San Diego City College
Information Technology Plan
2012-2016
(2015 Summary)

Introduction
San Diego City College is committed to the provision of effective technologies and the continuous improvement of technology support services for its students, faculty, and staff. Collaborative planning among College and District stakeholders contribute to the ongoing development and implementation of the College's Technology Plan.

San Diego City College's Institutional Technology Council (ITC) lends oversight to the development of the College's Technology Plan. In collaboration with the Office of the Dean for Information and Learning Technology and the Office of the District's Director of Information Technology, the ITC also recommends technology-mediated systems and solutions that enable users to efficiently and effectively leverage academic and administrative support services.

Campus stakeholders recognize the potential to positively influence student success outcomes through the appropriate use of technology and support personnel. Access to ample instructional technology and informational resources is essential as the college embraces the changing paradigm of technology mediated student engagement and its impact on student success.

Integral to the College's ongoing planning efforts is an existing District/College partnership that facilitates the delivery of select technology resources, services and support to the campus. Both the District and the College take proactive steps to ensure reliable access to informational assets and services. The Information Technology plan affirms district-wide computer standards, protocols for network security, disaster recovery of informational assets, privacy, and the reliability of technology. The College acknowledges that informational assets are backed up and safely stored at a secure "off-site" location

The Information Technology plan also includes ITC's Technology Acquisition and Replacement Program (TARP), a framework that informs the campus' technology acquisition process and identifies technology resources that are targeted for scheduled replacements and/or re-allocation. In addition, the ITC recommends staffing levels, maintenance protocols for technology, and provides leadership for developing guidelines for computer-assisted instruction, including instructional media and technology-mediated student evaluation tools.

While the purpose of the IT Plan is to identify and document the goals and direction of technology to be implemented at San Diego City College, the IT Plan also provides a framework for a continuous, collaborative process of evaluating current and innovative uses of technology. Through its process and procedures the ITC will remain nimble and responsive to new opportunities and rapid changes in technology as it provides recommendations for the continued technological growth of San Diego City College.

About the ITC

San Diego City College's Institutional Technology Council (ITC) draws its membership from the College's Academic Senate, Administration, Associated Student Government, Classified Senate, and Technology staff. The Dean of Information and Learning Technology serves as a Co-Chair of the ITC. The Council supports the College's mission by contributing to technology decisions. The ITC offers recommendations for technology platforms, operating systems, software, computers hardware, print management, web presence, and infrastructure. The Council also facilitates the adoption of viable technology acquisition processes; the scheduled replacement and reallocation of equipment; the security of informational and technology assets, the review of technology support staffing levels, and the advancement of maintenance protocols. The ITC developed and updates the College's Information Technology Plan (IT Plan) to facilitate technology decisions and encourage appropriate use of technology resources.

Instructional Technology Council Members (2015-2016)

Robbi Ewell, Dean and Co-Chair
Jeanie Tyler, Faculty Co-Chair
Seher Awan, VPA
King Arthur, Student
Minou Djawdan Spradley, Dean
Heidi Bunkowske, Classified
Al Cordeiro, Classified
Ken Einstein, Classified
Gwyn Enright, Faculty
Georgina Garcia, Faculty
Majeda Nasrawi, Classified
Robert Kojima, Faculty
Barbara Ring, Faculty
Sean Ryan, Classified

The ITC Council meets monthly during the College's Fall and Spring semesters. The Dean of Information and Learning Technology reports ITC developments to the President's Council and the College's Instructional Cabinet.

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2015-2016 Environmental Scan Update

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Current Environment

Currently, San Diego City College maintains approximately 2,400 college-owned computers. (Note: this number represents the number of machines that are currently in our combined Administrative/Instructional/Classroom inventory). The average cost of a District Standard PC is approximately $1050 per machine and the average expense for an iMac or a laptop is approximately $1,500 per machine. Most employees within the College share printing resources and students leverage the College's pay-to-print system. Application servers support select instructional areas. The San Diego Community College District provides networked and other core IT support services for San Diego City College.

During the recent economic downturn, cutbacks severely limited the College's capacity to keep pace with internal demand and refresh core technologies. While a combination of grant funded computer acquisitions and district-wide recycled systems provided stop-gap relief for critical student, administrative, and instructional areas, a high percentage of the colleges' computing resources have been extended beyond their projected lifespan. As the College embraces planned growth in the current fiscal climate, leveraging the TARP will afford all City College constituents access to current generation computer technology.

The College is also undergoing a sustained period of physical transformation in which older campus structures are being renovated and new buildings have emerged. Along with each new construction, the College has incorporated current generation technology, including computer hardware and software. The infusion of technology resources in select areas has established a new baseline for refreshing or replacing the resources in new spaces. The eventual replacement of technology resources within the new and renovated spaces will be incorporated into the TARP.

The IT Plan

The purpose of the IT Plan is to identify and document the goals and direction of technology to be implemented at San Diego City College. The IT Plan also provides a framework for a continuous, collaborative process of improving campus stakeholder's access and use of effective technologies to achieve greater student learning outcomes and service level outcomes. The overall IT Plan is designed to adjust to new opportunities and shifts in technology as it provides recommendations for the continued technological growth of San Diego City College.

Successful Application of Technology

The guiding principles identified as determinants of successful applications of technology at the college include the following:
1. **Provision of Ample Access to Technology:** Provide stable and reliable access to technology resources without economic and physical barriers
2. **Integration of Technology with Student Success:** Increase student academic success through the use of technology in instructional and support services
3. **Planned Technology Resource Allocation and Procurement:** Allocate institutional resources to ensure delivery of effective instructional technology and administrative technology services
4. **Appropriate Level of Technology Support Services:** Employ and train appropriate technical support staff as new technology resources and programs are adopted
5. **Appropriate Use of Technology-Mediated Resources:** Encourage the application of technological tools and solutions to facilitate productivity within instructional and administrative areas
6. **Professional Development to Leverage Technology:** Provide ongoing training for faculty and staff to effectively use technology
7. **Support Culture of Inquiry:** Cultivate, monitor, and evaluate creative and innovative applications of technology

Information Technology Goals for San Diego City College

Pursuant to the District's mission and the aforementioned guiding principles for developing a

technologically enriched educational environment, the College advances the following Information Technology goals.

1. **Infrastructure:** To leverage a safe and reliable information technology infrastructure that facilitates access to resources for learning and productivity
2. **Utilization**: To provide open access to technological resources across social, economic, and physical barriers to promote student, faculty, and staff success
3. **Funding**: To have adequate and stable funding for the purchase, support, maintenance and replacement of technological resources
4. **Procurement**: To establish and develop processes and procedures for purchasing technology related resources
5. **Technology Support**: To acquire appropriate technology support staff and provide for training to accommodate changes in technology
6. **Professional Development**: promote employee education and training on the appropriate use of technology resources
7. **Communication**: To promulgate information technology guidelines and promote effective communication among faculty, staff, and students regarding campus technology
8. **Monitoring and Evaluation:** To establish a baseline for current technological resources and develop an annual review process

Strategies for Achieving the Technology Goals

The ITC has identified strategies within the following technology areas to achieve the College's information technology goals: Infrastructure, Utilization, Funding, Procurement, Support, Professional Development, Communication, and Monitoring/Evaluation.

Infrastructure: To leverage a safe and reliable information technology infrastructure that facilitates access to resources for learning and productivity

  - ➢ Develop and advance City College recommendations to expand network infrastructure support of wireless, voice, video, and data communications.
  - ➢ Upgrade and expand the existing wireless infrastructure for more extensive use of wireless devices.
  - ➢ Continue to update network infrastructure standards to be applicable to all City College buildings and learning spaces.
  - ➢ Develop emergency response procedures and disaster recovery plan to restore access to critical information resources.
  - ➢ Identify infrastructure technologies to support campus functions.
  - ➢ Establish criteria for new smart classrooms and for the upgrade of existing smart classrooms
  - ➢ Refine asset management database of existing software and hardware.
  - ➢ Establish recommendations and guidelines for instructional workstations

Utilization: To provide open access to technological resources across social, economic, and physical barriers to promote student, faculty, and staff success

  - ➢ Require authentication for all administrative workstations to protect student confidentiality.
  - ➢ Develop college standards to adequately staff and support all current and future student computer labs.
  - ➢ Maintain up-to-date computer hardware and software standards for institutional purchasing and support.
  - ➢ Replace computers as determined by Program Review and the College's Computer

Replacement/Recycle Plan to ensure adequate computing resources for students and employees.
- ➢ Develop print management solutions to fund the purchasing, installation, repair, and support of office and lab printers and supplies
- ➢ Continue to provide online student access to student support services, (appointments for placements, on-line tutoring services, on-line registration, student health services, library services, etc).
- ➢ Continue to provide ADA accommodations on computer stations for individuals with disabilities.
- ➢ Maintain and update a campus website that is ADA compliant.
- ➢ Maintain and expand WIFI/wireless access throughout campus.
- ➢ Expand and upgrade multimedia resources campus-wide.
- ➢ Develop guidelines and procedures for college-wide technology user requests for support and services.
- ➢ Maintain and expand the library's electronic databases and subscriptions.

Funding: To have adequate and stable funding for the purchase, support, maintenance and replacement of technological resources
- ➢ Identify and secure dependable funding sources to upgrade campus computing resources.
- ➢ Seek additional outside funding sources

Procurement: To establish and develop processes and procedures for purchasing technology related resources
- ➢ Develop and advance procedures for obtaining and renewing technology resources.
- ➢ Develop and promulgate a replacement plan for existing hardware and software and other technologies
- ➢ Develop and publicize a plan for new technologies as growth occurs

Technology Support: To acquire appropriate technology support staff and provide for training to accommodate changes in technology
- ➢ Centralize software licensing and provide ongoing funding for software as determined by Program Review
- ➢ Maintain Service Level Agreement with a Web Design and Development company, maintain and update the campus website.
- ➢ Evaluate all technology support needs and develop a plan to manage and staff Information Technology positions.
- ➢ Provide ongoing training and support in the use of instructional technologies for students, faculty, staff, and managers.

Professional Development: promote employee education and training on the appropriate use of technology resources
- ➢ Provide basic technology training orientation for employees.
- ➢ Provide training on all online resources such as MS Outlook and course development software for students and faculty, appropriate to respective levels of need.
- ➢ Provide faculty and staff development for online classes and course preparation with

incorporation of FLEX Committee input.

Communication: To promulgate information technology guidelines and promote effective communication among faculty, staff, and students regarding campus technology
- Provide and encourage the use of District e-mail for campus personnel communications.
- Maintain campus IT website and promote the campus/District technology.

Monitoring and Evaluation: To establish a baseline for current technological resources and develop an annual review process
- Establish and maintain asset management database to include hardware, software, license agreements, warranty data, maintenance agreements, and replacement dates.
- Ensure efficiency by reviewing and monitoring technological resource purchases.
- Establish a minimum standard of technology access for employees related to their job/position requirements.
- Develop and administer an annual evaluation process to measure the effectiveness of the campus information technology resources.

Information Technology Plan
❖ **Actions/Accomplishments**
2014/2015 UPDATE

Infrastructure: To leverage a safe and reliable information technology infrastructure that facilitates access to resources for learning and productivity
- Develop and advance City College recommendations to expand network infrastructure support of wireless, voice, video, and data communications.
  - ❖ **New instructional computing servers secured in environmentally controlled IDF**
- Upgrade and expand the existing wireless infrastructure for more extensive use of wireless devices.
  - ❖ **District IT establish a wireless subnet in the Corporate Education Ctr.**
  - ❖ **Expansion of student wireless access points within new Prop S&N structures**
  - ❖ **Pre-existing access points upgraded for better performance**
- Continue to update network infrastructure standards to be applicable to all City College buildings and learning spaces.
  - ❖ **Card access control solution identified – targeted for C-Building Remodel**
  - ❖ **Digital signage is recommended for the main lobby of campus building**
- Identify infrastructure technologies to support campus functions.
  - ❖ **Recommendation to acquire new City College web-servers to provide online access to instructional resources**
- Refine asset management database of existing software and hardware.
  - ❖ **Consolidated content of the college's three technology teams' respective asset management databases into one.**
  - ❖ **Standardized on inventory tracked**
- Establish recommendations and guidelines for instructional workstations
  - ❖ **Placed back-up/restore software (Deep Freeze) on instructional systems**
  - ❖ **Recommend shared network printing option (as needed) for computing labs**
  - ❖ **Leverage "push" technologies to automate vetted security updates**

Utilization: To provide open access to technological resources across social, economic, and physical barriers to promote student, faculty, and staff success

- Require authentication for all administrative workstations to protect student confidentiality.
    - ❖ **Access to all administrative (personnel) computers require authentication**
    - ❖ **Open student computing labs require students to login.**
- Develop college standards to adequately staff and support all current and future student computer labs.
    - ❖ **Disciplines with computer labs identify staffing and support needs via Program Review**
    - ❖ **Assembled ITC task force to recommend standards**
- Maintain up-to-date computer hardware and software standards for institutional purchasing and support.
    - ❖ **ITC in conjunction with District-wide MAG updates standards to keep pace with evolving technology and end-user needs**
    - ❖ **When appropriate, recommends server-based software over stand-alone installations**
- Replace computers as determined by Program Review and the College's Computer Replacement/Recycle Plan to ensure adequate computing resources for students and employees.
    - ❖ **Re-established baseline/scale of overall computing environment factoring recent FF&E purchases**
    - ❖ **Computer Recycle/Replacement plan targets systems for refresh or replacement every four years (typically, at the end of a PC's warranty)**
    - ❖ **An ITC work group is exploring potential of leasing computers versus purchasing systems**
- Develop print management solutions to fund the purchasing, installation, repair, and support of office and lab printers and supplies
    - ❖ **Campus Print Management approach with Pharos technology applied to open computing areas**
    - ❖ **Expansion of the Pay to Print Program extended to new and renovated buildings**
- Continue to provide online student access to student support services, (appointments for placements, on-line tutoring services, on-line registration, student health services, library services, etc).
    - ❖ **The College's web presence support of online student support services evolved with enhanced constituent access and control by of their respective web pages**
    - ❖ **All courses are afforded a Blackboard presence and the potential to add links to support services**
- Continue to provide ADA accommodations on computer stations for individuals with disabilities.
    - ❖ **All new instructional consoles (podiums) are ADA compliant**
    - ❖ **Every new computer lab has at least one ADA station**
    - ❖ **DSPS' High Tech Center enhancements include the addition of 32"**

> **monitors**
>> ❖ **The Independent Learning Center added five 24" monitors to its DSPS stations**
>> ❖ **Videophone moved to a LRC Study Room**
> Maintain and update a campus website that is ADA compliant.
>> ❖ **The Campus website is frequently reviewed to ensure ADA compliance**
>> ❖ **Taylor Pond (contracted webmaster) made minor adjustments to accommodate special needs**
> Maintain and expand WIFI/wireless access throughout campus.
>> ❖ **Campus based WIFI is available in most buildings without the ability the ability to stream video.**
>> ❖ **District IT's priority for new WIFI requests is to address the WIFI needs of the new building and renovated spaces.**
> Expand and upgrade multimedia resources campus-wide.
>> ❖ **Office of Classroom Technology Management (OCTM) team and instruction faculty collaborate to determine technology needs for the new and soon to be renovated spaces**
> Develop guidelines and procedures for college-wide technology user requests for support and services.
>> ❖ **Managed Computing Guide under development by ITC working group**
>> ❖ **ITC website (under development) will serve as repository for IT guidelines and procedures**
> Maintain and expand the library's electronic databases and subscriptions.
>> ❖ **Library Collection Restoration Initiative funded by IELM**
>> ❖ **The College continues to leverage the Community College Consortium for database subscriptions**

Funding: To have adequate and stable funding for the purchase, support, maintenance and replacement of technological resources
> Identify and secure dependable funding sources to upgrade campus computing resources
>> ❖ **Recommendation for a Campus line item budget (TARP) for new purchases, maintenance, and repairs for technology assets factored by Resource Allocation Committee**
>> ❖ **Advocate for pooling resources district-wide to support technology common software packages needs where feasible - Adobe Creative Suite now provided by District/College**
>> ❖ **Significant increase in funding from State's Library Resources and Instructional Technology fund**
> Seek additional outside funding sources
>> ❖ **Pursue technology funds that may be available from the State of California**
>> ❖ **Solicit Funding as appropriate from sources such as CTEA, and Regional Initiatives**
>> ❖ **Solicit SDCCD Foundation funding**
>> ❖ **All grant proposals should factor technology needs into its budget**

Procurement: To establish and develop processes and procedures for purchasing technology related resources

- ➤ Develop and advance procedures for obtaining and renewing technology resources.
    - ❖ **Needs identified via Program Review and funding considered Resource Allocation Committee. Technology purchase requests are screened for District standard compliance by the College's Technology Dean and the District's Director of Information Technology**
    - ❖ **New ERP system launched July 2015**
- ➤ Develop and promulgate a replacement plan for existing hardware and software and other technologies
    - ❖ **Re-established baseline/scale of overall computing environment factoring recent FF&E purchases**
    - ❖ **TARP (Computer Recycle/Replacement Program) targets systems for refresh or replacement every four years (typically, at the end of a PC's warranty)**
    - ❖ **An ITC work group is exploring potential of leasing computers versus purchasing systems**
- ➤ Develop and publicize a plan for new technologies as growth occurs
    - ❖ **Develop a district or campus level technology grant program to pilot innovative technology projects**
    - ❖ **Promote recent innovations including Nursing's high tech nursing lab.**

Technology Support: To acquire appropriate technology support staff and provide for training to accommodate changes in technology
- ➤ Centralize software licensing and provide ongoing funding for software as determined by Program Review
    - ❖ **The College is moving toward centralizing the management of software licenses**
    - ❖ **Software audits by IT personnel will be regularly scheduled**
- ➤ Maintain Service Level Agreement with a Web Design and Development company to maintain and update the campus website.
    - ❖ **College has retained Taylor Pond as its contracted webmaster**
    - ❖ **The College has formed a Web Advisory Committee to facilitate the planned growth of City College's web presence**
- ➤ Evaluate all technology support needs and develop a plan to manage and staff Information Technology positions.
    - ❖ **ITC will draw upon the next round of Program Reviews to inform the campus plan of aligning technology positions to technology support needs.**
    - ❖ **Training on the new enterprise platform has been identified as a priority need**
- ➤ Provide ongoing training and support in the use of instructional technologies for students, faculty, staff, and managers.
    - ❖ **Evaluate the technology support requirements of all adopted technologies and develop a training plan for the IT staff to ensure the proper implementation, maintenance, and support of all adopted technologies.**
    - ❖ **ITC and District IT are currently evaluating the staffing training needs regarding their support of Apple product.**

Professional Development: promote employee education and training on the appropriate use of technology resources
- ➤ Provide basic technology training orientation for employees.
    - ❖ **Identified user-friendly resources for faculty and staff use that address**

standard campus technologies.
- ❖ **Promote timely, visible, and appropriately targeted internal communications about training resources to faculty and staff**.
- ➢ Provide training on available online resources and course development software for students and faculty
  - ❖ **Personnel within the Learning Resources Center's Independent Learning Center (ILC) and CitySite, facilitate access to select software**
  - ❖ **Self –paced tutorials on Microsoft products supplement existing training efforts.**

- ➢ Provide faculty and staff development for online classes and course preparation
  - ❖ **SDCCD Online Pathways' Faculty websites and online course affords ample training for teaching online**
  - ❖ **District training, including HR orientations includes access to online resources**

Communication: To promulgate information technology guidelines and promote effective communication among faculty, staff, and students regarding campus technology
- ➢ Provide and encourage the use of District e-mail for campus personnel communications.
  - ❖ **All campus personnel are provided with a District e-mail account to facilitate communication for all campus stakeholders.**
  - ❖ **Employees are advised that District e-mail is the main communication-information source and employees are responsible for checking messages.**
- ➢ Maintain campus IT website and promote the campus/District technology.
  - ❖ **Provide links from the campus IT website to the District's IT website to minimize duplication of services**
  - ❖ **Taylor Pond is equally responsive to District and campus requests**

Monitoring and Evaluation: To establish a baseline for current technological resources and develop an annual review process
- ➢ Develop and administer an annual evaluation process to measure the effectiveness of the campus information technology resources
  - ❖ **Evaluation derived from Program review, help desk logs, and training requests**
  - ❖ **Leverage current generation of survey and polling tools to gather additional insight on end user needs**

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Information Technology Plan
❖ **Actions/Accomplishments**
2013/2014 UPDATE

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Infrastructure: To leverage a safe and reliable information technology infrastructure that facilitates access to resources for learning and productivity
- ➢ Develop and advance City College recommendations to expand network infrastructure support of wireless, voice, video, and data communications.
  - ❖ **New City College Prop S&N projects feature digital /IP-based technology communication solutions**
  - ❖ **New instructional computing servers secured in environmentally controlled IDF**

- Upgrade and expand the existing wireless infrastructure for more extensive use of wireless devices.
  - ❖ **Recommendation to pilot a distinct wireless subnet to support instruction**
  - ❖ **Recommendation to establish a wireless subnet in the Corporate Education Ctr.**
  - ❖ **Expansion of student wireless access points within new Prop S&N structures**
  - ❖ **Pre-existing access points upgraded for better performance**
- Continue to update network infrastructure standards to be applicable to all City College buildings and learning spaces.
  - ❖ **Develop and advance recommendation for card access control solution**
  - ❖ **Digital signage is recommended for the main lobby of campus buildings**
- Develop emergency response procedures and disaster recovery plan to restore access to critical information resources.
  - ❖ **Emergency messaging is available via networked Visix digital signage communication**
  - ❖ **Emergency messaging solution/protocol established for all SDCCD websites**
- Identify infrastructure technologies to support campus functions.
  - ❖ **Recommendation to acquire new City College web-servers to provide online access to instructional resources**
  - ❖ **Secured five informational kiosks via Title V funding**
- Establish criteria for new smart classrooms and for the upgrade of existing smart classrooms
  - ❖ **Established two new City College specifications for ADA compliant podiums**
  - ❖ **Established new specifications for video projectors**
  - ❖ **Established new standard for document camera**
  - ❖ **Established new standard for classroom/conference room A/V controls**
- Refine asset management database of existing software and hardware.
  - ❖ **Consolidated of the college's three technology teams' respective asset management databases into one.**
  - ❖ **Standardized on inventory tracked**
- Establish recommendations and guidelines for instructional workstations
  - ❖ **Advanced enhanced configuration for Engineering and Computer Programming**
  - ❖ **Placed back-up/restore software (Deep Freeze) on instructional systems**
  - ❖ **Recommend shared network printing option (as needed) for computing labs**
  - ❖ **Leverage "push" technologies to automate vetted security updates**

Utilization: To provide open access to technological resources across social, economic, and physical barriers to promote student, faculty, and staff success
- Require authentication for all administrative workstations to protect student confidentiality.
  - ❖ **Access to all administrative (personnel) computers require authentication**
  - ❖ **Open student computing labs require students to login.**
- Develop college standards to adequately staff and support all current and future student computer labs.
  - ❖ **Disciplines with computer labs will identify staffing and support needs via Program Review**
  - ❖ **Assembled ITC task force to recommend standards**
- Maintain up-to-date computer hardware and software standards for institutional purchasing and support.
  - ❖ **ITC in conjunction with District-wide MAG updates standards to keep pace with evolving technology and end-user needs**

- ❖ **When appropriate, recommends server-based software over stand-alone installations**
- ➢ Replace computers as determined by Program Review and the College's Computer Replacement/Recycle Plan to ensure adequate computing resources for students and employees.
  - ❖ **Re-established baseline/scale of overall computing environment factoring recent FF&E purchases**
  - ❖ **Computer Recycle/Replacement plan targets systems for refresh or replacement every five years (typically, at the end of a PC's warranty)**
  - ❖ **An annual infusion of 400 new systems and the recycling of 100 used systems could sustain the College's environment of approximately 2,000 systems**
  - ❖ **An ITC work group is exploring potential of leasing computers versus purchasing systems**
- ➢ Develop print management solutions to fund the purchasing, installation, repair, and support of office and lab printers and supplies
  - ❖ **Campus Print Management approach with Pharos technology applied to open computing areas**
  - ❖ **Expansion of the Pay to Print Program will extend to new and renovated buildings**
- ➢ Continue to provide online student access to student support services, (appointments for placements, on-line tutoring services, on-line registration, student health services, library services, etc).
  - ❖ **The College's web presence support of online student support services evolved with enhanced constituent access and control by of their respective web pages**
  - ❖ **All courses are afforded a Blackboard presence and the potential to add links to support services**
- ➢ Continue to provide ADA accommodations on computer stations for individuals with disabilities.
  - ❖ **All new instructional consoles (podiums) are ADA compliant**
  - ❖ **Every new computer lab has at least one ADA station**
  - ❖ **DPSS' High Tech Center enhancements include the addition of 24" monitors**
  - ❖ **The Independent Learning Center added five 24" monitors to its DSPS stations**
- ➢ Maintain and update a campus website that is ADA compliant.
  - ❖ **The Campus website is frequently reviewed to ensure ADA compliance**
  - ❖ **Taylor Pond (contracted webmaster) made minor adjustments to accommodate special needs**
- ➢ Maintain and expand WIFI/wireless access throughout campus.
  - ❖ **Campus based WIFI is available in most buildings without the ability the ability to stream video.**
  - ❖ **District IT's priority for new WIFI requests is to address the WIFI needs of the new building and renovated spaces.**
- ➢ Expand and upgrade multimedia resources campus-wide.

- ❖ **Re-aligned LRC Multimedia department to serve as the Office of Classroom Technology Management (OCTM)**
- ❖ **OCTM team and instruction faculty collaborate to determine technology needs for the new and soon to be renovated spaces**
- ➢ Develop guidelines and procedures for college-wide technology user requests for support and services.
    - ❖ **Managed Computing Guide underway by ITC working group**
    - ❖ **ITC website (under development) will serve as repository for IT guidelines and procedures**
- ➢ Maintain and expand the library's electronic databases and subscriptions.
    - ❖ **Faculty Librarians identified and secured "Films on Demand" subscription of videos that support instruction**
    - ❖ **The College continues to leverage the Community College Consortium for database subscriptions**

Funding: To have adequate and stable funding for the purchase, support, maintenance and replacement of technological resources
- ➢ Identify and secure dependable funding sources to upgrade campus computing resources
    - ❖ **Recommend a Campus line item budget for new purchases, maintenance, and repairs for technology assets.**
    - ❖ **Advocate for pooling resources district-wide to support technology common software packages needs where feasible.**
- ➢ Seek additional outside funding sources
    - ❖ **Pursue technology funds that may be available from the State of California**
    - ❖ **Solicit Funding as appropriate from sources such as CTEA, and Regional Initiatives**
    - ❖ **Solicit SDCCD Foundation funding**
    - ❖ **All grant proposals should factor technology needs into its budget**

Procurement: To establish and develop processes and procedures for purchasing technology related resources
- ➢ Develop and advance procedures for obtaining and renewing technology resources.
    - ❖ **Needs identified via Program Review and funding considered by institutional planning and allocation committee**
    - ❖ **Technology purchase requests are screened for District standard compliance by the College's Technology Dean and the District's Director of Information Technology**
- ➢ Develop and promulgate a replacement plan for existing hardware and software and other technologies
    - ❖ **Re-established baseline/scale of overall computing environment factoring recent FF&E purchases**
    - ❖ **Computer Recycle/Replacement plan targets systems for refresh or replacement every four years (typically, at the end of a PC's warranty)**
    - ❖ **An annual infusion of 400 new systems and the recycling of 100 used systems could sustain the College's environment of approximately 2,000 systems**
    - ❖ **An ITC work group is exploring potential of leasing computers versus**

purchasing systems
- ➢ Develop and publicize a plan for new technologies as growth occurs
  - ❖ **Develop a district or campus level technology grant program to pilot innovative technology projects**
  - ❖ **Promote recent innovations including Nursing's high tech nursing lab.**

Technology Support: To acquire appropriate technology support staff and provide for training to accommodate changes in technology
- ➢ Centralize software licensing and provide ongoing funding for software as determined by Program Review
  - ❖ **The College is moving toward centralizing the management of software licenses**
  - ❖ **Software audits by IT personnel will be regularly scheduled**
- ➢ Maintain Service Level Agreement with a Web Design and Development company to maintain and update the campus website.
  - ❖ **College has retained Taylor Pond as its contracted webmaster**
  - ❖ **The College has formed a Web Advisory Committee to facilitate the planned growth of City College's web presence**
- ➢ Evaluate all technology support needs and develop a plan to manage and staff Information Technology positions.
  - ❖ **ITC will draw upon the next round of Program Reviews to inform the campus plan of aligning technology positions to technology support needs.**
  - ❖ **Training on the new enterprise platform has been identified as a priority need**
- ➢ Provide ongoing training and support in the use of instructional technologies for students, faculty, staff, and managers.
  - ❖ Evaluate the technology support requirements of all adopted technologies and develop a training plan for the IT staff to ensure the proper implementation, maintenance, and support of all adopted technologies.
  - ❖ ITC and District IT are currently evaluating the staffing training needs regarding their support of Apple product.

Professional Development: promote employee education and training on the appropriate use of technology resources

- ➢ Provide basic technology training orientation for employees.
  - ❖ **Identified user-friendly resources for faculty and staff use that address standard campus technologies.**
  - ❖ **Promote timely, visible, and appropriately targeted internal communications about training resources to faculty and staff**.
- ➢ Provide training on all online resources such as MS Outlook and course development software for students and faculty
  - ❖ Personnel within the Learning Resources Center's Independent Learning Center (ILC) and CitySite, facilitate access to select software
  - ❖ Self –paced tutorials on Microsoft products supplement existing training efforts.
- ➢ Provide faculty and staff development for online classes and course preparation with incorporation of FLEX Committee input.
  - ❖ **SDCCD Online Pathways' Faculty websites and online course affords ample training for teaching online**
  - ❖ **District training, including HR orientations includes access to online**

resources

Communication: To promulgate information technology guidelines and promote effective communication among faculty, staff, and students regarding campus technology
- Provide and encourage the use of District e-mail for campus personnel communications.
  - ❖ **All campus personnel are provided with a District e-mail account to facilitate communication for all campus stakeholders.**
  - ❖ **Employees are advised that District e-mail is the main communication-information source and employees are responsible for checking messages.**
- Maintain campus IT website and promote the campus/District technology.
  - ❖ **Provide links from the campus IT website to the District's IT website to minimize duplication of services**
  - ❖ **Taylor Pond is equally responsive to District and campus requests**

Monitoring and Evaluation: To establish a baseline for current technological resources and develop an annual review process
- Develop and administer an annual evaluation process to measure the effectiveness of the campus information technology resources
  - ❖ **Evaluation derived from Program review, help desk logs, and training requests**
  - ❖ **Leverage current generation of survey and polling tools to gather additional insight on end user needs**

Conclusion – Challenges

While the purpose of the IT Plan is to identify and document the goals and direction of technology to be implemented at San Diego City College, the IT Plan also provides a framework for a continuous, collaborative process of evaluating current and innovative uses of technology. Given the rapid changes in technology and the fact that institutional changes often take times, it is reasonable to assume that some strategies may become outdated, superfluous, or superseded as we move to create a technologically advanced educational environment. In planning and budgeting for the technology needs of the college, all constituents of the college are encouraged to provide creative and constructive input, exercise patience and flexibility, and embrace the technological changes that facilitate student success at San Diego City College.

San Diego City College Technology Acquisition and Replacement Plan (TARP)

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Overview

San Diego City College developed a comprehensive college-wide Technology Acquisition and Replacement Plan (TARP) to systematically acquire, maintain, and replace technology resources. The plan leverages a total cost of ownership (TCO) framework to determine appropriate funding levels for institutional technology and set regularly scheduled cycles for technology replacement. In addition to replenishing existing resources, TARP provides a mechanism to acquire new resources. The College's Institutional Technology Council (ITC) evaluates college-wide requests for new technology resources or enhancements and recommends viable requests to the College's Resource Allocation Committee. The ITC factors the institution's mission, IT standards, TCO, long-term impact, maintenance, sustainability, and security into its recommendations.

Current Environment

Currently, San Diego City College maintains approximately 2,400 college-owned computers. (Note: this number represents the number of machines that are currently in our combined Administrative/Instructional/Classroom inventory). The average cost of a District Standard PC is approximately $1050 per machine and the average expense for an iMac or a laptop is approximately $1,500 per machine. Most employees within the College share printing resources and students leverage the College's pay-to-print system. Application servers support select instructional areas. The San Diego Community College District provides networked and other core IT support services for San Diego City College.

Criteria to Replace Computers and Related Equipment
Age of Processor, model of computer, and warranty expiration date are factored into the systematic replacement/recycling of computer workstations. Systems in the following areas are targeted for replacement/recycle every four years

- Full-time administrative staff
- Full-time faculty
- Instructional computer lab (existing)

- Multimedia classroom (existing)
- Informational Kiosks
- Servers

Computer hardware and other technology requests that are outside of the aforementioned criteria evaluated in conjunction with the department's/unit' Program Review.

Redeployment
Upon the delivery and setup of new computer systems for full-time administrative staff, full-time faculty and existing instructional computer labs, the released computers and related peripherals will be evaluated for possible redeployment to:
- Part-time administrative staff within the department or unit who currently have lesser equipment
- Instructional labs or classrooms that currently have lesser equipment.
- Special Projects

Liquidation
Older computers and related equipment will be liquidated if it is determined that:
- Equipment does not and cannot meet the current District standard configurations
- Equipment has a history of disrepair
- Equipment is older than four years and is no longer cost-effective to repair.

Technology Replacement Budget Planning

Equipment Replacement Cycles
San Diego City College plans to replace desktop computers every 4 years. Multimedia equipment replacement cycle varies on usage and application requirement hence its life cycle can go as high as 7 to 8 years. Server and network equipment replacement cycle varies from 3 to 5 years depending on type and equipment function.

Hardware	Projected Cycle	2015 QTY	Unit Cost	Cost
Faculty/Staff Desktop Upgrades	Four Years	225	$1050	$236,250
Faculty/Staff /Printer Upgrades	Four Years	20	500	$10,000
Instructional Lab Computer Upgrades	Four Years	275	$1050	$288,750
Classroom Computer Replacement	Four Years	40	$1050	$42,000
Classroom Projector Replacement	Six Years	10	$1,700	$17,000
Laptop Replacement	Five Years	4	$1,500	$6,000
Server Replacement	Five Years	2	$9,000	$18,000
Instructional Computer Lab Printer Upgrades	Four Years	20	500	$10,000
		Annual Est.	**TOTAL**	**$628,000**

Software Refresh/Replacements

Software (for 30+ Labs)	Projected Cycle	Est.2015 QTY	Unit Cost	Cost
Network Hardware/Software Licenses/Servers Maintenance & Upgrades	N/A	N/A	N/A	N/A
Desktop software licenses (Computer Labs & Employees)	N/A	N/A	N/A	N/A
		2015	**TOTAL**	

Technology Repair Budget

Maintenance & Repair Budget	Projected Cycle	Est.2015 QTY	Unit Cost	Cost
Hardware Maintenance & Upgrades (Classroom MLCs, Lecterns, etc.)	Each Semester	N/A	$6,000	$6,000
Replacement Projector Bulbs	One Year	25	$500.00	$12,500
		2015	**TOTAL**	**$18,500**

Critical Infrastructure Need – Emergency Replacement Budget

Maintenance & Repair Budget	Projected Cycle	Est.2015 QTY	Unit Cost	Cost
Classroom Projector Replacement	Six Years	7	$1,700	$11,900
Replacement Projector Bulbs	One Year	10	$500.00	$5,000
Optelec Video Magnifiers	Eight Years	2	$3,000	$6,000
42" LED Digital Display & Installation	Six Years	2	$1,500	$3,000
Visix Player (for Digital Signage)	Six Years	2	$1,800	$3,600
		2015	**TOTAL**	**$29,500**

Critical Computer Resource Need – Emergency Replacement Budget

Maintenance & Repair Budget	Projected Cycle	Est.2015 QTY	Unit Cost	Cost
Faculty/Staff Computers	Four Years	40	$1050	$42,000
Instructional Lab Computers	Four Years	80	$1050	$84,000
		2015	**TOTAL**	**$126,000**

Definitions:

The term Technology is defined as all computer hardware, software and technology infrastructure essential to the delivery of information (gathering, storing, retrieving, communicating, or displaying) in text, image, or digitized form. Technology includes both academic and administrative computing systems as well as related software, instructional delivery systems (multimedia, data and video distribution), communications links, telephone systems, and all integrated systems and software which support the above.