Cuyamaca College Technology Plan
2013 - 2018

CUYAMACA
· COLLEGE ·

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INTRODUCTION

The Cuyamaca College Technology Plan identifies the college-wide priorities for technology from a holistic and systemic perspective. The plan documents historical and existing conditions as a foundation for creating a roadmap for the future of technology at Cuyamaca College. The Technology Planning Committee maintains a focus on student learning and recognizes the necessity of technological proficiency, service delivery, and ongoing support to students, faculty, and staff in order to maximize the promise of the digital age.

CUYAMACA COLLEGE MISSION STATEMENT

The mission of Cuyamaca College is to serve a diverse community of students who seek to benefit from the college's wide range of educational programs and services. In order to fulfill its commitment to student learning, the college provides:

- **Instructional programs that meet student needs for transfer education, career technical education, general education and basic skills courses**
- **Community education programs and services**
- **Programs that promote economic, civic and cultural development**

To facilitate this mission, Cuyamaca College provides a comprehensive range of support services including: outreach and access initiatives, academic and learning resources, student development programs, and multicultural and co-curricular activities. **In support** of its mission, Cuyamaca College structures its planning processes and engages the college community by pursuing the following areas of focus, which form the foundation of the 2010-2016 Strategic Plan:

- **Student Access**
- **Learning and Student Success**
- **Value and Support of Employees**
- **Economic and Community Development**
- **Fiscal and Physical Resources**

Our Mission is reflected in the college's six core values:

- **Academic Excellence**
- **Student Access and Success**
- **Environmental Stewardship**
- **Strong Community Relations**
- **Innovation and Creativity**
- **Diversity and Social Harmony**

TECHNOLOGY MISSION STATEMENT

To provide and facilitate effective use of technology to maximize student learning and success.

TECHNOLOGY PLANNING PROCESS

The 2013 – 2018 Cuyamaca College Technology Plan has been developed through collaborative consultation with GCCCD District Information Systems IS), Institutional Effectiveness Resources Council (IERC), Academic Senate, Technology Planning Committee (TPC – See Appendix A), and Instructional Technology Committee (ITC – see Appendix B). This represents the first multi-year comprehensive plan dedicated exclusively to college-wide computer technology. The plan has been guided by the College Strategic Plan as well as the District Educational Master Plan. The focus of this effort is on long term solutions to predictable challenges as well as predictable opportunities. Maintaining currency in the

rapidly evolving world of technology is a significant challenge that will require an ongoing commitment of resources. These resources include hardware, software, technology support (including training), support of web and mobile interfaces, specialized support for distance education, and specialized support for student services. Each of these resources is addressed in separate sections of this document.

ANNUAL IMPLEMENTATION REVIEW

Background:

Historically, Cuyamaca College has produced an annual Instructional Technology Plan as part of the Academic Master Planning (AMP) process. Accompanying the submission of a department's AMP would be a presentation of the technology resources required for the following year. The Technology Plan Committee compiled all of these requests, analyzed the departments' needs, existing resources and vision, and coordinated its review of the requests with the concurrent and pertinent rankings of the AMP. Requests were assigned priority rankings on a 1 – 4 scale. For most of the last decade, all priority 1 items were satisfied, either with new purchases or through creative re-allocation of available resources. Technology needs have typically been funded by state block grants, which included Instructional Equipment, Library Material, and Technology funds or through Career Technical Education (Carl Perkins Act) funds.

Current Status:

In 2011-2012, Cuyamaca College transitioned to a new, integrated planning model whereby each of the three divisions: Instructional Services, Student Services, and Administrative Services develop annual Program Reviews. From these program reviews emerge critical resource requirements, including technology, and these identified needs drive budget allocation. As a part of this new planning process, there is now a campus-wide technology plan; one that includes computer technology for student and administrative services as well as instruction. The Instructional Technology Plan Committee was restructured to become the Technology Planning Committee with representatives from all three campus units (See Appendix A).

Each year the Technology Planning Committee will compile and evaluate the newly identified technology needs of the campus. Assuming the existence of an annual budget sufficient to replace aging desktops, laptops, monitors, printers, scanners, and classroom response clickers as well as to maintain existing (critical) software licenses, the annual review will help determine necessary modifications or additions to the long term plan in response to newly identified needs. College-wide requests for technology will be ranked on a 1-4 scale based on established criteria (Appendix F). Current trends in technology, and specifically in educational technology, will be evaluated, implications will be discussed and recommendations will be submitted to the Institutional Effective Resource Council (IERC), Instructional Technology Committee (ITC), Instructional Technology Advisory Committee (ITAC), and Academic Senate.

TECHNOLOGY PLAN GOALS

The goals of the Cuyamaca College Technology Plan are to:

- Promote & support efforts to effectively utilize technology to maximize student success and retention.
- Provide student access (regardless of race, ethnicity, income, geographic location, or disability) to appropriate technology in support of their learning and skill acquisition goals.

- Provide proactive and responsive state-of-the-art technology training opportunities for faculty, staff, and administrators.
- Support & assist faculty in assuring effective, challenging, engaging, and compliant online instruction.
- Assure adequate support staff as well as hardware and software resources to fully realize and implement the potential of technology to enhance our institutional effectiveness.
- Ensure that the College has the capacity, infrastructure, staffing, and equipment to effectively carry out its Mission.
- Plan and implement long term solutions to the technology needs of a growing campus.

OVERARCHING THEMES

Universal Design

The Center for Universal Design (http://www.ncsu.edu/project/design-projects/udi/) promotes "the idea that all new environments and products, to the greatest extent possible, should be usable by everyone regardless of their age, ability, or circumstance". As we develop technologies or access to technology, we will apply, to the best of our ability and resources, this principle of Universal Design. We subscribe to the philosophy that, by making a product accessible to every possible user, we are expanding and improving access to all users.

Culture of Transparency

In the spirit of shared governance and the corresponding belief that the best decisions are the result of open dialog and inclusion, all processes and ranking criteria will be publicly available. Additionally, whenever possible, the committee will foster a culture of sharing of experiences, ideas, and knowledge such that others may benefit from our work and we will benefit, when appropriate, from the work of others.

Web-based/Mobility

When considering applications for teaching and learning, we will encourage the implementation of those that are web-based. Web-based solutions typically require considerably less in the way of local technical support, they are accessible 24/7 using any browser and any platform, and updates and other maintenance are typically performed in an expedient manner.

INFORMATION SYSTEMS (DISTRICT) VS. INSTRUCTIONAL COMPUTING SERVICES

The Cuyamaca College Technology Plan, in cooperation with GCCCD District Technology Plan, defines college-wide priorities for the computer technology needed by the campus constituencies to support student success. In addition to Instructional areas, it contains specific plans to help support the college's other operational units: Administration; Business Office Operations, and Student Services.

College (Learning & Technology Resources) responsibilities:
- Instructional uses of technology
- Instructional support
- Professional development
- Computing devices, including:
    - o Classroom technology and systems
    - o Faculty support for technology
    - o Help desk services for instructional computing, faculty and labs

- o Professional development facilities
- o Currency of equipment for labs, the learning resource center, faculty & staff/administrators, including: computers, mobile devices, printers, scanners, projectors
- o Support of distance learning
- Licensing and maintenance of instructional software

District (Information Systems) responsibilities:

- Technology infrastructure and systems that are used by all three units. This includes:
  - o Operation and maintenance of Enterprise Resource Planning (ERP) and related information systems (Colleague, DARS, financial aid, IFAS - financials, IFAS – HR, SIRSI, document imaging, etc.).
- Support for district-wide systems, including email, antivirus software, MS office, websites, document imaging
- District-wide services for staff and administrators
  - o Computer hardware support and repair (including faculty & labs)
  - o Office computers and imaging
  - o Moving and relocating technology for staff and administrators
- Technology infrastructure, including: servers, firewalls, wireless network, network switches, fiber & copper cabling for data and phone, and internet connectivity
- Support and maintenance of LMS
  - o Blackboard or other similar system
  - o Grade book software
- Telephone systems
  - o Switch
  - o Call accounting
  - o Voice mail
- Help Desk services
- Operation maintenance of server rooms
- Data security and backups for both college and District
- Licensing and maintenance
  - o Administrative information systems (ERP)
  - o LMS
  - o District wide software agreements
  - o Servers
  - o Technology infrastructure
  - o Telecommunications equipment
- Telecommunications maintenance and connectivity
  - o Telephone circuits
  - o Internet circuits
  - o Long distance
  - o Teleconference

Coordination of Planning & Activities with District Information Systems

One strategy to providing seamless and effective technology support to Cuyamaca College lies in regular communications and planning efforts between the college and District Information Systems. There are three critical committees, each of which meets monthly, that facilitate this. The Instructional Technology Committee (Appendix B) is the primary means of communication between Cuyamaca College faculty and IS on classroom/instructional issues. The Instructional Technology Advisory Committee (Appendix C) includes instructional representatives from both colleges and helps to assure that Cuyamaca College and Grossmont College are in agreement on appropriate activities and that all support needs are met. Finally, the Administrative Technology Advisory Committee (Appendix D) includes representatives from all major constituents at both colleges and assures that all three divisions, Student Services, Administrative Services, and Instructional Services, have the technical support necessary to meet their needs and goals.

COMPUTER HARDWARE

Background:

In 2002, the voters of East County voted to support a capital improvement bond for the Grossmont Cuyamaca Community College District. As a direct result of this support, Cuyamaca College has been able to upgrade its computer inventory campus-wide. As new computers were purchased for instructional labs in the new buildings the older but still usable computers were distributed to other areas. We are largely a PC-based organization but support the Macintosh platform for certain instructional content areas where these computers are more typically used. The Macintosh platform is supported for Music, American Sign Language, and Graphic Design. As of August 2012, our oldest PCs are Core 2, 1.86 GHz machines with a minimum of 2MB RAM.

Current Status:

Offices
Every employee of the college is provided with a desktop computer based on the needs of their job responsibilities. There are six adjunct faculty offices (B 264, B267, F625, E112C, H131, and H135), each equipped with desktops and printing capability, and a high-end faculty work room in C119 equipped to support high end audio and video production on both PC and Macintosh platforms.

Classrooms
All classrooms currently assigned to instruction are equipped with a smart cart which includes a podium containing a desktop computer with Internet access and a monitor, a document camera, a DVD player, and one or more patch connections for external devices such as a laptop. These patch connections allow access to the Internet but not the District instructional network. Additionally, all classrooms have a ceiling mounted LCD projector and a projection screen. The classroom equipment is typically connected to an Extron controller panel which simplifies and coordinates use.

Office Printers, Scanners, and FAX machines
Printers and other peripheral equipment for faculty and staff are purchased on an as-needed basis and have no set replacement cycle. Typically this equipment is purchased through department supply budgets. Offices that do not have printers are typically routed to a large laser printer in the vicinity. The duplicating department accepts digital documents which also supports office printing needs. Computer labs are provided with printers, the specific characteristics of which are based on an evaluation of curriculum needs. Toner for printers in

offices and those used in computer labs are the responsibility of the associated academic departments. Toner for adjunct faculty office printers are provided by LTRC.

Temporary Use Instructional Support Equipment:

- Classroom Response Systems. Cuyamaca College has standardized on i>clicker systems for use in our classrooms. This is the same brand utilized at SDSU. The Engineering department owns a set of i>clickers for use in their classroom. The LTRC has 6 classroom sets of i>clickers that can be checked out by any faculty member to support their instruction.
- Laptops & Video Cameras. The LTRC has twelve "backpacks" consisting of laptops and video cameras and nine separate video cameras that students (with faculty endorsement) may check out for use on classroom assignments. Some departments, notably Science, English as a Second Language, Graphic Design and American Sign Language, also have backpacks that they checkout to students for similar purposes.
- Department/Discipline Specific Equipment. The LTRC circulation desk manages the checking in and out of some department/discipline owned equipment to students. This includes removable hard drives for Computer & Information Science (CIS), high end digital cameras for Graphic Design, and handheld GPS devices for several departments.

Science Classrooms

There are roughly 120 laptops in the Science department that are utilized intermittently in classrooms.

Instructional Labs

Computer Information Science, Business Office Technology, Computer Aided Design, Graphic Design, Mathematics, English as a Second Language, and Continuing Education all have instructional computer labs with specialized software appropriate to their disciplines. Additionally, CIS has a Cisco Network training facility which contains large racks filled with Cisco routers and switches and visible/removable cabling with which to practice programming and cable manipulations.

Learning Support Labs

Student access computers are available in a number of different locations and serve a number of different support functions:

- Tech Mall/Open Computer Lab. This is the largest computer lab on campus and is open for all students to use in support of their learning. These computers are on the instructional network and there are lab technicians available to assist in their use. All critical software that is taught on campus is available on at least a few of these computers. There are two group study rooms with an overhead projector and laptop technology available in this area to support group presentation assignments. There is a separate room consisting of computers with high-end video editing software for student use. These computers are also configured to support Skype, allowing World Languages students to converse with native speakers in distant countries.
- Living Room. This is the only area on campus where students may openly engage in social networking. It is located in the LTRC.

- **OPACs**. These computers are located near the library reference desk and support student access to research databases.
- **STEM Center**. Computers in the Science Technology Engineering and Mathematics Center are available to support discipline-specific study software in all of these disciplines.
- **Reading/Writing Center**. Students are able to work on writing assignments and receive assistance and tutoring services on the 41 computers here.
- **Tutoring.** Tutoring has six computers in small tutoring rooms. These are typically used to support tutoring on specific software or programming courses.
- **Counseling/Transfer Center/ A&R.** There are a total of nine computers in the One Stop Center (Building A) available for student access in the Transfer/Career Center and an additional six in A&R. They support student efforts to register for classes, access their records, and search for information necessary to answer questions.
- **Library.** Across from the reference desk in the library are 33 OPAC (Online Public Access Catalog) computers suited for library database access. Additionally there are seven group study rooms, two of which have an overhead projector and laptop technology available to support group presentation assignments.
- **High Tech Center.** The HTC contains thirteen PCs and one Mac, each of which provides access to one or more adaptive device and adaptive software to support the needs of the disabled student population.

Specialty Venues

- **Performing Arts Theatre.** With a 364 person capacity, the Cuyamaca Performing Arts Theatre provides a place for events and technology to come together in a learning environment. With a growing inventory of technology, including a state of the art ETC Ion lighting console system with a 32 channel Allen&Heath audio console backed up by high end amplifiers and loudspeakers, it provides an environment for student-driven events as well as community events to take place. Student interns and performers gain valuable hands-on "real world" experience with professional sound, lighting and video equipment by actively participating in the production, set up and operation of all technology within the theatre. With a 10,000 Lumen Projector and AMX touch panel controller video matrix switching system, the theatre lends itself to public forums, conferences, community events and presentations, also providing capabilities to play movies and input any available video source, whether it be a laptop running a presentation or a document camera. A wide array of microphones ensures that any sound reinforcement needs can be met including up to six wireless microphones at one time. A portable rack of compressors, EQs and effects processor provide support to the audio console and more tactile control over the audio for musical performances. An assisted listening system provides hearing support for those who may need it.
- **Digital Theater.** Built with the style of a lecture hall, the Digital Theater provides a 92 person seating capacity in a stadium seating configuration that creates an intimate setting for presentations. With a smart cart containing a PC, document camera, presenter microphone, Sympodium touch screen, and AMX-controlled touch screen, the Digital Theater provides all the technology found in our standard classrooms and smart carts. A control booth located in the back of the theater provides access to the Rack system which contains all the amplifiers for the surround sound system, DVD/VHA

player, Mackie 16 channel mixing console, assisted listening system and a controller/recorder for a web-based video camera. A 16,000 lumen projector provides a bright crisp image to the large screen at the front of the room.

- Student Center Conference Rooms (I207, I208, I209). These three highly versatile rooms and the technology within them can be combined in numerous ways to create one large room for events, three smaller rooms, and any combination in between. Each room is equipped with one or two projectors that lower from the ceiling via control from a wireless AMX touch screen control unit. This AMX control panel allows the user/technician to control the raising and lowering of the screens, the patching of microphones, combining of video/audio signals between rooms and selection of video signal sources such as laptop or DVD player. Floor boxes in each room give access to multiple video and audio inputs. A ceiling mounted video camera allows meetings such the Governing Board to be recorded onto DVD via a DVD burner in the control room. The control room contains all necessary amplifiers, switches, AMX control units, television tuners for the plasmas in the student center, wireless microphone receivers, wireless microphones, Governing Board microphones, snakes to connect microphones to the floor boxes, assisted listening system and DVD/VHS decks.

Vision Forward:

- Secure predictable funding to systematically replace the technology currently in use at the college. There is currently no money set aside to fund the Technology Plan. We estimate the total cost of ownership of computers and software, including instructional software, to be at approximately $350,000/year (Appendix I). Replacement planning and maintenance for specialty equipment such as Cisco routers & switches, theater equipment, and temporary use instructional equipment would probably cost an additional $100,000/year.
- Implement a systematic computer lab replacement schedule of five years. A five year cycle of replacement was selected because computers are purchased with five year warranties. Some instructional labs require newer technology than others, therefore it is recommended that Computer Information Systems (CIS), Computer Aided Design (CADD), and Graphic Design (GD) computers be upgraded every three years and those used computers filter down to areas not in need of the most current technology. A proposed lab replacement cycle is presented in Appendix G.
- Similarly, office computers need to be routinely upgraded and replaced every five years. We have the ability to query an inventory database of all networked computers and identify the last user to login into that machine. This inventory should be utilized such that one-fifth of the oldest computers are replaced each year. There are some users who require higher-end computers, such as CIS, CADD and GD faculty, Network Support Specialists, and Web Developers. There are other users who use computers primarily for email access and can, therefore, make due with older versions. Therefore, there is likely to be some domino effect as we make these routine replacements.
- Some staff have purchased laptops to support mobile computing. These items were almost always purchased from department budgets and any replacement would similarly be financed through a department budget. However, some academic disciplines have opted to utilize laptops rather than desktops in their classrooms. Those disciplines include Biology, Chemistry, Earth Sciences, and Physics. There are roughly 120 laptops in the Science department and they

need to be replaced every five years as well. Additionally, the laptops available for student check out in the LTRC, ESL, and ASL departments will require regular replacement.

- The smart classrooms have all recently been updated. Toward the end of this five-year plan, it will be necessary to develop and begin to implement a process for updating this technology. We recommend replacing classroom computers for an entire building at one time. This will make the technical support easier (one standard image for a teaching discipline) and provide a consistent teaching platform for departments (Appendix H). Generally, we expect data projectors to last about ten years if given proper maintenance. Document cameras, however, are not expected to serve this long, so a replacement plan should be developed to move forward with these replacements. We recommend that Instructional Media Services maintains a small inventory of data projectors and document cameras that can be installed immediately should classroom equipment fail. Additionally, it is important that IMS have one or two replacement Extron switches so that, when one fails in a classroom it can be shipped out for repairs without long term impact on classes.
- Printer replacements can be driven largely by printer failure. When a printer is no longer working, IS staff are responsible for repairing it. The technicians will alert the user and the Dean of Learning & Technology Resources when the repair no longer makes sense given the age or performance of the printer.
- The Performing Arts Theatre will need upgrades to the lighting fixtures to accommodate the influx of plays and musical performances taking place. This upgrade is planned to include LED colored fixtures and Par fixtures for stage lighting. The projector will require a costly lamp replacement that must be performed by a certified technician from the factory. A cabling project to connect the two theatres and backstage greenroom via Cat6 cable and microphone lines to provide additional support and an overflow area for large events is critical if we are to expand use for theatrical events. This will allow for video/audio transmission between locations in the theatres. Finally, installation of a door to provide access between stage left and stage right without having to cross the stage is planned.
- In the Digital Theater, the upkeep on the projector will require a costly lamp replacement that must be performed by a certified technician from the factory.
- For the large student center conference rooms, there needs to be an overhaul of the current AMX control system to simplify the use of each room by providing a control panel on the wall, similar to those on the smart carts in the classrooms. This will give instructors and presenters direct control of the projector and microphones for events. Additionally, the AV rack needs to be restructured and new floor boxes purchased and installed.

COMPUTER SOFTWARE

Background: Software developers are constantly working to enhance their products and increase the relevance and functionality provided. As we become increasingly reliant on software packages, it is critical to maintain routine upgrades for a variety of reasons. We communicate with the larger world through electronic file sharing and it is frequently not possible to open files produced by later versions of software. On the instructional front, we need to be poised to train our students in the latest, or at least very recent, software used in the industry that will hopefully be employing our students. Additionally, it is a manageable task to learn and make adjustments to software upgrades as development occurs and evolves. But it can be a huge adjustment to suddenly upgrade several releases

and versions at one time. Finally, software enhancements typically mean that the product is in fact getting better and more effective at maximizing our efficiencies and productivity.

A special class of software is operating systems. There is a complex relationship between end-user software applications and operating systems, such that sometimes the applications require a newer operating system and sometimes the newer operating system renders the application unusable. The District provides the computer operating systems and makes decisions, in conjunction with ITC, ITAC, and ATAC, on when to implement new versions of an operating system. We follow a relatively conservative timeline in this, and in many enterprise-wide software upgrades, to allow an adequate testing and de-bugging process to occur.

Instructional Computing Services (ICS) supports software applications installed in computer labs and on faculty computers. Individual departments may purchase and license any software package they choose, provided that ICS has reviewed and approved the request. It is critical that the college closely monitor software installations and licensing to assure that we are legally compliant. With student access computers, this is accomplished by freezing the computers, such that they are restored to a set image each time an individual logs into the machine. The ICS review also helps to assure that all of the software installed on a computer works well together and with the operating system. This critical function is provided by the Supervisor of Instructional Computer Facilities.

Current Status:

The College supports applications that run on the Macintosh and Windows platforms. These applications encompass activities from word processing to 3-D animation to music composition.

> Instructional Software. Almost all of the academic disciplines have some kind of specialty software that supports student learning. Some disciplines require a great deal of software with regular maintenance and upgrades in order to teach their material. Computer Information Science, Graphic Design, Computer Aided Design, Business Office Technology, and the Music Industry program all teach students how to use different software.

> General Office software. All staff office computers contain Microsoft Office, Microsoft Outlook, Internet Explorer, and anti-virus software. Applications beyond this standard package are determined by individual need and interest. There are single user licenses, multiple-user licenses, site licenses and server licenses. Monitoring and tracking of campus licensed software is a significant challenge and we have begun, in the last year, to centralize this function to the degree possible. The District is responsible for supplying standardized software on college computers. ICS supports applications installed in the computer labs and in faculty offices.

> Specialized (Camtasia/Snag It, Adobe, etc.) There is specialty-use software that is supported by ICS and steps are being taken to centralize the licenses of these applications. Camtasia/SnagIt facilitates the creation and presentation of screen capture videotapes frequently used to support online instruction.

Vision Forward:

- Continue with efforts to create and maintain a centralized inventory of all campus software. This is not a trivial task as there is currently no systemic way for ICS to be included in the approval process of software acquisition. Departments order what they want and do not always contact ICS for help in determining compatibility or, possible cost savings through combined licensing.

- Continue to support on-going training of ICS staff to assure knowledgeable support for software applications.

TECHNOLOGY SUPPORT

Background: A wide variety of technical support personnel are required to support computer technology on a college campus. District Information Systems (IS) provides most of the foundation/infrastructural support for the colleges. They have their own Staff and Technology Plan that encompasses the development, management, operation, maintenance, and evaluation of the infrastructure, administrative information systems, programming, web management, organization and staffing. This plan addresses resources provided by the college in close coordination with District IS services.

Historically, support for campus technology was scattered geographically throughout campus. Office space was frequently cobbled together as new support staff were hired and demand for services grew. In the last five years, a technical support hub has been created in the Learning & Technology Resources building (building C). This centralization has not only made support more convenient to college staff and faculty, it has also improved the internal communications among technical personnel. An electronic "task list" further organizes the delivery of services. All requests for assistance are directed to the help desk where they essentially go through a triage system and are assigned to the appropriate functional division if they are not time critical. Support staff use the task list to establish daily activities and report updates to the task list as progress is made. All college staff have viewing access to this list so that they can monitor the status of their request. When problems are reported that are time critical, the help desk pages a technical support person to assure a speedy response.

Current Status:

Instructional Media Services. IMS supports all classroom technology as well as the Student Center large conference rooms and all other conference rooms. Their specialty is presentation technologies. There are two staff in this functional area who provide support available from 7:00 am until 8:00 pm to address issues with this technology. Their routine work includes testing new instructional equipment, installing equipment in classrooms or conference rooms, supporting events, training faculty on use of equipment, and routine cleaning/maintenance of equipment.

Network Support. There are three primary positions that provide campus-wide technical support for instructional technology. They also provide end-user support for faculty and lab aides. These individuals develop the software images that are installed on instructional computers and faculty office computers. They work very closely with the IS technicians who provide the infrastructural support. One of them, the Supervisor of Instructional Computer Facilities, also maintains the college-wide software inventory. The Supervisor is able to direct other technical support personnel to assist the network support function during high productivity cycles.

Help Desk. The District help desk supports staff and administrators with issues appropriate to their areas of responsibility and is available from 8:00 am to 5:00 pm. The instructional help desk assists students and faculty with instructional technology-related problems. This service is available from 8:00 am until 8:00 pm and is accessed through email or telephone. It is a single source of technology trouble-reporting for the campus. The Instructional Lab Aides assist with the help desk function as part of their daily routine. There is a phone "tree" in which a succession of three different offices receive notice of an incoming call; in the event that no one

picks up the help desk phone at Cuyamaca, it begins to ring the District help desk phone. The goal is to always have a person answer the phone if it is allowed to ring long enough.

Training and Website Support. The Instructional Design Technology Specialist supports faculty in the use of Blackboard, in the design of effective online instructional content, and in the creation of audio or video clips for electronic delivery. This individual trains faculty and staff in a wide variety of technology tools and maintains a blog of emerging or evolving topics. The position also provides primary support for the College website maintenance and design. Another employee serves as a backup support for these functions as well as for the help desk function. This second individual provides routine website maintenance.

Instructional Lab Aides. Most of the instructional lab aides are in the Learning and Technology Resource (LTRC) Division, though there are some departments that have contract employees to support computer labs. Those departments are CIS, BOT, and Mathematics. The LTRC has three instructional lab aides in the open computer lab and one who specializes in the Macintosh platform and serves the entire campus but pays particular attention to the Graphic Design department.

Theater Support. One Theatre Production Design Technician supports both of the campus theaters and assists with Instructional Media Services (and vice versa) as demand for facility support ebbs and flows.

Contracts and Third Party Vendors. The Director of Facilities maintains contracts with third party vendors to support technology above and beyond the skillset or expertise of college employees. This is particularly critical to supporting the Student Center and Theaters.

Vision Forward:

- Consider consolidating computer lab aides under the Learning and Technology Resources division to enhance campus-wide service delivery, greater efficiency, and provide greater support for the lab aides.
- Continue to work closely with IS to assure seamless delivery of technical support services.
- As the delivery of online instruction grows in magnitude and importance, an additional person in the Training and Website functional area will become necessary.

WEB & MOBILE TECHNOLOGIES

Background: Since the mid-1990's the Internet has grown exponentially and its importance as an information source and marketing tool has eclipsed more traditional communication vehicles. The first Cuyamaca College web presence emerged in about 1998. A Title III grant funded a part time web developer in 2001 and a large shared governance District committee designed the website and navigation structure which was implemented in 2003. Some of the pages of the current college website date back to this original design. The Carl D. Perkins Vocational and Technical Education Act and associated funding helped the Career Technical Education programs acquire a new design and department website implementations in 2008-2011. This template has been used by the Library, DSPS, ASL, and the open computer lab sites as well. At time of this writing, the college website consists of over 5,000 actively used pages with thousands more documents and pages that are archival in nature. These pages were viewed over 2,500,000 times in 2011.

Current Status: A major redesign of the District and college websites has been underway since 2010. Hannon Hill was selected to provide a Web Content Management System (WCMS) called Cascade and a

STAMATS, a web design consulting firm, has designed new formats for the two colleges and District websites. The District site has been converted to the new look. The college websites are considerably more complicated, not only are there many more pages to convert, there are also many more stake-holders and authors to organize and fewer personnel to dedicate to the task. At Cuyamaca College, the web maintenance is done by the Instructional Technology Design Specialist (whose primary function is supporting faculty engaged in online instructional efforts) and a Web & Technology Support Specialist who doubles as help desk support. College staff have been trained in developing within Cascade Server and have started work on the conversion; the District is planning to contract with an outside vendor to manage the conversion.

The complex conversion and redesign of the entire website will likely be avoided in the future, partly because we know more about the web and will plan more effectively and partly because of characteristics of a WCMS. Among the benefits of utilizing such software are:
- Content production and maintenance can be done using a graphical user interface that is similar to a word processor. No HTML knowledge is required.
- Decentralization of maintenance.
  - Puts content ownership into the hands of the subject matter experts.
  - Empowers contribution by everyone throughout an organization.
  - Encourages faster updates.
- Configurable access restrictions which will prevent changes by unauthorized parties.
- Design consistency wherein new content is quickly and easily created using preset custom page styles that ensure design and brand consistency while giving content authors the freedom to manage their own content.
- Navigation menus are automatically generated.
- Enforces compliance with accessibility standards.

Vision Forward:

- Improved integration between Curriculum/Catalog/website.
  - Most students access catalog information online; few purchase print catalogs.
  - Outdated and inaccurate information is obtained by students via the website as multiple copies of such items as course, certificate and degree descriptions create inconsistencies and out of date information.
- Need to focus on responsive web design that can be viewed by phones, tablets, as well as personal computers.
- Reusable content whereby event and news posts to the website automatically generate Facebook and Twitter feeds as well as home page updates.
- Increased use of Open Educational Resources (http://en.wikipedia.org/wiki/Open_educational_resources).
- Coordination with Grossmont College and District to ensure consistency in web site branding in the new Cascade system.

DISTANCE EDUCATION

Background: Distance Education refers to courses in which students and faculty do not share the same physical space for instructional purposes but rather communicate using technology. Over the years, Cuyamaca College has provided distance education in various formats, including telecourses, however at

this point in time distance education refers to education provided using the Internet. Distance education courses can be either synchronous, such that faculty and students communicate in real time, or asynchronous, in which students choose when to access the learning material. Most of the distance education at Cuyamaca College involves asynchronous communications though some faculty opt to conduct synchronous meetings or office hours. Courses that are taught entirely using the Internet are called online courses. During Fall 2010 and Spring 2011, 75% of distance education course enrollments (7,709 enrollments) were in 100% online sections. The percentage of purely online courses at the college has been steadily increasing in the last decade. Courses can also be designed such that some of the instruction occurs in a physical classroom and some of the instruction occurs online: these courses are often referred to as hybrid or blended distance education courses. During this same period, 27% of all enrollments occurred in online or hybrid/blended sections. Each semester approximately 1,800 students enrolled in one or more 100% online sections. Finally, there are many classes that require students not only to attend all classes but also to check grades, turn in assignments or even participate in discussion groups online. Most Cuyamaca College courses fall into one of these categories. Through shared governance processes, the District has settled on supporting Blackboard as the primary Learning Management System (LMS) supporting online instructional content. Some faculty, primarily in the CIS department, use Moodle which is a free open-source LMS.

Appendix J contains the course enrollment and success rates by course instructional method for fall 2006 – Fall 2010. One very clear observation that can be made of this data is that the success rate of Cuyamaca College students has been steadily increasing regardless of the course method of instruction. Over this five year period, the success rate in face-to-face classes increased from 61% to 69%, in hybrid classes it increased from 58% to 67%, and in online classes it increased from 56% to 59%. Although online course success rates are considerably lower than those in face-to-face classes, Cuyamaca College statistics are well above the national average of roughly 50% success in online classes.

Research has identified and manipulated five broad categories that appear to have a positive impact on online student success (Harrell 2008). These areas include student readiness, student orientation, student support, instructor preparation, and course structure. There are a number of online readiness instruments and scales available for institutions to employ, most of which evaluate a student's individual characteristics such as learning style, accessibility of technology, computer skills, and time management skills or history. Mandatory and well-designed orientations to online learning have also been demonstrated to increase the probability of success in online courses. The Online Teaching and Learning Committee (Appendix K) has historically been one of the more focused and hard-working committees of the college.   This committee has been slowly, but aggressively, addressing the two remaining categories that have been demonstrated to have a significant impact on student success in online classes: instructor preparation and support and course structure.

Current Status:

> Blackboard Containers. District Information Systems generates a Blackboard container for every credit course section that is offered each semester. It is up to the faculty to activate their containers. Instructional Council (which is made up of all department chairs and coordinators) has endorsed an expectation that all faculty utilize their course container(s) for recording student grades at a minimum. Increasingly, students expect basic course documents, such as syllabi and schedules of activities to be provided online as well.

Camtasia Relay and Lecture Capture. A streaming video server has been purchased and is in the process of being installed with Camtasia Relay software to support everyday lecture capture by our face-to-face instruction. The idea is that an instructor can start the software at the beginning of class and, wearing a wireless microphone, can proceed as normal through the class. The software will be recording the audio and whatever is happening on the computer screen. At the end of the class, the instructor will stop the recording and ship the resulting file off to the video streaming server where it will become accessible to students on a variety of devices.

Student Readiness & Student Orientation. Cuyamaca College does not have any mandatory orientations, but many of the instructors provide good quality online orientations or point students to information on the District and College websites. In fact, the District Online Success website (http://www.gcccd.edu/online/student/default.html) provides a readiness self-assessment inventory as well as an orientation to the Blackboard Learning Management System. Orientation to a specific course is left to the instructor and some do conduct mandatory face-to-face orientation sessions the first week of classes.

Student support. According to the 2011 Distance Education Survey conducted by the Instructional Technology Committee, an affiliated council of the American Association of Community Colleges, the greatest challenge for distance education program administrators is "adequate student services for distance education students". As resources continue to be stretched in the next few years this will no doubt be a significant challenge at Cuyamaca College as well.

- Online Tutoring – The infrastructure to support online tutoring is established and tutoring services have been provided synchronously for CIS and GD courses. The tutoring center is prepared to respond to any student requesting assistance in the content of any class assuming a tutor can be identified to provide the service.
- Help desk - The help desk provides limited technical support for Cuyamaca College students from 8:00 am – 8:00 pm Monday – Thursday and 8:00 am – 1:00 pm Friday. The help desk answers questions about Blackboard and communications software such as email. It does not provide diagnostic services regarding the student hardware or software configurations on their home computer. In addition, there is a website, http://www.cuyamaca.edu/helpdesk/, designed to answer some of the more common technical problems, including tutorials on how to configure a browser, enable java, enable cookies, clear cache, etc. This website also refers students to a variety of campus online resources which include a comprehensive online library complete with 24/7 synchronous service, an email-based "Ask a Counselor service, and a link to the bookstore webpage.
- Library. Reference service is provided through QuestionPoint, a 24/7 online reference chat service. The Library subscribes to eleven electronic databases and two video streaming databases that can be accessed from the library's web site and includes remote access to students. 184 e-reference resources and 27,513 e-books can also be accessible to students from a remote location. One of the librarians is a 'guest' lecturer in a few online classes to provide library instruction sessions.
- Counseling. There is an "Ask a Counselor" email-based service, http://www.cuyamaca.edu/counseling/ask_a_counselor.htm, which attempts to respond to student online inquiries in a maximum of three working days. This website also provides contact information for financial aid.

- Bookstore. When students register for classes there is a link to the Barnes & Noble bookstore with information about the textbook being required in the course which can be purchased online.
- Other. The Student Services website contains a wealth of information about common questions including some tutorials. Phone numbers for all offices are provided.

Teacher preparation. The Instructional Design Technology Specialist's primary responsibility is training and helping faculty provide the most effective online content. More than a dozen workshops covering various levels and topics in instructional technology are presented at the beginning of each semester and she continues working throughout the semester one on one with faculty members. The Online Teaching and Learning Committee has created a set of recommended preparations for all online instructors and this has been endorsed by the Academic Senate and Instructional Council. These recommendations are presented in Appendix L. One of the options on this list is to take the ED 214 class which is an in-house online course on how to teach effective online classes. This class is typically offered once a year. In addition, this committee has authored a set of recommendations for effective online instruction which are available on the website and are distributed at training sessions (Appendix M). Together these recommendations address Federal, State, and Accreditation mandates and best practices.

Multimedia Instructional Design Lab (MIDL). There is an office in the technical support area of the Library, next to the Instructional Technology Design Specialist, with high end computers (both platforms) and video production software to support instructors interested in adding video recordings to their online content. A recent study conducted at Santa Barbara Community College demonstrates that increasing the sociability of interactions in online courses results in higher success and retention rates.

Accessibility. The Online Teaching and Learning Committee has also directed a great deal of attention to the accessibility of online instructional content. Appendix N is a checklist that instructors are encouraged to use to evaluate the degree to which they are compliant with ADA guidelines for online content. In 2009 – 2010, the committee rolled out a series of workshops during faculty development weeks in which all of the elements on this checklist were explained and assistance was provided to bring online content into compliance. Initially these elements were grouped into three logical topics and offered over three consecutive semesters. Currently, all of the topics are combined into one session offered each semester.

Evaluation. The second greatest challenge to Distance Education program administrators according to the ITC 2011 survey is "adequate assessment of distance education courses". Accreditation standards require that distance education courses are equivalent or better than those taught in a face-to-face environment. Up to this point, the discussion in this document has been focused on proactive efforts to encourage good design and implementation of online content. Recommended preparations for online teachers are only as effective as the willingness of department chairs and coordinators to comply with them in their hiring practices. This is particularly important because the College still struggles with a poor response rate for student evaluations. Implementing an effective online course is labor-intensive not only during the design phase but throughout the semester. It is critical that the college make the most of the opportunity presented by regular routine faculty evaluation processes. At Cuyamaca College, the Deans have agreed that, when given the option of which course to evaluate, an online or

hybrid course is selected. Further, the Dean of Learning and Technology Resources is identified as the administrator who performs the evaluation. The standards of good practice (Appendix M) serve as a guide when conducting these evaluations. The evaluation is viewed as an opportunity to provide constructive, non-critical, supportive feedback on how to be even more effective using electronic media in instruction.

- Navigating the Course: In the absence of a mandatory orientation for students taking online courses, it is critical that instructors provide some kind of orientation for their particular course. This typically involves a reference or link to the Blackboard orientations and tutorials provided on the District website, but also some kind of guidance in how to approach this particular class. A well designed course in any venue has some kind of routine regular characteristics: maybe a quiz in the first 5 minutes of class, or a 10 minute summary of the previous session prior to the new lecture, or student reports on readings, etc. So too, a well-designed online course frequently has a weekly routine. Instructors can save students a great deal of confusion and frustration if they describe the best practices and weekly occurrences in their particular course.
- Regular & Effective Contact: There should be evidence, when visiting an online class, of "regular and effective contact" between the instructor and the students. Most instructors engage in one-on-one email with students, and this can be used to support the existence of such contact, but it is not enough to satisfy accrediting agencies. As evaluators, we look for evidence of the instructor's presence in weekly announcements and discussion board forums in particular.
- Accessibility: A third critical aspect of online content in instruction that must be considered as part of the evaluation is the accessibility of the content for all students including those with disabilities.

Increased Federal Engagement. As student demand and enrollment in distance education has increased and as increasing numbers of private online institutions have emerged, the federal and state governments have intensified efforts to regulate components of distance education.

- State Authorization for Institutions Offering Distance Education to Out-of-State Students. The Department of Education through the Higher Education Act of 2008 has issued a number of confusing regulations and amendments regarding the degree to which institutions must meet requirements of the State in which a student physically resides. The regulation has been revised a number of times and parts of it have been struck down in court decisions so the full impact of these rulings is still unclear. The Council of State Governments is engaged in an effort to create a reciprocity agreement in which states would agree to recognize accredited, out-of-state institutions. A draft of this agreement is expected to be released in summer of 2012. The Grossmont Cuyamaca Community College District was able to identify only a couple of students to whom this might apply and none of them were at Cuyamaca College.
- Financial Aid Fraud. There are an increasing number of students and some organized fraud rings that are enrolling in large numbers of online courses to collect financial aid but never participating in the courses. These rings have particularly targeted California community colleges because of the low tuition rates. In a financial aid audit, it is possible that the college would be held liable for the misused financial aid funds. In response to this concern, Cuyamaca College has aggressively requested that faculty assess student involvement in their online classes and drop students who are

determined to be inactive. Another way to minimize this kind of fraud would be to require online students to attend a face to face orientation.

- Student Authentication. The Higher Education Opportunities Act of 2008 states that colleges "have processes in place through which the institution establishes that the student who registers in a distance education or correspondence education course or program is the same student who participates in and completes the course or program and receives the academic credit." The Department of Education has clarified that methods such as "a secure login and pass code, proctored examinations, and new or other technologies and practices that are effective" will meet this requirement. All but a few of the online courses at Cuyamaca College utilize Blackboard at a minimum to be a portal through which students access course materials. Blackboard is connected to the student records and enrollment software and requires a secure login and pass code. The few courses that utilize Moodle as an alternative course management system also require secure login and passcodes.

Vision Forward:

Blackboard. Investigate purchasing Mobile Learn to provide phone and table access to Blackboard – see Blackboard Mobile Learn.

Student Readiness.
- Consider evaluating student readiness for online instruction during first year experience programs.
- Provide information or workshops to all counselors explaining online courses and the requisite skills necessary for success.

Student Orientation.

- Work with faculty to include orientation information in their online or hybrid courses.
- Develop a course or workshop for students on being successful in online learning.
- Consider a .5 unit prerequisite course that prepares students to take online courses prior to enrolling in one.

Student Support.

- Promote the use of Camtasia Relay video capture for student access to lecture content outside of the classroom.
- Evaluate the potential of third party online tutoring programs to satisfy tutoring needs, particularly in basic education courses.
- Provide synchronous online counseling services during the work week (perhaps this could be a SDICCA effort).
- Encourage collaboration between instructors and librarians to provide librarian sessions emphasizing the use of electronic resources and availability of librarians via online communications.
- Provide online financial aid services.
- Evaluate the use of student services by online students. Analyze the results and make recommendations for additional services and/or improvements.
- Promote greater use of online textbooks and publish content in online courses.
- Printing needs to be available to wireless devices of all kinds.

Instructor Preparation and Support

- Develop a mentor program for new and continuing online instructors.
- Continue with all existing training efforts and be ever mindful of the introduction of new technological tools to help reach students and faculty.
- Recruit faculty to serve on the Online Teaching and Learning Committee.
- Work with Instructional Council to reinforce the importance of enforcing instructor preparation for online teaching.
- Consider mandatory training sessions prior to assignment of an online class. Sixty-four percent of the ITC annual survey respondents required distance education training programs and most required more than eight hours of training.
- Develop a recommended staffing plan to support distance education that includes expanded technical & instructional design support.
- Collect information from department chairs on how the online instructors teaching their classes met the Instructional Council and Academic Senate endorsed prerequisites.

Course Structure.

- Develop an evaluation or check-off system to ensure that all online content meets federal and state mandates for accessibility before putting them in the schedule.
- Research the Quality Matters program, an annotated rubric which is the centerpiece of a continuous improvement model for assuring the quality of online courses through faculty peer review process.
- Train peer evaluators on how to evaluate online courses and how to provide constructive ideas for improvement.
- Develop an access system such that faculty can enter and view model online content developed by other faculty (obviously with prior faculty approval).

Miscellaneous.

- Need to accommodate increased tablet and cell phone use to access online content.
- Continue to closely monitor development of state and federal regulations and amendments as related to distance education.
- Consider offering an entire degree via online education.
- Consider increasing use of streaming videos and phasing out Videotape and DVD library collections.
- Increased use of digital assets of all kinds such as library e-books.
- Explore alternative tactics to increase the student response rate to course evaluation opportunities.
- Closely monitor evolution in use of social media in the classroom and provide state of the art training first for training staff who can then train faculty. For example, Vanderbilt University is experimenting with the use of twitter as an "enabler of critical thinking", http://cft.vanderbilt.edu/2011/10/twitter-as-an-enabler-of-critical-thinking/. A new product, HootCourse, is designed to "take your class conversation online".
- According to the Instructional Technology Committee, the typical enrollment cap for online classes is between 25 and 27 students. Teaching a good quality online class is more time consuming than a face-to-face class primarily because of the one on one

interaction with students. Consider decreasing the Cuyamaca College cap from 50 students to something more in line with national trends and research directives.
- Consider charging students an additional fee for online instruction. Thirty-nine percent of the ITC annual survey respondents charge students an additional per-credit fee to take distance education courses. Respondents charged between four and 75 dollars, with a median of 23 dollars.

STUDENT SUPPORT SERVICES

Background:

Cuyamaca College recruits and admits diverse students who are able to benefit from its programs, consistent with its mission. Student support services address the identified needs of students and enhance a supportive learning environment. The Student Services unit provides equal access, advocacy and services to the College's student body population. Each department or program within the unit has developed goals that align with one or more of the five institutional strategic goals. One of the goals of Student Services is to "*Enhance the use of technology for the delivery of student support services to provide greater access to students*".

All students must utilize online services in order to apply, enroll and make modification to their class schedules. Faculty submit their rosters and grades online. Admissions and Records department has created webpages for both students and faculty that outline processes and facilitates transactions between the department and its constituencies. Technology and online services are an integral part of the delivery of services to students and faculty in accordance with ACCJC standards. It also a part of the Student Services Program Review process.

Current Status:

A&R. All transactions with the Admissions and Records department can be performed online. These services for students include:
- Submission of application to Cuyamaca College
- Course registration
- Request for enrollment verification
- Request for transcript (in progress, waiting on District IS)
- Submission of graduation application
- Residency
- Payment of fees
- A & R website is maintained and updated regularly to include all forms in PDF format and most can be submitted electronically

Faculty are also able to access information online and receive services. They are able to:
- Submit rosters
- Receive add codes
- Drop students
- Submit grades

- Forms are available in PDF form to facilitate submission of information to the A & R department. These forms include: Instructor reinstatement, incomplete grade form and grade change amongst others.

Assessment. Currently students are able to register online through WebAdvisor for assessment tests.

Career Center. The Career and Student Employment Center provides career and employment guidance to Cuyamaca and Grossmont College students and alumni. The Career Center is working on establishing new online services for both students and employers. They can access the following information online:

- Research majors
- Find out which colleges offer what majors
- Find out which jobs go with student's chosen major
- Compare and contrast career fields
- Explore which careers related to student's major
- Job Link website which provides information on job offerings on and off campus. It also includes paid and unpaid internship opportunities.
- Next year the Career Center will be purchasing with the assistance of Perkins funds, software that will assist students with the preparation of resumes and help them with the development of their interview skills.

Counseling. The Counseling Department is constantly striving to increase access to students. However, due to budget constraints this has become quite challenging. Some of the services Counseling is currently offering are:

- Probation/Disqualification video tutorials
- WebAdvisor video tutorial
- "Ask a Counselor", an online counseling service
- Electronic submission of pre-requisite clearance and challenge forms
- Completion and submission of "Enrollment Priority Status" petitions
- Fall 2012, Counseling will be offering online orientation and advising

When advising students, counselors access multiple programs on the computer to collect and analyze information about the student's history, goals, and future course work. Typically, a counselor will have up to eight windows open on his/her computer during a single counseling session. Counselors need to review degree audits, look at transcripts, refer to multiple websites (ASSIST, CollegeSource, University web pages, etc.), in order to meet the student's need. Having dual monitors greatly affects the efficiency of the counseling session.

Financial Aid. Cuyamaca College offers a full array of financial aid programs available to full-time and part-time students. All services are available online including "Financial Aid & Academic Planning" course. All students on financial aid must successfully complete this course in order to receive their aid. Students submit their FAFSA and Cal Grant applications online. Also, they are able to submit scholarship applications.

DSPS. Cuyamaca College is required to comply with the ADA section 504 and section 508 in accordance with Title V of the American with Disabilities Act which promotes equal access to student with disabilities. The number of students with disabilities at Cuyamaca College has increased approximately 300 percent over the past 5 years to a current total of 1,000-1,200 verifiable students with disabilities.

With the recent increase in the popularity of the World Wide Web, Distance Education and Hybrid courses, it is important to be aware of the barriers that students with disabilities face in virtual environments. One area that best demonstrates the dynamic relationship between learning and technology is the need for access to assistive/adaptive technology software and hardware for students with disabilities in an academic environment. The DSPS High Tech Center (HTC) provides such access and is committed to fulfilling its legal and ethical obligation to provide equal access to electronic information and technology to all students including those with disabilities. Consistent with this commitment, they are integrating universal access based upon current accessibility standards for software, hardware, World Wide Web, telecommunication products, and video and multimedia products.

The High Tech Center and Test Proctoring area of DSPS has fifteen student access computers with a variety of adaptive physical devices and adaptive software. Additionally there are two student access computers in the DSPS main office area that are also designed as adaptive devices.

EOPS. There are two front counter computers which are used to schedule appointments and pull assessment information for students. Additionally, there is one computer designated for student use. This is used by students in need of assistance in completing applications, scholarship letters, homework club projects and FAFSA.

Student Affairs. It is very important that Student Affairs streamlines its technology for student government elections and has in place an on-line election process in time for the April 2013 student government elections. Currently, Cuyamaca utilizes a paper ballot, which is a slow and tedious procedure. Modernizing our election system by utilizing technology not only would bring our election procedures in line with the election procedures at Grossmont College, but also would enable our students to submit their application and their candidate statements on line. This technology would also create the ballot for students to vote.

Transfer Center. The University Transfer Center has 4 computers used by students. The computers have been purchased in 2004 and it would be important to replace them with the most updated version within next year. It would be important for new computers to have video camera and build in speakers and microphones so that UTC faculty could provide online transfer advising, workshops, and seminars. UTC faculty would like to be able to utilize websites such as CCC Confer to reach out to more transfer students. In order to do that the UTC must have state of the art computers and technology.

Veterans' Resource Center. Plans are underway to create a Veteran's Resource Center to accommodate the special needs and interests of our expanding population of students who are veterans. This center will provide academic assistance in the form of tools, strategies and insights to optimize academic success. It will also provide specialized counseling designed to

address and support veterans regarding issues specific to returning veterans as well as opportunities for peer contact and interaction.

Vision Forward:

- Student Services will continue to strive to improve delivery of services online. In order to achieve this goal, the unit would like to convert A-112 at the "One-Stop" into a fully functional computer lab. This would enable our students who do not have computers to have access to one. The current space located in the Career Center does not provide an environment that is conducive to workshops. There are many distractions and privacy issues.
- The Student Services unit would like to eventually become paperless. Therefore, more state of art scanners and software would need to be purchased and supported.
- Offer online assessment exams.
- In order to promote continuous quality improvements in the Counseling Center, we need to conduct Point of Service (POS) surveys. These surveys would be administered upon the student's completion of a counseling appointment or other contact with a counselor. A station would be set up with a touch screen monitor that students could easily access.
- As student services increases the services available through the college website, additional assistance with web page maintenance and design will likely be required.
- It is imperative that technology in the DSPS High Tech Center be maintained and upgraded such that Cuyamaca College is able to continue to support our disable student population with state-of-the-art adaptive technologies. The Alternate Media/High Tech Center Specialist will train faculty, staff and disabled students on how to use the assistive technology hardware and software. Future assistive technology software will be purchased as a network version in order to better serve all students including those with disabilities and other campus computer labs and classrooms. When possible, existing standalone versions will be converted to network versions.
- All student access computers in the Student Services area must be included in the lab rollover schedule in order to assure timely and regular upgrades.

CONCLUSION

The Cuyamaca College Technology Plan for 2013 – 2018 is one product of an integrated planning process characterized by representative participation from all constituency groups and built-in opportunities for continuous improvement and revision. Each year an Annual Implementation Plan will emerge from the three program review committees and the five year plan will be reviewed and updated with new information.

The most significant challenge in the next five years, given the concomitant shrinking of the budget, is going to be the identification of funding sources to support this plan. It is critical to the future of Cuyamaca College that replacement of technology be given a high priority. It is also critical that solutions to technology needs be approached with creativity and frugality. The Total Cost of Ownership for technology replacements and upgrades amounts to approximately $450,000/year. The details of computer hardware and software costs per year are presented in Appendix H. An additional $100,000/year would cover the expected cost of replacement and maintenance of specialty equipment such as Cisco routers & switches, theater equipment, and temporary used instructional equipment.

Reference

Harrell, I.L. (2008) Increasing the Success of Online Students. Inquiry 13(1). Retrieved April 30, 2012 from http://www.vccaedu.org/inquiry/inquiry-spring-2008/1-13-Harrell.html.

Appendix A

Technology Plan Committee

Charge:

The college Technology Planning Committee (TPC) works to build and implement an integrated technology planning model for the college that enhances the teaching & learning environment to improve student success. The TPC is an integral part of the Cuyamaca College integrated planning process, and as such, is responsible for developing the college's annual technology plan. Each fall semester, the TPC will review and rank technology requests submitted to the 3 Program Review & Planning Committees, and based on these rankings, produce a report outlining the recommended college technology priorities for the following year. The TPC reports to the Institutional Effectiveness & Resource Council (IERC), and serves as a liaison to the Instructional Technology Committee, and the District Information Systems Office. The TPC is also responsible for developing, assessing, and revising committee goals on an annual basis, and reporting the results to the IERC each spring semester.

Chairs:

Administrative Co-Chair: Dean, Technology and Learning Resources
Faculty Co-Chair: Selected from and elected by faculty committee membership

Composition:

Dean, Technology and Learning Resources
One (1) Administrator from Student Services
One (1) Administrator form Administrative Services
Two (2) Instructional faculty members
One (1) Student Services faculty member
Two (2) Classified staff Members
One (1) Student Representative

Appendix B

Instructional Technology Committee

Charge:

The Instructional Technology Committee provides a forum for the discussion of current and emerging technology issues, trends, innovations, changes and needs related to instructional programs. With input from the Technology Plan Committee, the District's Information Systems department and the Instructional Technology Advisory Committee (ITAC), this council serves as a vehicle for the integration of the college Technology Plan and associated technology support issues. It will also endorse priorities for purchase of instructional computer equipment and software. Utilizing information from the Online Teaching and learning Committee, the council will also recommend policies and procedures on the utilization of computers and related resources, ADA compliance of online instructional materials, and information technology affecting the teaching and learning environment including alternative modes of delivery. The council forwards recommendation to Institutional Effectiveness Resource Council (IERC), Curriculum Committee, ITAC and Academic Senate as appropriate and implements technology recommendations utilizing established college processes.

Chairs:

Administrative Co-Chair: Dean, Technology and Learning Resources
Faculty Co-Chair: Selected from and elected by faculty committee membership

Composition:

Dean, Technology and Learning Resources
One (1) Administrative Representative
Faculty Representatives (12):
        Co-chair of Technology Plan Committee
        Co-chair of Online Teaching and Learning Committee
        Instruction:
                Division I (2)
                Division II (2)
                Division III (1)
                At large (3)
        Student Services Faculty (1)
        Learning Resources Faculty (1)
Instructional Design Technology Specialist

Ex-Officio:

District Director of Information Systems
Technical Services Manager
Associated Student Representative

Appendix C

Instructional Technology Advisory Committee

Charge:

- Recommend vision, strategy and direction for the adoption and implementation of new and emerging instructional technologies.
- Provide recommendations to the Chancellor's Cabinet and Districtwide Executive Council (DEC) concerning the application of technology for instructional programs.
- Recommend standards and procedures for the implementation of instructional technology throughout the District.
- Recommend priorities to the Information Systems Department for instructional computing support.
- Recommend standards for the acquisition of new instructional software and hardware.
- Provide quarterly updates to DEC.
- Establish ad hoc committees to focus on specific topics as required: Internet, network, standards and procedures, computing ethics, and software licensing.

Chair:

The chair is selected by the group, and alternates between the two colleges.

Composition:

Faculty and administrator co-chairs of the two college instructional technology committees
Cuyamaca College representative appointed by College President
Grossmont College representative appointed by College President
Academic Senate representatives (2), Cuyamaca College
Academic Senate representatives (2), Grossmont College
Instructional support staff and Information Systems staff, as requested
Sr. Director, Information Systems

Appendix D

Administrative Technology Advisory Committee

Charge:

- Recommend vision, strategy and direction for the adoption and implementation of new and emerging technologies.
- Provide recommendations to the Chancellor's Cabinet and Districtwide Executive Council (DEC) concerning strategic policies and direction for administrative information systems.
- Provide recommendations for the Information Systems Department regarding operational priorities and system enhancements.
- Recommend policies and priorities related to the selection, implementation, and operation of administrative information systems.
- Assist in the development of the Information Technology Plan for administrative information systems.
- Provide communication and administrative information system status reporting to constituent groups and existing councils and committees.
- Coordinate the work of specially appointed task groups as required.
- Provide quarterly updates to DEC
- Recommend allocation of Information System Department resources to specific projects.

Chair:

Senior Director, Information Systems

Composition:

Vice Chancellor-Business Services and appointed representatives
Vice President, Academic Affairs (from one college)
Vice President, Student Services (from both colleges)
Dean of Counseling and Enrollment Services (Grossmont College)
Dean of Admissions and Records (Cuyamaca College)
Dean of Learning & Technology Resources (from one college or both colleges)
Director, Financial Aid (from one college)
Counseling and Matriculation representative (from one college)
Library/Learning Resource Center representative (from one college)
Human Resources representative
Institutional Research representative
Sr. Director, Information Systems
Support staff and Information Systems staff, as requested

Appendix E

Criteria for Technology Plan Rankings

Technology Proposals Should:

1. Address one or more of the following
   a. Student Access (including discussion of cost effectiveness/# of students served)
   b. Learning and Student Success
   c. Value & Support of Employees (includes professional development potential)
   d. Economic & Community Development
   e. Fiscal & Physical Resources (maximization of efficiency & productivity)
2. Demonstrate a critical need for state of the art technology
3. Support learning outcomes (student, program, institutional, or service)
4. Demonstrate staff willingness and readiness to implement

Extra consideration is given to proposal that:

1. Are part of a phased in project already in progress or that demonstrate foundational preparedness
2. Assist multiple departments
3. Request technology critical to department compliance requirements
4. Can be implemented as a pilot project to evaluate effectiveness or impact

Priority Rankings

1 – Critical to base operations

2 – Critical to base operations but can be postponed in short term

3 – Important to delivery of services but can be postponed for longer term

4 – Definitely desirable

Appendix F

Program Review Form for Requesting Technology

DEPARTMENT/Discipline Click here to enter text.

Technology Plan Year: Click here to enter text.

Justification of Technology Needs

If applicable, please reflect on the technology funded by last year's plan, and how it impacted student learning and success.

Click here to enter text.

Please check any boxes that apply to your technology request, and include a description of the rationale for your selection. Please also indicate to which item number, from the Technology Request Worksheet, your comment applies.

☐ *Student Access* (include discussion of cost effectiveness/# of students served)

Click here to enter text.

☐ *Learning and Student Success*

Click here to enter text.

☐ *Value & Support of Employees* (include professional development potential)

Click here to enter text.

☐ *Economic & Community Development*

Click here to enter text.

☐ *Fiscal & Physical Resources* (maximization of efficiency & productivity)

Click here to enter text.

Extra consideration is given to proposals that demonstrate one or more of the following characteristics. If applicable, describe how your proposal applies.

☐ *Assistance to multiple departments*

Click here to enter text.

☐ *Request for technology critical to department compliance requirements*

Click here to enter text.

☐ *Can be implemented as a pilot project to evaluate effectiveness or impact*

Click here to enter text.

☐ *A critical need for state-of-the-art technology*

Click here to enter text.

☐ *Support of learning outcomes (student, program, institutional, or service)*

Click here to enter text.

☐ *Staff willingness and readiness to implement*

Click here to enter text.

☐ *Is part of a phased-in project already in progress, or that demonstrates foundational preparedness*

Click here to enter text.

What is the department/discipline's vision for the use of technology in support of student learning and success?

Click here to enter text.

How are you currently utilizing technology to support student learning and success?

Click here to enter text.

Any additional information:

Click here to enter text.

You may be requested to further present your technology needs to the Technology Planning Committee.

Appendix G

Instructional Lab Rollover Schedule

Year	Department	Room Number	Computer Count	Comments
2013 - 2014	Engineering	F301	33	
	SS areas	A bldg	16	A&R,TC,EOPS,VC,DSPS(2)
	CEWT	L103	44	
	STEM	H101	37	
	Math	H119	41	
Total 2013-2014			**171**	
2014 - 2015	Tech Mall	E123	6	Macs
	Music	B204	3	Macs
	Music	B209	25	Macs
	BOT	E120	24	
	BOT	E120	40	Core i5 - all to B167
	CIS	E213	34	
	GD	E228	33	Macs
Total 2014 - 2015			**165**	
2015 - 2016	CIS	E205	33	Core i5 to B162(22),
	CIS	E206	33	B171(35), B172(40),
	CIS	E207	33	B269(5), K114(2),
				B271(5), C121(4),
	CADD	F601	27	C219(12)
	DSPS	C107	14	(1 Mac)
	GD	E226	33	Macs
Total 2015 - 2016			**173**	
2016 - 2017	CIS	E210	33	Core i5 to B154(29),
	CIS	E211	33	B164(22), K106(14)
	English	B270	36	
	GD	E230	34	Macs
	Tutoring	C102	6	
	Auto	K130	28	
Total 2016 - 2017			**170**	
2017 - 2018	Lib	C223	42	
	DSPS	C114	16	1 Mac
	Tech Mall	E123	117	
Total 2017 - 2018			**175**	

Appendix H

Classroom "smart" computer replacement cycle

Academic Year	Buildings	Computer Count
2013 - 2014	F	28
2014 - 2015	H & M	21
2015 - 2016	B (PCs)	20
2016 - 2017	B (Macs), E (PC and Mac)	22
2017 - 2018	F (Mac), A, C, K, R	13

Academic Year	Lab Replacement	Classroom Replacement	Laptop Replacement	Office Replacement	Instructional Software	Total Cost
2013 - 2014	$ 171,000	$ 28,000	$ 36,400	$ 63,000	$ 53,000	$ 351,400
2014 - 2015	$ 178,400	$ 21,000	$ 36,400	$ 63,000	$ 53,000	$ 351,800
2015 - 2016	$ 179,800	$ 20,000	$ 36,400	$ 63,000	$ 53,000	$ 352,200
2016 - 2017	$ 176,800	$ 23,600	$ 36,400	$ 63,000	$ 53,000	$ 352,800
2017 - 2018	$ 175,200	$ 13,200	$ 36,400	$ 63,000	$ 53,000	$ 340,800

Cost estimates:

Computers	$ 1,000
Macs	$ 1,200
Average Annual Software	$ 53,000
Laptops	$ 1,000

Appendix J

Student Success Rate by Instructional Method
Fall 2006 – Fall 2010

100% Online

	Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		5 year total	
Enrolled	2211		3116		3238		3820		3915		16300	
Success	1237	56%	1643	53%	1893	59%	2196	58%	2297	59%	2720	57%
Withdrew	648	29%	1027	33%	743	23%	945	25%	951	17%	4314	17%

Less Than 50% Online

	Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		5 year total	
Enrolled	0		0		1400		1677		1419		4496	
Success	0	0	0	0	822	59%	1082	65%	944	67%	2848	63%
Withdrew	0	0	0	0	295	21%	319	19%	231	16%	845	19%

Face to Face

	Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		5 year total	
Enrolled	14948		15936		17716		18021		19204		85835	
Success	9084	61%	9724	61%	11704	66%	12254	68%	13260	69%	56026	65%
Withdrew	3132	21%	3192	20%	2587	15%	2564	14%	2856	15%	14331	17%

Appendix K

Online Teaching & Learning Committee

Charge:

Reports to and submits recommendations for consideration and approval to the ITC, Curriculum Committee and Academic Senate as appropriate; coordinates and communicates with other college committees as needed.

- Makes recommendations regarding online course plan components and critieria, online course evaluation requirements, online course ADA compliance requirements and other related issues.
- Recommends criteria for initial online faculty certification and any continuing in-service training requirements.
- Recommends, develops and provides continuing in-service training workshops, forums and activities to support online faculty.
- Recommends online course standards of good practice and quality control.
- Recommends ADA compliance monitoring procedures and acts as a resource in the verification of online course material ADA compliance.
- Recommends online instructional technology standards and implementation guidelines.

Chairs:

Administrative Co-Chair: Dean, Technology and Learning Resources
Faculty Co-Chair: Selected from and elected by faculty committee membership

Composition:

Dean, Technology and Learning Resources (1)
Instructional Administrator (1)
Faculty Representatives (9):
        Library Faculty Representative (1)
        Student Services Faculty Representative (1)
        Curriculum Committee Representative (1)
        Instructional Faculty Representative (4)
        Adjunct Faculty Representative (1)
        Disabled Student Programs & Services Faculty Representative (1)
Instructional Design Technology Specialist (1)

Appendix L

Online Instructor Certification Policy

Instructors assigned to teach fully online classes, including to a lesser degree those teaching in blended classes, will be required to complete the following training:

Phase 1: Before an instructor is assigned to teach an online class for the first time they must complete training in the following areas three areas:
- Online teaching and pedagogy
- Course management system
- Course material accessibility

Examples of satisfactory training include completion of one of the following:
- San Diego State University's Educational Technology or similar degree program
- Cuyamaca College offered courses
  - ED214 (Online teaching and pedagogy course)
  - Teaching with Blackboard online course (offered via LRC)
  - ED216 (accessibility course under development)
- Completion of the California Community College @One Online Teaching Certification (http://www.cccone.org/certification/index.php). The @One certification includes all three elements considered essential preparation for teaching online.
- Completion of a similar online instructor certification program at another institution

Phase 2: After an instructor has started teaching an online course, it is strongly recommended that they complete the following:
- Training in multimedia products pertinent to their proposed course material delivery.
- Mentoring from an experienced online instructor for at least the first semester and longer if deemed appropriate.
- Subscribe to the Cuyamaca College Online Blog
- Continuing professional development in online teaching

Phase 2 training can be accomplished through a variety of means including but not limited to: Presenting or participating in online learning multimedia courses and workshops offered during Cuyamaca College Flex Week.
- Completion of California Community College @One multimedia courses
- Participation in conferences, webinars, listservs, forums or workshops related to online teaching.
- Mentoring new online instructors.

Continuing Evaluation

A critical component of maintaining the quality of online education is continued evaluation. This doesn't mean a new evaluation system needs to be developed; it simply means that online classes should be evaluated as part of the normal instructor evaluation process. Online and traditional instruction are dissimilar, they require different skill sets for class preparation and delivery. If an instructor teaches both online and in the classroom, it is most strongly recommended that both venues be evaluated in a comprehensive instructional evaluation.

Appendix M

Guidelines for Effective Online Teaching

	Guidelines for Effective Online Instruction
Course Overview and Introduction	1.1 Instructions clearly define how to get started and where to find various course components (e.g. welcome email and/or schedule note).
	1.2 A statement orients the student to the purpose of the course, its components, and organization. In the case of a hybrid course, the statement clarifies the relationship between the face-to-face and online components.
	1.3 Etiquette expectations (sometimes called "netiquette") for online discussions, email, and other forms of communication are stated clearly.
	1.4 The instructor's introduction is appropriate and available online, and contact information is clearly stated.
	1.5 Students are asked to introduce themselves to the class, or participate in an alternative ice-breaking activity.
	1.6 Minimum student preparation, and, if applicable, prerequisite knowledge in the discipline are clearly stated.
	1.7 Minimum technical skills and tools expected of the student are clearly stated.
	1.8 Students are directed to District online information regarding student success in online courses.
	1.9 Course syllabus and course schedule (including due dates) are featured prominently and schedule is updated as needed.
Student Learning Outcomes	2.1. All learning outcomes are clearly stated and written from the students' perspective.
	2.2 The module/unit learning objectives describe outcomes that are measurable and consistent with course-level student learning outcomes.
	2.3 Instructions to students on how to meet the learning outcomes are adequate and clearly stated.
	2.4 Learning activities (e.g. projects, essays, discussions, labs) promote the achievement of the stated learning outcomes.
Assessment and Measurement	3.1 The types of assessments selected measure the stated learning outcomes and are consistent with course activities and resources.
	3.2 The course grading policy is clearly stated.
	3.3 Specific and descriptive criteria are provided for the evaluation of students' work and participation (e.g. scoring rubric).
	3.4 Instructors use more than one method to assess student learning, and the methods are appropriate to the content being assessed.
	3.5 Students have access to current grades prior to critical semester dates (i.e., Credit/No-Credit and final drop dates).
Resources and Materials	4.1 Instructional materials contribute to the achievement of the stated course and module/unit learning outcomes.
	4.2 The relationship between the instructional materials and the learning activities is clear.
	4.3 Instructional materials have sufficient breadth, depth, and currency for the student to learn the subject.
	4.4. All resources and materials used in the course are appropriately cited (e.g. A.P.A., M.L.A., link to original document).
Regular and Effective Contact	5.1 Learning activities foster instructor-student, content-student, and if appropriate to the course, student-student interaction (e.g. e-mail, discussion, phone, online conferences).
	5.2 Instructor responsiveness and availability standards (turn-around time for email, grade posting, etc.) are clearly stated and are commensurate to that of face-to-face class (3 hours for 3-unit class).
	5.3 Requirements for student interaction are clearly articulated.
	5.4 The instructor reads online discussions, and responds as appropriate.
	5.5. The instructor posts weekly announcements that help students navigate the course.
	5.6 The instructor provides constructive and timely feedback on assignments (1-2 weeks).
Course Technology	6.1 Tools and media support the learning objectives, student engagement, and active learning.
	6.2 Navigation throughout the online components of the course is logical, consistent, and efficient.
	6.3 Required technologies and campus resources are specified in the course syllabus.
	6.4 Instructions on how to access resources are sufficient and easy to understand.

	6.5 The course design takes advantage of appropriate available tools and media (e.g. video, online conferencing, textbooks).
Learner Support	7.1 The course instructions articulate or link to available support services (technical, academic, student services).
	7.2 Course instructions answer basic questions related to research, writing, technology, etc., or link to tutorials or other resources that provide the information.
Accessibility	8.1 The course meets current Federal and State ADA standards regarding accessibility in online and hybrid courses (i.e., alternative text for images, captioning for video, transcripts for audio, etc.).
	8.2. For details regarding ADA standards, please refer to http://www.cuyamaca.edu/dsps/web_accessibility.asp.

Appendix N

Checklist for Accessibility

Course Number: _____ **Date Evaluated:** _____

Instructor Name: _____

Evaluator Name: _____

Creating accessible online materials is a necessary step towards a classroom environment that supports learning for all students. This checklist identifies several of the basic steps relevant to creating accessible online materials in an educational setting; it is not a complete list to creating accessible web content. **All Instructional Core Learning Materials must be accessible.**

Instructional Core Learning Material is defined as those materials that are central or essential to understanding the material and passing the course. For example: Lectures, labs, projects, quizzes, exams, etc. would form the core of the course. In addition, demonstrations, videos, instructor narratives regarding the course materials, lecture notes, study guides, etc. which assist the student in understanding the core materials are also core to the course. Instructor provided materials provided strictly as course enrichments—materials that are pertinent to the topic but not required for the course and not graded—are not considered Instructional Core Learning Materials. An attempt should be made to make these materials accessible as well, but the primary consideration should be on the Instructional Core Learning Materials.

Accessibility Issue

1. Color

Other elements beside color are used to convey information.

A. When using color for Web-based materials, avoid using color by itself to convey information (e.g., click on the "green" hyperlinks).

B. Use of symbols may be used to identify a change in the presentation of content. For example, instead of using "red" to identify a change in content, use a "red asterisk".

Yes: _____ No: _____ N/A: _____

2. Color contrast

A. Avoid using text and background colors that do not provide sufficient contrast. **:** do not use white color text on a light blue background.

B. Check the page to ensure hyperlinks and background colors have sufficient contrast.

Yes: _____ No: _____ N/A: _____

3. Hyperlinks/Hypertext
Hyperlinks/hypertext provides clear information as to end location or function.
A. When creating hyperlinks, be descriptive as to the function or location the hyperlink will take the student.
B. Hyperlink text of "Click Here…" **does not** provide information as to "where" the hyperlink will take the student.

Yes: _____ No: _____ N/A: _____

4. Images
Images need to contain a text description using one of the following methods:
A. Include an alternate text description for the image.
B. For complex images, include a brief description within the text of the page.
C. If it is not possible to include a description of the image in the page, provide a link to a description of the image or use the "longdesc" attribute to link to an informational page.

Decorative images do not need an alternate text description. (alt="").
Yes: _____ No: _____ N/A: _____

5. MS PowerPoint / Word
Presentations and documents are accessible or are available in an accessible format
A. One option may be to have two separate hyperlinks – one hyperlink directed to the accessible version and a second hyperlink directed to the inaccessible version.
B. Accessible presentations may be created using the Accessible Web Publishing Wizard (http://www.accessiblewizards.uiuc.edu/) or LecShare/LecShare Pro (http://www.lecshare.com/)

Yes: _____ No: _____ N/A: _____

6. Adobe PDF documents
Adobe PDF documents can be created to be accessible. This requires recent versions of MS Office and Adobe Acrobat. If the PDF document cannot be made accessible, provide another version of the format or identify where the student may obtain an alternate format.
Yes: _____ No: _____ N/A: _____

7. Tables
Tables with data have appropriate row and column headers identified: It is necessary to identify the headers of the row and column data using "table header" methods or the scope attribute.
Yes: _____ No: _____ N/A: _____

8. Audio content
Audio content requires a text transcript of the corresponding audio information.
A. For spoken audio such as podcast, provide a link to a text transcription of the audio content.
B. If the audio track is music, identify the musical composer and any lyrics as part of the track.

Yes: _____ No: _____ N/A: _____

9. Video/media content

Video content requires the inclusion of captioning. Captioning is the synchronization of the presentation with any dialogue or audio-based activities in the video (i.e., music playing, etc.).

A. For any video content, provide captioning for the media presentation.

B. If possible, let the user start the video rather than the video automatically playing.

Yes: _____ No: _____ N/A: _____

10. Make sure the playback controls can be accessed from the keyboard (e.g., "tab key").

If not, allow the user to open the media player on their computer (as opposed to embedding the player on a Web Page).

Yes: _____ No: _____ N/A: _____

11. Interactive experiences

Interactive experiences need to be accessible or an alternate made available that conveys the same educational objective.

Yes: _____ No: _____ N/A: _____

Manual Checks and/or Concerns:

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