Riverside City College Technology Plan
2024-2029

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1. Introduction:

Overview

The Riverside City College Technology Plan has been established in support of the college vision: "Riverside City College strives to provide excellent educational opportunities that are responsive to the diverse needs of its students and communities and empowers both to be active participants in shaping the future." Accordingly, in support of this vision and the college mission, the RCC Technology Plan outlines goals and objectives, technology standards, and prioritization.

Purpose

Technology is essential for supporting workflow processes in a modern organization. Technology is integral to the success of the college mission and should be held to a high standard at RCC. To accomplish this, the Technology Resource Committee (TRC) will review the Technology Plan annually and update it regularly to meet the demands of educational excellence, innovation, and service.

The RCC Technology Plan is maintained and updated by the TRC. The TRC is an advisory committee that reports to the Resource Development and Administrative Services (RDAS) Leadership Council. The TRC includes a faculty chair, classified professional co-chair and voting membership including faculty, classified professionals, management, and student government representatives in accordance with board policy and RCC operating procedures.

Technology Definition

Technology is a term used for a wide variety of systems and equipment. The RCC Technology Plan uses the term technology to describe.

- Networking systems and infrastructure – Servers, switches, routers, wireless access points, and copper and fiber cabling.
- Equipment in offices and classrooms such as desktop and laptop computers, phones, printers, and scanners.
- Projection equipment (displays and projectors), audio systems (speakers and microphones) in classrooms and conference rooms.
- Video conferencing and streaming content equipment (cameras and microphones).
- Security camera system equipment (cameras and data storage).

2. College Strategic Planning Goals:

1. **Student Access**
    1.1 Increase the college going rate by 3% annually in order to increase attainment of living wages in our community.
    1.2 Reduce equity gaps by 40% in 5 years by removing barriers in the on-boarding process (including access to programs and services) through cultural proficiency training and targeted interventions based on disaggregated student equity data.
    1.3 Increase percentage of students eligible for financial aid who receive aid by at least 2% per year.
    1.4 In order to shorten the time to completion and improve college going rates, the college will increase number (headcount) of high school students participating in dual enrollment programs (inclusive of CCAP, middle college, and concurrent enrollment) 5% annually.

2. **Student Success**
    2.1 Increase by at least 20% annually the number of RCC students who acquire associate degrees, credentials, certificates, or specific job-oriented skills sets.
    2.2 Increase by 20% annually the number of RCC students transferring to a UC, CSU, private college, or out-of-state public or private institution.
    2.3 Increase the percentage of exiting students who report being employed in their field of study by 3.5% annually, an increase of 10%, median earnings 9.75% annually, and the number of those earning a living wage by 9.75% annually.
    2.4 Through targeted interventions based on disaggregated student equity data, shorten the time to completion for part-time students from 6 to 4 years, and full-time students from 6 to 3 years.
    2.5 Increase number of students who complete both transfer-level math and English in first year by at least 20% annually.
    2.6 Increase course success rates by 1% annually from the baseline of 67.3% in the 16-17 AY.
    2.7 Ensure the number of units for degrees does not exceed 15% above required number of units.
    2.8 For each of the objectives above, decrease equity gaps by 40% in 5 years and eliminate within 10 years, by providing cultural proficiency training for faculty and academic support staff, and by providing integrated academic support, and discipline-specific pedagogical practices for improved student outcomes at the curricular level.

3. **Institutional Effectiveness**
    3.1 Ensure that all decision making, processes, and outcomes are aligned with the college's mission and goals and governance structures by regular review of college policies, plans and processes.
    3.2 Facilitate accountability, transparency, and evidence-based discussion in decision making to improve trust by regularly publishing plans, reports and outcomes data.
    3.3 In order to maintain funding, and to meet the needs of students, attain a college-level

efficiency average of 595 (WSCH/FTEF) by providing disciplines with their specific efficiency targets and the tools to meet those.

3.4 Provide a framework and tools to recognize excellence and sharing and implementing of best practices across disciplines, departments and service areas to create an environment in which students, faculty, and staff feel supported and valued.

3.5 Provide cultural proficiency training and comprehensive data coaching to support evidenced based discussion and development of strategies to help disciplines, departments and service areas meet equity goals.

3.6 Improve communication strategies internally by providing framework and tools to streamline and prioritize messaging, and with the communities we serve through robust marketing strategies.

4. **Resource and Learning Environment Development**

4.1 Efficiently manage existing resources to support the ongoing academic and student support programs, and strategically develop external revenue sources to maximize the resources available to support student learning and success. (Target: 30% of the overall budget will be from external revenue sources.)

4.2 Maintain a healthy and safe environment for students, faculty, and staff, by developing a process through which the college can be responsive to any health and safety recommendations.

4.3 Refine the Budget Allocation Model (BAM) grounded on principles of equity, transparency, and fairness to be implemented by Fall 2020, that is annually reviewed, assessed and updated.

4.4 Revise and implement a strategic enrollment management plan that integrates student need, success and access goals with financial planning by Fall 2020, that is annually reviewed, assessed and updated.

4.5 Implement the Technology Plan to ensure relevant investment in state-of-the-art technologies to enhance data-informed decision making, programs, services, and operations that are annually reviewed, assessed and updated.

4.6 Revise and implement the HR Plan, by Fall 2020, with specific goals to recruit and hire diverse faculty and staff to support student success that is annually reviewed, assessed and updated.

4.7 Provide annual Facilities Plan updates and fully integrate the Total Cost of Ownership principles for existing and future design of facilities.

5. **Community Engagement**
    5.1 Enhance and maintain partnerships with the community's K-12 districts, universities, and other regional partners by actively participating in collaborative groups to increase equitable student success and completion at all levels.
    5.2 Expand work with local businesses and CTE advisory groups to ensure that the college's educational programs provide the necessary skills that lead to living wage employment opportunities.
    5.3 Continue providing programs and services that are responsive to and enrich the community.
    5.4 Collaborate with the RCCD Foundation to ensure the continuation and growth of philanthropy to enhance educational programs and student support services at RCC.

3. Objectives:

In alignment with the Educational Master Plan and the college's strategic planning goals, the Technology Plan focuses on ensuring the college achieves the following objectives in serving students and employees:

- Provide global access to information
- Meet educational and training needs
- Foster innovation, communication, and collaboration
- Improve the effectiveness of students' and employees' respective tasks
- Provide adequate funding for the maintenance of existing technology and for the purchase of emerging technologies

To fulfill the above objectives, the college must do the following:

A. Provide Global Access to Information

1. Ensure the college website and online portals for students, faculty, and classified professionals provide easy access to information and college support services.
2. Implement systems and technology to streamline student-related processes aligned with admission, retention, progress, completion, and equity goals.
3. Use online technology to increase access to learning opportunities that foster student and faculty success on and off campus.
4. Maintain and update a comprehensive mass notification system for emergencies and mass communication.
5. Maintain and upgrade cloud-based services that function as an extension of the college's infrastructure to ensure service stability in case of outage.
6. Use social media to foster a sense of community on and off campus.
7. Provide security awareness training for all students, classified professionals, and faculty to ensure safe use of all technology resources.
8. Ensure that college provided technology resources are accessible to people with disabilities according to Section 508 of the Rehab Act of 1973 (RCCD Board Policy AP 6365).

B. Meet Educational and Training Needs

1. Maintain and upgrade systems and technology through Program Review and the replacement plan within this document to improve student access, success, and equity.
2. Implement systems and technology for the deployment of student success and support programs.
3. Provide comprehensive professional development opportunities for faculty and support classified professionals to train in emerging and newly adopted technology.
4. Provide access to professional development opportunities related to innovation for employees, such as conferences and workshops.
5. Maintain and update network infrastructure, campus internet, and wi-fi access technology regularly in a manner that improves student access, success, and equity.

C. Foster Innovation, Communication and Collaboration
1. Provide easy access to one-stop service desk for all technology and college support services.
2. Use technology to encourage timely communication and collaboration between constituency groups at RCC.
3. Annually collect data and feedback from students, faculty, and classified professionals to assess college technology and support services.

D. Improve the Effectiveness of Students' and Employees' Respective Tasks
1. Provide all necessary access for faculty and classified professionals to software applications and technology (including necessary components of the Learning Management System) which improve learning and support college functions.
2. Implement procedures to promote best practices in information security for students, faculty, and classified professionals.
3. Implement procedures for electronic records management that are secure and improve efficiency.
4. Administer a technology replacement plan for department specific technology infrastructure, offices, classrooms, and laboratories.

E. Provide Adequate Funding Including Grants, for the Maintenance of Existing Technology and the Purchase of Emerging Technologies
1. Provide guidelines for prioritizing the college budgets for the replacement, repair, and upgrade of department, office, classroom, and laboratory technology equipment through a Total Cost of Ownership (TCO) analysis.
2. Implement an inventory system and auditing procedure that regularly evaluates the value and status of campus technology and equipment.
3. Coordinate the college budget with grant funding that supports the purchase, repair, and upgrade of technology equipment.
4. Manage the technology replacement plan and prioritization procedure.
5. Provide prioritization guidelines for funding for employee positions supporting campus technology services.
6. Provide prioritization guidelines for all grant-funded and/or grant-related technology purchases include a TCO analysis, including licensing, hardware, software, and systems management.
7. Ensure all grant-funded technology purchases are specifically designated and are not automatically covered by the replacement plan.

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4. Technology Standards

The college is responsible for maintaining minimum standards of technology and equipment that support the educational master plan, adhere to accreditation guidelines, and meet the needs of students and employees in the following key areas:

A. Classrooms
B. Laboratories
C. Large Meeting Rooms and Auditoriums
D. Study Spaces
E. Conference Rooms
F. Offices
G. Individual Computers and Devices
H. Advanced Technology and Equipment
I. Service Areas (Printing, A&R, DSPS, Facilities, etc.)
J. Network and Wireless
K. Servers, Backups, and Disaster Recovery
L. Communication Systems
M. Safety and Information Security
N. Website

The minimum standards for technology and equipment deployed to these areas of the college are in the Technology Plan Appendix. These standards should be reviewed annually by TSS employees and updated and revised when necessary. To align with the college educational master plan, these updates should be made in consultation with the TRC and under the direction of the RDAS leadership council.

A. Classrooms

Each classroom must contain:
- A telephone for emergency contact.
- An instructor computer station with network and internet access capable of multi-media playback.
- Audiovisual projection equipment.
- Access to discipline specific teaching and training technology, software, and equipment.

B. Laboratories

Each lab must contain:
- A telephone for emergency contact.
- An instructor computer station with network and internet access capable of multi-media playback.
- Audiovisual display equipment.
- Enough computers with network and internet access to meet student demand.
- Access to discipline-specific teaching and training technology, software, and equipment in sufficient quantities that meet student demand.
- Discipline-specific technology should meet industry standards for performance, safety, and information security.
- Access to printing as needed.
- A lab aide and computer workstation as needed.

C. Large Meeting Rooms and Auditoriums

Each large meeting room and auditorium must contain:
- A telephone for emergency contact.
- Highspeed wireless and network access.
- Audiovisual projection equipment.
- Multimedia, computer and device connectivity for HD projection and sound.
- Video capture and streaming equipment support as needed.

D. Study Spaces[1]

Each study space must contain:
- A telephone for emergency contact.
- Access to enough computers with network and internet access to meet student demand.
- Access to standard software to meet student demand.
- Access to printing as needed.
- A lab aide and computer workstation as needed.

E. Conference Rooms

Each conference room must contain:
- A telephone for emergency contact.
- A computer station with network and internet access capable of multi-media playback.
- Audiovisual display equipment.

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[1] Defined in this plan as an unsupervised lab- or workspace where students in any discipline or major can gather to study. Examples include study rooms in the library and elsewhere, "open" computer lab spaces not restricted to specific disciplines or departments, and other student study spaces not governed by other categories in this section.

F. Offices

Each employee office must contain:
- A Voice Over IP telephone with voicemail.
- A desktop or laptop computer with office software that includes network and internet access.
- Software technology that conforms to the discipline's needs aligns with course content and supports department job functions.
- Convenient access to printing, duplicating, and scanning.

G. Individual Computers and Devices

Each faculty and classified professional member should have access to standard technology provided by the college. Any advanced technology must be approved by the area dean or manager.
- Full-time faculty and classified professionals are limited to one computer, laptop, or supported device.
- Part-time faculty, classified professionals, or student employees should be provided shared access to a computer with a unique individual login.

H. Advanced Technology and Equipment

Advanced technology such as department or discipline specific devices and equipment that exceed the minimum standards of the technology plan should conform to the following criteria:
- Dean and manager approval are required to purchase or replace advanced technology and equipment.
- Technology and equipment should conform to the needs of the discipline and align with course content.
- New and emerging technology and equipment should enhance department job functions and improve accuracy and efficiency.
- Adopted technology and equipment should meet industry standards for performance, safety, and information security.
- Technology and equipment not supported by college services should be maintained by qualified vendors, and the department or discipline is responsible for finance, purchase, and replacement.

I. **Services Areas**

Service area technology (Printing, A&R, DSPS, Facilities, etc.) must conform to the minimum standards for computers and equipment, be evaluated and renewed according to the replacement plan, and is supported by college employees according to the following guidelines:

- Dean and manager approval are required to purchase or replace technology and equipment in service areas.
- Technology and equipment should meet industry standards for performance, safety, information security and conform to the needs of the service area.
- New and emerging technology and equipment should enhance department job functions and improve accuracy and efficiency.
- Technology or equipment in service areas not supported by college services should be maintained by qualified vendors, and the college is responsible for finance, purchase, and replacement.

J. **Network and Wireless Access**

The college should have a robust and reliable network infrastructure that connects all users throughout all campus buildings. The district must provide enough hardware and personnel support to maintain the network regularly.

- Provide secure enterprise speed connectivity to all wired connections campus wide.
- Provide comprehensive secure wireless access for all students, employees, and authorized guests throughout all college locations.

K. **Servers, Backups, and Disaster Recovery**

The college, supported by the district, should provide secure and centralized network storage, backup, and recovery services to meet the needs of the college departments.

- TSS will work with the district to develop a data archiving and retrieval process for emergency backup and recovery service for network storage.
- TSS will work with the district to develop a disaster recovery plan to restore access to critical information resources in case of a catastrophic outage.

L. **Communication Systems**

The college, supported by the district, should provide a reliable and secure communication system throughout the college. This includes:

- Department and office phones with voicemail.
- Classroom, lab, and service area phones.
- Emergency phones with 911 access.
- Emergency mass notification system.
- Video conferencing.

M. Safety and Information Security

The college should coordinate with the district to ensure the safety of faculty, classified professionals, and students by maintaining and upgrading building safety equipment, alarm systems, and emergency communications technology. In addition, the district must provide a secure network that includes an information security plan, policies, procedures, information security technology and end user security awareness training to help mitigate outages and attacks and protect data confidentiality, integrity, and availability.

- Safety equipment, emergency communication systems and alarms must be tested, evaluated, and repaired regularly.
- College faculty and support classified professionals should serve on district technology and safety and security committees to increase communication and address local needs.
- District and local support services should implement network management tools to monitor and control all critical network resources and develop an incident response team and procedures for network outages and attacks.

N. Website

The college has designed its website to function as an engagement tool for a wide range of prospective students, their parents, the community, and potential donors; explain the programs and pathways offered for each constituency in a way that makes sense to them; focus more on marketing the organization (i.e., telling RCC's story, showcasing the college's outcomes, highlighting the entry points of educational paths that ultimately lead to success); empower internal stakeholders to take ownership of content and to value the website as a useful communication tool; and create an exciting, compelling, and unified site experience that balances professionalism with authenticity and has the ability to scale up.

5. Replacement Plan

To fulfill the Technology Plan and support the RCC mission statement, the college should repair and replace classroom, lab, study space, office, conference room and department computers, technology, and equipment regularly. The strategic planning process should provide an annual budget and create a prioritization plan that addresses campus needs equitably. (See APPENDIX for specific technology standards.)

A. Computers and Devices

Current computer and device replacement/life-cycle guidelines are as follows:
- Software: Renew and update annually.
- Mobile Devices Replace within 5 years.
- Computers: Replace within 5 years.
- Multimedia/Engineering Computers: Update, repair or replace within 7 years.

B. Network

Current network replacement/life-cycle guidelines are as follows:
- Network devices: Update, repair, or replace within 10 years.
- Wiring and physical infrastructure: Update, repair, or replace within 15 years.

C. Technology and Equipment

Current technology and equipment replacement/life-cycle guidelines are as follows:
- Non-computer technology: Update, repair or replace within 10 years.
- Equipment: Evaluate, repair, or replace within 15 years.

D. Audiovisual Equipment

Current audiovisual replacement/life-cycle guidelines are as follows:
- Audiovisual and multimedia: Update, repair, or replace within 8 years
- Wiring and physical infrastructure: Update, repair, or replace within 15 years

E. Security Camera System Equipment

Current security camera system replacement/life-cycle guidelines are as follows:
- Cameras: Update, repair, or replace within 8 years
- Recorders: Update, repair, or replace within 5 years
- Wiring and physical infrastructure: Update, repair, or replace within 15 years

6. Technology Support Services

The Technology Support Services (TSS) department is a support division of the Riverside Community College District (RCCD) Information Technology and Learning Systems (ITLS) department. Technology Support Services provides a one stop Help Desk, audiovisual technology (AV) and information technology (IT) support to Riverside City College and the Riverside Community College District. There are distinct support services within TSS:

A. Help Desk

Technology Support Services has established a help desk that is easy to use, exceeds customer expectations, and continually improves our services for all customers. The Help Desk will escalate issues to other team members and departments, as necessary.

- Supports users by answering questions and solving incidents using phone, email, chat, and other electronic means.
- Knowledge centered service provides a method for capturing institutional knowledge to support community.
- Maintain service catalog of work performed by TSS and other support service departments including information on categories, service descriptions, overview of service, benefits, cost, and aligned to policy. (Appendices).
- Oversee service level agreement supporting the enforcement of incident priority and targeted response. (Appendices).
- Origination of projects including grant technology requests.

B. Information Technology

The Information Technology (IT) services division of TSS is responsible for the planning, acquisition, installation, management, and decommission of end-user IT hardware and software technologies along all stages of the technology lifecycle at Riverside City College and the Riverside Community College District. Hardware and software technologies supported by TSS IT include, but are not limited to the following:

- Computers, workstations, servers, laptops, tablets, monitors, printers, scanners, digitizers, I/O devices, peripherals
- Windows OS, macOS, iOS, Unix/Linux distros
- Microsoft Office applications
- Adobe CC applications
- Administrative, department, and discipline applications
- Persistence protection services
- Image and deployment management
- Mobile device management

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C. AudioVisual Technology

The AudioVisual Technology (AV) services division of TSS is assigned to classroom technology support, meeting rooms, and conference rooms which use audio-visual media technology. Classroom technology support includes projectors, document cameras, classroom sound systems, control panels, video and audio playback, and classroom lecture capture. Conference rooms include video conferencing systems, audio, and presentation technology. In addition, AV supports the District Office and all VIP events which occur off campus. In sum, AV is responsible for the following:

- Design support for new building projects
- Redesign and renovation support of existing spaces according to the replacement plan
- Design support of new classroom technology needed for new academic programs
- Setup of sound systems and video systems, including video recording for all college events requesting this service, including VIP events
- Installation of media systems in coordination with Facilities for electrical power with and District for network requirements.
- Perform in-house repairs for media equipment, including cable fabrication and repair.
- Perform support for everyday trouble shooting.

D. Staffing and Budget Standards

To ensure the college Technology Support Services department can sufficiently support and manage the technology deployed across the campus, the college must provide adequate funding and staffing guidelines.

- Establish and maintain a clear and reasonable device-to-technician support technician staffing ratio based on industry standard metrics.
- Provide adequate funding for technology resource tools (equipment, hardware, software, etc.) used by support technicians to deploy, manage, and repair technology on campus.

7. Planning and Assessment

To ensure continuous quality improvement in the use of technology by the college, this plan offers two assessment targets. The first focuses on the plan's development, approval, and implementation, the assessment of which will ensure that the plan's content remains relevant and up-to-date and will refine as well as the process of adopting strategic and operational plans across the college. The second assessment target is the college's prioritization, acquisition, and usage of technology, which will ensure that the college adheres to defined processes when making technology-related decisions, that technology resource purchases are fiscally responsible, and that technology resources help all constituents fulfill the college's mission and strategic goals.

A. Assessment and Evaluation of the Technology Plan Itself

During the Technology Resources Committee's annual review of the Technology Plan itself in spring of each academic year, the TRC will complete the following tasks:

- Review and align/realign the plan with the college's strategic goals and the Educational Master Plan.
- Review prioritized initiatives from division Program Review and Plan (PRaP) documents and consider potential revisions to division, department, and discipline goals. The PRaP prioritization list should be provided to the TRC by the end of the fall term.
- Evaluate technology-related targets by division and their related financial impacts, if any.
- Consider new developments and changes at the state level that may affect technology requirements at RCC.
- Archive (and remove) completed or outdated components of the Technology Plan.
- Submit the final draft of the revised plan to RD&AS and then to EPOC for review and approval.
- Facilitate approval of the revised plan for the next year by spring term's end.

Annual updates and revisions to the plan will allow the college to regularly provide small but meaningful adjustments to the college's prioritization, acquisition, and usage of technology, but such updates and revisions should not include major strategic shifts from year to year. Any larger changes should happen, if necessary, when the plan is evaluated and overhauled every five years.

B. Assessment and Evaluation of Technology Across the College

To assess the college's technology prioritization, acquisition, and usage, the college must do the following:

- Establish key performance indicators through the Office of Institutional Effectiveness for technology prioritization, acquisition, and usage; and evaluate the college's success in reaching those KPIs.
- Through the Program Review and Plan process, work to identify technology-related KPIs (likely connected to student learning and/or service unit outcomes) for instructional and support/service units across the college and assess their ability to improve student learning, provide student support services for all students (with particular attention paid to students disproportionately impacted groups), and provide support to the college's administrators, faculty, and classified professionals.
- Revise and expand technology satisfaction surveys and process measures for all college constituents by the end of every spring term for implementation in the following fall.

8. District Responsibilities

The Riverside Community College District (RCCD) provides hardware, software, network, information security and related technical support to the colleges within the district. The RCCD also maintains the District Strategic Technology Plan (DSTP) and Security Plan and coordinates and communicates with the colleges through various technology committees. The district also provides financial support through various funding sources to accomplish district wide initiatives such as the upgrade, replacement and maintenance of communications technology, network infrastructure hardware, and information security and safety systems. Table 4 below extracted from the RCCD Technology Plan demonstrates RCC and RCCD technology plan alignment.

Table 4: Alignment of District Technology Goals with Riverside City College Technology Goals					
Riverside City College Technology Goals **District Technology Goals**	Providing Global Access to Information	Meeting Educational and Training needs	Foster Innovation, Communication and Collaboration	Improve the Effectiveness of Student, Faculty, and Classified Professional Tasks	Provide Adequate Funding Including Grants, for the Maintenance of Existing Technology and the Purchase of Emerging Technologies
Support instruction and learning through technology	X				
Support communications, collaboration, and innovation across the District			X		
Develop and maintain sustainable funding strategies for technology initiatives					X
Provide a stable, secure, robust, and scalable information technology infrastructure	X	X		X	
Improve service delivery and broaden support	X	X			
Develop and expand user training and services		X		X	
Improve administrative and operational efficiency and effectiveness				X	
Maintain an integrated institutional plan	X	X	X	X	X

A. Information Technology Strategy Council (ITSC)

The ITSC provides a collaborative forum that advises and informs the Chancellor's Executive Cabinet and the District Strategic Planning Committee in setting priorities and making strategic decisions involving the provision of information services and technology to advance the institutional goals of the district and its three colleges. Council members include technology representatives from each college.

B. Hardware and Network Infrastructure

The district monitors, maintains, upgrades, and provides the necessary hardware and technical support to provide a stable and reliable network infrastructure. These responsibilities include the following:

- District internet connection
- Maintain Local Area Network (LAN) cabling, routing, and switching infrastructure at enterprise speeds
- Secure Wide Area Network (WAN) / Wireless coverage campus wide
- Network file servers that support campus departments and services
- Remote access private VPN (Virtual Private Network) access
- Technology tracking system technology-based hardware and software
- Provide district internal funding, resource grants and bond initiatives

C. Software Enterprise Applications

The district provides user access and enterprise applications that support critical college and district functions including the following:

- User groups and network credentials including email and Office 365 accounts for students and employees.
- Enterprise Resource Planning (ERP) system including Colleague/WebAdvisor
- Financial and accounting software applications such as Galaxy
- Website access and district-wide single sign-on portals for shared applications
- Mobile technologies that expand user access and facilitate communication
- Academic software including state approved applications such as Canvas, Microsoft 365, and Adobe Systems

D. Safety, Information Security and Disaster Recovery

The district provides the necessary security and disaster recovery support for critical college and district functions including the following:

- Emergency mass notification system
- Ensure that network and storage systems meet necessary information security standards
- Establish best practices and uphold industry data security standards that protect critical data
- Provide a stable and redundant network and communications infrastructure for operational continuity in case of emergency or disaster
- Maintain safety, information security, emergency preparedness and incident response plans that coordinate resources and support between the colleges and the district

9. Action Plan

To successfully implement the RCC Technology Plan and to advise the strategic planning process, each academic year the TRC will write a summary proposal of critical action items that should be addressed by the administration, strategic councils, and the district.

Measurable Objectives	Activities/Tasks	Participants	Timeline	Estimated Cost	Evidence
Create and maintain an RCC Technology Plan.	Technology Plan - Complete and adopt revisions to the RCC Technology Plan	TRC, RDAS, then approval by EPOC	Ongoing	N/A	Updated technology plan and submitted to RDAS May 2022. Approved by EPOC 2019
Yearly technology inventory and audit	Yearly technology inventory and audit using equipment spreadsheet databases. Develop a methodology for gathering and reporting accurate inventory.	Business Services, TSS, departments	Ongoing	N/A	Complete - Technology IT/MT inventory spreadsheets created 2019. IT/MT Inventory spreadsheets updated annually.
Classroom AV Equipment Refresh and HyFlex Additions	Replace AV equipment and add HyFlex equipment to 180+ classrooms with obsolete equipment	TRC, TSS, Business Services	2024-2025	$3,903,651	Equipment purchased and delivered to RCC. Quotes available upon request.
Classroom IT Equipment Refresh	All classroom computers replaced in alignment with the computer refresh lifecycle database	TRC, TSS, Business Services	2020-2025	$1,859,575	Equipment purchased, delivered, and installed. Quotes available upon request.
Provide a budget to fund annual Technology replacement plans	Provide a dedicated budget to fund annual replacement refresh Plan.	RDAS, Financial Resources Committee, Business Services	2023-2024	Estimated costs detailed in yearly program review PRaP process spanning 2018-2023.	• Computers PRaP submitted 2018-2019 • Classroom AV PRaP submitted 2021-2022 • Meeting Room AV PRaP submitted 2022-2023

Measurable Objectives	Activities/Tasks	Participants	Timeline	Estimated Cost	Evidence
Improve service desk, website, portals, and online tools.	Improve service desk, website, portals, and online tools. Define the input mechanisms to improve service.	District, TSS, Business Services	Ongoing	TBD	Website and Service Desk implemented 2021.
Create rubric for replacement prioritization decisions	Review annual technology replacement plans and create a rubric for prioritization decisions.	TRC, TSS, Business Services	2023-2024	N/A	Not Started
Implement Mobile Device Management / Mobile Application Management (MDM/MAM) System	Implement Microsoft Intune device management and increase efficiency in support of employee and student devices.	TRC, TSS, District Technology (ITLS)	Ongoing	District Wide Contract	Microsoft Intune device and application management has been implemented in collaboration with District Technology and sister campuses.
Increase cybersecurity	Increase safeguards for employee and student data.	TRC, TSS, District Technology (ITLS)	Ongoing	N/A	Implemented Intune Device management, reduction of user local admin rights, Multifactor Authentication, and encrypted drives in collaboration with District Technology and sister campuses.
Evaluation of innovative technologies	Evaluate affordable technology solutions to meet the needs of employees and students.	TRC, TSS, Business Services	Ongoing	N/A	Evaluated: Interactive Displays – Newline, Clevertouch, BenQ, Video Conferencing - Logitech Rally, Poly, Shure STEM, Huddly, Document cameras - Elmo, Hovercam, Inswan

Measurable Objectives	Activities/Tasks	Participants	Timeline	Estimated Cost	Evidence
Implement Incident Management and Knowledge Management System	Replace FootPrints incident management system with a new system that offers incident and knowledge management.	TRC, TSS, District Technology (ITLS (Information Technology & Learning Systems))	2022-2023	District Wide Contract	https://servicedesk.rccd.edu
Implement HyFlex classroom pilot– Ten classrooms have been designated as pilot HyFlex classrooms.	Design HyFlex solution for classrooms, request proposals, award a vendor, and implement ten pilot classrooms.	TRC, TSS, Business Services, Academic Affaires	2021-2023	$1,006,980	Completed CSA (Coil School for the Arts) 248 and NURS 252, 253, 254 (combination room).
Implement student lab attendance system	Replace current end-of-life student lab attendance system CI Track with a new cloud-based attendance tracking system.	TRC, TSS, Business Services, Academic Affairs, District Technology	2021-2022	District Wide Contract	https://rccd-kiosk.aplusattendance.com/
Implement Mobile Computing Initiative (MCI)	Purchase, configure, and deploy employee laptops with docking stations.	TRC, TSS, Business Services	2020-2024	$2,160,000	Laptops for approximately 800 employees and 1000 students. As of March 2024, 78% of MCI laptops have been deployed.
Implement a Virtual Desktop Infrastructure	Provide a virtual desktop infrastructure (VDI) environment for college employees to safely conduct business on the district network.	TRC, TSS, District Technology (ITLS)	2020-2021	District Wide Contract	https://vdi.rccd.edu

Measurable Objectives	Activities/Tasks	Participants	Timeline	Estimated Cost	Evidence
Implement student laptop loaner program	Provide students with a laptop for remote learning due to pandemic.	TRC, TSS, Business Services	2020-2023	N/A	Established process with Library staff and system to loan existing laptops.
Improve WiFi access	Stabilize connections and increase access to internet wirelessly for employees and students.	TRC, TSS, Business Services, District Technology	2020-2023	District Wide Project	In collaboration with District IT, external and Internal WiFi access upgrades, including parking lot areas.
Implement student hotspot loaner program	Provide students with a hotspot for remote learning due to pandemic.	TRC, TSS, Business Services, District Technology	2020-2023	$240,000 / year	Purchased 500 Verizon hotspots with monthly subscriptions. Ended June 30, 2023.
Upgrade Bradshaw Hall of Fame Audiovisual	Design solution for HOF, request proposals, award a vendor, and implement new AV.	TRC, TSS, Business Services	2018-2019	$120,042.92	Complete – Audiovisual upgrades for events and video conferencing.
Upgrade Digital Library auditorium audiovisual	Design solution for DL (Digital Library) Auditorium, request proposals, award a vendor, and implement new AV.	TRC, TSS, Business Services	2018-2019	$329,164.95	Complete – Audiovisual upgrades.
Upgrade MTSC 3rd floor audiovisual	Design solution for classrooms, request proposals, award a vendor, and implement new AV in classrooms.	TRC, TSS, Academic Affairs	2021-2022	$382,862.43	Complete – Analog AV to a digital AV to support classes MTSC 301, 302, 303, 304, 305, 306, 307, 339, 343, 404.
Upgrade Tech A 107,108, and 127	Design solution for classrooms, request proposals, and implement new AV in classrooms.	TRC, TSS, Academic Affairs	2018-2019	$82,145.51	Complete – Audiovisual upgrades.

10.   Appendices

A. Computer Hardware and Software Standards

RCC's computer hardware standards provide a baseline for which new computers are purchased. This baseline considers price, performance, purpose, and a useful lifespan. Wherever possible only enterprise-grade equipment with a lower TCO (total cost of ownership) will be purchased over consumer-grade equipment. The computers are used for varying types of jobs and tasks throughout the college, there are three different standards have been created: "Multipurpose Computer," "Multimedia/Engineering Workstation," and "Specialized Workstation."

Multipurpose Computer
The specification for a "multipurpose computer" balances price and performance. A "multipurpose computer" will efficiently run most software applications and adequately fulfill the computing needs for most users throughout the college over the expected lifetime of the computer.

Typical usage:
- Email
- Large Microsoft Office Documents
- Web development and design
- Application programming
- Medium graphics, photo, and video editing
- Access to Colleague WebUI
- Multiple Galaxy windows (Windows computers only)
- Single virtual machine
- Remote Access
- Multitasking

Multipurpose Computers with three-year warranty
Minimal System Specification:

Windows
- Laptop or Small Form Factor (SFF) with single display
- Intel i5
- Intel Integrated Graphics
- 16 GB Memory
- 256 GB Storage

Apple
- MacBook or iMac
- Intel i5 or equivalent
- Intel or Radeon Graphics card
- 16 GB Memory
- 256 GB Storage

Multimedia/Engineering Workstation
The specification for an "Multimedia/Engineering Computer" prioritizes performance over price. A "Multimedia/Engineering Computer" has a faster enterprise level CPU and SSD drive than a "Multipurpose Computer" and includes an add-on video card. A "Multimedia/Engineering Computer" will handle most CPU- and graphics-intensive applications. Most college computer users will not need a "Multimedia/Engineering Computer." These computers should be reserved for technical disciplines and unique service areas.

Typical usage:
- Gigantic Microsoft Office Documents
- Heavy Graphics, photo, and video editing
- Multiple virtual machines
- Large CAD Modeling

Multimedia/Engineering Workstations with three-year warranty
Minimal System Specification:

Windows	**Apple**
- Laptop or SFF/Mini Tower (MT) with single display - Intel i7 - Graphics with dedicated memory 32 GB Memory 512 GB Storage	- MacBook or iMac - Intel i7 or equivalent - Graphics with dedicated memory 32 GB Memory 512 GB Storage

Specialized Workstation
The specification for an "Specialized Workstation" prioritizes performance of a specific task with no consideration towards cost. A "Specialized Workstation" has a workstation class CPU, faster and more memory, a faster and larger SSD drive, and a faster add-on video card with more memory, when compared to an "Multimedia Computer." A "Specialized Workstation" is designed to run highly intensive CPU and/or graphic tasks. "Specialized Workstations" will not be deployed to individual users and are meant to perform highly specific functions and shared tasks.

Typical usage:
- Gigantic CAD Modeling
- Gigantic 3D CAD Modeling
- Gaming rendering
- Large HD video rendering
- Extremely complex computations
- 3D animation

Specialized Workstations are configured as needed and will need manager or dean approval

Computer Software Standards

RCC's computer software standards provide a universal baseline for the software deployed with new computers. There are many departments within the college, each with unique academic and administrative software requirements. Those unique software requirements are not listed within the college standard.

Standard Software:

Operating System
- Supported current and previous version

Software
- Cloud-based / Software as a Service (SaaS) preferred host
- Microsoft Office
- Chrome browser
- Native browser (Edge or Safari)
- Antivirus
- PDF Reader
- Media Player

Mobile Device Standards

RCC considers mobile devices to be smart phones, tablets, or other types of highly mobile devices. Laptops are specifically excluded from this standard and grouped with computer standards above. Users include any person using a mobile device that will connect to and make use of the college's network infrastructure. Note that smart phones are supported by TSS (Technology Support Services), but replacement is departmental responsibility.

There are two general types of mobile device categories that will impact the applicability of the standard: college-owned and BYOD (Bring Your Own Device) personal devices.

Users of college-owned devices are responsible for acquiring and administering the devices they use.

Users of BYOD devices are responsible for the acquisition and administration of the devices they utilize.

B. AudioVisual Technology Standards

RCC's audiovisual technology standards are meant to provide a baseline for the design and purchase of technology in academic spaces. This baseline considers price, functionality, purpose, and a useful lifespan of eight (8) years. Existing labs and classrooms may not meet these standards.

Labs and classrooms that do not meet these standards will be marked for replacement once the equipment is eight (8) years old. Since labs and classrooms are used for varying types of instruction throughout the college, three different standards have been created. The standards are "Essential," "Assembly," and "Specialized."

Essential Lab or Classroom

The specification for an "Essential" lab or classroom can be described as a basic lecture style learning area. "Essential" labs and classrooms have no equipment, furnishings, or configuration that are particular to teaching any one discipline. An "Essential" lab or classroom configuration will efficiently facilitate instruction for most subject areas and meet the computing and AV (AudioVisual) needs for most instructors over the expected lifetime of the equipment. Physical dimensions include up to 1,600 square feet (about half the area of a tennis court) and ceilings up to 12 feet.

Minimum standard:
- Projector or Display appropriate for room size
- Common Digital Input Ports
- Multimedia/Engineering Computer with Network Connection
- Document Camera
- Mounted Speakers
- Microphones

Assembly Lab or Classroom

The design will be based on the size and purpose of the room and is not considered a conference room. An "assembly" lab or classroom will include "Essential Lab or Classroom" equipment in addition to technology to support the purpose of the room. Each "assembly" lab or classroom will be designed on a case-by-case basis. Few rooms will require the need for an "assembly" lab or classroom.

Minimum standard:
- Projector or Display
- Common Digital Display Input Ports
- Multimedia/Engineering Computer with Network Connection
- Document Camera
- Mounted Speakers
- Microphones

If needed for instruction and with coordination with the Academic Affairs Division the following items may be considered:

- Lecture Camera and Accompanying Equipment
- Live Streaming equipment
- Convenience display
- Wireless Screen Casting
- Assistive Listening
- Theater AV Equipment

Deleted:

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Specialized Lab or Classroom
The design will be based on courses taught in the "Specialized" labs or classrooms. A "specialized" lab or classroom will include "Essential Lab or Classroom" equipment in addition to technology to support interactive lectures and presentations. Each "Specialized" lab or classroom will be designed on a case-by-case basis. Few courses will require the need for an "Specialized" lab or classroom.

Minimum standard:
- Projector or Display
- Common Digital Display Input Ports
- Multimedia/Engineering Computer with Network Connection
- Document Camera
- Mounted Speakers
- Microphones

If needed for instruction and with coordination with the Academic Affairs Division the following items may be considered:

- Equipment Specialized for Room or Discipline
- Lecture Camera and Accompanying Equipment
- Live Streaming equipment
- Convenience display
- Wireless Screen Casting
- Assistive Listening
- Theater AV Equipment

C. Help Desk Information

The Technology Support Services department has established a help desk that is easy to use, exceeds customer expectations, and continually improves our services for all customers. It supports users by answering questions and solving incidents using phone, email, chat, and other electronic means. The help desk will escalate issues to other team members and departments, as necessary.

- Hours of Operation:
  - Monday – Friday (excluding holidays)
  - 7:00 am – 8:00 pm
- Contact Information
  - 951-222-8388 or ext. 8388
  - Helpdesk@rccd.edu, or ServiceDesk@rcc.edu
- Service Catalog and Service Level Agreement
  - The service catalog and SLA (Service Level Agreement) is a large dynamic spreadsheet and can be viewed at, https://bit.ly/3wwVz46