the District's budget development cycle.	Draft TRP budget process
Objective 3.7 Provide appropriate access to technology for faculty and staff required to complete assigned responsibilities.	Create process to loan equipment to staff in order to effectively work remotely

019/2020 Technology Initiatives



Associated Goal/Objective	Technology Initiative
<p>Objective 4.1 Develop and publish inventory of instructional software including where/how used, license information, accessibility evaluation results and associated equally effective alternate access plans, and other pertinent information as identified.</p>	<p>Gathering a listing of all instructional software</p>
<p>Objective 4.2 Implement the next steps identified in the Meeting Institutional Accessibility Obligations document.</p>	<p>Creation of an accessible campus map to be used on Facilities Planning website</p>
	<p>Implemented closed captioning solution for internet streaming</p>
	<p>Created and published Accessible Course Syllabus Template</p>
	<p>Published DCCD VPAT and ACR Requirements</p>
	<p>Created and published Questions About Accessibility at COD information graphic</p>
	<p>Established Board Policy 3725 and Administrative Procedure 3725 – Information and communications Technology Accessibility Acceptable Use</p>
	<p>Updated Purchasing Terms and Conditions to define accessibility conformance requirements</p>
	<p>Created Accessible Meeting Agenda and Accessible Meeting Minutes templates</p>
	<p>Created COD Information Communication Technology Section 508 Compliance Review and EEAAP process</p>



COLLEGE
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Technology Master Plan



2019/2020 Technology Initiatives

Associated Goal/Objective	Technology Initiative
Objective 5.1 Leverage data from various information systems, including employers and students, to allow analysis of student outcomes and to help inform effort for future planning.	
Objective 5.2 Proactively work with CENIC to procure 100 GB internet connectivity for district use for existing programs and for future business and partnership opportunities as they are identified.	Initiated conversation with Coachella Valley Economic Partnership to partner/support this opportunity for the new Palm Springs Campus



2020/2021 Technology Initiatives

Associated Goal/Objective	Technology Initiative
<p>Objective 1.1 Expand use of API's (i.e. system interfaces and integrations) from all relevant data sources, to analyze data and provide information in a format that improves decision-making for educational and career goals.</p>	<p>Implement FollettDiscover to allow students more information about book options as they register</p>
<p>Objective 1.2 Working with existing technology-related committees, identify emerging and innovative educational technologies to test and pilot for enhanced learning.</p>	
<p>Objective 1.3 Working with departments, identify emerging and innovative technologies to test and pilot for improved student services.</p>	<p>Expansion of Chatbot to other departments</p>
	<p>Expansion of QLess to other departments</p>
<p>Objective 1.4 Test and pilot emerging and innovative uses of mobile devices which improve services for students.</p>	<p>Implementation of new Content Management System (CMS) for public-facing website</p>
	<p>Develop Teams Sites for departments using Microsoft 365</p>
<p>Objective 1.5 Proactively work with application vendor to implement new functionality into existing planning and advising systems.</p>	<p>Complete migration to Colleague WebUI</p>
	<p>Deploy and execute the Colleague-Cal Grant Module to ensure a more</p>



	streamlined process for students receiving Cal grant
Objective 1.6	Provide access to appropriate technology to students for both distance and face-to-face learning
	Create a student help desk for technology-related issues
Objective 1.7 Continue to support the use of dynamic dashboards and analytics, including the software, hardware, and cloud-based solutions needed for the creation, use and deployment of these tools.	Implement LIVE Excel in Faculty/Staff portal; e.g. Room Schedules, Archived positive attendance



2020/2021 Technology Initiatives

Associated Goal/Objective	Technology Initiative
<p>Objective 2.1 Pilot and assess tools which monitor application and network performance.</p>	<p>Improve use of existing IT Work Order system to provide informative reports to be used for planning</p>
	<p>Implement NetScout or similar product to analyze the coverage and strength of wireless network</p>
<p>Objective 2.2 Use existing Laserfiche and other technology systems to create electronic forms and define workflow to streamline processes for the district.</p>	<p>EEAAP form and associated documentation repository</p>
	<p>Complete the automation process for Payroll Authorization, EOPS Intake Application, Sabbatical Application, Travel Approval/Claim, Request for Recruitment by using Laserfiche to create an electronic form with an attached workflow process</p>
	<p>Ongoing creation of electronic forms including MESA application, Public Safety Incident Report, President's Student Ambassador Program Application</p>
	<p>Complete the migration of Infopath forms to Laserfiche forms in preparation for the implementation of the new web management tool</p>
<p>Objective 2.3 Working with Institutional Research, distribute surveys and evaluate responses from stakeholders relating to</p>	<p>Complete annual technology surveys for faculty and staff</p>



technology requirements, needs and future direction.	
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2020/2021 Technology Initiatives

Associated Goal/Objective	Technology Initiative
<p>Objective 3.1 Research and pilot options to take advantage of the agility, performance and scalability associated with hosted (cloud) services while maintaining on-premise data; i.e. blended/hybrid data center.</p>	<p>Pilot use of Azure for storage options</p>
<p>Objective 3.2 Investigate, research and implement appropriate open educational resources (OER) as they can be used in online, face-to-face, and blended/hybrid learning environments.</p>	<p>Increase faculty use of OER resources</p>
	<p>Work with Follett/Bookstore for additional student access to information; e.g. SB-1359</p>
<p>Objective 3.3 Maintain security software, policies and procedures by reviewing and adhering to evolving industry standards.</p>	<p>Implementation of password changes using 2-factor authentication</p>
<p>Objective 3.4 Remain current with evolving technology standards and improve technology infrastructure and software where appropriate.</p>	<p>Phase-in of Meraki wifi network using 802.11 AX protocol</p>
	<p>Continued implementation of Extron Control systems into classrooms and conference rooms</p>
	<p>Upgrade of Ghost Server</p>
	<p>Upgrade and replace the message archiver</p>



Associated Goal/Objective	Technology Initiative
Objective 3.5 Remain current with emerging productivity software and implement as needs are defined and funding as available.	Develop Teams Sites for departments using Microsoft 365
Objective 3.6 Identify and implement a process to integrate funding for technology replacement into the District's budget development cycle.	Integrate funding review/approval into budget development cycle
Objective 3.7	Create a comprehensive policy and associated procedure for working remotely
	Provide appropriate access to technology for faculty and staff required to complete assigned responsibilities while working remotely



2020/2021 Technology Initiatives

Associated Goal/Objective	Technology Initiative
<p>Objective 4.1 Develop and publish inventory of instructional software including where/how used, license information, accessibility evaluation results and associated equally effective alternate access plans, and other pertinent information as identified.</p>	<p>Develop instructional software inventory</p>
<p>Objective 4.2 Implement the next steps of Meeting Institutional Accessibility Obligations document.</p>	<p>Fiscal Services and IT will develop an inventory of ICT to review for accessibility conformance including software, hardware and web content</p>
	<p>Develop an inventory of instructional technology to review for accessibility conformance</p>
	<p>Develop and conduct survey of faculty to determine if faculty feel supported and to determine if there is an increased understanding of accessibility and accommodations</p>
	<p>Provide FLEX sessions that introduce faculty and staff to universal design principles</p>



2020/2021 Technology Initiatives

Associated Goal/Objective	Technology Initiative
<p>Objective 5.1 Leverage data from various technology systems to transform the use of data from static reports to dynamic dashboards, from emphasis on the past to future predictive and proscriptive analytics. Leverage data from various information systems, including employers and students, to allow analysis of student outcomes and to help inform effort for future planning.</p>	
<p>Objective 5.2 Proactively work with CENIC to procure 100 GB internet connectivity for district use for existing programs and for future business and partnership opportunities as they are identified.</p>	<p>Work with CENIC to procure 100 GB internet connectivity</p>



Appendix II

Computer Lab Inventory and Refresh Cycle

Computer Lab – Type 1: 4 years

Location	Classroom Labs
AS-104	Architecture
B-6	Business 6
B-7	Business 7
B-8	Digital Design
COM-105	Communications Lab
BNC-40	Nursing BNC 40
COM-106	Communications Lab
COM-205	Communications Lab
COM-206	Communications Lab
CSSC-118	DSPS Lab
DM-21	General Purpose Lab
INDIO-204	General Purpose Lab
INDIO-206	General Purpose Lab
Palm Springs-08	Digital Design
Palm Springs-10	General Purpose Lab
PSA-16	General Purpose Lab
SOC-12	Math
SOC-15	Math

Computer Lab – Type 2: 4 - 6 years

Location	Academic Labs
Admin 5/6	Workforce Solutions
AG-102	Agricultural Science
AS-108	Architecture
BNC-40	Nursing BNC 40
COM-108	ESL
COM-110	GED
CSSC-100	DSPS Testing
CSSC-222	Counseling
CSSC-229	Career Transfer Center
CSSC-249	ACES
CSSC-269	Assessment Lab
DHS-40	General Purpose Lab
DM-8	Automotive
DM-10	HVAC
DM-10A	Automotive
ECE-101	Early Childhood Education
HILB LL Classroom	Library/TASC Lab
HILB 2 nd Floor Classroom	TASC Lab
Indio	CASAS
Indio-205	TASC Lab
Math-4	Math Lab
MSTC-106	Science Laptops
MSTC-203	Chemistry
MSTC-204	Physics
Science-8	Biology
Science-14	Science Lab
SA-3	General Purpose Lab



SA-8	General Purpose Lab
SOC-11	Midi Lab

Location	Non-Academic Labs
Admin	Faculty Resource Center
KCOD	KCOD Radio Lab
MSTC-106	TLC
SA-4	Chaparral

Appendix III

COD's Social Media Management

The following summarizes current policies and guidelines regarding the college website, YouTube, and social media activity and content. (Links in this document which connect to documents housed on the campus portal will require users to log in to the portal which is limited to employees.)

COD Website

The Office of Institutional Advancement (OIA) is responsible for the “look and feel” of the college website. The OIA is also responsible for the “general information” pages such as the home page, the President’s Welcome, the “About COD” page, the campus map, etc. The rest of the program-specific content is managed by each individual department.

The Public Relations Office is responsible for assisting in coordinating the content and consistency of design and branding of the college web, portal pages and social media. The branding guidelines for the college are detailed in the “Brand Style Guide 2019” which is posted on the college portal, on the Public Relations page located [here](#).

YouTube

College of the Desert’s YouTube page is located [here](#). The college YouTube page is a platform accessible by the public on which to post video about COD events, students, and activities. Items are posted to this page at the discretion of the OIA. Anyone wishing to include a video on the site can contact the OIA.

Facebook

College of the Desert’s Facebook page is located [here](#). Access to this page requires the user to have his/her own Facebook account. The college Facebook page is a social media vehicle for promoting campus activities, encouraging student interaction, and general communication among campus constituents. Official posts from the college are handled by the Public Relations office and is monitored for appropriate content. Questions from users are routed to the appropriate campus office for accurate information and responses are then posted by the Public Relations office.



Creating a Facebook Page for Your Program

You may create your own department's Facebook page. Please follow the instructions below:

1. Have IT set up a generic email address for your program to use for your social media needs. For example, the PaCE program might use: PaCE@collegeofthedesert.edu. Use that email address when setting up the Facebook page. When the page responsibilities need to shift to another person, it is easier if the FB page isn't tied to an individual. Please use a generic password as well.
2. When naming the Facebook page, use 'College of the Desert' followed by a unique name that will describe your area, for example, "College of the Desert TRiO EVC".
3. Contact the PRO to create a social media icon for your department.
4. Select an image that represents your area to use as the banner photo.
5. Your page must also list the Public Relations Office as an additional Administrator on your Facebook page. Use PRO2500@collegeofthedesert.edu as our email address.
6. Once your Facebook page has been set up, 'like,' the main College of the Desert Facebook page, the PRO will 'like' your page as well. The main COD Facebook page can be located in the lower right hand corner on the College's website or [here](#).

Instagram and Other Social Media

College of the Desert has an official Instagram account located [here](#). To create your own department's Instagram page, contact the Public Relations Office to discuss best practices and posting responsibilities. For all other social media account needs, contact the Public Relations office.