Standard III: Resources
The institution effectively uses its human, physical, technology, and financial resources to achieve its mission and to improve academic quality and institutional effectiveness. Accredited colleges in multi-college systems may be organized so that responsibility for resources, allocation of resources, and planning rests with the district/system. In such cases, the district/system is responsible for meeting the Standards, and an evaluation of its performance is reflected in the accredited status of the institution(s).

C. Technology Resources
[Note: Suggested length for Standard III.C is 7 pages.]

1. Technology services, professional support, facilities, hardware, and software are appropriate and adequate to support the institution's management and operational functions, academic programs, teaching and learning, and support services.

Evidence of Meeting the Standard
Through shared responsibilities and collaboration with district Educational Technology Services (ETS), technology supports De Anza College students and all functions of the college. Examples include [ADD HERE]

[NEED PLACEMENT OF/REFERENCE TO DISTRICT MAPPING]

Analysis and Evaluation

REVIEW CRITERIA:
- The institution ensures that its various technology needs are identified.
- The institution regularly evaluates the effectiveness of its technology in meeting its range of needs.
- There are provisions for reliability, disaster recovery, privacy, and security, whether technology is provided directly by the institution or through a contractual arrangement.
- The institution makes decisions about use and distribution of its technology resources.
- The technology infrastructure is sufficient to maintain and sustain traditional teaching and learning and DE/CE offerings.

[ADD EVIDENCE] The college identifies and addresses technology needs through multiple mechanisms, particularly critical in the post-pandemic period [ADD OTHER PANDEMIC-RELATED LANGUAGE ABOVE AND AS APPROPRIATE]. These include:
- Technology Plans, both college and district
- Program reviews, chiefly in the areas of Instruction and Student Services
- Shared governance groups, including the college Technology Committee and the district Educational Technology Advisory Council (ETAC)
- Other technology-related subcommittees and committees on campus, such as the Online Education Advisory Group
Surveys, such as the [one prior to college tech plan-2019-CQ?]
The college uses the same committees and tools to evaluate the effectiveness of its technology and to ensure that technology needs are met.

[SURVEY]

[TECH COMMITTEE ANALYSIS]

[PBT ANALYSIS OF PROGRAM REVIEW]

[SUMMARY OF DISTRICT TECHNOLOGY PROJECT PLANNING PROCESS, PREVIOUSLY AND AS RECENTLY AMENDED]

[COLLEGE TECH REQUESTS] [FROM PREVIOUS: A separate process is used to evaluate technology for instructional use. The college Technology Committee assists in evaluating requests for academic technologies on campus. The committee meets monthly and discusses the effectiveness of existing and new technologies, among other key topics.

[TECH PRIORITIZATION SUBCOMMITTEE HERE: new academic technologies for deployment on campus During that process, technology effectiveness is evaluated for each project that will be funded.

[POSSIBLY HYFLEX HERE AS EXAMPLE]

[FROM PREVIOUS; SOME REWORDING. ADD CHANGE OF STANDARD TO LAPTOP] In addition, the district Educational Technology Advisory Committee (ETAC) maintains a hardware and software standards panel that regularly evaluates existing and new technologies, making recommendations for new standards to both ETAC and the college technology committees.

[SUMMARIZE RESULTS OF TECH SURVEY WITH SOME KEY FIGURES] Overall, the 20XX Technology Survey indicated that campus technology needs are being met effectively. [CQ] The survey found [ADD HERE]

[FROM PREVIOUS; RE-REVIEW LANGUAGE] Decisions about technology services, facilities, hardware and software are made through established governance processes on the college and district level, depending on the scale of the project. Small projects generally require approval from the appropriate manager and ETS. Mid-sized or large projects are generally reviewed by the president’s cabinet, the appropriate planning and budget committees, the college Technology Committee, ETAC and ultimately the Chancellor’s Cabinet. Depending on the scale of the project, reviewers examine the total cost of ownership and the project’s alignment with the college and district mission.

[CONT’D] The college has made provisions for reliability, disaster recovery, privacy and security of its technology infrastructure. College librarians and staff ensure the integrity of Library systems, including databases and the interlibrary system. TracDat, the online system that holds data on Student Learning Outcomes, is hosted and backed up offsite. The college website is backed up offsite. The Admissions and Records office and other offices that keep student records are required to meet federal standards for protecting student information, including conditions set by the Family Educational Rights and Privacy
Most of the college’s on-premise technology systems are maintained by the district ETS, which has allocated redundancy resources for high availability, recovery, and security as appropriate to the criticality of each system. For example, many small-scale systems provided by ETS have been migrated to virtualization technology that is replicated on-premise. Should a catastrophic failure occur, the on-premise backup system can be activated and service restored, often immediately. Banner, the district’s enterprise resource planning system, is also hosted on the premises, but ETS maintains a fully redundant system that is hosted at a commercial site in Southern California. In the event of catastrophic failure affecting the system, the district would be able to resume full business operations in minutes, with minimal loss of data.

ETS employs [HOW MANY CURRENTLY?] ___ full-time classified professionals who are dedicated to network and application security. Additionally, ETS regularly contracts with external evaluators to test the district’s security posture and make recommendations for improvement.

In the case of contracted services or those hosted off-site, ETS managers and the vice chancellor of technology review all contracts for reliability and security provisions. The district maintains extensive contract language regarding information security, which is added to contracts if not already present. The district also requires a specific service level agreement for hosted services that describes the guaranteed availability of the system.

The college makes decisions about its use and distribution of technology resources through established processes, depending upon the nature and cost of the resources in question, and whether the district or college has primary responsibility. These include [OLD EVIDENCE LINKS]:

- Routine faculty and staff hardware updates and replacements are scheduled by ETS within district and college funding parameters and computer standards. In recent years, these have been funded through Measure C, the district bond measure that raised money for construction, facilities, technology and equipment (ETS Hardware and Software Standards):
  - Classroom technology upgrades are funded through [NOW SPENT DOWN; MEASURE G LANGUAGE HERE] Measure C and scheduled through the Technology Committee’s ETS Project Scheduling (formerly Tech Prioritization) subcommittee (ETS Project Scheduling):
  - Projects are also subject to the college’s program review process
  - College divisions may make decisions on minor spending within their funding parameters, provided they meet technology standards established by ETS. Broader instructional areas may also make decisions through their leadership and their planning and budget team (Instructional Planning and Budget Team Instructional Equipment List):

The revamping of the Technology Committee in 2016 will help to ensure that college program technology decisions are reviewed by or emanate from the three planning and budget teams, which are key to the shared governance of the college and the integration of planning – in this case, technology
planning – and budgeting. The Technology Committee is now composed of representatives from all governance groups and position classifications (Technology Committee Membership: http://www.deanza.edu/gov/techcommittee/members.htm).

[CURRENT TECH PLAN DEVELOPMENT, SYNTHESIS, SUMMARY HERE]

[TECH-RELATED POSITIONS FROM PREVIOUS REORG?]

[CONVERSION TO CANVAS, TRAINING PROVISIONS ETC.] PREVIOUS LANGUAGE: As of summer 2017, De Anza will have migrated to a new system, Canvas, as a replacement for Catalyst. Canvas is provided to all California community colleges through the state Online Education Initiative (OEI). Canvas is a cloud-based product that is managed by a commercial technology company, Instructure, and hosted on the Amazon Web Services (AWS) cloud platform. The system is maintained by Instructure with full redundancy through AWS and its geographically dispersed data centers. All college files are continuously backed up, in accordance with college data retention requirements.

[SUMMARY OF PANDEMIC EFFECTS INCLUDING TRAINING PROVISIONS; ONLINE ED CENTER STAFFING PROCESS; ROLE OF TECH COMMITTEE IN ADVOCACY FOR POSITIONS]

[SUMMARY OF ASSESSMENT OF BACHELOR’S DEGREE NEEDS]

[PREVIOUS EVALUATION] The college meets this standard by taking steps to identify and meet its technology needs, through the work of campus Planning and Budget and advisory governance groups and in collaboration with district ETS. In addition, the college has addressed technology needs for its online education programs, including moving to a new online course management system and providing other resources for online instruction. The recent re-visioning of the college Technology Committee, approved by College Council and underscoring a culture of assessment and improvement, reflects a consensus that current technology is an essential element of instruction and campus operations. While campus surveys indicate general satisfaction with current technology, the committee has developed a Technology Plan with further goals and steps to be taken in coming years. Through ETS, the college has extensive measures in place to ensure reliability, security and disaster recovery for its technology systems.

2. The institution continuously plans for, updates and replaces technology to ensure its technological infrastructure, quality and capacity are adequate to support its mission, operations, programs, and services.

Evidence of Meeting the Standard
The college meets this standard through careful planning: via the college Technology Plan and its continuous evaluation and regular updating, together with related surveys and documentation of need, as well as the district’s separate Technology Plan developed with the college plan as the basis.
All planning is in support of students, the college’s mission to serve students of all backgrounds, and college programs, services and operations.

[NOTE P/S RESPONSIBILITY FOR EACH ITEM ALONG WITH REFERRAL TO MAP?]

Analysis and Evaluation

REVIEW CRITERIA:

- The institution has established provisions to ensure a robust, current, and sustainable technical infrastructure is maintained that provides maximum reliability for students, staff, and faculty.
- The institution bases its technology decisions on the results of evaluation of program and service needs.
- Evaluations of technology and technology services include input from end users.
- The institution has developed a process to prioritize needs when making decisions about technology purchases.

[ELABORATION OF SURVEY WITH DETAIL; RECAP, MORE ON TECH PLANS; REFER TO PREVIOUS SELF-STUDY LANGUAGE]

[INFRASTRUCTURE MAINTENANCE DETAIL FROM ETS]

3. **The institution assures that technology resources at all locations where it offers courses, programs, and services are implemented and maintained to assure reliable access, safety, and security.**

Evidence of Meeting the Standard

The college, through its implementation of academic technology and website resources, as well as resources for its not-for-credit De Anza College Academy, ensures the provision and maintenance of technology to serve students, and the faculty and classified professionals serving them. District ETS is chiefly responsible for hardware, including computer refresh and standards, most software, backup plans and cloud access, contracts, security agreements and related security training.

Analysis and Evaluation

REVIEW CRITERIA:

- The institution allocates resources for the management, maintenance, and operation of its technological infrastructure and equipment.
- The college provides an appropriate system for reliability and emergency backup.

[ONLINE ED, COMMUNITY ED {PROVISIONING COMPUTERS TO STUDENTS} WEB MAINTENANCE, DISTRICT STANDARDS AND CONTRACTS TK]
[REVIEW PREVIOUS LANGUAGE]
4. The institution provides appropriate instruction and support for faculty, staff, students, and administrators, in the effective use of technology and technology systems related to its programs, services, and institutional operations.

Evidence of Meeting the Standard

Training and support are acknowledged needs and important to both the college and the district in order to support student learning and the faculty, classified professionals and administrators serving students. Appropriate instruction is provided through various methods in support of programs, services and institutional operations.

Analysis and Evaluation

REVIEW CRITERIA:

- The institution assesses the need for information technology training for students and personnel.
- The institution allocates resources for information technology training for faculty, students, and staff.
- The institution regularly evaluates the training and technical support it provides for faculty and staff to ensure these programs are appropriate and effective.

[SURVEY FINDINGS]

The district supports faculty, classified professionals and administrators through ticketed help desk staffing resources as well as hardware technical support for existing and newly provisioned resources. The district has also focused chiefly on security as a training priority, while the college has aimed to provide training in various ways, including through the Office of Professional Development. Building upon lessons learned during the pandemic and the inevitable changes resulting post-pandemic, the college also worked to ensure that resources were provided through the advocacy of the Technology Committee.

[TECH RESOURCES MAPPING]

[ONLINE MANUALS]

[PANDEMIC CANVAS TRAINING SUMMARY]

[LIBRARY TECH HELP FOR STUDENTS]

[COMMUNICATIONS STAFF EMAIL ASSISTANCE DURING PANDEMIC]

[IMPLEMENTATION OF CHATBOT]

[PROFESSIONAL DEVELOPMENT INFO]
5. The institution has policies and procedures that guide the appropriate use of technology in the teaching and learning processes.

Evidence of Meeting the Standard
Both board policy and administrative procedures [TO BE UPDATED?] have been established to guide the use of technology in the teaching and learning process. Specialized guidelines have been established for Canvas use and website use.

Analysis and Evaluation

REVIEW CRITERIA:

- The institution has established processes to make decisions about the appropriate use and distribution of its technology resources.
- The institution publicizes these policies and processes.

[ELABORATION/EVIDENCE FOR ABOVE]

[PUBLICIZING THROUGH POSTING, TRAINING, POP-UP AGREEMENTS, OTHER]

Conclusions on Standard III.C: Technology Resources
The college meets this standard [...]

Improvement Plan(s)
[POSSIBLY REINFORCEMENT OF TECH COMMITTEE AS APPROVAL VEHICLE/VENUE FOR TECHNOLOGY PURCHASES]

Evidence List
[TK]