Recommendation number and topic:
Recommendation #9 – Technology Resources

Full recommendation text:

To fully meet Standard III.C Technology Resources, the team recommends the college develop a comprehensive plan for equipment maintenance, upgrade and replacement that is integrated with the institution’s budget allocation processes; and that the college continues to monitor its information technology systems and implement measures to more fully secure the technology infrastructure.

Related standards:

III.C.1.a, c-d, III.C.2

Work group members:

Tim Ryan, Eric Raznick, Doug Re, James Hall, Cynthia Dewar, Carmen Lamha, Carol Reitan, Craig Persiko, Kim Ginter-Webster, Monika Liu, Lidia Szajko

Provide the dates and times of all meetings held to date. For each meeting, please briefly describe the primary focus of the discussion that took place (1-2 sentences per meeting).

Tuesday, July 24 (9am-11am): Introduction to team, establish baseline knowledge of the accreditation response process and the Technology Resources recommendation and Standards.

Tuesday, July 31 (9am-11am): Discuss Planning and Budgeting timeline and role of the Technology Plan. Identify and define Activities and complete Matrix for submission.

Tuesday, August 7 (1pm-3pm): Discuss revised Planning and Budgeting timeline, prepare outline of response document, discuss and improve flowchart for lab replacement strategy.

Describe your plans for addressing the recommendation. Include a brief paragraph describing each activity included on your timeline along with key dates for accomplishing those activities.

1. Complete Academic Equipment Inventory. It is important for us to know what technology assets CCSF currently owns and their age in order to determine the replacement strategy and priority. The inventory includes computer classrooms, computer centers and classroom projectors. The initial inventory will be completed by August 31, 2012, although there will be ongoing updates.
2. Redefine Technology Plan based on Fiscal Year. The 2009-2011 Technology Plan has been extended for one year while the 2012-2014 plan is finalized. Technology-related projects will be incorporated into the Program Review process beginning in the Fall semester. Departmental submissions are due by mid-December for inclusion in the upcoming fiscal year. (Completed).

3. Add Cost and Staff Requirements to Technology Plan. These items will also be incorporated into the Program Review process described above. All technology-related staffing requests will be submitted by ITS to enhance technical services across all organizations. (Completed).

4. Identify Constraints of Funding Sources. The funding sources for technology equipment are grants, donations, Bond measures and the General Fund. Grants are typically limited to funding Academic equipment and the Bond is limited to funding Administrative equipment. It is important to identify the differences between the funding sources as a specific one will be allocated as part of the technology acquisition process. To be completed September 14, 2012.

5. Articulate Relationship with Planning Process. This activity is the key component of the Technology Resources Recommendation. It will be dependent on the efforts of the Planning Work Group to determine the timeline of the overall planning and budgeting process and will require sufficient information be provided to our decision makers to determine the CCSF priorities for a given year. The next meeting of the Planning Work Group is August 21, 2012. This activity will be completed by September 14, 2012.

6. Identify Guiding Principles. This activity is analogous to redefining the ITS Mission Statement to be inclusive of operating principles for issues such as standards and staffing. (Completed).

7. Identify Sources of Equipment Usage Data. We do not know how frequently many of our computing assets are used and hence do not have the information available to make data-driven decisions. This is especially important considering our goal of computer classroom consolidation instead of a direct one-for-one replacement. This activity will be completed by August 31, 2012.

8. Develop Models for Replacement. Technology equipment will be upgraded or replaced on a pre-defined schedule using model based on age, functionality or other factors. Models for consolidation and sharing of resources across multiple organizations are also required and will be included in this activity. To be completed September 14, 2012.

9. Prepare Outline of Response. A draft outline was required to ensure the scope of our activities are sufficiently inclusive for preparing the final response and that all of the key discussion points are defined in the final document. (Completed).

10. Prepare Final Accreditation Response. This is not specifically described in the Accreditation Response Matrix but it is the final objective or our work group. A draft of the response will be reviewed at our next work group meeting on August 21, 2012 and the final response will be completed by September 14, 2012.
Summarize your progress to date on carrying out the activities described above where applicable. If you have completed any of these activities, please note the date on which it was completed and append the evidence or any products relating to the activity.

1. This activity is approximately 90% complete. 127 computer classrooms and computer centers have been identified and include 3,427 PCs. The spreadsheet is available at [http://bit.ly/Pph5fO](http://bit.ly/Pph5fO). Additional work is required in order to determine the age of the PCs which will determine when they need to be replaced. We have also identified approximately 150 projectors across all campuses, additional work is also required to determine how many other projectors are in use and how frequently they need to be replaced. We have determined the approximate number of employees and the quantity for each category to assist in our equipment replacement planning (810 Full-time Faculty, 1075 Part-time faculty, 861 classified staff, 39 administrators).

2. We have determined the Technology Plan will remain as a three-year plan and the coordination with the budget allocation process will be done by the Program Review process. Completed on August 7, 2012.

3. Cost and staff requirements will be part of the Program Review. ITS will need to review plans and provide input to ensure the estimated costs are accurate. Staffing requests related to maintaining and upgrading technology equipment will be funded through an ITS Program Review request. Completed on August 7, 2012.

4. Perkins Grant funding has been discussed in detail, it has been used to purchase many of the lab PCs in past years. The approximate annual funding is $1.5M. Detailed information regarding the Perkins grant application process is available on the Career and Technical Education website at [http://bit.ly/RQwXLf](http://bit.ly/RQwXLf). Limitations have been identified in that only vocational programs are eligible for this type of funding, it includes 22 departments. Bond funding has also been discussed, it is specifically for Administrative systems. It is acknowledged as not being an ongoing funding source, but there is still approximately $600K available for data center and server upgrades which will be part of ITS infrastructure projects during the upcoming year.

5. The relationship between the Planning and Budgeting Process and technology replacement has been identified. The latest draft process from the Planning Work Group (#2) is dated August 8th and is attached. A flowchart has been developed which details the computer classroom and computer center replacement process, a copy is attached. Both of the attachments and also a verbal description of the technology portion of the planning process will be included in the final response. Efforts will be made to consolidate labs where possible to ensure maximum efficiency.

6. The ITS Mission Statement was augmented with six Guiding Principles to more accurately describe activities related to equipment upgrade, replacement and maintenance, a copy is attached. Completed on August 7, 2012.

7. A large need has been identified for determining the utilization of computer classrooms and centers. This is essential for leveraging our resources and becoming as efficient as possible. CCSF currently has two systems which are capable of performing this task, Accutrack and PC Cop, but neither one is universally used in all labs. Each of them would require an investment in
financial and staffing resources in order to become the standard. The primary system for 
standardization has been determined to be Accutrack. In addition to providing equipment usage 
data it has an added benefit of collecting student-based data which can used for FTE counts.

8. The models for replacement of computing equipment have been discussed in the context of 
both the funding sources, described in Activity 4, and the Program Review, described in Activity 
5. Additional decisions will be made regarding the minimum replacement cycle and models for 
consolidation which will consider geographic locations and time of day. We have determined the 
cost structure for the centralized ITS department on an annual basis, it is approximately $1.2M.

9. A draft outline of the response (Table of Contents) was completed on August 7, 2012 and is 
attached. The final outline will be completed on August 21, 2012.

10. A draft of the final response will be discussed at the upcoming meeting on August 21, 2012 
with a goal of completion by September, 15, 2012. We will submit the document using a 
standard format and are assuming the final editing and formatting will be done by the ALO.

List any challenges you have encountered or anticipate facing with respect to addressing the 
recommendation.

Establishing an accurate inventory of computing assets is difficult due to the scale of CCSF. 
Some progress has been made for the computer classrooms and centers although it is difficult to 
determine the age of the equipment and hence determine where it is in the replacement cycle. 
Independent of computer classrooms where regularly scheduled instruction takes place, we also 
have a large number of computers that have been installed in various locations over the years that 
are not centrally documented. Many of them serve a dedicated ethnic group such as the Tulay 
Center for Filipino-American students. Cultural issues will have to be considered if we want to 
consolidate one center with another to achieve our efficiency goals.

Creating an atmosphere of shared resources among all departments, including both Academic 
and Administrative areas, will be a challenge. Currently many organizations fund equipment 
independently and then do not see any reason why they should share their resources. Computer 
labs are often locked and are unavailable to students. The solution to this is further complicated 
by the need for staffing of lab aides and/or lab monitors in order for the lab to be opened.

Trying to determine a standard replacement cycle for all situations will be difficult. Some 
computing equipment can provide adequate service to one department but not another due to 
different requirements. For example, Architecture uses AutoCad and requires the newest 
technology, but a Basic Computing class could use five year old computers without any 
difficulty. It is also a challenge to determine if all systems should be replaced using a centralized 
funding source even though they were first acquired using a unique or one-time funding source.

Measuring utilization of assets is needed to determine if a given classroom or center can be 
consolidated. It is a currently a manual process for the computer classrooms, prepared one at a 
time and reflective of the class schedule for the given semester. It is even harder to measure the 
utilization of computer centers that are available on a drop-in basis.
Determining the unmet need for computer resources is a challenge. We know we have peak usage times of 10AM-2PM when all seats in a given center are full, but we cannot tell how many students tried to find a computer or other technology resources during that time but were unable to do so. We also do not know the unmet need of classroom projectors. Some are permanently installed in classrooms, but our Office of Instruction does not know where they are when scheduling classes. Some projectors are portable but are not available to our part-time evening Faculty. If we are tasked with equipping more classrooms with permanent projectors and the associated control panel and speakers it will potentially be a large expense. The current cost estimate is $5K-$10K per classroom with approximately 500 classrooms that lack projectors.

Determining a computer lab consolidation plan is a major challenge. This step is important because it will dictate how many computing system we purchase and hence will have a direct impact on the budget request process. It is difficult to determine the impact of sharing labs by multiple departments. We do not know the schedules of particular faculty members and how they can be changed. At this point is does not appear to be feasible to change what is typically a day class into an evening class and vice versa. The will be difficult to perform the required consolidation within the existing Shared Governance process.

Determining the technology needs of part-time faculty has not previously been done. A survey has been developed and will be forwarded now that the semester has been started. It is not yet clear when this will be completed so some assumptions will need to be made.

The Standards for technology are very brief and it will be difficult to determine if we have adequately addressed them.

A financial plan that can meet the goals of our technology upgrade and replacement plan will be an indirect challenge. If the financial plan is not adequate the upgrade and replacement plan cannot be implemented as designed.

Ensuring adequate staffing levels to maintain the technology equipment has been and will continue to be a challenge. This is complicated by the fact that many new technology systems are more complex than previous systems and employees will need to be either re-classified into the appropriate role or new employees in new job classifications will need to be hired.

Making the scope of our task too broad is both a current and anticipated challenge. Technology is a large component of the operation of CCSF, it is used by every administrative and academic department. The Accreditation recommendation only asks us to develop a funding model for equipment upgrade and maintenance and to integrate our plan with the budget allocation process. It does not state we must make changes to the underlying infrastructure or business processes. Many of the technical operational issues that appear to be simple to resolve turn out to be complex once they are analyzed and may require business process changes to external organizations such as the City of SF, the State of California or the Veterans Affairs office. We anticipate there will be portions of the Accreditation response that require an augmentation of technology which can be accommodated within the respective Recommendation response.
## Annual Assessment, Planning, and Budgeting Timeline

### FY 2013-2014

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| Spring 2012 through Summer 2012 | **Annual Performance Indicators and College-Wide Assessments for 2011-2012**  
The Chancellor leads discussions with the Board and College community on reports such as the Annual Performance Indicators (ARCC, VPA dashboards), End-of-Year Assessment (EYA), and Annual Program Review Summary. |
| Summer 2012 | **Board’s Annual Priorities and Planning Assumptions for Resource Allocation for 2013-2014**  
Using informed planning assumptions based on (a) internal and external trend data and (b) realistic budget scenarios for 2013-2014, the Board reviews the College’s Mission statement and delineates policy-level priorities consistent with the College’s Mission as well as Board-adopted Policies and College Plans. The Chancellor communicates these Priorities and Planning Assumptions to the College community at Flex in August. |
| Fall 2012 | **Unit-level Program Reviews for 2013-2014**  
Developed by all units during the fall semester in response to the Board’s Priorities and Planning Assumptions and Board-adopted College Plans as well as unit-specific historical grant data, projected data (where available), industry-based input (where appropriate), survey data (where available), and learning outcomes assessments. This should follow published guidelines (currently under development) for completing reviews with attention to program effectiveness and student learning outcomes. Program reviews must be submitted by the end of December for consideration in the upcoming budget. In addition to prioritized resource requests, reviews should include strategies for refocusing the current budgeting resources in alignment with the College Mission. Decisions for increasing or reducing resource allocations will be based on program review. |
Completed program reviews are received by annual program advisors (e.g., School Deans) who rank requests considering several factors (program review, guidelines under development). Ranked requests are forwarded through the administrative chain until ultimately each Vice Chancellor ranks requests for his or her area for that year. The Chancellor meets with the Vice Chancellors and the Chancellor to determine overall prioritization. Final rankings are published on the Program Review website. The highest ranked resource requests are considered for inclusion in the upcoming budget. Ranked requests may be sorted into categories (e.g., staffing, facilities, equipment, and supplies including technology-related requests). Also, identified reductions are incorporated into the review of the draft Budget. |
Drafts assembled by XXX/XXX. Reviewed by Shared Governance and recommended to Chancellor. The Board of Trustees reviews the Tentative Budget in May, adopts the Tentative Budget in June, and adopts the Final Budget in September. Shared with the College community. |
| July 2013 | **Resource Allocations for 2013-2014**  

*When and how often do we assess the process? What were the results and what should be changed?*

### FY 2014-2015

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| Spring 2013 through Summer 2013 | **Annual Performance Indicators and College-Wide Assessments for 2012-2013**  
The Chancellor leads discussions with the Board and College community on reports such as the Annual Performance Indicators (ARCC, VPA dashboards), End-of-Year Assessment (EYA), and Annual Program Review Summary. |
Computer Lab Replacement Process
August 15, 2012

Review Lab Equipment Age

No

Age > 4 Years?

Yes

Add to ITS Program Review Request

No

Consolidate w/ Other ITS Lab?

Yes

Implement Consolidation

Original Funding Source?

No

Notify Lab Owner

Yes

Consolidate w/ Other ITS Lab?

No

Gen Fund Or Bond

Funding Available For Replacement?

Yes

Inform ITS

Order & Install New Equipment

No

Consolidate w/ Other Lab or Department?

Yes

Inform ITS

Implement Consolidation

No

Add To Dept. Program Review Request

Recycle Equipment

Repurpose Room
CCSF Information Technology Services
Mission Statement and Guiding Principles

Mission Statement
Information Technology Services (ITS) supports City College of San Francisco (CCSF) and all its departments by: creating services and maintaining technology being used by students and employees; providing technical expertise to improve productivity, effectiveness, and efficiencies; and providing customer support for technology. ITS is customer-centric, empowering the CCSF community by providing needed technology that in turn improves student success.

The following Guiding Principles will be followed by ITS in order to support the overall mission of CCSF. These Guidelines are part of a continuous improvement process to adapt to technological changes and allocate resources based on prioritized needs.

Sustainability
Information technology equipment will be purchased, maintained, replaced and recycled using a continuous sustainable model.

Coordination
Information technology resources will be allocated in accordance with the annual needs of CCSF through the ongoing Program Review process.

Standardization
All information technology systems will be configured to CCSF standards to ensure adequate support and reduce downtime.

Shared Resources
Efforts will be taken to make all appropriate information technology equipment accessible to the entire college community.

Staffing
Adequate staffing levels and training programs will be maintained to accommodate for technological changes and employee attrition.

Innovation
New technologies will be evaluated and implemented at CCSF in order to achieve cost savings and a high level of technical excellence.
1. ITS Mission and Guiding Principles

2. Technology Systems Overview
   2.1.1. Academic Technology Equipment
   2.1.2. Administrative Technology Equipment

3. Technology Plan Summary

4. Coordination with Planning and Budgeting Process

5. Replacement Cycles

6. Staffing Considerations

7. Funding Sources and Grant Programs

8. Information Systems Security

Appendices
Appendix A: Planning and Budgeting Timeline
Appendix B: Lab Equipment Replacement Process Flowchart
Appendix C: Staff/Faculty Equipment Replacement Process Flowchart
Appendix D: Server/Infrastructure Replacement Process Flowchart
Appendix E: Computer Classroom and Center Inventory