SECTION I: Overview of the Co-Chair Report

The Committee* met weekly from mid-August through the end of October. All members participated in the drafting of all six templates. In addition, the first drafts of the templates were distributed to the Teaching and Learning Technology Roundtable in October and feedback was given at the November meeting. The Roundtable’s input was incorporated into the final draft.

The Committee reviewed numerous documents (see appendix) in drafting the template responses. Most important were College’s Strategic Plan, Annual Plan, Mid-Year and Year End Assessments, Employee Satisfaction Surveys.

While the Committee did make recommendations for each of the template areas, its findings were overwhelmingly positive. The College exceeds the standard for providing technology resources. For the six templates, the Committee rated the College as “Superior” in 5 areas with one “Satisfactory”. The Committee recognizes that the College has embarked in major technology projects, which have been mainly funded out of the 1997 and 2001 General Obligation Bonds, and has made major improvements in its overall operations, using technology, as a result. The College’s strengths in technology area were:

- effective use of technology in all phases of day-to-day operations
- the College’s comprehensive planning process in setting the technology priorities and matching priorities to its mission
- major improvements to the College’s network infrastructure which has allowed increased communication, operational efficiency, provision of better services to students and improvements in teaching and learning
- the exemplary use of technology in providing online classes
- the inclusion of all segments of the institution in technology priorities and decisions through the shared governance process
- ongoing technology projects to position the college to use high bandwidth applications (needed in areas such as Biotechnology, and the Media industry which are important workforce development fields for the SF Bay Area )

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SECTION II(a): Report on Standard III.C.

Technology resources are used to support student learning programs and services to improve institutional effectiveness. Technology planning is integrated with institutional planning.

III.C.1. The institution assures that any technology support it provides is designed to meet the needs of learning, teaching, college-wide communications, research, and operational systems.

III.C.1.a. Technology services, professional support, facilities, hardware, and software are designed to enhance the operation and effectiveness of the institution.

The College is making extensive use of technology, both in daily operations for efficiency and in delivery of services to students, faculty and staff. The College identified its technology needs through its comprehensive planning process and then sought and obtained funding for these projects and implemented large-scale, campus-wide technology upgrades. The projects included a system-wide upgrade of the College’s network infrastructure, installation of new and standardized computers for all full-time employees and provision of shared computers for part-time employees, implementation of a new email system and groupware software to allow for greater operational efficiency and improved communication, installation of a new phone system, which provides more services and utilizes the new network infrastructure resulting in cost savings. As a result of the technology improvements, the College is experiencing better productivity. The College is providing more and better services to more students, with fewer staff - all this in the wake of a severe statewide budget crisis.

The College ensures that its technology decisions are designed to meet institutional needs through its comprehensive planning process. The College’s decisions on technology resources are driven by the College’s Education Plan (adopted in 1997), the Enhanced Self-Study (conducted in 2002, updated report 06/04), the Strategic Plan (updated in April 2002, which serves as College’s planning map for 5 years) and Annual Plans (revised yearly). Each department, in line with its operational and developmental goals set forth each year, which are based on the College’s Education Plan and Strategic Plan, makes decisions about appropriate technology for meeting their departmental goals. Where the College was lacking in funding to take on major initiatives that met important strategic goals the college sought grant funding. The findings and recommendations of the Enhanced Self-Study led to the College seeking a Title 3 Grant in 2002. The Enhanced Self-Study, a joint project of the Chancellor’s Office and the Academic Senate, initiated an intensive examination of the factors promoting and inhibiting student success at City College. The technology components of the Title 3 Grant for both Activity I (Electronic Ed Plan, Online Testing Services) and Activity II (use of technology to enhanced student learning outcomes in Basic Skills) come directly from the Enhanced
Self-Study. Again, the planning process led to identification of strategic goals, and the technology components specific to these strategic goals.

The College also relies on its shared governance process to discuss, review and provide input into its technology decisions. The Teaching and Learning Technology Roundtable (TLTR), a shared governance committee with open membership, looks at the technology needs of learning and teaching, reviews and discusses the instructional technology initiatives in the Strategic Plan and recommends policies for the use of technology in instruction and student services. The Information Technology Policy Committee (ITPC), another shared governance committee sets overall technology policy for the College.

The College has made significant steps in the area of Online Learning, going from eight courses in Fall 2001 to 52 courses in Fall 2004. As a testimony to the quality of its online courses, the College has won an award from California Virtual Campus (CVC), two awards from Merlot and one award from the State Chancellor’s Office. Online faculty are very well supported, in terms of time given for adequate preparation of their courses, learning to teach in a new environment using new tools, in the provision of equipment/infrastructure and technical support staff.

III.C.1.b. The institution provides quality training in the effective application of its information technology to students and personnel.

Training students in the use of technology is generally the purview of the instructional departments - when the departments decide that use of technology is an integral component of their course content or when they decide that the use of technology is needed for students to complete assignments. Outside of the classroom, there are other support departments that train students in using technology: The Library, the Instructional Computing Lab in Batmale 301 on the Ocean Campus, the Disabled Students Programs and Services computer lab staff, the Learning Assistance Center, the Language Center in the Rosenberg Library all provide some student training in use of technology. The Student Development Division also provides computer training to students in the areas of information competency so that students can research education and career options. Although these service areas do a good job in the technology training they do provide, the committee found that this is one area where the needs exceed the level of service provided.

In-house technology training for College personnel is provided by the Technology Learning Center (TLC) through its workshops and also at Flex Day workshops. In-house training is supplemented by the use of TTIP funds and general funds to obtain training outside the college, the use of the @ONE training funded through the State Chancellor’s Office, and the use of online training. Online instructors are given extensive training and support by the staff in the Technology Mediated Instruction Unit of the Education Technology Office. Where a system-wide technology upgrade has occurred, the College
has provided system-wide training for all employees: as part of the Desktop Rollout Project (use of the new computers, new email, and new network), and also the Telephone Replacement Project. The College also provides technical assistance to faculty and staff through the Help Desk. As was the case with technology training for students, the need for technology training for college personnel also exceeds what the College is currently able to provide.

III.C.1.c. The institution systematically plans, acquires, maintains, and upgrades or replaces technology infrastructure and equipment to meet institutional needs.

The committee found that the College does systematically plan, acquire, maintain, and upgrade or replace technology infrastructure and equipment to meet institutional needs. The College has been able to vastly improve its level of technology by completing a series of major projects funded by two voter approved bond issues. In addition to system-wide upgrades, the College uses grant funds such as VATEA and Instructional Block Grant to keep computer labs/classrooms upgraded. In order to assure that all computer systems which are mission critical are available for use, City College purchases both hardware and software support, and in most cases, at a 4 hour response level. For less critical applications, the service level agreement is next business day. CCSF built its network infrastructure with the long-range view in mind, installing the fastest and broadest bandwidth, Gigabit Ethernet and Fiber, available at the time. The long-term view helps insure long-term operability.

III.C.1.d. The distribution and utilization of technology resources support the development, maintenance, and enhancement of its programs and services.

The College uses the shared governance process in making decisions about the use and distribution of technology resources. The Information Technology Policy Committee sets policies regarding technology usage. The allocation of funds for technology projects follow the Strategic Plan the Technology Plan and the Annual Plan, and are approved by the Budget and Planning Committee. Technology resources for administrative functions are allocated through a user group and administrative staff. Technology resources for academic support are allocated through the instructional departments and their respective school deans.

The College provides for a robust and secure technical infrastructure via a robust firewall, the physical separation of the network infrastructure into an administrative side and an instructional side, account passwords, use of switch ports, use of standardized anti-virus and anti-spam software, and secure logon and passwords into the enterprise information system. In addition, all enterprise servers are back-up on a regular basis. Enterprise level software is kept up-to-date to ensure vendor support.

The College keeps its infrastructure up-to-date by establishing standards for its cabling infrastructure to be applied to all new construction, by purchasing technology
products early in the product life cycle, assuring that equipment will have a maximum lifespan of use before becoming obsolete, by making cost-effective design decisions to extend the usability of the new network infrastructure.

III.C.2. Technology planning is integrated with institutional planning. The institution systematically assesses the effective use of technology resources and uses the results of evaluation as the basis for improvement.

As stated in the previous subsection, the College’s technology decisions are driven by the College’s institutional plans: College’s Education Plan (adopted in 1997), the Enhanced Self-Study (conducted in 2002, updated report 06/04), the Strategic Plan (updated in April 2002, which serves as College’s planning map for 5 years) and Annual Plans (revised yearly). All major technology projects are integrated with the institutional planning process. The college has an annual Institutional Plan that defines its Strategic Plan into yearly objectives. Objective #7 of the Plan lays out the technology objectives. The recent major technology projects were designed to meet those objectives.

Each department prepares an annual budget and plan, tied to the College’s Strategic and Annual Plans. The ITS Department is responsible for its own operational plan, based on the institution’s information technology needs and departmental needs. All departments, including ITS, submit Mid-year and Annual Assessments, which document progress towards the operational goals. Departments then update and revise their plans for the following year. The ITS Department ensures that technology projects meet college/departmental needs by heavily involving user departments in all phases of projects.

SECTION II(b): Commendations and Plans for Improvement

The committee reviewed the technology support the College provides to meet the needs of teaching, learning, college-wide communications, research and operations systems and commends the College its concerted effort to determine future technology needs, and its efficient use of bond funds to implement these plans. Massive upgrades to the network infrastructure has allowed for the implementation of services to meet wide-ranging needs. However, the College still has unmet needs in the area of sufficient technical support staff, insufficient training for technical staff and insufficient access to computer labs for students. The committee recommended these areas be addressed.

The committee reviewed current practices regarding technology services, professional support, facilities, hardware, and software to see whether they are designed to enhance the operation and effectiveness of the institution. The committee commends the College on its very comprehensive planning process and broad shared governance process, which together drives its decisions in technology services, facilities, hardware and software. This process has produced excellent results. The
committee also commends the college for having made significant steps in the area of Online Learning, going from eight courses in Fall 2001 to 52 courses in Fall 2004, and for the demonstrated quality of the program evidenced by the awards it has won. The quality of the Online program is a direct result of the College’s commitment and support. The committee also pointed out that the College, having suffered some staffing loss in the video area, has not been able to utilize its video distribution infrastructure. However, with staffing now in place, with ITS and Broadcast Media Services meeting to implement improved video distribution, the utilization of the video infrastructure should increase.

The committee reviewed the institution’s current practices in providing quality training in the effective application of its information technology to students and personnel. The committee commends the college for doing a good job of providing on-going technology training through the Technology Learning Center and for having made progress in the level of training provided. The committee also recognizes that cuts in the Telecommunications and Technology Infrastructure Program (TTIP) funds for Human Resources, which was the main source of funds for technology training, have severely limited the ability of faculty and staff to obtain technology training outside the College. Budget constraints have limited the College’s ability to pick up the funding for outside training. Therefore there is insufficient funding for technology training to meet current needs. The Committee also recognizes that there is insufficient training provided to students on use of general applications such as MS Office and use of the Internet. There committee recommends that more training be given to students on the use of general applications and use of the Internet.

The committee also recommends that the college provide regular, on-going Banner training, find resources to supplement what was loss in the TTIP funds for technology staff development. The committee pointed out that the college needs also to collect more information on how effective the technology training is in terms of impact on job performance and that the college needs better information on employee training needs. The committee recommended adding to the Biennial Employee Technology Survey some questions regarding training needs.

The committee reviewed the institution’s practices in planning, acquiring, maintaining, and upgrading or replacing its technology infrastructure and equipment to meet institutional needs. The committee commends the college for making very significant improvements in its technology infrastructure, network services, and for providing up-to-date standardized computers to all full-time employees and computer access to all part-time employees. In addition, the committee commends the ITS Department for significantly increasing the services it provides without increasing staffing. The committee also found that insufficient electrical power in the computer room at Batmanale Hall hampers the college’s use of technology. The committee recommends that the computer room power upgrade which had been planned, but put on hold be given high priority. The committee also found the ITS Department is
staffed very thinly in some critical areas, due to budget constraints and recommends the college address this staffing deficiency.

The committee reviewed the institution’s distribution and utilization of technology resources in supporting the development, maintenance, and enhancement of its programs and services and commends the college for making substantial investments in both the technology infrastructure (a state-of-the-art campus-wide network), and desktop computers to all full-time faculty and staff, and shared computer access to all part-timers. The committee also commends the college for strengthening its network security and reliability with the new network infrastructure, for developing construction standards to ensure that new construction be integrated into the new network infrastructure. The new network infrastructure as well as the desktop rollout has enabled the college to have standardized versions of office software as well as email, which is supported by the Help Desk staff. With this infrastructure base, instructional faculty have more access to technology tools for both teaching and classroom management, counselors have access to more student data to provide better services, and students have better access to their academic data and course data to better manage their academic careers. The committee also commends the college for the growth and success of its online program and providing resources to support it. However, as the demand for both online courses and technology enhanced courses increases, the college needs to look at how to support the increase in demand. The committee recommended using a combination of existing materials, bringing in additional support personnel, perhaps in the form of current online instructors as mentors.

The committee reviewed the institution’s technology planning efforts in terms of integration with institutional planning, and reviewed whether the institution systematically assesses the effective use of technology resources and uses the results of evaluation as the basis for improvement. The committee commends the College for its excellent work in technology planning, which comes directly from the College’s Strategic Plan, both for long-term planning and annual planning, and in tying the planning process to the budget process, and in accomplishing the objectives planned. The committee also found that although there has been significant effort in planning, the budget crisis in California has limited the resources available for implementation of the plans in the areas of staffing and training. The committee also recommends that the current Technology Plan, adopted in November 2002 and incorporated into the 2003 Education Master Plan, be reviewed and updated. Another area of improvement that the committee found, in looking at systematic assessment, was that students are not currently being surveyed regarding how they use technology and their technology needs. The committee recommends that the college develop and administer such a survey college-wide for all computer labs.
SECTION III: Key Findings And Relation to Themes

Theme 1: Institutional Commitment to High Quality Education

The College uses its technology resources to fulfill its institutional commitment to high quality education. In the Strategic Plan (2003), strategic priority #7 is: “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.” All of the College’s technology initiatives have been focused on implementation of this strategic priority. The network and infrastructure upgrades, the upgrade of the email system and the implementation of a state-of-the-art phone system have all contributed to improved communication and organizational effectiveness. The amount of resources and support given to the Online courses and to technology-mediated instruction, far beyond what is provided at most community colleges, has resulted in award-winning courses, and shows the institutional commitment to the use of technology in providing quality education. The development of technology infrastructure standards applied to all new buildings and remodeling projects again shows the commitment by the institution to maintaining state-of-the-art technology, which in turn, is able to support high quality education.

Theme 2: Student Learning Outcomes and Student Achievement

The measurement of Student Learning Outcomes occurs at the course and program levels. As stated in Standard IIA, the College needs to develop methods to measure learning outcomes at both levels, and the effectiveness of the use of technology to support teaching and learning, needs to be part of that measure. The College uses technology to deliver instruction, in both online courses and technology-mediated face-to-face courses, to address student needs in the areas of scheduling and access, and diversity of learning style. The College is just beginning to develop models and gather data to analyze how well it is using technology. Anecdotally, the College’s online courses and technology mediated courses are well received by students, and instructors are enthusiastic about using a new mode of delivery. The College also provides computer resources for students to supplement and support classroom instruction. There are over 2350 computers in 70 labs throughout the campuses for students to use. Another area that technology has been used to address student needs is in providing access to information so students can plan and manage their academic careers --- online application, registration, access to catalog and course schedules, access to course syllabi, academic transcripts and course histories, and educational plans.

Theme 3: College Dialogues Promote Institutional Improvements

The College has several venues for staff and faculty to regularly engage in dialogue about the role of technology in improving learning and teaching and in improving the College’s operational efficiency. The Teaching and Learning Technology Roundtable (TLTR), a shared governance committee with open membership, looks at the technology needs of learning and teaching, reviews and discusses instructional
technology initiatives in the Strategic Plan and recommends policies for the use of technology in instruction and student services. The TLTR also provides a forum for sharing information about new technologies. In addition, the Information Technology Policy Committee (ITPC), a shared governance committee, discusses and sets overall technology policies for the College. All of the College’s technology initiatives and projects were discussed at and approved by ITPC before actual implementation.

**Theme 4: College Planning and Budget System Promotes Continuous Improvement**

One of the College’s strengths is its comprehensive planning and budgeting process. The significant technology improvements that the College has achieved are a testament to the effectiveness of its planning and budgeting process. The planning process provides focus, direction and long-range vision. All of the major technology projects, which have been broad in scope and have had college-wide impact, have come out of the Educational Plan and the Strategic Plans.

**Theme 5: Institutional Resources Support Learning and Student Success**

Standard IIIC has close links with this theme: the use of technology resources to support learning and student success. In the area of Student Development, the College has made significant improvements in providing students access to information for planning and managing their academic careers (Online applications and registration, online catalog and scheduling, online counseling and orientation, development of an Education Plan that students will be able to access online, online career information). In the instructional area, the College provides technology resources in the form of computer labs for students, 2350 computers in 70 labs throughout all the campuses. The computers are used to provide direct instruction (e.g. teaching a specific application), and as study tools for students to do homework (e.g. Word Processing, analysis of data) and for students to access information over the Internet (e.g. doing research for a class assignment). In addition, Online courses provide students with an alternate method of attending classes and gives access to students whose schedules do not allow them to come on campus. Online courses and technology-mediated courses are also used to meet the challenge of diverse learning styles among students.

**Theme 6: Institutional Integrity and Honesty to All Stakeholders**

The College provides a lot of information about how it operates to the general public as well as to its own college community on its website. Through the web publication of its Board of Trustee agendas, meeting announcements, meeting minutes, the public has direct access to information about the operations of the College. Within the College community, many of the College’s committees also publish their meeting announcements and minutes online. Both the Classified Employee Handbook and Faculty Handbook are available online. Major departments have web pages where they publish operational policies and procedures.
SECTION IV: REFERENCES

3C.1

- Banner Manager’s Meetings (‘00-’04)
- TLTR Minutes (‘00-’04)
- Communications Committee (‘00-’04)
- ITPC Minutes (‘00-’04)
- IT Standards Workgroup Notes (‘00-’04)
- Banner Manager’s Group (‘00-’04)

3C.1.a

- Minutes from ITPC Meeting (‘02- ’04)
- CCSF Technology Surveys (‘00- ’04)
- Student satisfaction surveys of distance learning courses (Sp 01 – Sp 04)
- Distance Learning Course Offerings and Attendance (F 00-Sp 05)
- VATEA Allocation Spreadsheets (00-01, 01-02, 03-04)
- Teaching and Learning Technology Roundtable (TLTR) Minutes (’99 – ’04)
- Strategic Plan (2003-2008)
- Education Master Plan (2003, which includes the Technology Plan and the Library Technology Plan)

3C.1.b

Standard III.C.: Technology Resources

- Technology Learning Center Annual Report (’00 – ’04)
- Technology Learning Center Surveys of Workshop Participants (’00 – ’04)
- Desktop Rollout/Computer Installation (’03 – ’04)
- Telephone Installation/Phone Conversion (’03 – ’04)
- Teaching and Learning Technology Roundtable Minutes (’00 – ’04)
- Flex Calendars

3C.1.c
- ITS Organization Chart
- Strategic Plan (’00 – ’04)
- Annual Plan (’00 – ’04)
- Education Master Plan (2003)
- Telecommunication Technology Infrastructure Plan Reports (’00 – ’04)

3C.1.d
- Strategic Plan (’00 – ’04)
- Annual Plan (’00 – 04)
- Education Master Plan (2003)
- Student Development Tech Plan (’03 - 04)
- Banner Manager’s Group Notes (’00 – 04)
- CCSF Inventory of Equipment (see Peter Goldstein)
- Service Contracts for Hardware and Software (’00 – 04)
- ITPC Minutes (’00 – 04)
- TLTR Minutes (’00 – 04)
- Educational Technology and Campus Communications Systems Infrastructure: Implementation Standards (Low Voltage Standards, April 2004)
- As-builts for CCSF Network Infrastructure

3C.2
- ITPC Minutes (’00 - ’04)
- Banner Manager’s Group Notes (’00 - ’04)
- TLTR Minutes (’00 - ’04)
- College Strategic Plan (2003/8)
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- Educational Master Plan (2003)
- Student Development Tech ('00 - '04)
- Program Reviews ('00 - '04)
- Education Technology Plan (1997)
- Annual Plans
- Annual Budget (which includes all operational and developmental plans)
- Mid-year and Annual Assessments
- Educational Technology and Campus Communications Systems Infrastructure: Implementation Standards (Low Voltage Standards, April 2004)
- Library Services Survey