

Technology Master Plan

Technology Master Plan Scope:

- *This goals and objectives in this technology master plan are targeted for a 3-year timeframe starting 07-08 fiscal year.*

Technology Master Plan Review:

- *An annual review and assessment of goals and objectives is required.*

[1] Policies Related to Campus Technology

❖ Operation Policies:

- *Establish acceptable use policies for hardware and software, with periodic review and update*
- *Security and access issues reviewed and upgraded on yearly basis*
- *Establish policies and procedures for purchasing and replacement of new hardware and software*
- *Establish policies and procedures for Distance Education program in collaboration with CTA, Academic Senate, and Instructional Divisions*
- *Investigate and establish regular funding sources for technology maintenance and upgrades, i.e., regular budget appropriation, other possible funds, grants, bonds*
- *Implement and enforce policies established*

[2] Technology Infra Structure

[A] Hardware

a) Smart classrooms

Technological hardware at Imperial Valley College begins and ends in the classroom. To this end, we need to make a commitment to ensure that every classroom at IVC is a smart classroom, an LCD projector connected to a DVD/VCR and an adequate sound system, a quality screen, and an Internet port.

b) Computer standards for ordering

While many areas of campus have benefited from the purchase of new XP or Vista-enabled computers, there is still a need to ensure that the computers and

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computer peripherals ordered throughout campus meet certain standards. This can be achieved by creating computer standards for purchases—that is, minimum specs that divisions across campus use when purchasing equipment for new employees or replacing outdated equipment.

c) Campus network update

The network wiring on campus is in serious need of upgrade. Currently, many areas on campus are serviced with substandard cabling which was not installed to specifications and would fail the minimum data connectivity rating of Category 5. Category 5 is the industry standard for installed data grade cabling. To alleviate this problem, specifications should be developed with detailed standards for fiber and copper cabling at the college. Further, in order to accommodate the future growth in data networking needs, the copper data cabling plant should be re-terminated and tested to prove CAT 6 certification, which can support up to 10Gb/s transmission.

While the college is using wireless technology in a few locations (thanks to the ACCESO Project's support), much of the campus lacks wireless access. Wireless network deployment requires a comprehensive plan. Not only the transmitters placement needs to be engineered carefully to ensure the maximum and uniform coverage, but also the screening and quarantine of laptop computers connecting to the campus wireless network must be carried out thoroughly to prevent virus infection to the internal network. Reliable wireless equipment is needed for trouble free operation. A single sign on mechanism must be deployed to provide simple and effective user authentication. The goal is to make quality wireless connectivity available to every student, faculty, and staff member.

d) Telecom equipment update – VoIP switches, voice mail system

The Telecom system has not been upgraded or enhanced for a considerable period of time, so this is a crucial task that the college must undertake at once. There are five areas that should be addressed with the current phone system:

- *First, upgrade the current voice switch to provide more capacity while incorporating the VoIP technology and put the phone system under a maintenance contract to prevent a catastrophic failure. This will increase security through the application of vendor system patches, allow for the introduction of new features, and provide a ready means of support in the event of system failure. The current 3-digit dialing plan needs also to be upgraded to a 4-digit dialing plan.*
- *Second, upgrade the outdated voice mail system for more capacity and serviceability.*
- *Third, upgrade the classroom video conferencing capability to support the synchronized teleconferencing classes.*
- *Enhance the college switchboard functionality to provide more comprehensive services to the outside callers.*

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- *Finally, we should replace the noisy and expensive Direct-Inbound-Dialing lines with T1 or VoIP in order to decrease the monthly phone bill and to allow for displaying incoming caller IDs and the addition of lines/numbers to the current switch.*

[B] Software

Software issues at IVC, like hardware issues, are integral to the college's success. While the college has made great strides in developing and implementing advanced software tools for all users, there are still four key areas in need of improvement.

- a) Replace Windows servers with Linux.

First, the college needs to replace selected Windows servers with Linux. This change needs to come about for three reasons. First, the Windows server is prone to virus attack and needs to be patched on a regular basis. For certain applications facing the open Internet such as the web server, Linux servers provide a much better stability and security. Second, Linux servers offer greater reliability, flexibility, and better utilization of the hardware resources. Finally, the Linux operating system is an open source platform and can be obtained at no cost.

- b) Upgrade college website

The college needs to upgrade its website. This process has already begun through our collaboration with the Conveyor Group and with experts on campus.

- c) VPN

The college needs to create an effective and secured Virtual Private Network (VPN), so that faculty and staff can access key internal tools (like Banner) while off campus.

[3] Instructional Support

[A] Faculty & Staff

- a) Maintain and staff up-to-date Media and Technology Training Centers.
- b) Regularly offered trainings in technology and distance education
- c) Maintain and update college website and instructors' websites

[B] Students

- a) IVC student email accounts

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- b) Provide adequate student technology support and help desk to maintain and increase student access
- c) Offer computer/application classes to increase student computer literacy

[4] Short Term Technology Needs

- a) Create implementation plan for updating campus network
- b) Provide network for new Science Building
- c) Maintain up to date computer inventory
- d) Depreciation of capital equipment
- e) Develop equitable hardware replacement schedule

[5] Contribution to the Instructional Student Learning Outcomes

- a) Increases student technology literacy
- b) Increases access to information, including global awareness
- c) Increases communication skills
- d) Increases student responsibility by creating policies and procedures for computer use

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Appendix A – Covers the detail of [3][A]

Imperial Valley College will continue to provide instructional technology support on campus by using services such as the Technology Training Center and ACCESO. The purpose of the Technology Training Center is to provide faculty and staff with technical training and support in the use of computer hardware and software for academic purposes. The Technology Training Center provides each year a list of monthly software application workshops that faculty and staff can get trained in learning how to use and access the Help Desk, E-mail, Internet, update web pages, Microsoft Office applications, Adobe Acrobat, SPAM filter, WebSTAR, and Easy Grade Pro. New employees being hired at IVC are referred to the Technology Training Center Technician so that they get trained by scheduling an individual appointment or registering to one of the workshops listed above. These trainings provide IVC employees the ability to increase their computer literacy skills, and excel in their work environments and academic disciplines. The Technology Training Center Website provides the end user resourceful information such as Windows and Microsoft Office technical support updates, calendar schedule, newsletter, technology council updates, and tutorial videos online to assist our faculty and staff in providing them with technical support on the web. There is also equipment such as multimedia projectors, laptops, camcorders, cameras, and digital cameras that can be checked out for educational purposes by filling out an equipment request form on the web.

The equipment is available on a drop-in or appointment basis outside of the regularly scheduled workshops. Faculty/staff can reserve the use of specific hardware or software as well as obtaining individualized help in its use. Individualized help is also available for particular tasks or projects. The Technology Training Center Technician can also make “office visits” to provide instructional technology and technical support on campus.

The training necessary to utilize the resources available in the Technology Training Center is available from the Technology Training Center Technician during any of the regularly scheduled workshops on specific topics listed on the Technology Training Center Website.

Project ACCESO, a \$2.7 million Title V grant, established training for faculty to develop and deliver online/hybrid courses. Each year, at least fifteen faculty members participate in a week-long Summer Technology Camp, where they learn the basic pedagogical differences between face-to-face and online courses, learn how to use the EtudesNG course management system (CMS), learn how to design documents for online delivery, and learn how to design rich-format documents and multimedia presentations. Specific training in software such as Microsoft PowerPoint, TechSmith Camtasia, Adobe Dreamweaver, TabletPCs, and Turnitin.com is also available. At the end of the week-long training camp, camp participants are ready to begin the process of developing online/ hybrid courses. To date, ACCESO has trained a total of thirty-five faculty to develop distance education courses.

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Additional training in distance education course design, Camtasia, Dreamweaver, Turnitin, and TabletPCs is available throughout the year by the Instructional Media Designer and Academic Coordinators for Project ACCESO. This training takes two forms: one-on-one focused training sessions, where a qualified instructor works with a faculty member on a single area of course design, or larger, peer group workshops where a variety of faculty (both experienced and inexperienced) work together on a variety of issues. As well, the ACCESO Project finances faculty to complete Etudes 101 from Foothill College. Etudes 101 provides a basic overview of the EtudesNG CMS for faculty wishing to develop online courses. ACCESO provides financing for any faculty member at the college who wishes to take this course, whether or not the individual plans to develop an online class.

Both of these programs will continue to grow meeting the demand for cross training employees in hardware, software, online classes, two significant programs that provide this training: the Technology Training Center and the ACCESO Project.