



# **Technology Plan 2009-2011**

**April 30, 2009**

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## Our Vision

As the City College of San Francisco moves into the twenty-first century, our foremost vision is that we will continue to value and foster superior levels of educational participation and academic success among our students. Through the outreach to and inclusion of all populations, the provision of an unparalleled learning experience for students, and the enhancement of a supporting and caring environment that sustains and leads them to the successful completion of their educational goals, we are motivated by a compelling and authentic vision.

**A Teaching and Learning Community** Above all else, we aspire to be a teaching and learning community whose principal distinction is the quality of instruction delivered by departments with strong reputations in their fields. The quality of success in learning will permeate all levels of the educational experience, from basic skills to advanced honors courses, from vocational/technical to the academic courses, from citizenship preparation and adult retraining to university transfer courses. The breadth of superior learning opportunities extends to a vast array of courses and programs sufficient to offer any student a pathway to educational and career success.

**A Service Community** We will continue to reach out to all neighborhoods, ethnic populations, and economic segments of our service area; develop campuses and sites to better serve geographic areas of the city; diversify and improve programs and services for the benefit of the community; build partnerships with public, private, and community-based agencies to better respond to educational, economic and societal needs; and foster informed participation of our students and employees in community life.

**A Diverse and Caring Community** We seek to build an inclusive community, where respect and trust are common virtues, and where all people are enriched by diversity and multi-cultural understanding; a responsive environment in which student needs are met in a friendly, caring, and timely manner; and a working environment for all faculty, staff and administrators in which everyone is valued and the climate is supportive, positive, and productive.

**A Contributing Community** In the larger realms of the state, the nation and the world, we hope to share our educational resources and contribute knowledge, expertise, and innovation as a post secondary institution of higher education, as members of the community colleges of the state of California and throughout the country, as colleagues in our various fields, trades, and professions, and as educators committed to lifelong educational opportunities for all.

## Mission Statement

CCSF provides educational programs and services to meet the following needs of our diverse community:

- Preparation for transfer to baccalaureate institutions
- Achievement of Associate Degrees of Arts and Science
- Acquisition of career skills needed for success in the workplace
- Active engagement in the civic and social fabric of the community, citizenship preparation, and English as a Second Language
- Completion of requirements for the Adult High School Diploma and GED
- Promotion of economic development and job growth
- Lifelong learning, life skills, and cultural enrichment

To enhance student learning and maintain a commitment to excellence, the college provides an array of academic and student services that support the development of students' intellectual, cultural, and civic achievements. City College of San Francisco belongs to the community and continually strives to reaffirm its commitment as a resource for the community.

# CCSF Technology Plan Introduction

## HISTORICAL CONTEXT

This plan is the latest in a series that started with the first CCSF Technology Plan, adopted by the Board of Trustees in 1997. Each successive plan (2003, 2005,<sup>1</sup> and 2009) has added new strategies to address more divisions, departments, schools, and campuses. A review of past technology plans reveals how CCSF technology goals have progressed:

1997: To provide a physical foundation and organizational structure for technology use

2003: To upgrade systems and expand technology use and programs

2009: To promote institutional effectiveness, efficiencies, and learning, to provide guidelines and standards for technology-enhanced curriculum, and to bridge the digital divide, empowering students for mastery of information competency and attainment of their educational goals.

## Technology Planning as Part of CCSF Strategic Planning

This plan is rooted in the CCSF Vision and Mission. The Plan is evidence-based and addresses the technology needs of the College as articulated by faculty, staff and students. Of necessity, it is a living document which is subject to continuous review in order to adapt to technological change and shifts in College resources and priorities.

Technology is, however, likely to remain an important priority of the College. An indispensable resource for higher education, technology is prominently featured in the CCSF 2003-2009 Strategic Plan. That Strategic Plan contains eight strategic priorities. Strategic Priority #7 focuses specifically on technology: *To significantly upgrade and expand the utilization of technology systems that enhance learning, optimize institutional resources, and contribute to improved levels of communication and organizational effectiveness.*

Within the Strategic Plan are various strategies and activities for which the 2003 Technology Plan has provided additional detail. The CCSF Technology Initiative, which has been implemented over the past several years with the help of the 2001 and 2005 bond initiatives, was initiated through our prior technology planning and will continue to be guided by this plan. The CCSF Strategic Plan and other associated multi-year college plans, including the Technology Plan, provide in their totality a compass for the realization of the CCSF mission and vision. On a yearly basis, items from the Technology Plan are made part of annual plans at college, division and unit levels. Details regarding prioritization and action plans belong to that annual plan timeframe, reasonably close in time to projected implementation, when the relevant context, available technologies, and resources can be determined for a particular fiscal year.

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<sup>1</sup> The 2005 Technology Plan was not widely disseminated in the usual way. CCSF was occupied with its Self Study for Accreditation in 2005 and 2006 and its bond initiative in 2005. At that time, the 2005 plan served as a bridge to fill a temporary planning purpose until the 2003 plan could be evaluated and the current plan could be developed.

## **The Success of the CCSF 2003 Technology Plan**

The CCSF 2003 Technology Plan laid the groundwork for an extraordinary number of accomplishments. The success of the 2003 plan gives much reason for optimism that this 2008-2011 plan will have equally dramatic impact on all areas of the College. We offer the following highlights as indicators of the success of CCSF's technology planning efforts under the guidance of the 2003 plan.

### **Some Highlights of Technology Planning Implementation 2003-2008**

#### **Overall Employee Satisfaction Results:**

- √ The CCSF General Use of Information Technology Survey in fall 2005: "Overall satisfaction, even enthusiasm, expressed regarding the College's technology efforts. Many respondents indicated their belief that CCSF is doing a great job."
- √ "Areas with high satisfaction include professional development, technical support, and communication regarding...outages, upgrades."

#### **Information Technology Services (ITS) Highlights:**

- √ A fiber optic ring now connects all campuses.
- √ All faculty/staff desktop computers have been upgraded and replaced.
- √ Analog telephone systems were replaced with a VoIP (Voice Over Internet Protocol) system
- √ The Education Technology Office was created as a separate entity.

#### **Education Technology Office, the Technology Learning Center, the Office of Technology-Mediated Instruction, Broadcast Media Services and Educational Access Television Highlights:**

- √ Distance learning sections have increased to more than 150 serving nearly 5,000 students per semester.
- √ Faculty now receive unit incentives for training and online course development.
- √ Moodle has been adopted as the College's new open source learning management system for online and technology-enhanced courses.
- √ The Office of Instruction now facilitates the offering of online courses (90 units) to offset or eliminate direct cost to the department.
- √ The online course development process provides for improved access and support for students with disabilities.
- √ CCSF online courses have won 11 statewide and 2 national awards for quality of course design.
- √ Through distance learning, it is now possible to earn the greater part of a CCSF associate degree and career technical education certificates.
- √ Board of Trustees meetings and many other special events were produced for cablecast on EATV Ch 27, 31, and 75.
- √ Provided technical support and maintenance for EATV, collegewide audio, video, and radio at Mission and Ocean Campuses.
- √ Broadcast Media Services planned facilities and equipment for the Mission Campus Media Studies Center.
- √ All Ocean Campus television service carts have been upgraded to include DVD playback.
- √ Multifunction LCD projection carts, designed and deployed by BMS, now support instruction in Ocean Campus classrooms.
- √ A second 24/7 cable access channel is now operated and programmed from Ocean Campus.
- √ Upgraded to fully digital the educational access channel headend facilities, now with 700 hours of video storage and playback capacity.
- √ Educational programming from new five sources became part of the EATV programming schedule, all at no cost to CCSF.

**Student Development Division Highlights:**

- √ Banner 6.0 and 7.0 were implemented throughout the Student Development Division.
- √ An online student orientation was created and is now used extensively.
- √ Counseling departments have started using electronic educational planning.
- √ In-house document imaging has begun at Admissions and Records.
- √ Faculty services and resources such as class lists, adds/drops/withdrawals, and census data have been enhanced and made accessible online.

**Library and Learning Resources Highlights:**

- √ The online library catalog was improved through a new integrated library system that now automates many processes.
- √ A new information skills classroom was created at the Mission Campus Library.
- √ Self-service network printing was implemented for all student workstations in libraries.
- √ Open access computing for students was enhanced through the upgrading and replacement of problematic PCs.
- √ Students now have access to online information competency tutorials any time of the day or night.

## PRESENT CONTEXT

### Technological Change and Trends

Our environment is characterized by rapidly evolving technological innovations having significant educational impact. These include applications which promote moving content increasingly to the Web in new ways (e.g., Google applications and forms, mashups), a new way of relating to the Web (the participatory so-called Web 2.0, user-defined content) and applications which promote mobility of content, accessible via ever-smaller and more powerful mobile devices (e.g., pda's, cell phones, MP3 A/V players like the iPod®). The future of higher education may involve more social computing and educational gaming. Technological changes in society tend to drive a number of our institutional technology decisions. For example, when home computer use grew greatly from 2003-2005, that growth relieved some of the intense pressure on labs and libraries to add more and more desktops for student use. Now, students who use increasingly popular mobile computing devices are calling for more WiFi hot spots on campuses. (In addition, our public computers are still heavily used and additional computing resources for our students may need to be considered.)

Another example is that CCSF distance education was offered exclusively via broadcast television for fifteen years, but with the advent and popularity of the internet, online courses surpassed televised courses in enrollment in less than two years' time.

All over the country, colleges are reacting to the same technological changes as CCSF, and are generally experiencing many of the same challenges. In the national 2007 Educause survey<sup>2</sup> of technology in higher education, the following technology issues were reported to be of greatest strategic importance:

1. **Funding technology** – Among the most challenging issues—it is critical to identify and convey the value that information technologies bring to addressing College priorities.
2. **Security** – With critical data now available electronically, colleges are at greater risk of serious breaches. College IT personnel have the challenge of being proactive in ensuring security, while still operating within a culture of openness and decentralization.
3. **ERPs** – Enterprise Resource Planning systems (e.g., Banner) and their associated costs tend to take a lion's share of human/ financial resources in a college technology budget.
4. **Identity / Access Management** - The connection between managing information about identities and an individual's access to information and services now extends to nearly every aspect of academic, administrative and community experience. The challenge is to balance identifying, authenticating, authorizing and provisioning.
5. **Disaster Recovery / Business Continuity** - The recovery of IT systems following a disaster is a distinct, essential, but narrower concern from the broader issue of business continuity planning. The latter requires engagement by all College stakeholders, and may also require consultants familiar with formal methodologies and business impact analysis software.
6. **Faculty Development** - A continuing challenge is the need for congruence between the speed with which technology is advancing and the speed with which academe is able to adapt. A new generation brings their own distinct and challenging expectations and

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<sup>2</sup> <http://www.educause.edu/ir/library/pdf/eqm0723.pdf>

understandings of technology, as well as new lifestyles and learning styles. As a result, teacher and teaching needs are regaining importance alongside learner and learning needs.<sup>3</sup>

7. **IT Infrastructure** - Even as IT project-delivery schedules are increasingly shorter, integration and security requirements have become more complex. IT has the challenge of deploying the appropriate combination of hardware, software and services in a manageable and scalable information architecture that facilitates the organization, storage, access and maintenance of strategic information services and resources.
8. **Technology Planning** - Developing a technology plan should be a collaborative effort involving academic, student services, library, research, and administrative units. Due to the difficulty of planning for future unknown circumstances, any strategic technology plan will have to be a living document that is subject to changes in priorities and technologies.
9. **Course / Learning Management Systems**- [CCSF will be using Moodle as its course management system (C/LMS).] Such systems are relatively new---as this technology matures, it is evolving more toward a learning management system, encompassing content management, groupware tools, assessment tools and e-portfolios. C/LMSs now give students greater control over content and support higher-order learning.
10. **Leadership** – The configuration and quality of technology leadership, including the leadership structure and governance, is fundamental to ensuring that technology services, resources, and staff are able to support and advance the College mission.

### Technology Decisions and Cost

Technology decisions tend to be high-stakes decisions involving large amounts of resources with consequences lasting many years. How should such decisions be made? Cost and performance---return on investment---need to be the main considerations. Dealing with challenging State cutbacks (as of 2009), the College must be efficient and effective in its use of resources, setting priorities despite severely constrained departmental budgets. Fortunately, effective implementation of technology may also provide demonstrable cost efficiencies. In addition, grant funding or bond funding may be successfully pursued for many projects. In fact, a great deal of the current technology implementation at the College is being financed by bond proceeds from the 2001 and 2005 CCSF bond initiatives. Although the possibility of a Phase 3 bond has been discussed, the Board of Trustees has not voted to pursue such a bond, and the economic climate may make the passage difficult. Therefore, those items listed as Bond-funded, are essentially unfunded at the current time.. However, although grant/bond funding may be a good source for starting new projects, funding for ongoing operational support and maintenance requires a continuous source which grant and bond funding do not supply. Funding for ongoing operational support needs to be identified for existing as well as new technology projects.

This plan reaches for achievements possible for the College over a three-year period from January 2009 to December 2011, depending on resources and feasibility, and within a context of the technologies, facilities, equipment, training and support likely to be available. Strategic, multi-year technology plans such as this one are challenging to develop, given the rapidity with which underlying technologies evolve. Estimating future costs can be even more daunting; therefore, we have made no attempt to guess at those future costs

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<sup>3</sup> SCUP, 2006. "Trends in Higher Education"

in this plan. But cost will be a very important factor in prioritizing the contents herein. Unfortunately, a lack of adequate staffing or other resources sometimes undermines even well drafted plans in the implementation stage. To guard against that pitfall, the benefits of technologies selected must be clear. Such benefits must be effectively communicated collegewide, if this plan is to fulfill its promise. Meanwhile, those making technology decisions must give due thought to their responsibility for:

- Analyzing advantages, accurately estimating total cost of ownership, and selecting among alternatives;
- Leveraging limited resources;
- Staying clear of inflexible, limiting commitments;
- Adopting systems and designing content to meet student and institutional needs;
- Providing staff development for tech-support staff, training and supporting users;
- Providing support facilities and tools; and
- Providing multimedia facilities for the increasing numbers of students creating content.

The College must be flexible enough to address these challenges, building and maintaining stable and responsive support systems while adapting to desired innovations. Structures and systems must be designed for such stability and flexibility. While it would be ideal to allow the flexibility that comes with designing for multiple formats and devices, that flexibility has to be weighed against the ability of staff to support this multiplicity.

In the selection of software, CCSF has established selection criteria to ensure maximum benefit. Institutional applications are chosen with an eye towards scalability, security, reliability, data integrity, ease of use, and robustness. They should encourage innovation. Instructional applications, on the other hand, are chosen with the criteria of providing student access, ease of use, suitability for course management, the ability to address the needs and learning styles of CCSF students, and the training needs of our faculty and staff.

In all College technology purchases, sustainability, including but not limited to, total cost of ownership, will be an important factor.

### **Contributing to the Greening of CCSF Through Sustainable Technology**

In implementing the Technology Plan, the guidelines set forth in the CCSF Sustainability Plan will be followed. With respect to energy conservation and recycling, the College is currently implementing the following sustainability measures in the technology area:

- Purchasing energy efficient equipment, which will reduce energy consumption and production of waste heat, reducing the level of air conditioning needed.
- Placing lab computers in standby mode when not in use, reducing energy consumption and the production of waste heat.
- Participating in District recycling efforts for all computer and technology related equipment, including proper e-waste disposal, reconditioning when appropriate, etc.

Furthermore, the College will enhance sustainability by:

- Establishing a baseline of energy and cooling required in the central computer room and tracking reductions achieved through the use of energy efficient equipment.

- Using server virtualization whenever possible to increase server efficiency.
- Creating an awareness program for employees to turn off computers when they will not be used for an extended period of time.

### **How this Plan Was Developed**

To create an initial 2009-2011 Technology Plan draft, in fall 2007, a work group was formed of faculty, staff and administrators representing Information Technology Services, the Educational Technology Office, the Technology Learning Center, the Office of Technology-Mediated Instruction, the Office of Student Development, Library and Learning Resources, the Office of Planning / Institutional Advancement, the Office of Academic Affairs, the Information Technology Policy Committee and the College Advisory Council. Task force participants were Anthony Costa, Denton Crews, Paul Downing, Robert Gabriner, Mamie How, James Lim, Susan Lopez, Doug Re, Carol Reitan, Elizabeth Rockstroh, Janet Willett, and David Yee. The task force met throughout Fall 2007 and Spring 2008 to discuss goals and put the first draft together. The group evaluated the implementation of the 2003 Technology Plan and brought in other evidence and resources<sup>4</sup> to make sure that the new plan had covered all the principal objectives and activities that could be anticipated. In Fall of 2008, that initial draft began to make its way through the process of shared governance review by faculty, classified staff, students and administrators

### **Key Themes**

As this CCSF Technology Plan was developed, it was clear that certain themes and directions were collegewide, not confined to one or two sections herein. Following are the key themes that were identified as overarching and common to all or most sections of the Plan. The reader should interpret these as being *included in each of the sections* of the Plan to the degree they would be logically applicable.

#### **1. Funding**

Develop and implement a plan for permanent, ongoing funding for continuous upgrades and maintenance, in all technology areas.

- Replace equipment (e.g. employee computers, all existing computer labs).
- Upgrade infrastructure/systems (phone systems, routers/switches, servers, email, website and CMS, library systems).

#### **2. Classroom Upgrades**

Upgrade technology/AV in all classrooms, to include projection, video distribution, wireless and other appropriate technologies..

- Upgrade plan for existing classrooms.
- Ensure that classroom technology be included as necessary and high priority infrastructure for new construction/remodelingof classrooms (not cut when there is a budget shortfall in construction).

#### **3. Staffing and Support**

Plan for adequate staffing to provide on-going technical support for:

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<sup>4</sup>Tech III Plan 2007-2010 of the California Community Colleges at cccco.edu is one such resource. Others are footnoted or sourced within this Introduction text.

- All existing computer lab and technology facilities;
- Assisting instructors with courses taught in computer labs;
- All new technology projects;
- Help Desk support for students; and
- Technical support for faculty in use of instructional technologies.

#### **4. Business Practices**

Improve business/academic practices to take advantage of cost reductions and service improvements through the use of new/latest technologies.

- Provide infrastructure improvements to make these efficiencies possible;
- Utilize more Web-based technology to deliver student services and library learning resources;
- Provide more Banner improvements to enhance delivery of student services.
- Enhance self-service Banner access for noncredit students in the areas of application, registration and attendance accounting.

#### **5. Security**

Develop and implement a security plan encompassing all phases of the College's technological operations.

#### **6. Training**

Expand staff development in use of technology.

- Provide faculty with additional training in use of instructional technology, and technology to enhance student services and learning resources delivery.
- Provide classified staff and administrators with staff development on technology to enhance work efficiencies.

### **Using this Plan**

This plan is organized in such a way as to facilitate integration with other levels of planning and to provide for increased ease of implementation. The plan is divided into four broad content sections: Information Technology Services, Office of Educational Technology, Student Development, and Library & Learning Resources. In cases of overlap in content among these sections, cross references are provided. This format should facilitate the use of the Technology Plan as a reference in implementation activities and in drawing up other plans. In particular, the Technology Plan should be consulted for relevant material in the drafting of each Annual Plan and will be a key reference in the drafting of the next Strategic Plan and the next Education Master Plan.

The suggested timeframe for implementation is divided into Phase 1 (1/2009 to 6/2010) and Phase 2 (7/2010 to 12/2011<sup>5</sup>). The timing of implementation should be considered approximate, since it is very challenging to make specific plans when resources and other conditions in a future year are still unknown. Actual implementation will depend on resources available during Phase 1 and Phase 2 and the evolving priorities of the College.

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<sup>5</sup> Phase 2 leads into the next Institutional Self Study for Accreditation, which will be completed in 2012.

The plan is designed to provide an increasingly structured approach to technology funding. The expected source of funding is indicated. If a planning item could likely be funded through reallocation of a departmental budget, the Current Resources column will be checked. A mark in the Increase column indicates that an item would require an increase in departmental allocations. However, General Unrestricted Fund monies tend to be limited and many other priorities compete with technology for that same funding source. Therefore, when plans can be funded through a bond, or through a public or private grant, that is generally preferred. If either of those columns (Grant or Bond<sup>6</sup>) are checked off, that will be the first source explored for a particular expenditure unless there are adequate resources in the General Unrestricted Fund. If obtaining outside funding is later found to be infeasible, there will be a second exploration of funding through the General Unrestricted Fund. The implementation of planning items that cannot be funded through any of these means (or a donor's special gift) will be postponed until the next phase, or until the funding environment is more favorable.

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<sup>6</sup> The Notes column of the Plan has been used to indicate whether a past bond or possible future bond is meant.

## **INFORMATION TECHNOLOGY SERVICES**

## Information Technology Services

### **Mission Statement**

*Information Technology Services (ITS) is a unit that supports the teaching and learning mission of the City College of San Francisco through the use of information technology resources for all aspects of the College. Information Technology Services improves institutional effectiveness and efficiencies through the deployment and application of appropriate technology. ITS also enhances the image and reputation of the College through technological excellence and leadership. To fulfill its mission, ITS strives to improve student success through applications which promote successful student learning outcomes.*

### **Goals, Strategies, and Activities**

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
<b>1. Enhance and expand College network services.</b>						
1.1. Complete final network connectivity to all campuses.	1, 2					
a. Complete plan under DTIS contract for inter-campus connectivity to Chinatown-North Beach and other facilities, as built.					x	
b. Develop plan for upgrading and maintaining currency of network.	1					
▪ Complete replacements of ethernet switches.	1				x	
▪ Complete overall plan for maintenance and upgrades.	1				x	
c. Develop and implement a plan for additional special access points.	2					
▪ Wireless connection areas	2				x	Current funding insufficient.
▪ Kiosk connection locations	2					Funding needed.
1.2. Develop and implement a plan for replacement/upgrades of office desktops and lab	2					

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
computers on a continuous cycle.						
a. Develop and implement a replacement plan for desktops, printers, and scanners in offices.	2					Funding needed.
b. Develop and implement a plan for upgrades to desktop applications.	2	x				
c. Develop and implement a replacement plan for computer lab equipment and multi-media classrooms.	2			x	x	
1.3. Develop and implement refinements to the College email system on a continuous cycle.	1					
a. Current GroupWise email system	1					
b. Establish new student email system via Google-based system.	1				x	
1.4. Develop plans and provide improved access and support for persons with disabilities.	1		x	x	x	
1.5. Develop and implement improvements for the Voice-over-IP telephone system and services on a continuous cycle.	1, 2					
a. Assess usage and needs of system.	1					
▪ Classroom phones	1					
▪ Courtesy phones	1					
b. Develop implementation plans for improvement and execute.	2				x	Current funding insufficient.
1.6. Develop and implement a plan for redesign and improvement for College website and website management, including portal and content	1, 2				x	

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
management technologies.						
a. Develop and implement a redesigned website design and website content management system.	1					
b. Develop and implement web-portal functionality.	2					Funding needed.
1.7. Develop and implement mass emergency notification systems.						See CCSF Emergency Plan.
a. Text messaging	1					
b. Public address systems	2			x		Funding needed.
1.8. Review and make recommendations on facsimile technology configurations.	2					
1.9. Develop and implement a plan to support miscellaneous computer-based technology used throughout the District.	2					
a. Card access systems	2		x			
b. Student lab use tracking	2		x			
c. Video surveillance	2		x			
<b>2. Ensure that the computer lab facilities, multimedia classrooms, and regular classrooms meet the needs of instructional programs at all campuses.</b>	1, 2					
2.1. Work with ETO and instructional departments to expand the number of computer labs and multimedia classrooms to meet program needs	1, 2			x		Funding needed.
and improve access and utilization of these resources.						

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
2.2. Develop and implement a plan that would provide support to departments which have unsupported computer labs, including providing lab aides for courses taught in labs.	2		x			Additional personnel required.
2.3. Develop a plan to ensure that computer hardware and software in computer labs are placed on a continuous upgrade schedule, that support the instructional requirements. This schedule may vary with computing needs of the department.	1		x	x	x	Funds should be budgeted and not based on proposals.
2.4. Improve coordination and communication between existing computer lab facilities; e.g. schedule lab use online and provide contact information online.	2					
2.5. Develop and implement a plan for how students will access the campus network.	2					
2.6. Expand number of multi-media classrooms, provide support and continuous upgrade for these classrooms, with features as follows.	1, 2			x		Funding needed.
a. Smart classrooms (mounted LCD projectors, internet data ports, DVD/VHS players, speakers) and wireless classrooms with smart consoles and/or wireless carts as appropriate for the individual location. Incorporate new technology as appropriate.	1, 2			x		Funding needed.
c. Furniture and room layouts that allow for flexible group work.	1, 2			x		Funding needed.
d. Staffing for maintenance and set-up available for each location.	1, 2		x			Additional personnel required.

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
e. Ongoing hardware and software upgrades, based on factors including instructional program needs to upgrade software and/or needs for faster equipment, refreshing a certain percentage of labs every year so that faculty can be provided with up-to-date equipment.	1, 2		x	x		Funding needed.
2.7. Improve video and audio-video distribution to all classrooms in coordination with Broadcast Media Services and Audio Visual units.	1, 2					
a. Increased availability of ceiling mounted projectors.	1, 2			x		Funding needed.
b. Increased delivery of online AV to support instruction.	1, 2			x		Funding needed.
c. Increased College capability to display captions of videos/DVDs in compliance with Federal law.	2		x	x		Funding needed.
d. Include faculty input on AV planning in the early design stages of new building projects.	1, 2					
e. Furnish all classrooms in remodeled and new facilities with multimedia equipment and wireless capability.						
2.8. Develop and implement a plan with Student Development and the ETO to provide access to specialized software from various labs across campuses.	2			x		Funding needed.
<b>3. Develop and implement enhanced administrative information software and services</b>	1					
3.1. Implement upgrades to Banner, Oracle, and other	1					

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
applications as scheduled.						
a. Maintain the Annual Schedule of Upgrades (available from ITS Office).	1					
b. Develop and implement a communications plan for upgrades.	1					
3.2. Implement refinements to the Banner user structure.	1					
a. Refine the system for Banner managers, including system for data managers.	1					
b. Refine and document the system for Banner accounts and permissions.	1					
c. Link Banner information to the College website and other College publications where useful.						
3.3. Review and implement a return to Banner baseline to the maximum feasible with a corresponding reduction in local modifications.	1, 2		x			
3.4. Examine and improve existing work processes to take better advantage of Banner work-flows and functionalities to improve college operations, utilizing business process assessment methodologies (BPA) when appropriate.	2					
a. Student Development process reviews, including Admissions and Records	2					
o Improve noncredit attendance accounting.						
o Expedite the process of noncredit						

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
Banner registration to facilitate use of learning management system in noncredit programs.						
b. Academic Affairs reviews, including class schedule development and policies/procedures (e.g. add/drop procedures)	2					
c. Fiscal/Administrative Affairs process reviews, including Payroll and Human Resources	2					
3.5. Develop and implement enhanced solutions for Student Development.	1, 2					
a. Online non-credit registration and attendance	2					
b. Electronic transcript	1					(Stu. Dev. Obj. 3.3)
c. Educational plans	1					(Stu. Dev. Obj. 4.1)
d. Student photo identification cards with bar codes	1					(Stu. Dev. Obj. 5.4)
e. Degree audit	1					(Stu. Dev. Obj. 3.3, 4.3)
f. Early alert and student tracking	1					(Stu. Dev. Obj. 4.2)
g. On-line orientation and virtual college tour	2					(Stu. Dev. Obj. 1.1, 3.2)
h. Admissions and recruiting module	2					
i. Transfer tracking	2					(Stu. Dev. Obj. 3.3)
j. Improvements to SARS/GRID	1					(Stu. Dev. Obj. 3.2)
k. Web portal for students	2					(Stu. Dev. Obj. 1.1)
l. Direct check disbursement for students	1					(Stu. Dev. Obj.1.2)
m. California Community College Apply	1					(Stu. Dev. Obj. 3.1)
n. Data base for student learning outcomes	2					(Stu. Dev. Obj. 5.1)

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
o. Access to forms on-line	2					(Stu. Dev. Obj. 5.2)
3.6. Develop and implement enhanced solutions for Academic Affairs	1, 2					
a. Web-based grades	1					
b. Wait lists, holds, drop/add	2					
c. Distance learning course management	1					
d. Course scheduling and master schedule	2					
3.7. Develop, enhance, and implement solutions for Administrative Support	1, 2					
a. PeopleAdmin application interface	2					
b. Graphic Information System initiative	1				x	Current funding insufficient.
c. Budget module usage	2					
d. Web time entry	1					
3.8. Implement special projects	1, 2					
a. Banner enhancements developed by California Solutions Center and 3CB, selected from attached list of enhancements	1, 2					(Stu. Dev. Obj. 2.5)
b. MIS/SIS (320) state reporting	1					
c. Oracle encryption	1		x			
d. Oracle lockbox	1		x			
e. Document Imaging	2				x	(Stu. Dev. Obj. 2.1)
f. EIS/Data Warehouse	2					
g. Reporting Tools, e.g. Cognos or Crystal	2					(Stu. Dev. Obj. 2.2)
<b>4. Develop and implement enhanced information</b>	1, 2					

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
<b>technology management and operations along with shared-governance involvement.</b>						
4.1. Establish stronger “structures” to improve the delivery of information technology resources to the campus community.	1, 2					
a. Enhance Help Desk operations (for administrative applications support, desktop support, phone support, etc).	1					
▪ Develop a “knowledge base” applications/approach to Help Desk operations.	2		x			
▪ Review and systematize Help Desk process (calls, referrals, 1st level technical assistance, 2nd level technical assistance).	1					
▪ Institute an assessment-analysis of call trends in order to improve services.	1					
▪ Develop and implement an escalation plan for the dispatch system.	1					
▪ Provide one-on-one tutoring services to faculty via student aides.	1		x			
b. Provide more online help through the Help Desk.	1					
c. Expand Help Desk to 12 hours/day for tech support continuity during big ITS projects (staff redeployed). Rotate Help Desk staff for cross-training and rotate 1020 staff from	1		x			

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
labs and campuses to the Help Desk so they can bring back knowledge gained.						
d. Develop and implement a training plan with the ETO to provide ongoing training for Help Desk Staff and student lab aides.	2					
e. Implement service level agreements with user departments to improve customer service.	2					
f. Review and enhance the training program for the application and use of technologies at CCSF.	1					
<ul style="list-style-type: none"> <li>▪ Develop an annual plan for general and targeted training.</li> </ul>	1					
<ul style="list-style-type: none"> <li>▪ Expand training from basic level to more advanced training classes.</li> </ul>	1		x			
<ul style="list-style-type: none"> <li>▪ Increase use of Web based training.</li> </ul>	1	x				
<ul style="list-style-type: none"> <li>▪ Supplement training resources, as appropriate (including trainers and curriculum development).</li> </ul>	2		x	x		Funding needed.
4.2. Strengthen and improve information technology operations.	1, 2					
a. Develop and implement a business continuity or disaster recovery plan.	2					See CCSF Emergency Plan.
b. Develop and implement improved and upgraded configuration of servers.	1					
<ul style="list-style-type: none"> <li>▪ Long-term plan for upgrade of servers</li> </ul>	1		x			Funding needed.
<ul style="list-style-type: none"> <li>▪ Plan for coordination/consolidation of rogue servers</li> </ul>	1					

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
▪ Plan for use of virtualization tools	1		x			Funding needed.
▪ Process review for systematic operation/management of servers, including maintenance, monitoring, and back-up systems	1					
c. Develop and implement a plan to strengthen centralized data storage flexibility, capacity, and reliability	1, 2					
▪ Investigate cost-effective solutions to data storage centralization.	1, 2					
▪ Increase the use of centralized backup technology.	1, 2					Funding needed.
▪ Investigate alternative backup technologies; such as disk-to-disk.	1, 2					Funding needed.
d. Implement a redesign of the computer room with UPS power back-up, power generation, and upgraded HVAC.	1				x	
4.3. Strengthen and improve information technology management and organization.	1, 2					
a. Review and make recommendations on organization of ITS.	1					
▪ Management level leadership structure	1					
▪ Programming and user-liaison staff	1					
▪ General organization of IT: (networks/operations; desktop systems and applications; administrative applications;	1					

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
educational technology office)						
▪ Dispersed technical personnel and their relation to ITS	1, 2					
b. Review the allocation of consulting services and shift more responsibilities from consultant contracts to ITS staff.	1					
c. Review and make recommendations on relation between LRC-managed technologies, BEMA-managed technologies, and ITS-managed technologies.	2					
4.4. Establish and implement policies for the following areas.	1, 2					
a. An internal IT policies and procedures system.	2					
b. Guidelines for users regarding network use, website use, privacy, copyright, and peer-to-peer file transfer.	1, 2					
4.5. Develop and implement a comprehensive security plan for technology.	1, 2					
a. Develop a framework for establishing, maintaining, and evaluating security risks and solutions, including levels of risk acceptability.	2					
b. Review and improve the system for designating computer accounts and permissions.	2					
c. Establish IT staff responsibilities for security (and relationship to college-wide security initiatives, e.g. Risk Manager, Chief Security Officer).	2					
d. Implement security solutions.	2					Funding needed.

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
e. Participate in a shared governance institutional security and emergency preparedness initiative (including an ITPC representative/liason).	1					See CCSF Emergency Plan.
4.6. Continue to enhance the shared-governance system for IT.	1, 2					
a. Refine the substructure of the Information Technology Policy Committee and organize linkages with sub-areas and user work groups in functional areas.	1					
▪ Administrative Services: Financial Payroll, Human Resources, Facilities	1	x				
▪ Student Development: Student Services, Admissions/Registration (credit and non-credit), Financial Aid	1	x				
▪ Institutional Advancement: Alumni/Development, Institutional Research	1	x				
▪ Technology Support: Desktop PCs and Applications, Email, Document Imaging, Fax, Phones, Training, Help Desk, Website, Report Tools	1		x			Additional personnel required.
▪ Educational Technology: classrooms, labs, video, distance learning, portal						
b. Create a Joint Technical Review Subcommittee under the Information Technology Policies Committee, with the charge of developing and implementing standards for hardware, software, network, and Internet systems	1					

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
c. Establish an IT advisory group (e.g. DCC, Academic Senate, Administrators Council, unions, etc) to assist in broadening consensus and support technology policies and initiatives.	2					
d. Establish a college-wide user working group to develop and implement standards for A/V devices connected to computer systems; such as LCD projectors.	1					
e. Establish a high-level professional advisory committee consisting of prominent vendors and community leaders in technology.	2					
<b>5. Maintain a continuous planning process for technology.</b>	1					
5.1. Coordinate planning for all areas of technology through the Office of Planning, Institutional Advancement	1					
a. ITS Plan	1					
b. ETO Technology Plan	1					
c. Student Development Technology Plan	1					
d. LLRC Technology Plan	1					
e. New facilities plans, including that for the Advanced Technology Building	1					
5.2. Develop and implement processes and procedures for the acquisition and replacement of technology.	1, 2					
a. Coordinate technology purchases throughout the College.	2					
b. Develop phased replacement plan for aging	1					

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
technologies.						
c. Incorporate issues related to total cost of ownership — technical support, warranties, etc.	2					
5.3. Coordinate software purchases and licensing.	1					
a. Investigate and coordinate the acquisition of software licenses to achieve cost savings.	1					
5.4. Evaluate overall configuration of IT systems and applications and explore future options for applications, systems, and provider relationships, including the following, if feasible.	1, 2					
a. Server farms	1, 2					
b. Blade Servers	1, 2					
c. Alternative means of delivering applications to the desktop	1, 2					
d. Alternative desktop systems (e.g. thin client desktops)	1, 2					
e. Future-generation ERP systems	2					
<b>6. Provide adequate staffing to support functionality of existing equipment/software/services, and when implementing new functions/ features/services.</b>	1, 2		x			
1. Maintain adequate staffing levels to support ITS functions including Networking, System Administration, Programming, and Desktop Support.	1, 2		x			
2. Seek funding to increase ITS Desktop Support staff to achieve a ratio of one 1020 class for every 75 workstations supported by ITS. 2008 ratio is approximately 1:250.	1, 2		x			

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
3. Hire a new Chief Technology Officer to provide overall leadership to the College's technology planning and operations.	1		x			

## **EDUCATION TECHNOLOGY OFFICE**

## Education Technology Office, Broadcast Media Services, Educational Access Television

### Mission Statements

#### **Education Technology Office (ETO)**

*The Education Technology Office will actively support the use of technology for teaching, learning, and student services to improve student success. It will develop college-wide guidelines and standards regarding educational technology, overseeing and implementing the Education Technology Plan.*

#### **Broadcast Media Services (BMS)**

*Broadcast Media Services will provide audio and video production, playback, distribution, format conversion, duplication services, and technical expertise to support instruction, student services, professional development, shared governance, performances, presentations, events and related college activities .*

#### **Educational Access Television (EATV)**

*EATV Channels 27, 31, & 75 will cablecast imaginative and flexible educational programming to meet the changing needs of our diverse San Francisco community. EATV will provide credit and noncredit courses, information about community events and resources, and an outlet for student video, film and multimedia productions. It will offer access to information and education to those who are physically challenged or housebound.*

### Goals, Strategies, and Activities

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
<b>1. Provide strategic support for the college, students, departments, faculty and staff for efficient and effective use of technology to enhance learning, teaching, student services, and student success.</b>	1, 2	x				No funding needed --- planning items.
1.1. Plan intracampus and intercampus instructional technology projects in both credit and noncredit.	1	x				
a. Work with deans, department chairs / faculty to explore and plan technology projects and programs within a campus and across campuses (i.e., 3.3 below—synchronous distance learning facilities).	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
1.2. Foster increased access by underserved populations to the College's programs and services via the use of technology.	2		x	x		Contingent on increased funding. Grant also possible.
a. In conjunction with Student Development, campus deans, department chairs/faculty, as well as community members, plan new programs and services that outreach to students not being served via technology.	2		x			Contingent on increased funding.
1.3. Provide recommendations for cost reductions through effective and efficient use of technology.	1	x				
a. Investigate best practices at other institutions.	1	x				
1.4. Work with the Office of Research and Planning to research and report on the use and effectiveness of technology in instruction, and use the information for further planning and program improvements.	1	x				
1.5. Plan and provide support for increased growth (based on data ---see item 1.4 above) in use of instructional technologies in both credit and noncredit.	2	x	x			To plan, use current resources. To support, need increased funding for staffing / sections.
1.6. Establish and promote guidelines for technology-based curricula.						
<b>2. Expand the number of online courses and provide services to support growth in online, hybrid and tech-enhanced courses.</b>	1					
2.1. Coordinate with the Vice Chancellor of Academic Affairs, school deans, department chairs and other faculty to plan for expansion of online courses to meet high demand, as well as areas with growth potential.	1					

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
2.2. Determine budget and staffing needed as online courses grow. Provide facilities for support staff to accommodate growth of faculty using technology to deliver coursework.	1		x		x	Expand unrestricted funding for staffing. Additional funding needed for facilities expansion.
2.3. Provide a track of preparatory training for teaching on the web.	1	x				
<b>3. Provide instructional technology tools, facilities, training and technical support to faculty and staff to improve efficiencies and effectiveness.</b>						
a. Provide course shells in the college learning management system (LMS) for all faculty for content design, storage, and display of course materials for all courses.	2		x	x		Need operational funds for software, hosting.
b. Provide easy access to electronic resources, preferably through a single sign- on.						See ITS section.
c. Provide customizable entry page for students and faculty.						See ITS section.
d. Provide training for faculty/staff on use of portal.	2	x				When ITS implements this functionality.
3.1. Provide for an electronic portfolio presentation tool for faculty and students.	2			x		Possible instructional block grant.
a. Work with departments to develop pilot projects.	2	x		x		Need grant for pilot teachers.
b. Determine budget and support needed to implement college-wide.	2	x				
c. Work with regional consortia on specifications that will allow portability of portfolios among higher education institutions	1	x				
3.2. Provide synchronous distance learning facilities between campuses and other sites, as appropriate; e.g., broadcast room at Ocean campus and reception classrooms at other	2	3.3.			x	See Library section 2.5.6. See ITS section.

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
campuses. This may include teleconferencing capabilities.						
a. Explore with the Vice Chancellor of Academic Affairs, campus and school deans and departments the need for such facilities and plan courses with campuses and departments.	2	x				
b. Investigate the staffing and budgeting needed.		x				
c. Plan pilot projects.				x	x	Need funding for equipment.
3.3. In conjunction with departments, explore new video productions for use as Telecourses and work with CCSF EATV to broadcast.						
d. In conjunction with the Broadcast Media Services, provide technical assistance to interested departments to create television courses.				x	x	
3.4. Increase system support for mainstream faculty to promote growth of tech-enhanced courses.			x			Expand unrestricted funding (applies to all of 3.5)
a. Increase staffing; e.g., Multimedia Services and Instructional Technologist.			x			Expand funding for staff.
b. Maintain and improve faculty access to training, equipment, learning management system, development, and delivery software.			x	x		Grant for software, equipment.
c. Explore and implement streaming classroom lectures to the Internet.						
3.5. Coordinate with the TLC to provide online resources, both from the TLC website and also from the new campus portal, and to provide workshops on new tools and technologies. Provide regular publicity regarding technology	1		x	x		Expand unrestricted funding or seek grant. See Library section 2.4.b.

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
resources.						
a. Keep current by researching new developments (attending conferences, reading publications.) in educational and office technology appropriate to the teaching and learning goals of CCSF.	1	x	x	x		Need funding for professional development of staff.
3.6. Provide training for faculty and staff, as appropriate.	1	x	x	x		
3.7. Expand the services provided by the Help Desk to faculty by working with ITS to improve staffing and funding.						(See ITS section 4.1)
3.8. Develop a departmental mentor program to assist faculty with first level problems.	1	x	x	x		Need increased funding for mentors.
3.9. Provide for intake and support for departmental projects using technology.	1	x		x		Can do on limited basis; need grant for larger projects.
3.10. Reestablish Departmental Training Grants to provide training for departments and programs that rely on cutting edge technology that the ETO cannot provide.	2			x		Suspended during 2008 due to lack of funding.
3.11. Establish professional development incentives: Work with all levels of administration to highlight the benefits of, and provide incentives for, participation in computer training for faculty and staff, to maximize impact of technology investment.	1			x		Can explore options with current resources; need funding to implement incentives.
3.12. Continue outreach to classified staff and their departments to identify office application skill needs and provide training as appropriate.	1	x				
3.13. Provide support to ITS by TCL :	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
a. Publicize procedural changes and updates in campus software (such as MSOffice, online class lists, email upgrades, etc.)	1	x				
b. Provide related training as appropriate.	1	x				
3.14. Provide collegewide standards for new technology tools, e.g., clicker technology.						
3.15. Explore a mechanism for equipment-sharing and making redundant equipment resources more available.	1,2	x				
<b>4. Ensure that the computer lab facilities and multimedia classrooms meet needs of instructional programs.</b>						(See ITS Plan Section 2)
<b>5. Provide student support services by means of technology.</b>	1, 2					
5.1. Provide distance learning course readiness services.	1		x			
5.2. Investigate and implement an early alert program for distance education students.	1	x				
5.3. Offer a General Education degree available through distance education courses.	1	x				
5.4. In conjunction with Student Development, explore tech support options for students via peer-to-peer support, student help desk services, or Student Support Center and web-based tutoring for both on campus and distance learning students.	2		x			See Student Development Section 1.1.c.
a. Investigate how other colleges are providing these services.	2	x				
b. Work with online instructors, counselors and LAC staff to develop implementation plan of	2	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
the services needed.						
c. Determine budget and staffing needed.	2	x				
5.5. Explore streamlined pathways via CSU degree articulation.	1	x				
5.6. In conjunction with Library & Learning Resources promote student access to library resources and instruction.	1	x				
<b>6. Provide faculty with access to current information and pedagogical practice related to learning technologies; foster investigation, experimentation, and dialogue about the use of technology for teaching and learning.</b>			x	x		Expand unrestricted funding or grant for training.
6.1. Maintain and expand ongoing exploration of and planning for new and/or converging technologies (voice, video, data) and their implications for education and communication. Explore new technologies to meet needs as follows:			x	x		
a. Addressing learning styles through multiple modes of delivery.			x	x		
b. Addressing DSPS student access through appropriate modes of delivery.			x	x		
c. Investigate use at CCSF of student centered, activity based "Web 2.0." applications such as blogging, wikis, eportfolios, portals, etc.	1		x	x		
6.2. Investigate exemplary practices from national, statewide, and regional resources and pilot locally where appropriate.	1		x	x		May need increased funding for pilots.
6.3. Support ongoing collaboration with local, regional, state consortia.	1					

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
6.4. Expand successful pilot practices into additional programs as desired.	2		x	x		May need increased funding for expansion.
<b>7. Continue to provide and upgrade essential ETO facilities and equipment.</b>			x	x	x	Additional funding needed for facilities and equipment.
7.1. A well-maintained, up-to-date, shared lab space with on-site assistance for faculty and staff to work on computer technology projects. (Currently Batmale 313 and Batmale 422, the small satellite lab).			x	x	x	
7.2. Adequate workstations (hardware and software) for instructional design projects (online and tech-enhanced). (See section 3.5 above)			x	x	x	
7.3. Laptops to loan to part-time online faculty while teaching online.			x	x	x	
7.4. Establish an ETO conference/training area for discussions and meetings.					x	
<b>8. Provide adequate human resources through hiring, training, and using student lab aides to ensure the continuation of and improvement of all ETO, TMI, and TLC functions.</b>			x			Increased unrestricted funding for staffing.
8.1. Fully staff the ITS Help Desk so that it can offer good support for the ETO (TLC and TMI)						(See ITS Tech Plan 4.1.)
8.2. Provide funding to hire student lab aides to assist faculty and staff in TLC lab and with instructional design and multi-media projects.	1		x			
8.3. Provide additional Instructional Designer, Multi-media technician positions.	2		x			
8.4. Provide a management assistant to perform the office management functions of the TMI Office and the ETO.			x			

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
8.5. Provide adequate clerical staff positions for smooth running of ETO, TMI and TLC offices.			x			
8.6. Increase the TMI Coordinator/Supervisor to year-round administrator.			x			
8.7. Provide ongoing training for Help Desk staff and student lab aides.						(See ITS Tech Plan 4.1.d.)
8.8. Ensure tech support continuity during big ITS projects (staff are redeployed). Establish rotation of Help Desk staff for cross-training as well as rotation of tech staff from the campuses to the Help Desk so they can bring back knowledge.						(See ITS Tech Plan 4.1.c.)
8.9. Provide additional programming support, as needed, for system administration of learning management system (Moodle) servers.						
<b>9. Establish a global vision for collegewide audio and video services to meet the needs of instructional programs and the college community.</b>	1, 2					
9.1. Broadcast Media Services, the Audiovisual Department, the Educational Technology Office, and Information Technology Office will inventory district media support equipment and services, assess current efficiency and effectiveness of those services, and recommend appropriate improvements and enhancements.	1	x				
a. Coordinate with Deans, Department Chairs, Coordinators, and Facility Managers to inventory media support equipment for classrooms and public spaces in existing buildings and campuses.	1	x				
b. Survey end-users and conduct formal focus	1, 2	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
groups to determine appropriate AV equipment in existing and future classrooms and public spaces.						
c. Establish a district wide standard for equipment selection, purchase, installation, and maintenance.	2	x				
d. Establish and publicize district wide standards for decision-making and consultation for equipping existing and new classrooms.	2	x				
9.2. Identify and clarify organizational structure and specific roles/function for each unit that provides media services support for classrooms and public spaces.	1	x				
a. Establish a monthly meeting with representation from each unit to improve district-wide coordination and efficiency and reduce redundancies.	1	x				
b. Maximize staff resources by consulting with and assigning new projects to units with already established technical expertise.	1, 2	x				
c. Centralize media services scheduling. Explore possible web-based systems to create a “one-stop” media services scheduling option for faculty and staff.	2		x			
d. Establish and publicize AV support contact numbers on each campus	1	x				
<b>10. Enhance and expand district video distribution to meet the needs of classroom instruction, distance learning courses, professional development, and public meetings rooms.</b>	1, 2					
10.1. Upgrade and increase equipment inventory that is	2		x	x	x	Bond and equipment grant.

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
heavily used with efficiency and cost-effectiveness in mind.						
10.2. Broadcast Media Services, Audiovisual, Education Technology Office, and Information Technology Services will collaborate to support credit and noncredit classes with appropriate technology in a timely manner.	1, 2					
a. Encourage equipment sharing in areas and locations where duplication of equipment exists	1, 2	x				
b. Install projection in larger classrooms and replace television sets with large LCD or plasma screens in smaller classrooms on walls with connectivity to the internet, to video distribution, and computers.	2		x	x	x	
c. Increase deployment of wireless and wired mobile carts with computer, projector, video playback, and good quality speakers so that additional classrooms can be serviced on request.	1, 2		x	x		As equipment funds become available.
10.3. Increase video captioning capacity to include all video productions completed at CCSF.	1, 2		x	x		
10.4. Continue to provide technical assistance to academic and vocational programs by creating audio and video support materials.	1, 2	x				
10.5. Increase and enhance distribution of television, audio, and video signals district-wide to support instruction, professional development activities, and public events using appropriate technologies.	2		x	x	x	
10.6. Establish CCSF Video on Demand system and access for classroom and distance learning support	2		x	x	x	

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
materials.						
a. Increase BMS/EATV video server capacity to accommodate increased video storage requirements.	2					
b. Coordinate with State Chancellor's Office resources to digitize and archive media in Rosenberg Audiovisual and Media Center libraries.	1	x				
c. Increase BMS technical staff and internship program to accommodate additional video ingestion and format for an expanded video on demand system.	2		x			
d. Clearly define BMS, AV, and ITS roles/functions in supporting CCSF video on demand services.	1	x				
10.7. Upgrade video distribution routing switcher capacity to accommodate district-wide audio and video signal delivery demands.	1		x	x		PEG grant may be available.
<b>11. Enhance and expand audio and video production services to meet demand.</b>	2		x			
11.1. Increase production staff from 1.4 FTE to 2.4 FTE.	2		x			
<b>12. Increase community access to telecourses, college events, Board of Trustees meetings, and public records.</b>						
12.1. Explore EATV video streaming and archiving solutions to increase and enhance public access to meetings, instruction, events, and public records.		x	x			PEG grant funds may be available for equipment needs.
12.2. Coordinate with the Educational Technology Office to identify new video productions for use as telecourses.		x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
12.3. EATV, Broadcast Media Services, and the Education Technology Office will explore producing and distributing live CCSF teleclass instruction.		x	x	x		PEG grant funds may be available for equipment and room prep.
12.3. EATV will continue to enhance the college's public profile by broadcasting programs featuring college programs and services.		x				
12.4. Enhance the channel as a marketing tool in conjunction with the new CCSF website.		x				
12.5. Create a full time EATV Channel Manager position as funding becomes available.			x			
<b>13.</b> Continue to upgrade and improve EATV distribution equipment and systems.						
13.1. Increase video server capacity from 700 hours to 1400 hours to accommodate video storage requirements for multiple educational access channels.			x			Funded by PEG grant.
13.2. Continue seeking new free or low cost educational program material for cablecast on EATV channels.		x				

## **STUDENT DEVELOPMENT DIVISION**

## Student Development Division

### *Mission Statement*

*The Student Development Division strives to provide exemplary support for student learning and development equitably throughout the District. With diversity as its hallmark, the Division supports student access, opportunity, retention, satisfaction and achievement through programs and services that reflect students' needs, contributing to students' learning and educational goal attainment.*

*Through its orientation – Students First – Striving for Excellence – the Student Development Division seeks to anticipate student needs, involving students in meeting those needs to contribute to their individual learning and development. With a focus on student empowerment, the faculty and staff of the Division help students take charge of their educational experience by providing students with the tools to take increased responsibility for their future, thereby increasing the impact City College has on their lives.*

### Goals, Strategies, and Activities

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
<b>1. Improve Web-based student services.</b>	1, 2					
1.1. Develop new channels of communication for students.	1, 2	x				
a. Implement a Web Portal for student use.	2	x				[IT 1.6 B]
<ul style="list-style-type: none"> <li>• Increase student access to information through the portal (educational plan, individual transcripts, blocks and holds, degree audit, academic status, payment status and financial aid accounts).</li> </ul>	2	x				Objective continued.
b. Create an online tour of all the City College of San Francisco campuses.	2	x				[IT 3.5 G] Objective continued.
c. Improve communications with students through more sustainable communication options, e.g., email, text messaging, etc.	1	x				See CCSF Sustainability Plan Part 2. [IT 1.3 B; LLR 1.5]
d. Provide information to students regarding campus	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
activities, events, and important dates via digital advertising, web communication, and other mass communication tools.						
1.2. Develop direct check disbursement for all students.	1	x				[IT 3.5 L]
a. Distribute Financial Aid payments electronically.	1	x				Objective continued.
b. Distribute all student paychecks electronically.	1	x				
<b>2. Improve computerized faculty and staff services.</b>	1	x				[IT 3.8 E]
2.1. Develop document imaging services for all Student Development Departments.	1	x				Objective continued.
a. Assess business practices by office and division.	1					
b. Identify imaging requirements and install the requisite system(s) .	1					
c. Provide staff training on document imaging protocol(s).	1					
<b>3. Improve the registration process.</b>	1, 2					
3.1. Implement California Community College Apply.	1	x		x		[IT 3.5 M]
a. Implement credit and noncredit, international and concurrent application functions through CCC Apply.	1	x		x		
b. Develop online electronic payment procedures for all students.	1	x		x		
c. Develop a Prospect Management Database which interfaces with Banner.	1	x				
3.2. Improve online assessment, orientation, and registration.	1, 2	x				Objective continued.
a. Automate the “blue card.”	2			x		
b. Integrate online assessment results with	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
placement screens in Banner and the educational plan.						
c. Improve the online Orientation curriculum.	1	x				Objective continued.
d. Implement online appointment scheduling for the matriculation process, i.e., assessment, orientation and counseling, online.	1	x				
3.3. Improve transcript tracking and academic progress review to support degree completion.	2	x				
a. Expand electronic transcripting.	2	x				
b. Improve academic progress review with follow up counseling.	2	x				
c. Increase the accuracy and utility of degree audit.	2	x				
d. Expand inter-institutional electronic transcript tracking.	2	x				
<b>4. Improve support for counseling and matriculation services.</b>	2	x				
4.1 Improve electronic Educational Planning for students.	2	x				
a. Complete and track Educational Plans electronically.	2	x				
b. Link comprehensive computerized assessment testing with electronic Educational Planning.	2	x				
c. Link academic progress review and degree audit processes with the educational plan for student use.	2	x				
4.2. Increase student tracking services.	2	x				[IT 3.5 F]
a. Refine the early alert system to ensure timely interventions.	2	x				
b. Expand student tracking system linked with academic progress review for timely support	2	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
services.						
c. Develop a program to track student transfers from originating institution to destination institution.	2	x				Objective continued.
4.3 Improve the degree audit system.	2	x				[IT 3.5 E]
a. Identify and correct inaccuracies in CAPP.	2	x				Objective continued.
b. Strengthen the linkage between curriculum approval and maintenance of the CAPP database.	2	x				Objective continued.
c. Improve overall readability and appearance of online degree audit report.	2	x				Objective continued.
<b>5. Continue to make general student development improvements.</b>	1, 2	<b>x</b>				
5.1 Support the Assessment of Student Learning Outcomes for Student Development.	1	x				[IT 3.5 N]
a. Create Student Learning Outcome database for Student Development.	1	x				
b. Create a database for Divisional effectiveness measures.	1	x				
c. Investigate and promote the use of student e-portfolios.	2	x				
5.2 Provide access to all College forms online.	1	x				[IT 3.5 O]
a. Update all existing Student Development forms online.	1	x				
b. Add all remaining student forms to the online database.	1	x				
5.3 Implement critical Banner enhancements.	1, 2	x				[IT 3.8]
a. Implement Early Alert for all units.	1	x				
b. Integrate SARS Interface with Banner.	1	x				Objective continued.

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
c. Improve the accuracy of “payments” and “holds.”	1	x				
d. Improve online payment notification.	1	x				
e. Improve WebStars addresses/email feature.	1	x				
f. Improve link message.	1	x				
g. Improve student schedule on WebStars.	1	x				
h. Identify subgroups for special communication and monitoring (Student Advocacy).	1	x				
i. Improve readability of Banner.	1	x				Objective continued.
j. Improve accuracy of transcript on Banner and WebStar.	1	x				
k. Improve accuracy of tracking over-17-unit requests.	1	x				
l. Improve counselor access to Banner.	1	x				
m. Implement enrollment management suite.	2	x				
n. Form Fusion.	2	x				
5.4 Provide universal student picture identification cards with bar code.	1	x				
a. Implement bar coded photo identification card.	1	x				Objective continued.
b. Expand the utility of the photo identification cards for faculty, staff, and students as a “smart card.”	1	x				
c. Expand the utility of the photo identification cards for community use at the Wellness Center.	1	x				

## **Library & Learning Resources**

## Library & Learning Resources

### Mission Statement

*Library & Learning Resources is committed to providing excellent resources and services that support the mission of City College of San Francisco. In so doing, the Library: contributes to student learning outcomes by actively engaging in both the development and implementation of an information competency initiative that supports the curriculum and lifelong learning. It provides users with assistance and instruction for success in the use of library resources for their present studies and lifelong learning. It strives to provide equal access to print and electronic materials and to develop services, including distance learning services, for students with a wide range of scholastic abilities, learning styles and comprehension levels.*

*Library and Learning Resources is supportive of and responsive to the changing needs of people with diverse ethnic, cultural, social and economic backgrounds. It advocates for faculty and staff participation in building and enhancing library resources and creating new services. It contributes to the college's curricular goals by providing programs and exhibitions and by publicizing available resources and activities. It also encourages forging of partnerships and the integration of new technologies to increase access to resources and services external to the College's physical collections.*

### Goals, Strategies, and Activities

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
<b>1. Utilize the latest technologies to enhance student, faculty and staff access to the Library's information resources.</b>	2	x				
1.1. Plan intracampus and intercampus instructional technology projects.	2	x				
a. Work with deans, department chairs/faculty to explore and plan technology projects and programs within a campus and across campuses (i.e., item 3.3 synchronous distance learning facilities).	2	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
1.2. Provide optimal universal access to print, non-print, networked electronic resources, other library resources, and the Internet.	1, 2					
a. Provide centralized management of public workstations.	1	x				
b. Upgrade or acquire equipment needed to play the latest media formats.	1	x				
c. Consider software such as EZ-Proxy or Innovative Interfaces' Web AccessManagement, which allow a single sign-on for multiple electronic databases or resources.	1	x				
d. Ensure that public workstations have the latest software, and utilities.	2				x	
e. Investigate and upgrade or acquire as needed equipment needed to play the latest digital formats at the Media, Audiovisual and Language Centers, multimedia rooms, instructional labs, and campus libraries.	2				x	
f. Ensure that workstations provide the capability to display non-roman characters.	1	x				
g. Provide the capability to type non-roman characters in every library.	2				x	
h. Provide scanners at all campus libraries.	1	x				
1.3. Widen the scope of accessibility to resources by increasing the range of electronic resources for on-campus, distance, remote, and disabled users.	1, 2					
a. Purchase additional periodical and reference databases targeted to curricular areas.	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
b. Add to the electronic books collection.	1	x				
c. Consider for the collection other formats such as audio and/or video.	1	x				
d. Fund and implement Link+, a resource sharing consortium of California and Nevada libraries, that allows faculty, staff and student access to the collections of nearly 50 academic and public libraries.	2		x			
e. Investigate resource sharing options and embark on a path toward resource sharing of collections and possibly automation infrastructure.	1	x				
f. Explore other options for resource sharing, including joining or forming an automation consortium such the Peninsula Library System.	2		x			
g. Provide library patrons with enriched content (book jackets, table of contents, indexes, book reviews, etc.) for records in the online catalog.	2		x			
h. Set priorities for the development, cataloging and indexing of local databases and digitization of local and archival collections. Examples: Statler Library's menus, photographs from the College Archives, and Diego Rivera materials.	1	x				
i. Implement electronic reserves for students.	1	x				
j. Consider providing students with more information about textbooks on reserve by scanning book covers or by utilizing enriched content from a vendor.	1	x				
k. Catalog selected free electronic books and full-text web documents.	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
l. Continue development of the library's web page.	1	x				
m. Enhance the library's Exhibitions web pages	1	x				
1.4. Maintain and increase functionality of the library's integrated library system [Note: the library uses Innovative Interfaces Inc.(III) Millennium system.]	1, 2					
a. Continue funding for the maintenance of the library's integrated library system.	1	x	x			Release needs hardware upgrades
b. Continue membership and subscriptions for various services needed to maintain the system (e.g., OCLC, Library of Congress).	1	x				
c. Upgrade to the latest release for the online public catalog.	1	x	x			Release needs hardware upgrades
d. Complete implementation of the serials module.	1	x				
e. Explore options that support patron convenience.	1	x				
f. Periodically review and upgrade or replace as needed the Innovative (integrated library system) server.	1	x	x			Server with three-year life span is now four years old
g. Plan for and fund the ongoing maintenance of the online catalog's authority file, with a major clean-up approximately every five years.	1	x				Within existing operations
h. Consider various products that may enhance staff and student access to information resources or improve work efficiencies. Examples: WebBridge, Inventory Express, Wireless-enabled PDA for circulation and inventory applications, Web Access Management	1	x				Within existing operations
i. Implement as needed the media booking module for the booking,scheduling or reservation of group	1	x				Within existing operations

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
study rooms, instructional labs, other facilities, and audiovisual equipment.						
j. Implement as appropriate the III Media Management module to provide access to digitized resources from the City College Library collections.	1	x				Within existing operations
k. Purchase additional staff Millennium user licenses as needed.	1	x				Within existing operations
l. Purchase additional Millennium review files (create lists) as needed.	1	x				Within existing operations
m. Expand broadcast searching using Z39.50 technology to allow searching multiple library catalogs from a single interface.	2		x			Within existing operations
n. Utilize Innovative's statistical functions to improve the delivery of data and investigate and implement a data management system to standardize statistical data between all library locations.	1	x				Within existing operations
o. Complete implementation of automated circulation at all library and learning resource facilities.	1	x				Within existing operations
1.5. Continue to investigate and develop alternative means of delivering library services and other resources to support our students, faculty and staff both on and off-campus.	1	x				
a. Continue ERef, the electronic reference service via e-mail.	1	x				
b. Continue AskCCSF, the Instant Messaging reference service.	1	x				
c. Investigate Web 2.0 technologies to increase student access to library services: YouTube, MySpace, Facebook, Flickr, RSS, podcasting, SecondLife, blogs, screencasting, etc.	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
d. Provide or expand wireless access at all libraries.	1	x				
1.6. Ensure that computer and internet access for patrons and staff is reliable and responsive.	1	x				
a. Provide software or utilities that support or improve the work of all library staff in making resources accessible and available to students.	1	x				
b. Upgrade or replace staff and student hardware and software on a regular cycle.	1	x				
c. Identify, acquire, upgrade and implement software or utilities that are available to students in library computer labs and public access computers.	1	x				
1.7. Work with DS&PS to ensure that all services and resources are made accessible to disabled users.	1	x				
a. Ensure that the library's website and electronic resources comply to ADA standards.	1	x				
b. Provide appropriate hardware and software at all library facilities for patrons with disabilities.	1	x				
<b>2. Develop diverse learning opportunities utilizing the latest technologies to meet the needs of CCSF students, faculty and staff.</b>	1	x				
2.1. Collaborate with faculty and instructional support staff, to provide students with diverse learning opportunities by utilizing new technologies to develop and improve existing courses, workshops, and online tutorials that emphasize information competencies. ( <a href="http://www.ccsf.edu/Library/instruct/competency.html">http://www.ccsf.edu/Library/instruct/competency.html</a> )	1	x				
2.2. Develop online equivalent to library skills workshops, create tutorials on the use of library resources, and place more brochures, handouts, and information on	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
the library website.						
a. Review orientation and instructional materials on the Library website to identify the need for revision and additional information, keeping in mind the needs of all constituent groups.	1	x				
b. Based on a needs assessment and feedback from appropriate student development and basic skills faculty and staff, explore the development of new orientation and learning opportunities, e.g., an interactive online orientation to library resources/ services; campus library “open house” or drop-in workshops; or instructional tutorials on the website, accessible District-wide.	1	x				
c. Develop/revise information and instructional materials targeted to faculty/staff on the Library website.	1	x				
d. Develop new online tutorials that are equivalent to the classroom research skills workshops for students in Area B: Written Composition classes (ESL 170, English 96 and English 1A) that will satisfy the new information competency graduation requirement.	1	x				
2.3. Ensure that all online or web-based instructional activities or materials meet the latest ADA standards.	1	x				
a. Review current online or web-based instructional activities and materials (e.g. tutorials, “how-to-use” guides, LIS 10 course) to ensure ADA accessibility compliance and modify as needed.	1	x				
b. Work with DSP&S staff to ensure that at least one workstation in each library instructional lab is made	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
accessible for disabled users.						
2.4. Provide training workshops and other learning opportunities for faculty and staff that develop their awareness/understanding of search tools and encourage the incorporation of information resources/library use in assignments that develop students' information competency.	1	x				
a. Survey librarian needs for professional development related to instructional technology and collaborate with TLC and other appropriate units to facilitate access to needed technology training for librarians.	1	x				
b. Plan with Technology Learning Center staff a collaborative new faculty orientation session each semester to combine information about services, facilities and instructional support. Explore the feasibility and need for an online orientation for new faculty focused on LLR overall services, facilities and instructional support services.	1	x				ITS 4.1
2.5. Utilize appropriate instructional technology facilities, hardware, courseware and software for the development and effective use of teaching-learning opportunities.	1, 2					
a. Purchase appropriate software and equipment needed to develop online workshops and orientations, in coordination with Broadcast Media Services. This may include video capture, digital editing, audio/video software, digital camera, and video camera.	1	x				
b. Consider the use of the College's video	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
infrastructure (coordinate with Broadcast Media Services) to distribute or broadcast instructional or staff development workshops to locations throughout the College.						
c. Consider video capture of instructional or staff development workshops for on-demand broadcast via the internet.	1	x				
d. Upgrade Library & Learning Resources instructional labs to allow instructor control of all student workstations.	2					Funding needed/
e. Maintain or replace instructional equipment as needed to access audio, visual and multi-media materials.	1	x				
f. Acquire additional workstations as needed to extend access in campus libraries to benefit instructional activities.	1	x				
g. Ensure all campus libraries have library instructional labs.	2					Funding needed/
2.6. Ensure librarian participation in the planning of new technology-enhanced classrooms/labs/library spaces.	1	x				
a. Encourage librarian membership on the Facilities Review Committee and appoint librarians to building planning groups in order to assist in the planning and implementation of new technology-enhanced classrooms/labs/library.	1	x				
<b>3. Provide software, telecommunications, equipment, wiring, and architectural frameworks to deliver required technological services.</b>						

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
3.1. Work with College Information Technology Services staff to maintain and upgrade the library's network, computer and equipment for faculty, staff and students.	1, 2	x				ITS 1
a. Install and maintain Novell servers for the Alice Statler, Downtown Campus, John Adams Campus, Josephine Cole (Southeast), Mission Campus and the future Chinatown Campus Libraries.	2					Funding needed.
b. Provide as needed additional networked printing capability for all public and staff workstations. Provide centralized network color printing services for patrons at all libraries. Investigate wireless printing to the network.	1	x				
c. Plan, install and maintain electrical power and data wiring for instructional classrooms, and library computing, integrating with plans for network infrastructure for the renovated John Adams, and new Chinatown-North Beach Campus and Rosenberg libraries.	2					Funding needed.
d. Create a new, 24-hour computer lab in the Rosenberg Library/LRC or advocate for the development of additional college computer labs.	2					Funding needed.
e. Advocate for multi-use instructional labs to accommodate large classes.	1	x				
f. Provide a separate computer lab area as part of the John Adams Campus Library remodel.	2					Funding needed.
3.2. Work with ITS & appropriate administration to plan for, maintain, and expand secure wireless access to the internet for students and staff at all campus libraries.	1	x				ITS 1.1.c

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
3.3 Work with ITS & appropriate administration to plan for the next generation of network technologies including convergence of voice, data, and video to optimize student access to library resources, and to provide for the development of alternative systems of delivery for instruction.	1	x				
a. Upgrade and/or acquire equipment as needed in multimedia rooms, the Language Center, and instructional labs in order to utilize the latest broadcast/video distribution alternatives, and to originate/distribute broadcast quality video content to other College or remote locations.	1	x				
3.4. Work with College Information Technology Services staff in the planning for network access for future library sites and those undergoing renovation or remodeling.	1	x				ITS 1.1
a. Work with ITS and Campus Deans to develop technology and equipment needs for all campus libraries.						ITS 2
3.5. Evaluate staff work and space environments, workstations and furniture to ensure that they are healthy and ergonomically sound and to correct deficiencies as needs develop.	1	x				
a. Identify and secure additional space for Library Automation Services staff, hardware and supplies in the Rosenberg Library/LRC.						
b. Provide ergonomically appropriate furniture and equipment as needed.						
<b>4. Increase the technical expertise of all library faculty and staff.</b>	1	x				

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
4.1. Seek funding for staff attendance at workshops and conferences in order to encourage information awareness and enhance technical skills.						
4.2. Transfer current awareness gained from workshops and conferences to library faculty and staff through short workshops, orientations and focused discussions.		X				
4.3. Offer adequate opportunities and a procedure to provide coverage for training of all library employees.		X				
4.4. Provide training for the loading, installation, and de-installation of CD-ROMs, flash drives, portable hard drives, DVDs, and other multimedia formats or storage devices.		X				
4.5. Expand the program of faculty/staff development to improve their skills in utilizing the latest technologies to access the library's resources.		X				
4.6. Provide ongoing training to all library staff in using functions and modules of the ILL system, e.g., the creation and updating of appropriate print, audiovisual, and online training materials, tutorials.		X				
4.7. Provide opportunities for staff training in the use of software and equipment needed to produce online instructional courses and workshops.		X				
<b>5. Provide adequate staffing to support optimal functionality of equipment and software and when implementing any new integrated library system module, function, feature or project.</b>						

	Phase	Current Resources	Increase	Grant	Existing Bond	Note
5.1. Maintain adequate staffing to support the activities of cataloging and indexing in order to add new formats, resources, etc., to the online catalog and other database tools.	1	x				
5.2. Seek funding to increase library automation staff to achieve a ratio of one System Administrator Level 1, (class 1021) for every 75 workstations supported by the department. 2008 ratio is approximately 1 for every 111 workstations.	2		x			
5.3. Develop human resources via hiring, redeployment and/or training to ensure effective functioning of all units including any new LLR facilities.	2		x			
5.4. Hire one half-time library technician for each of the following: Alice Statler, Southeast Campus libraries, and Periodicals Department, to assist in the automation of library functions.	2		x			
5.5. Provide adequate classified and certificated staff and student help at the new Chinatown-North Beach Campus or any future library sites to support the technological, instructional, reference and other activities of the libraries.	2		x			
5.6. Seek funding for instructional lab aides (3598) to assist at the Downtown, John Adams, and other campus library open-access computing labs.	1	x				
5.7. Review and revise library job description to ensure that duties and responsibilities related to information technology use and oversight are clearly stated.	1	x				

## Summary of Technology Initiatives in this Plan

### Information Technology Services

1. Enhance and expand College **network** services (e.g., intercampus, upgrades, email, disabled, VOIP, website, emergency notification)
2. Ensure that the computer **lab** facilities and **multimedia** classrooms meet the needs of instructional programs (e.g. tech support, upgrades, student access, A-V)
3. Develop and implement enhanced **administrative** information software and services (e.g., Banner upgrades and user structure, reduce modifications, work processes, Divisions).
4. Develop and implement enhanced information technology **management and operations** with shared governance (e.g., ITS operations, governance, leadership, policies, security).
5. Maintain a continuous **planning process** for technology (e.g., planning coordination, acquisition processes, licensing, explore future options).
6. Provide **adequate staffing** to support functionality of and implementation of equipment/software/services (e.g., improve tech support ratio).

### Educational Technology Office/Broadcast Media Services/EATV

1. Provide **strategic support** for efficient and effective use of technology to enhance learning, teaching, student services, and student success.
2. Expand the number of **online courses** and provide services to support growth.
3. Provide **instructional technology** tools, facilities, training and technical support.
4. Ensure that the computer **lab facilities and multimedia classrooms** meet needs of instructional programs.
5. Provide **technology-related student support** services.
6. Provide faculty with access to current information and pedagogical practice related to **learning technologies** and foster experimentation.
7. Continue to provide and **upgrade essential ETO facilities and equipment.**
8. Provide adequate **human resources** through hiring, training, and using student lab aides to continue and improve all functions.
9. Establish a **global vision for collegewide audio and video** services to meet the needs of instructional programs and the college community.
10. Enhance and expand collegewide **video distribution** to meet the needs of classroom instruction, distance learning courses, professional development, and public meetings rooms.
11. Enhance and expand **audio and video production services** to meet demand.
12. Increase **community access** to telecourses, college events, Board of Trustees meetings, and public records.
13. Continue to upgrade and improve **EATV distribution equipment and systems.**

### **Student Development**

1. Improve **Web-based student services** (communications, check disbursement).
2. Improve computerized **faculty and staff services** (document imaging).
3. Improve the **registration** process( CCC Apply, assessment, orientation, transcripts).
4. Improve support for **counseling and matriculation** services (Educational plans, student tracking, degree audit).
5. Continue to make **general student development** improvements (learning outcomes, forms, Banner, photo ID cards).

### **Library and Learning Resources**

1. Utilize the **latest technologies** to enhance access to the Library's information resources (e.g., campuses, electronic resources, accessibility, integrated library system, alternate delivery means, internet access)
2. Develop diverse **learning opportunities** utilizing the latest technologies to meet the needs of CCSF students, faculty and staff (e.g., information competencies, online workshops, ADA standards, student research, upgrading, technology-enhanced facilities).
3. Provide software, telecommunications, equipment, wiring, and architectural frameworks to **deliver required technological services** (e.g., hardware, wireless, new technologies, network new sites, ergonomics).
4. Increase the **technical expertise** of all library faculty and staff (e.g., staff development logistics and funding, sharing knowledge, media storage devices, new technologies, ILL System, production of online courses).
5. Provide adequate staffing to support optimal functionality of equipment and software and when implementing any new integrated library system module, function, feature or project (e.g., cataloging, System Administrators, new facilities, automation, lab aides, job descriptions).

## Appendix A: Academic Affairs Units

### Technology Resource Needs Identified In Education Master Plan 2006 Revised Fall 2008

#### **General Comments for All Schools and Campuses:**

- *Design all new remodeled classrooms as smart classrooms with appropriate connectivity to allow for AV and computer projection, document cameras, and wireless access. Upgrade existing classrooms to provide the same technology. In the interim, provide portable projectors for classroom use.*
- *Identify a stable funding source to allow for continuous upgrade of computer software and hardware that support instructional programs, including computers in classrooms/labs, as well as computers for faculty use.*
- *Provide sufficient staff to support classroom technologies and computer labs.*
- *Provide training in instructional technology to allow faculty to maintain currency and learn about new technologies.*
- *Ensure that the College's computer facilities and equipment, websites, and electronic learning materials are accessible and ADA compliant (per Section 508).*

#### **SCHOOL OF APPLIED SCIENCE AND TECHNOLOGY**

##### **Equipment and Software Needs:**

- Base new equipment upon DACUM results for emerging programs.
- Upgrade technology for Automotive and Fashion Departments, and Fire Science and Forensics Programs at Ocean and Mission Campuses.

#### **SCHOOL OF BEHAVIORAL AND SOCIAL SCIENCES**

##### **Equipment and Software Resources Needed To:**

- Provide computers for convenient access by all faculty.

#### **SCHOOL OF BUSINESS**

##### **Equipment and Software Needs:**

- Make labs capable of running high-level software programs that require faster processors, increasingly more hard drive space, and more RAM with each new version.
- Increase the offerings of web-related courses.

## **SCHOOL OF HEALTH AND P.E.**

### **Staffing Needs:**

- Hire additional technical staff in the Nursing, Vocational and Health Care Technology Departments to assist with the operation of the human patient simulators and other new technologies.
- Institutionalize the Technical Instructional Assistant position after grant funding ends in Spring 2010.
- Create another Technical Instructional Assistant position to work with both the LVN and HCT Departments at John Adams.
- Provide the Nursing and Radiologic Technology Departments with assistance with transitioning testing to computers, maintaining the equipment and upgrading computer programs.

### **Equipment and Software Needs:**

- Supply new furniture for JAD renovated computer labs.
- Establish a wireless connection in the JAD cafeteria for students wanting to use their laptops.
- Provide Physical Education Department with online tutorial programs to help with basic skills and the matriculation of our student athletes to four year institutions.
- Equip the Health Care Interpreter Program with a Videoconferencing Medical Interpretation (VMI) system in order to train students to use this new technology.
- Provide the Peer Activity/Resource Room in C405 with five additional computers.

## **SCHOOL OF INTERNATIONAL EDUCATION AND ESL**

### **ESL ---- Staffing Needs:**

- Continue the work of ESL Department Tech Committee in areas of equipment, software, course outlines, and staff development.
- Standardize and continue the work of ESL Tech Assistants at the Campuses.
- Seek funding to support the successful Summer Tech Camp '08 conducted by volunteers.
- Develop a technology-training plan to improve faculty and staff computer skills. Provide on-going staff development opportunities at all campuses, including classroom management techniques in computer lab environments.
- Develop broader and more effective use of labs for ESL students.
- Conduct regular review and update of course outlines for technological applications.

### **ESL---- Equipment and Software Needs:**

- Make available digital camcorders at each campus.
- Provide document projectors in classrooms to replace overhead projectors where appropriate.
- Internationalize computers for staff.
- Increase workstations in the Rosenberg ESL Computer Lab to meet student demand.
- Work toward standardization of available software at all campus locations.

### **International Education: Institute for International Students and Credit International Students**

- Increase information on the web for students.

- Regularly update website.
- Improve use of email as a regular form of communication with students.

## **SCHOOL OF LIBERAL ARTS**

### **Equipment and Software Needs:**

- Institutionalize computer cascading to minimize the expense of replacing “high end” by creating replacement chains that coordinate “high” and “low” end needs.
- Regularly upgrade faculty computers related to instructional activities, particularly for programs that use “high end” software and hardware.
- Provide several “non-technology-based” departments (e.g., English, Art and Foreign Languages) with needed technology equipment to support classroom instruction in lecture classes.
- Continue to upgrade to HD production technology in Broadcast Electronic Media Arts and Cinema.
- Continue to explore collaborative use of CCSF-HD production facilities (Cinema and Broadcast Electronic Media Arts).
- Upgrade DVD/computer playback and project equipment in Cinema Department.
- Provide English Department with an additional dedicated teaching lab.
- Expand availability of DVD projector/player set-ups for Foreign Languages classes.
- Provide Journalism with a permanent laboratory facility with computer and peripheral equipment to train students for the workforce.
- Upgrade Theatre Arts wireless microphone system for department and college-wide use.

### **Staffing Needs:**

- Provide Broadcast Electronic Media Arts with a .5 increase in laboratory support for programs at campuses.

## **SCHOOL OF MATH AND SCIENCE**

### **Staffing Needs – All Departments:**

- Hire an instructional designer with skills in the demonstration of science and mathematics concepts in distance education courses.

### **Equipment Needs – All Departments:**

- Establish stable funding for demonstration and laboratory supplies and equipment at neighborhood campuses. This includes overhead projectors, computers, and LCD projectors in the continuous upgrade cycles mentioned above.
- Improve security hardware.
- Implement servers that satisfy the file and application sharing needs of departments, while maintaining the security of data.

### **Interdepartmental Equipment Needs—Astronomy, Biology, Earth Science:**

- Create a dedicated shared computer lab room for online courses and computer lab curricula (e.g., image processing, astrophysics modeling, GIS, Ecology) with 20-35 computer stations, and establish a continuous upgrade cycle for the equipment in that lab.

### **Departmental Equipment Needs:**

- Architecture Department to collaborate with other design departments in equipment requests.

- Replace the main optical telescope in Astronomy with a modern digital telescope for better access by students.
- Purchase a radio telescope with Internet capabilities for Astronomy.
- Provide Astronomy with a new digital visualization unit/projector for use in the Planetarium for scientific visualization and replace the old sky projector.
- Expand instrumental analysis equipment in Cellular and Molecular Biology.
- Upgrade projection equipment, models, and biological study materials in the Biology Resource Center.
- Purchase new equipment (primarily microscopes) for basic Biology laboratories at the neighborhood campuses.
- CNIT needs a Service Center to help students with computer problems, including support for wireless connections at CCSF.
- Provide Earth Science with additional GIS charting/mapping equipment and upgrade computers to handle the volume of GIS data.
- Continue Earth Science installation of the “Life through Time” display, including a DVD player and flat-panel display.
- Improve the computer and software for the CCSF weather station.
- Institutionalize the annual maintenance cost of stem cell equipment, initially funded by a grant, in the Engineering Department.
- Purchase equipment required to establish "smart board" classrooms for use by Mathematics.
- Continue to purchase document camera technology for Mathematics classroom use.
- Expand the Title III Basic Skills Math Computer Lab.
- Lay the groundwork for a new state-of-the-art Calculus level computer classroom shared with other departments of Science and Mathematics.

**Software Needs – All Departments:**

- Improve security software.
- Implement phone-home capability on laptops.
- Fund software licenses out of the General Fund instead of relying on grants.

**ALEMANY CAMPUS**

**Staffing Needs:**

- Provide hands-on, individualized training on group teaching techniques and lab work.

**Equipment and Software Needs:**

- Provide a multi-lingual language lab to assist a very linguistically diverse student population.

**Library and Learning Resource Needs:**

- Provide dedicated computers, on-line workshops and training programs as library resources.
- Provide books and software in our students’ native languages as well as English.

**CASTRO/VALENCIA CAMPUS**

**Equipment and Software Needs:**

- Identify an accessible and manageable space for computer and language lab equipment.
- Provide computer and language lab equipment, once space has been identified.

- Replace three desktop and two laptop computers used by staff and students for registration and other CCSF business.

**Library and Learning Resource Needs:**

- Continue to provide regular library workshops at the campus.

**CHINATOWN/NORTH BEACH**

**Staffing Needs:**

- Provide staffing for campus and programs to develop and maintain websites and online communication.

**Equipment and Software Needs:**

- Provide health care training equipment in dedicated classrooms.
- Provide teleconference capabilities.
- Provide internet access and networked access to all CCSF campus resources from classrooms and offices.
- Provide language labs.
- Provide increased computer workstations for faculty use.

**Library and Learning Resource Needs:**

- Provide students access to all the library's electronics resources and services, as well as other college information either in the campus library and/or in a computer lab.
- Develop library with collection of proprietary database and other resources.

**DOWNTOWN CAMPUS**

**Equipment and Software Needs:**

- Provide internet access in instructors' offices
- Provide closed circuit television for broadcast to all classrooms at the same time.
- Renovate the 5th floor computer labs

**Library and Learning Resource Needs:**

- Provide students access to all the library's electronics resources and services, as well as other college information either in the campus library and/or in a computer lab.

**EVANS CAMPUS**

**Staffing Needs:**

- Provide staffing for departments and programs to develop and maintain websites and online communication.

**Library and Learning Resource Needs:**

- Provide a Library based on DACUM results for emerging programs.

**JOHN ADAMS CAMPUS**

**Technology Needs:**

- Institute on-line and telephone registration for noncredit courses.
- Institute electronic collection of positive attendance data.

## **MISSION CAMPUS**

### **Technology Needs:**

- Provide for electronic collection of positive attendance.
- Provide online and telephone registration for noncredit courses.

## **SOUTHEAST CAMPUS**

### **Technology Needs:**

- Provide wireless access for instructors' offices and for students to access on-line courses and other college information.
- Provide a computer in the Fashion classroom.
- Equip ESL programs at Visitacion Valley and San Bruno sites with TV/video equipment for instructional purposes.
- Provide teachers at Visitacion Valley and San Bruno sites with laptop computers and wireless access in their teaching areas, as well as instructional software.

## **RETENTION CENTERS**

### **African American Scholastic Program, Asian Pacific American Student Success Program, Latina/o Services Network**

#### **Technology Needs:**

- Expand computer stations with laptop accessibility to adequately support classroom student load (range from 30 to 35).
- Increase information on the web for students and regularly update website.
- Install and update educational software to further support access to diverse student populations.
- Install a media access system in the AASP study area.

## Appendix B: Glossary

ADA	—	Americans with Disabilities Act.
Banner	—	The database system used to maintain student and employee records at City College of San Francisco.
blade server	—	A single board computer, usually used in server farms, which share disk space and back planes.
blog	—	A website, usually maintained by an individual, with regular entries of commentary, descriptions of events, or other material such as graphics or video.
BMS	—	Broadcast Media Services.
CAPP	—	Curriculum, Advising, and Program Planning, CAPP is a database used for degree audits.
CCCApply	—	An online application system for the California community colleges. This common application system is currently used by over 90 California community colleges.
clicker technology	—	Wireless, hand-held devices used to poll an audience during a presentation or lecture; provides anonymous instance feedback on a question.
course shell	—	A space within the online learning management system which contains a course's activities and resources.
digital information screen	—	Flat screen monitors providing information on a variety of campus services, resources, etc.
document imaging	—	The processes of converting paper documents to electronic files by scanning them.

DSP&S	— Disabled Students Programs & Services.
DTIS	— Department of Telecommunications and Information Services. The SF City & County ITS department.
Early Alert Program	— A collaboration between faculty and counselors to support students who are at risk of failing.
EATV	— Educational Access Television (channels 27 and 75).
e-portfolio	— Electronic Portfolio: A collection of electronic evidence assembled and managed by a user, usually on the Web to demonstrate abilities.
Eref	— CCSF Library's electronic (email) reference service.
ERP	— Enterprise resource planning, the generic name for a system like Banner.
ETO	— Education Technology Office.
EZ-Proxy	— EZproxy is middleware that helps provide users with remote access to Web-based licensed content offered by libraries.
FITC	— Facilities Infrastructure, and Technology Committee of the Board of Trustees
Gmail	— Shortened name for Google mail.
Google mail	— Program used for student email.
GroupWise	— Program used for employee email.
HVAC	— Heating, ventilation, and air conditioning.
hybrid course	— At City College, this term indicates any online course where materials or activities are also delivered during some on-campus sessions.
information competency	— Information competency is a set of information research, critical thinking, communication and basic computer technology skills.

Innovative Interfaces	— CCSF Libraries uses this company’s hardware and software to integrates various library functions such as circulation, cataloging, online catalog and periodicals.
Inventory Express	— Software that allows a library acquisitions department to access multiple vendors in real time.
IT	— Information Technology.
LCD projection	— Liquid crystal display optical devices consist of thin, flat panels whose image pixels are filled with liquid crystals in front of a light source.
Link+	— A resource sharing consortium of California and Nevada libraries, that allows faculty, staff and student access to the collections of nearly 50 academic and public libraries.
LIS 10	— A course that focuses on the use and evaluation of online and print information resources such as catalogs, periodical databases, WWW, and reference sources.
LLR	— Library and Learning Resources.
LMS	— Learning Management System: Software for delivering, tracking, and managing courses over the Internet. The City College LMS is Moodle.
MPICT	— Mid-Pacific Information and Communication Technologies.
Millenium	— Integrated library system by Innovative Interfaces which handles circulation, cataloging, technical services, serials,and web-based online catalog.
MIS	— Reports required by the State Chancellor’s Office.
OCLC	— A nonprofit, membership, computer library service and research organization to further access to information.

- online course — At City College, this term indicates any course with 51% or more of curriculum delivered via the Internet, usually the College's learning management system (Insight/Moodle).
- PEG grant funds — PEG grant funds: Public, Educational, and Government public television channel access grants.
- Peninsula Library System — A consortium of 34 public and community college libraries.
- plasma screens — Flat panel display common to large TVs which emits its light by means of gases held in tiny cells between two panels of glass.
- SARS Grid — SARS Grid is an online scheduling software package for student service offices.
- server farm — A room or rack that contains many servers
- single sign-on — A method of access and control that enables a user to log in once and gain access to the resources of multiple software systems without being prompted to log in again.
- smart card — A card that contains a computer chip to store student information and has the potential to provide access to many services on campus including library, gym, financial aid disbursement, cafeteria services, etc.
- stream — Deliver and present media while allowing simultaneous viewing.
- tech-enhanced course — At City College, this term indicates any lecture course that uses technology, usually the Internet, to supplement the lecture content and activities.
- teleconferencing — Live exchange of information among persons and machines remote from one another but linked by a telecommunications system, usually over a phone line.
- thin client — A desktop computer that acts primarily as a display device, with much of the computing done in a centralized location.

TLC	— CCSF Technology Learning Center.
TMI	— Office of Technology-Mediated Instruction (distance education courses and technology-enhanced courses).
video captioning	— Closed captioning, used to provide the text of audio content to those who may have trouble hearing it.
video on demand	— VOD systems either stream content, usually through a converter process, allowing televised viewing in real time, or download it to a device such as a computer, for viewing at any time.
virtualization	— A process by which a software product gives the illusion that each application is being run on a separate server, maximizing efficiency.
Web 2.0	— Web development and design that aims to facilitate communication, secure information sharing, interoperability, and collaboration. A move to the Internet as the platform for operations.
Web portal	— A framework to provide a single point of access to a variety of campus information and tools.
WebBridge	— Software that provides management and improved searchability of a library's subscription databases, web and electronic resources.
WebStars	— An online web system that allows students to register for classes online.
wiki	— Web pages designed to enable anyone who accesses them to contribute or modify content. Often used to create collaborative websites.