### III.C. Technology Resources

**Technology resources are used to support student learning programs and services and 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**
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> **III.C.1.b. The institution provides quality training in the effective application of its information technology to students and personnel**
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> **III.C.1.c. The institution systematically plans, acquires, maintains, and upgrades or replaces technology infrastructure and equipment to meet institutional needs.**
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> **III.C.1.d. The distribution and utilization of technology resources support the development, maintenance, and enhancement of its programs and services.**

Technology resources are the shared responsibility of Crafton Hills College Technology Services and the San Bernardino Community College District office of Technology and Educational Support Services (TESS) (III.C.1; III.C.2.).

**Technology Services**
The College Technology Services department provides support for assistive technology, audio-visual, phone system, and instructional design requests. The department is staffed by a director, who reports to the vice president of administrative services, a secretary, four specialists and two computer technicians (III.C.3.). In addition to direct support to employees, Technology Services maintains the campus technology infrastructure, such as wireless capability. Employees can request assistance online using the appropriate service request link, or by phone, using the monitored help line. In conjunction with the District, the department also provides access to support through the SBCCD Technical Assistance Center (III.C.4.).

The program provides online request forms for ease of access, and a linked list of frequently asked questions concerning such topics as equipment setup, new phones, ordering equipment, accessibility, computer viruses, and software (III.C.3.). The department exists to help employees procure, set up, maintain and repair computers and other technology equipment; plan for technology projects; access technology resources and develop technology-based instructional strategies; ensure compliance with state and federal disabilities and privacy laws, and answer questions about hardware and programs. This department's website is used for requesting

support with already deployed software and hardware and is also to request new technology for teaching and learning, campus-wide communication and operations. The department supports college-wide communication needs including phone, intranet/internet/website, email, twitter, and Facebook.

The college Technology Services department is responsible for a considerable amount of infrastructure. The department receives approximately $397,197 per year to replace outdated computers on a five-year rotation. The department maintains an asset list by location to ensure equipment is inventoried and tracked (III.C.5.)

As part of the infrastructure upgrade and new construction, all data closets are designed with a dual homed system to provide the highest levels of reliability for the campus network. All of the vital communications components, such as the primary data center, and the Main Point of Entry for communications for the campus are connected to battery backups. Additionally, there are generators prepared to provide power in the event of prolonged power outages. Technology Services also performs regular data backups of the core server systems. The backup process consists of disk to disk backups with additional backups to tape medium for failsafe redundancy. The entire network infrastructure on the campus has been refreshed over the last two years. Additionally, the College has moved from a single core network architecture to a dual core architecture with each building being dual homed so that if a single communication path is disrupted, the network will still function. There has been a rollout and expansion of the wireless network across the campus that is serving to steadily increase the amount of area covered. (III.C.6.)

To ensure the department is responsive to the needs of faculty, students, and employees, Technology Services staff work closely with several campus entities.

Technology Planning Committee. The Technology Planning Committee, a participative governance group that reports to the Crafton Council, is charged with "developing and overseeing a comprehensive technology plan for the college" (III.C.7.). Members include the Director of Technology Services, a dean from each of the three instructional divisions, the Director of Facilities, Maintenance and Operations, the Coordinator of the Tutoring Center, a Department Network Specialist, the Web Developer, an Academic Senate representative, a Classified Senate representative, a Student Senate appointee, a representative from District Computing Services and a representative from the Academic Senate's Educational Technology Committee (III.C.8.). The committee has developed several multi-year plans, beginning in 1995. The goals of the most recent plan, which spans 2012-2015 are aligned with the College Educational Master Plan (III.C.9., pp. 8-9). Benchmarks for the objectives accompanying each goal have been selected to and operationally defined (pp. 10-14). The Campus Technology Plan also took into account the necessity of replacing, maintaining, and upgrading the core

infrastructure, back end servers, and other components that provide technology access to the institution. The network infrastructure is one of the topics for annual review by the Campus Technology Committee, as the committee is charged with ensuring that the infrastructure is kept current.

Educational Technology Committee. Membership in this Academic Senate standing committee includes faculty representatives from all three divisions; Career Education and Human Development; Sciences and Humanities; and Math, English, and Learning Resources (III.C.10.). The group focuses on technology as it relates to teaching and learning both in the classroom and online. This group is responsible for certifying faculty to teach online, and providing recommendations to the college regarding instructional technology. The committee has developed a Distance Education Plan, which spanned 2007-2010, and has not been updated (III.C.11.). The plan delineated the oversight of distance education (DE) offerings, staff support, student preparation, and the growth potential for online delivery in the next three to five years. Benchmarks for success included an increase in the number of faculty certified to teach online, increased training and support for the Blackboard Learning System, and improved support for online learners (pp. 4-7). It is important to note that the college does not offer any comprehensive DE programs. Some departments offer online classes but the college does not provide equipment specifically for DE instruction.

The campus Technology Services department also interacts closely with the District Technology and Educational Services (TESS) department.

**Technology and Educational Support Services**
A District office that serves the colleges and all other district entities, TESS provides a catalog of services that includes printing, distributed education, and computing services (III.C.12.). The department assists employees with account management, training in the use of project management tools and applications, application development, classroom support, media and event support, software, web, and internet assistance, archive management support, and technology procurement. The publications center provides graphic design, quick copy and offset printing services. The office is led by an associate vice chancellor who reports directly to the chancellor.

**Planning**
The work of TESS is guided by the District Technology Strategic Plan, which provides a long-range view of technology that anticipates the emerging technological needs of the District and the Colleges (III.C.13.). The plan is developed by the TESS Executive Committee, comprised of representatives of the District and both colleges. The charge of the TESS committee is to develop, monitor, and revise the Technology Strategic Plan, prioritize projects that emerge from the colleges and from the district, propose new policies and procedures, and advise the

Chancellor's Cabinet (III.C.14.). Applications that are shared across the district are identified and selected by the TESS committee, a representative district-wide technology services group. TESS has a well-defined process and timeline for analyzing and prioritizing projects as defined on the website (III.C.15.)

By working with the District, the College can meet technological needs for which it does not have the budget or the personnel. For example, Crafton Hills forwarded a request to upgrade student services technology for educational planning. The student services department followed the process outlined by TESS, the project was prioritized, and the District, working closely with the Colleges, was able to upgrade the student portal used for educational planning.

Other District-led groups include the District Applications Workgroup (DAWG), comprised of representatives of the District and both colleges; Administrative Applications, which manages the student information system such as help desk, training, and web development. DAWG carries out the prioritized projects from the TESS Executive Committee. The group has been highly effective in ensuring that the decisions concerning implementation of new programs and applications are shared among all the interested parties.

**Assessment**
The institution uses a variety of survey tools to assess the need for technology by faculty and staff. The College student satisfaction survey revealed in 2012 that 93 percent of students surveyed agreed or strongly agreed that computer labs were adequate and accessible; and 87 percent were satisfied or very satisfied with computer availability at CHC (III.C.16.).

The District also conducts surveys assessing the extent to which students and employees feel their technological needs are supported. The results of satisfaction surveys, administered as part of the district planning and program review process, provide direct evidence regarding the comfort level of personnel with the existing and emerging technologies and with the level of support available. The most recent survey, for example revealed over 70 percent of respondents reported they were satisfied with the outcome of their project requests. However, comments regarding several departments within TESS centered on the need for additional personnel (III.C.17.).

**Training**
Technology training is a shared responsibility between the District and the College. The College Professional Development Committee, a participative governance group which reports to the Crafton Council, provides professional development opportunities on a wide range of topics including technology. For example, the spring 2014 workshops included workshops on the Blackboard reporting tools and technology-enhanced teaching (III.C.18.).

Technology training is used to enhance the operation of the college in a deliberate and planned fashion.  For example, training in the basic use of district wide resources such as the eLumen system, WebAdvisor, and the email system is provided as part of the new employee orientation process.  Specific training in the use of department-specific technologies, such as SARS for counseling and tutoring, is also supported by the District upon request by completing an online form (II.C.19.).

**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.**

**Descriptive Summary**

**Planning**
Technology planning at the College is integrated with institutional planning in two ways.  First, the Technology Department participates in the annual planning and program review process, which directly intersects the resource allocation process when unit-level objectives are prioritized college-wide.   As outlined in the Planning and Program Review Handbook, the results of the prioritization of objectives is used to guide the allocation of resources at the College (III.C.20).

The department's objectives outlined in 2013-2014 PPR document were fourfold: to provide continuous A/V support during the college hours of operation; to replace 20 percent of the deployed desktop computers annually; to upgrade audio visual controls in the performing arts center, and to ensure non-computer technology in classrooms, such as projectors, remains viable (III.C.21.). Computer replacement was ranked by the committee 22$^{nd}$ and by the president's cabinet 31$^{st}$ on a college-wide list of over 300 objectives, a relatively high ranking that demonstrates the objective's institutional importance (III.C.22.).

In the program review process, other units also have the opportunity to develop goals and objectives related to technology.  When such requests become an institutional priority they may be funded.  For example, an objective of the Admissions and Records department was to meet the communication, service and support needs of the community.  The corresponding resource was a phone queue system.  The objective was prioritized 5$^{th}$ by the committee and 8$^{th}$ by the president's cabinet on the 2013-2014 list of priorities (III.C.22.).  The list is posted on the PPR Committee's webpage annually and an update is provided to the campus at the spring in-service.

To rise to the top of the planning and program review list, units must show that their objectives are aligned with the master plan and that they have institutional impact. For example, Technology Services' objective to increase audio visual's hours of operation aligned with Goal 8 of the Educational Master Plan – Effective Resource Use and Development (III.C.23.).

The goals of the Technology Plan are also aligned with those of the Educational Master Plan. The technology plan outlines the major technological needs of the campus. Currently there are only 6 instructional spaces currently without installed smart technology. Of the 38 others, all

have at least a projector, computer, and internet access, with 19 of them having more additional technology including Smart Boards or ELMO document cameras,

To summarize, decisions regarding the procurement of technology are made at two levels, with multiple avenues for input and discussion. As indicated above, College decisions are made using the PPR process in alignment with the Technology Plan. Decisions that impact the District, such as the purchase of SARS, Turnitin, Blackboard, and Datatel, are made by the District, with recommendations filtered through and prioritized by the TESS committee. Standards for the district regarding infrastructure are also determined by the TESS committee and those standards allow for increased sustainability by ensuring that infrastructure hardware installed throughout the district is similar.

Although planning, assessment, and training is ongoing due to the joint efforts of the College and the District, the college has not documented the decision-making process for all technology decisions in a single place. There are numerous opportunities for the campus community to participate in with technology decisions included the committees noted above, the overall process is not well documented. The decision-making process for individual committees can be found on their respective webpages.

**Self Evaluation**

The College meets this standard; however there are some weaknesses which must be remedied. The College must update the Distance Education Plan, which expired in 2010. Technology has changed considerably since then. The plan must also align closely with the Educational Master Plan. Second, the processes and procedures that guide the interaction between the district and campus technology committees are not well documented.

**Actionable Improvement Plan**

The College will update the Distance Education Plan and ensure its alignment with the Education Master Plan.

The College will work with District Technology to more clearly articulate the processes and procedures that guide decisions about technology.

**Evidence, Standard III.C. Technology Resources**

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| III.C.1 | CHC Technology Services Webpage<br>http://www.craftonhills.edu/Faculty_and_Staff/Technology_Services |
| III.C.2. | SBCCD Technology and Educational Support Services Webpage |
| III.C.3. | CHC Technology Services Webpage, Contacts<br>http://www.craftonhills.edu/Faculty_and_Staff/Technology_Services/Contact_Technology_Services |
| III.C.4. | CHC Technology Services FAQs<br>http://www.craftonhills.edu/Faculty_and_Staff/Technology_Services |
| III.C.5. | CHC Asset List by Location (supporting document in Technology Services PPR)<br>https://www.craftonhills.edu/ProgramReview/Plan.aspx/GetSupportingDocument/ba80e9ef-2e63-48ee-8af6-1dbc5c7125a7/Computer%20Breakdown%20by%20Building%20noVDI.pdf |
| III.C.6. | CHC Technology Services Program Review<br>https://www.craftonhills.edu/ProgramReview/Plan.aspx/View/08353a53-fb21-4c1f-9e57-20fc31598000 |
| III.C.7. | Technology Planning Committee Webpage<br>http://www.craftonhills.edu/Faculty_and_Staff/Committees/Tech_Planning_Committee |
| III.C.8. | CHC Webpage, Committee Assignments 2013-2014<br>http://www.craftonhills.edu/~/media/Files/SBCCD/CHC/Faculty%20and%20Staff/Committees/CommitteeAssignments13-14.pdf |
| III.C.9. | Technology Plan, 2012-2015<br>http://www.craftonhills.edu/~/media/Files/SBCCD/CHC/Faculty%20and%20Staff/Committees/Technology%20Planning%20Committees/Crafton%20Hills%20college%20Technology%20Strategic%20Plan%202012.pdf |
| III.C.10. | CHC Webpage, Educational Technology Committee<br>http://www.craftonhills.edu/Degrees_and_Certs/Online_Classes/Educational_Technology_Committee |
| III.C.11. | CHC Educational Technology Committee's Distance Education Plan 2007<br>http://www.craftonhills.edu/~/media/Files/SBCCD/CHC/Degrees%20and%20Certs/CHC%20Online/DEStrategicPlan2007.pdf |
| III.C.12. | TESS Catalog of Services 2013-2014<br>http://tess.sbccd.org/~/media/Files/SBCCD/TESS/Catalogs/TESS%20Catalog%209-24-13.pdf |
| III.C.13. | District Strategic Technology Plan, 2014-2017 (Draft)<br>www.sbccd.org/.../**District/District**.../2014-17%20DTSP%20V1.docx |
| III.C.14. | TESS Executive Committee Webpage<br>http://www.sbccd.org/District_Faculty_,-a-,_Staff_Information-Forms/District_Committee_Minutes/TESS_Committees/TESS_Executive_Committee |
| III.C.15. | TESS Project Prioritization Webpage<br>http://tess.sbccd.org/Projects |
| III.C.16. | CHC 2012 Student Satisfaction Survey<br>http://www.craftonhills.edu/~/media/Files/SBCCD/CHC/About%20CHC/Research% |

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| | 20and%20Planning/Satisfaction%20Survey/Instruction/StudentSatisfactionSP2012(2).pdf |
| III.C.17. | District Operations Satisfaction Survey December, 2013 https://craftonhills.edu/ProgramReview/Plan.aspx/GetSupportingDocument/a95d72db-9b38-4318-8115-8e500094eb9b/Final%20-%20%20FY2013-2014_District%20Operationa%20Satisfaction%20Survey%20Results.pdf |
| III.C.18. | Professional Development, spring 2014 (see, for example January and February). http://www.craftonhills.edu/~/media/Files/SBCCD/CHC/Faculty%20and%20Staff/Professional%20Development/Misc%20Docs%20-%202013-2014/CHC%20Prof%20Dev%20Program%20Guide%20Spring%202014%20for%20website%20FINAL.pdf |
| II.C.19. | TESS Website, Training Request Form http://tess.sbccd.org/~/media/Files/SBCCD/TESS/DCS/Forms/DCS_Training_Request_Form_02272013.pdf |
| III.C.20. | Planning and Program Review Handbook, 5$^{th}$ edition http://www.craftonhills.edu/~/media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Planning%20Documents/PPR%20Handbook%205th%20Edition%2020130425.pdf |
| III.C.21. | Planning and Program Review Document, Technology Services https://www.craftonhills.edu/ProgramReview/Plan.aspx/View/08353a53-fb21-4c1f-9e57-20fc31598000 |
| III.C.22. | PPR 2013-14 Prioritized List of Objectives |
| III.C.23. | PPR Objective List, Technology Services (showing alignment with the EMP) https://www.craftonhills.edu/ProgramReview/Plan.aspx/ObjectivePriority/08353a53-fb21-4c1f-9e57-20fc31598000 |