San Diego Miramar College

Technology Plan

Three Year Rolling Technology Plan
2010-2013

Approved by College Executive Committee 09/06/11

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TECHNOLOGY COMMITTEE
2010 - 2011

Rechelle Mojica	Faculty, Co-Chair
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The Technology Committee membership is updated annually

Refinement of the Technology Plan to reflect its incorporation into the College Integrated Planning process was facilitated by the past and current faculty co-chairs of the Planning and Institutional Effectiveness (PIE) Committee: Linda Woods and Buran Haidar, respectively.

PURPOSE AND GOALS

The **purpose** of the San Diego Miramar College Technology Plan is to provide technology support services to enhance instruction, college services, and business processes for students, faculty, administrators, and staff. This plan sets the operational direction, college goals and objectives in alignment with the updated 2007-2013 San Diego Miramar College Strategic Plan. The San Diego Miramar College Technology Plan is reviewed and updated annually.

The **goals** of the San Diego Miramar College Technology Plan are:

- Facilitate learning and teaching by providing access to information and instructional technologies to students, faculty and staff.
- Enable students, faculty and staff to effectively use technology resources through coordination, collaboration and communication.
- Sustain and improve instructional, student and administrative support services, and the college's business processes.
- Increase application and use of technology resources through staff development.

TECHNOLOGY SUPPORT SERVICES

The college technology support services are a shared responsibility between campus support services and the San Diego Community College District (SDCCD) Office of Information Technology which provide hardware, software, and infrastructure to support learning, teaching, college-wide communications, research, and operational systems. The technology and support services covered in this plan do not necessarily include program-specific technologies that are covered by other planning processes and support services.

I. Campus Technology Support Services

The campus technology support services are provided by the Instructional Computing Services (ICS), Audio-Visual (AV), Administrative Computing Services (ACS), WEB Support, and the Professional Development Center.

1.   **INSTRUCTIONAL COMPUTING SUPPORT (ICS)**

    A.   Responsibilities

        1. The Instructional Computing Support (ICS) Department has the responsibility for all instructional technology in computer labs, classrooms, and other student computer areas including:

            a. Purchase, setup, maintenance, security, and disposition of equipment

            b. Maintenance of a current inventory list of all hardware, software and licensing agreements within this area of responsibility

            c. Provide input on purchase of new instructional hardware

            d. Ensure readiness of hardware and software for instruction and other related campus activities

        2. ICS works with users to address their common and emerging technology needs including: problem solving and technical advice, installing software, and collaboration for the development and maintenance of special web content management systems.

    B.   Contract Staffing

        1.   Microcomputer Specialist Supervisor   1.0

        2.   Network Specialist   1.0

        3.   Instructional Lab Technician/CS   1.0

2. **AUDIO-VISUAL (AV)**

   A. Responsibilities

      1. The Audio-Visual (AV) department has the responsibility for all AV technology related to instruction and college activities on the Miramar campus, NTC, MCAS, and local high school college automotive program sites. These responsibilities include:

         a. Video production, video conferencing, captioning

         b. Purchase, setup, maintenance, security and disposition of equipment

         c. Maintenance of a current inventory of all AV equipment on campus and all off-site locations

         d. Provide set-up and assistance with the operation of AV equipment at college events

      2. AV works with departments to provide input on purchase of equipment

   B. Contract Staffing

      1. Instructional Support Supervisor   1.0

      2. Instructional Lab Technician   2.0

3. **ADMINISTRATIVE COMPUTING SUPPORT (ACS)**

A. Responsibilities

1. The Administrative Computing Support (ACS) services for all faculty, staff and administrators computers are the responsibility of the campus liaison of the District Office of Information Technology (OIT). These include:

   a. Purchase, set-up, maintenance, security, and disposition of equipment

   b. Maintenance of a current inventory list of all hardware, software and licensing agreements within this area of responsibility

   c. Responding to trouble calls, service requests, and provide one-on-one training

   d. Support campus networking and Wi-Fi

   e. Providing technical support for the Professional Development Center (PDC)

2. ACS works with faculty, staff, and administrators to provide input on purchase of hardware and software

B. Contract Staffing

1. Enterprise Network Specialist 1.0

4. **WEB SUPPORT**

    A.   Responsibilities

        Web Support has the responsibility for development, support, maintenance, and update of content of the college website.

    B.   Contract Staffing

        1. Web Designer   0.70

5. **PROFESSIONAL DEVELOPMENT CENTER (PDC)**

The PDC is an open lab with individual computer workstations with software and scanners that are not otherwise available to faculty (contract and adjunct), administrators, or staff. The PDC is also used for:

        a. Scheduled training sessions on technology applications such as Dreamweaver, PowerPoint, Access, and others.

        b. One-on-one assistance to faculty by the ICS, AV, and ACS staff.

II. SDCCD OFFICE OF INFORMATION TECHNOLOGY (OIT)

The District OIT provides support for the administrative computing environment, the network and telecommunications infrastructure, and core network and Internet services (http://it.sdccd.edu/pages/1.asp).

The District OIT is responsible for:

a. Administrative ERP Systems consisting of the Integrated Student Information System (ISIS), Sigma's Student Aid Management (SAM), Colleagues Finance and HR/Payroll, and various web application

b. Telecommunications Infrastructure (Voice, Data, Video)

c. Network and internet Services and security

d. Email System (MS Exchange Mail/Internet SMTP Mail) including the Anti-SPAM, Anti-Virus systems

e. Administrative Desktop PC support

f. PBX Telephone System and the voice mail messaging systems

g. Horizon Library System

h. Blackboard Online Course Management System.

Alignment of the Technology Support Strategies to the Strategic Plan Goals
(Draft)

Strategic Plan Goal	Technology Plan Support Strategies		
	ICS	**AV**	**ACS**
Goal #1: Focus college efforts on student learning and student success through quality education that is responsive to change	**ICS 1.1** Support the academic program review with integrated emphasis on student learning outcomes (SLOs) by working with faculty SLO coordinators to develop an in-house SLO tracking database, SLOJet.	**AV 1.1** Meet the audiovisual technology needs for instruction, support and administrative services on the college main campus and off-site areas, by recommending technology, its maintenance, and offering support through trouble shooting and problem solving. MAPS To STRATEGIC PLAN STRATEGIES 1.1, 2.1 & 2.3	ACS 1.1 Meet the computing needs and provide appropriate technology and support for the colleges instructional and Student Services and administrative services administrators, faculty, and support staff on the main campus and other external sites, through Computing Desk Support (CDS), Infrastructure networking (ISN), Wi-Fi accessibility, PDC, one-on-one training, and troubleshooting MAPS TO STRATEGIC PLAN STRATEGIES 1.1, 1.3, 1.4, 1.7, 2.1, 2.2, 2.4, 3.3 & 3.5
	ICS 1.2 Meet the instructional computing needs on the main campus and off-site areas by upgrading of the server operating systems, maintaining instructional computers, installing appropriate software, and offering support through trouble-shooting and problem solving. MAPS TO STRATEGIC PLAN STRATEGIES 1.2 & 1.3	**AV 1.2** Train faculty members on the use of Smart Technology in Smart classroom.	
		AV 1.3 Provide training for faculty in the use of wireless response systems for instruction.	
		AV 1.4 Provide training and resources for technical staff to stay current with state of the art audiovisual technology. MAPS TO STRATEGIC PLAN STRATEGIES 1.5 & 2.5	
		AV 1.5 Continue to offer student work study experiences and opportunities in AV.	

Goal #2: Deliver instruction and services in formats and at sites that best meet student needs	**ICS 1.3** Meet the instructional computing needs on the main campus and off-site areas such as Instruction Learning Center (ILC), Math and English Labs, and satellite high school locations.	**AV 1.1**	ACS 1.1
	ICS 1.4 Maintain and update the technical skills of ICS staff in emergent technologies. MAPS TO STRATEGIC PLAN STRATEGIES 2.3 & 2.5	AV 1.4	
		AV 1.6 Provide the AV equipment and support staff for campus activities and events such as outreach and marketing.	
Goal #3: Enhance the college experience for students and the community by providing campus facilities, programs and co-curricular student-centered activities that celebrate diversity and sustainable practices	**ICS 1.5** Sustainable use of technology	**AV 1.7** Sustainable use of technology	
	ICS 1.6 Provide wireless access to classrooms and student areas		**ACS 1.2** Provide wireless access on campus
Goal #4: Initiate and strengthen beneficial partnerships with business and industry, schools and community			
Goal #5: Refine the integration of Miramar College's internal planning processes and procedures.	**ICS 1.7** Refine the ICS support section of the Technology Plan and its alignment with the college integrated planning model	**AV 1.8** Refine the AV support section of the Technology Plan and its alignment with the College integrated planning model	**ACS 1.3** Refine the ACS support section of the Technology Plan and its alignment with the College integrated planning model

Evaluation of the Campus-based Technology Support Services over the Three Year Period of Rolling Technology Plan (2010-2013)

a. Instructional Computing Services

ICS Support Strategies	Measures	2009/2010	2010/2011	2011/2012	2012/2013
ICS 1.1 Support the academic program review with integrated emphasis on student learning outcomes (SLOs) by working with faculty SLO coordinators to develop an in-house SLO tracking database, SLOJet.	Collaboration with SLOAC Coordinators and develop SLOJet	Reviewed open source framework (Drupal) as website host; designed database schema; developed custom modules for gathering SLO data	Continued development of SLOJet by adding dialog fields for analysis and layered access		
		Developed reporting queries for SLOAC coordinator	Created database queries for entries (Fall 2010 & Sp 2011)		
ICS 1.2 Meet the instructional computing needs on the main campus and off-site areas by upgrading of the server operating systems, maintaining instructional computers, installing appropriate software, and offering support through trouble-shooting and problem solving. MAPS TO STRATEGIC PLAN STRATEGIES 1.2 & 1.3	# Servers Managed	Maintained 15 servers, serving instructional labs, the SLO website, Miramar's campus site, print services (free and pay).			
ICS 1.3 Meet the instructional computing needs on the main campus and off-site areas such as Instruction Learning Center (ILC), Math and English Labs, and satellite high school locations.	# of computers serviced	600	1000		
	ICS Hours of Operation	7:00 AM - 4:30 PM	7:00 AM – 4:30 PM		
ICS 1.4 Maintain and update the technical skills of ICS staff in emergent technologies. MAPS TO STRATEGIC PLAN STRATEGIES 2.3 & 2.5	# of workshops or training sessions attended	One Windows 7 Deployment Training	None		
	Seek free training/exposure to new technology where possible	Vendor (Southland) provided "Spring Training"	Vendor provided demos of antivirus software, virtualization software/hardware		

	Self-training	Examples (not limited to): Drupal and Content Management Systems, MySQL, Linux/Apache (LAMP Systems), Windows Server 2008, SQL Server			
ICS 1.5 Sustainable use of technology	Power saving	Enabled power saving features of workstation OS. Reviewed Faronics Power Save application (not found to offer additional benefit)	Enabled power saving features of workstation OS.		
		Virtualized 15 servers on 7 physical servers, saved energy and costs			
ICS 1.6 Provide wireless access to classrooms and student areas	Areas of wireless accessibility	Worked with the District IT to enable two modes of wireless operation -- public access for non-district equipment, and private access for district equipment with need to access internal district resources	Worked with the District IT to enable two modes of wireless operation -- public access for non-district equipment, and private access for district equipment with need to access internal district resources		
		Maintained secure POST testing wireless at Police Academy	Maintained secure POST testing wireless at Police Academy		
ICS 1.7 Refine the ICS support section of the Technology Plan and its alignment with the college integrated planning model		Worked on updating the Technology Plan	Completed draft for campus approval		

b. Audio-Visual (AV) Support

AV	Measures	2009/2010	2010/2011	2011/2012	2012/2013
AV 1.1 Meet the audiovisual technology needs for instruction, support and administrative services on the college main campus and off-site areas, by recommending technology, its maintenance, and offering support through trouble shooting and problem solving MAPS To STRATEGIC PLAN STRATEGIES 1.1, 2.1 & 2.3	# of Smart Classrooms supported	66	101		
	# of Campus events supported	58			
	# of Production request completed	6			
	Maintenance Schedule for Filter cleaning of projection units	Quarterly (see database for comprehensive breakdown)			
	# of response clickers	100	100		
	# of AV trouble calls (person, telephone, email, etc.)				
AV 1.2 Train faculty members on the use of Smart Technology in Smart classroom	# of Group training workshops offered				
	# of one on one training sessions				
	# of individuals who received AV training				
	# of individuals who completed AV training survey	42 online			
	Online survey assessing the effectiveness of the training and participants' confidence level with operating the equipment.	(See stats from Online Survey)			

AV 1.3 Provide training for faculty in the use of wireless response systems for instruction	# of one-on-one training sessions	6			
	# of one-on-one clicker training sessions				
AV 1.4 Provide training and resources for technical staff to stay current with state of the art audiovisual technology. MAPS TO STRATEGIC PLAN STRATEGIES 1.5 & 2.5	# of training workshop attended by AV Staff				
	# of training certificates AV Staff earned				
AV 1.5 Continue to offer student work study experiences and opportunities in AV.	# of work study students	2	1		
	# of new skills attained/developed during employment				
AV 1.6 Provide the AV equipment and support staff for campus activities and events such as outreach and marketing	Statistics of Event setups and support provided for Outreach and marketing activities and other events.		64		
	Post event survey evaluating the quality of AV service and equipment				
AV 1.7 Refine the AV support section of the Technology Plan and its alignment with the college integrated planning model		Worked on updating the Technology Plan	Completed draft for campus approval		

c. Administrative Computing Services (ACS)

ACS Support Strategies	Measures	2009/2010	2010/2011	2011/2012	2012/2013
ACS 1.1 Meet the computing needs and provide appropriate technology and support for the colleges instructional and Student Services and administrative services administrators, faculty, and support staff on the main campus and other external sites, through Computing Desk Support (CDS), Infrastructure networking (ISN), Wi-Fi accessibility, PDC, one-on-one training, and troubleshooting MAPS TO STRATEGIC PLAN STRATEGIES 1.1, 1.3, 1.4, 1.7, 2.1, 2.2, 2.4, 3.3 & 3.5	# of desktop computers**laptops** serviced (Administrators, Faculty, Classified Staff	449	458		
	# of service requests (including one-on-one training)	332	402		
	# of Trouble calls	384	391		
ACS 1.2 Provide wireless access on campus					
ACS 1.3 Refine the ACS support section of the Technology Plan and its alignment with the College integrated planning model		Worked on updating the Technology Plan	Completed draft for campus approval		

Appendix

a. Glossary of Planning Terminology

Strategic Plan is a 6-year long term guidance plan for the College to fulfill its Mission. It sets the broad goals of the College and defines strategies with measurable objectives for the College to evaluate attainment of its goals.

Operational Plans are shorter termed plans for implementation of the Strategic plan in specific areas or College functions. These plans have area or function-specific goals and strategies with specific ways to evaluate attainment of goals and/or to follow annual progress.

Goals, Strategies, and Objectives are distinct tools for accomplishing what we want to achieve.
1. **Goals** are statements about the general future for any functional area that explain the general **"what"** that the area wants to achieve. **Goals,** on their own, are hard to quantify or to put in a timeline.
2. **Strategies** are statements that define the "**direction to follow**" to achieve the goal. **Strategies** are also hard to quantify or put in a timeline. They can be refined and changed in response to changes in the internal or external environments, to achieve the same goal.
3. **Objectives** are measurable specific steps to be implemented for the purpose of attaining the identified **goal**(s). **Objectives** are quantifiable within a timeline and they specify the specific "**how**, **to what degree or level**", and by "**when**".
4. **Measures** are ways or standards against which support services can be annually compared**.**

b. Annual SWOT Analyses of Technology support services

ICS SWOT Analysis Matrix (2010/2011)	
Strengths, Weaknesses, Opportunities, and Threat Analysis	
Strengths	Weaknesses
1. Skilled staff in diverse technologies 2. Support (1000+) instructional computers 3. Provide solutions at low/no cost 4. Reuse of computers 5. Virtualized servers increase reliability and save money 6. Stable labs/classrooms via DeepFreeze	1. Limited staff 2. No training funds 3. Limited funds to handle equipment failures. 4. Some outdated computers labs unable to support newer OS's 5. Lack of official campus computing standards
Opportunities	Threats
1. Increase server reliability through purchase of VMWare rather than free virtualization 2. Take advantage of free training when available.	1. Continued lack of funding 2. Lack of training – technology will outpace what we can self-teach 3. Free training tends to be sales presentations, biased and not as good/thorough as "real" training

Audiovisual SWOT Analysis Matrix (2010/2011) **Strengths, Weaknesses, Opportunities, and Threat Analysis**	
## Strengths	## Weaknesses

1. Shared Governance process
2. AV skills, knowledge & certifications
3. Audiovisual Technology to support instruction
4. Smart Technology
5. Relationships with vendors
6. Highest customer satisfaction ratings
7. Consolidated Help Desk
	1. Limited staffing
	2. Lack of process to include Total Cost of Ownership
	3. Lack of process to manage life cycle of AV assets
	4. Ongoing limited budget for supplies
	5. Communication flow
	   a. New construction
	   b. Departmental

## Opportunities	## Threats
1. Rent out facilities 2. Provide support to outside groups/entities using campus facilities	1. Vendors' priorities to institution to meet campus timelines 2. Vendors not meeting obligations

ACS SWOT Analysis Matrix (2010/2011)	
Strengths, Weaknesses, Opportunities, and Threat Analysis	
## Strengths	## Weaknesses
1. District wide Help Desk 2. Fast response time for problems and requests 3. Logical approach to problem solving 4. Relationships with vendors 5. Shared Governance process	1. Limited staffing 2. Lack of training on new technology 3. Limited budget to replace out-of-warranty equipment 4. Limited communication with IT and staff
## Opportunities	## Threats
1. Train staff while assisting them 2. Learn new technology	1. New spyware and viruses 2. Employees using non-standard applications

c. Evidence of the College Support of Technology Services Annual Needs

Following identification of AV needs in the annual Program Review Reports, Requests for Funding (RFFs) with clear justification were submitted to the Budget and Resource Development Subcommittee (BRDS) since 2009/2010. A summary of approved AV requests and allocated fiscal resources is presented in the following table.

ICS Requests	Campus Resource	Status	2009/2010	2010/2011	2011/2012	2012/2013
Computers for labs, class, campus support			None submitted due to lack of funding source	None submitted due to lack of funding source		

AV Requests	Campus Resource	Status	2009/2010	2010/2011	2011/2012	2012/2013
Projection Unit bulbs	Lottery	Funded	$ 8,000			
Replacement Laptops	IELM	Funded	$ 6,200			
Turning I-127 into a fully functional SMART classroom	Basic Skills	Funded	$ 24,373			
Replacement/backup audiovisual equipment	IELM	Prioritized/ unfunded		$ 15,318		

ACS Requests	Campus Resource	Status	2009/2010	2010/2011	2011/2012	2012/2013
Faculty computer replacements			None submitted due to lack of funding source	None submitted due to lack of funding source		