Foothill College Technology Master Plan 2010-2015
Update to November 9, 2010

Understanding that predicting future technology needs is an imprecise science due to the quickly changing nature of the industry, we endeavor through this plan to position ourselves to meet the needs of the future, in terms of emerging trends and new technology.

Vision and Goals for 2010-2015

Foothill College begins its technology plan with the following vision and goals for 2010-2015. Understanding that this plan is intended to provide a general framework for defining institutional planning and organization around technology, we seek outcomes that improve student learning and improve our overall college operations. Through the processes and activities outlined in this plan, we seek to accomplish the following goals in the next five years:

Technology Goals for Foothill College 2010-2015:

- Deploy technology to create a more dynamic learning environment;
- Meet students' expectations for access to informational resources, the Internet and support for computing devices;
- Provide high-quality learning environments supported by technology
- Reach the leading edge of higher educational computing and technology deployment to support students;
- Offer the highest quality online learning tools/systems for students and faculty;
- Ensure all students have access to technology to provide student equity in the learning environment.

Executive Summary

The Foothill College Technology Master Plan 2010-2015 defines how technology is integrated with college-wide planning processes, how the college makes decisions around technology purchases and implementations and how the college uses technology as part of a high-quality learning environment, to support student achievement and student success. This plan is a component of the Foothill College Educational Masterplan, and of the Foothill-De Anza

4. Infrastructure and Organization: How Foothill creates and maintains a technology infrastructure that is consistent, safe, and reliable.

5. Training: how Foothill and the District technology organizations train its students, faculty and staff on the technology it supports.

6. Assessment: How Foothill College ensures that technology needs of students, faculty and staff are identified and met through surveys, program planning, SLOs, AUOs and other methods.

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budgeting groups on campus. The new structure includes the Planning and Resource Council (PaRC) as the ultimate authority for college planning and decision-making. The PaRC is made up of representatives from college governance groups including the Academic Senate, Classified Senate, employee unions and representatives from instructional and student services working groups such as the Basic Skills Task Force, the Transfer Advisory Committee and the Workforce Advisory Group.

2a. The Technology Task Force: How college needs are identified, communicated and prioritized and how college decisions about technology purchases, services, facilities, and hardware/software standards are made in the integrated planning model.

The Technology Task Force (TTF) is an auxiliary shared governance group that reports to PaRC and includes membership from the Academic Senat

the full scope of technology needs and issues. ETS conducts surveys, elicits input from ETAC, and develops analyses of system performance to understand the needs of the colleges.

The college identifies, communicates and articulates its needs and requirements for technology services through the TTF. The TTF identifies technology needs by participating in and reviewing the college's strategic plan, through analysis of program plans of academic and administrative departments, and by soliciting input from its members in committee discussions.

Priorities
During the 2011-12 and 2012-13 academic years, the following projects were prioritized by the TTF:

- SARS/eSARS integration for tracking student attendance and participation
- Installation of TracDat for capturing and maintaining SLO and program review data
- Deployment of desktop virtualization in the PSEC building
- CalPERS Benefits Transition
- Clockworks (a database scheduler and an integrated management tool designed to meet the needs of Disability Resource Center services)

These priorities were communicated to the ETS organization to inform the overall district technology plan, and to the campus community, so that students, faculty and staff understand the college-wide priority for work completed in those years.

During winter and spring of 2013, Vice Chancellor of Technology, Joe Moreau updated the ETS Project Planning and Prioritization Process document with the intent of making the process more streamlined, responsive, and transparent. The process has a four-tiered approach: 1) Exploration or Mini Project; 2) Small Scale Projects; 3) Medium Scale Projects, and 4) Large Scale Projects. A technology project is defined as an activity undertaken to acquire, develop, enhance, or repair functional capabilities or services using IT components (software, hardware, or both) requiring a significant level of effort to meet objectives. A significant level of effort is defined as encompassing more than 40 hours of labor or cost more than $5,000 to complete.

1) Exploration or Mini Project
For projects that require less than a week to complete and cost less than $5,000, the requestor is asked to complete and submit a brief form. The CTO assigns the correct technical resources to that to review the request. ETS wi72.024 285.41 Tm[a)4(sk23.73 271.61 Tm[wi72.3.73 271.61 Tm.l5a]wtuETBT

then go to the senior administrators meeting, which meets once a month. One of the ETS directors or one of their staff would work with the requestor to do an analysis of cost, time and scope ETS will get back to the requestor in approximately 30 days with what can be done.

4) Large Scale Projects

Large Scale Projects are those that take more than six months and are above the bid limit. Such projects will follow the project prioritization process which occurs twice yearly. The project request will go to the campus Tech Task FET2wet 269.33 648.582l g

2c. Foothill-De Anza District Educational Technology Advisory Committee

Technology needs are brought forward by the TTF to the Educational Technology Advisory Committee (ETAC) committee. The ETAC committee has primary responsibility for developing a District strategic plan for technology and monitoring the ongoing implementation effort aimed at achieving the goals of this plan. ETAC is a participatory governance committee at the District level designed to be as inclusive as possible of all constituency groups (administration, faculty, staff, and students) from both college campuses and district central services.

The ETAC committee:

- Makes specific recommendations to the Chancellor's Advisory Council on the use of technology throughout the district with regard to both ongoing activities and future direction.
- Keeps informed about the current activities and future plans in each of the technology areas: Infrastructure, Information Systems, and Client Services through the appropriate ETS managers and its own subcommittees.
- Monitors the operations, special projects, and overall budget of the Educational Technology Service (ETS) staff in an ongoing effort to have a comprehensive overview of the entire technological effort in the District.
- Assess policy on matters such as intellectual property rights, appropriate use of technology, and standards.

3. Technology and its Role in Supporting Student Learning at Foothill College. Distance

successfully completing distance education courses; 2) Faculty will demonstrate their distance instruction skills with completion of required and optional professional training and 3) Evidence of provision of services by staff will be demonstrated by steady enrollment in fully online courses.

In addition, the college maintains a coordinated plan for the updating of all classrooms with multimedia equipment for instructional use.

The Director of Facilities, the FFE coordinator and the Campus Technology Coordinator work with ETS to develop timelines for classroom renovations and multimedia upgrades, to schedule the updating of existing multimedia equipment on a five year refresh cycle, and to handle immediate issues that come up such as equipment failure. Computer labs on campus are

revisions to the 2009-10 State Budget that resulted in substantial funding cuts to most categorical programs. In order to help districts manage the deep funding cuts made in 2009-10, AB X4 2 (the education budget trailer bill) provided categorical flexibility for districts for some categorical programs, including Matriculation. Beginning with the 2013-2014 fiscal year, Student Success and Support Program funds (formerly Matriculation) are no longer under the categorical flexibility provision."
(http://extranet.cccco.edu/Divisions/StudentServices/Matriculation.JTJ5

System reliability and disaster recovery are provided by ETS through its systems operations team. ETS currently maintains a data center located at De Anza College to support both colleges and is currently building a new data center to be located next in the administration building on the Foothill College campus. The data center operations team provides full back up and recovery services for systems hosted in the data center through a tape system for servers and applications. The administrative system (also known as the ERP system or Banner) is backed up to a storage area network (SAN). In addition, the district maintains a hot site in Carlsbad, California for Banner with full redundancy and near real-time replication for disaster recovery. The systems operations team monitors the network and servers on a 5 x 24 schedule and reports are sent to ETS managers at the end of each eight-hour shift describing any operational issues and system statistics. On weekends, ETS directors monitor the network to provide an immediate response to any system failure. ETS managers and technicians are supported by automated system monitoring (What's Up Gold), which is configured to alert technicians and management if any network component or critical system becomes non-responsive or the data center temperature exceeds a threshold value.

The College-maintained systems, including the website and C3MS curriculum database, are housed on servers located within the District's data center, and co-located at an off-campus server hosting company in San Jose named Verio. Foothill maintains three servers, one at Foothill, one at the De Anza Data Center and one at Verio. The Verio server is the primary and the remaining two provide redundant backup, to ensure data integrity, security and backup is maintained. The servers are supported by the automated monitoring system (What's Up Gold).

The results of these studies are used to identify issues and needs to be addressed.

The L7 Data Center at De Anza will be renovated to the District's main data center. The renovation will upgrade the HVAC, provide a new permanent electrical feed to the building, provide new distribution of electrical within the building, replace the roof, abate hazardous material, provide back-up power source along with a new UPS system, provide security upgrades to the Data Center, replace or repair the fire suppression system within the Data Center, replace interior and exterior lighting, and refresh the classroom and Data Center interiors, and repaint the exterior. (http://measurec.fhda.edu/da-data-center/)

Planning is underway to transition the Middlefield Campus to the Foothill-De Anza Education Center which will be a regional state-of-the-art facility that equips people from diverse backgrounds with skills to close the growing achievement gap in Silicon. The Foothill-De Anza Education Center is scheduled to open its doors in March 2016. The center will be a 2-story 46,882 square feet state-of-the-art LEED Gold certified building equipped with the latest in wireless, cloud and computing technologies including an energy & efficiency management system, 19 flexible SMART classrooms and a dedicated GIS /Computer Science lab.

As enrollment goes up and budgets go down we are forced to make due with less. The first step taken by the Physical Science, Mathematics and Engineering Division (PSME) was to virtualize a small datacenter and consolidate their servers utilizing VMware virtualization tools.

Upon establishing that virtualization is a viable technology at Foothill College, PSME virtualized their desktops. Virtualizing desktops allows PSME to provide affordable long-term support and upgrades for many new computer labs. Instead of investing thousands of dollars on Dell desktop computers every four or five years, PSME reallocated funds to cover costs of the server farm supporting the virtual environment. Now instead of replacing 200 desktops; one or two servers can be added to the server cluster allowing PSME to maintain a reliable user experience. Another benefit of virtualization is mobility; allowing our faculty members to use virtual desktops has enabled them to use the same desktop in a classroom or in their office.

With the addition of virtual desktops, tablets and wireless display technologies PSME has allowed faculty members to work in a completely wireless environment which gives them the ability to move freely in their classroom while still displaying their screen on the video projectors.

Foothill College projects funded under Measure C are listed at http://measurec.fhda.edu/foothill-college-projects/. Projects specific to technology include:

- AV Low Tech
- Desktops
- New Multi Media, Then Refresh
- Printers
- Refresh Multi Media Rooms

FGA has implemented an Internet-based process for administering confidential Student Course Evaluation surveys for students enrolled in fully online courses that use Etudes.
Starting fall of 2013, the PSME Center and the Teaching and Learning Center provided math and writing assistance to students via teleconferencing using CCC Confer.

To address the growing demand for training around the new Banner ERP system, in July of 2010, the central IT organization (ETS) hired a training specialist in to assess needs, develop a training plan and deliver technology training to employees and student employees. Initially, the training specialist focused on providing training to district employees on the new administrative information system (Banner).

ETS has provided training to staff and student employees in the configuration and operation of the new administrative information system (Banner). In addition, information is also available online regarding how to use various administrative systems used by the district including email, calendaring, anti-virus software, and the district portal. More information can be found at: http://ets.fhda.edu/call_center/.

The Krause Center for Innovation: A regional resource for training K-14 educators in the use of technology in the classroom or online and for advanced teaching, learning, and training. Through its Krause Center for Innovation, Foothill College offers its staff and faculty an outstanding resource for professional development and training in numerous technology-related subjects. Through its FASTTech program of short technology classes, each quarter faculty and staff have access to a variety of one to two-day and online classes on subjects designed to improve the use of technology in the classroom, such as Google tools, iPads, and digital media. In addition, the Krause Center for Innovation serves the entire Bay Area region and beyond by

and SLO data, the college can identify needs related to technology and also assess the progress and success of ongoing technology services and current implementations.

In addition, the college uses means such as Academic Division meetings, campus department meetings, academic and classified senate meetings, college Planning and Resource Council meetings (PaRC) and other informal forums to gather feedback and information on the deployment and effectiveness of technology at the campus. That feedback is channeled by managers, college governance leaders, faculty and staff, to the ETS leadership and to the college

- Establish a dedicated two-way videoconference room with sound-activated microphones