

2011-2015 TECHNOLOGY PLAN

Southwestern Community
College District

Technology Task Team

2011-2015 TECHNOLOGY PLAN

Submitted by the Technology Task Team: February 25, 2011



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INTRODUCTION

The SWC Technology Master Plan 2011-2015 is a guide to the allocation and use of technology resources in support of student learning and institutional effectiveness at Southwestern College. The purpose of the plan is to further the mission, vision, and strategic direction of the college. It will be reviewed on an annual basis as it is integrated with Institutional Planning and Program Review.

SWC MISSION

Southwestern Community College District serves a diverse community of students by providing a wide range of dynamic and high quality educational programs and comprehensive student services.

The District provides educational opportunities in the following areas:

- Associate degree and certificate programs
- Transfer
- Professional, technical, and career advancement
- Basic skills
- Personal enrichment
- Non-credit adult education
- Community services
- Economic, workforce, and community development

We promote student learning and success by committing to continuous improvement that includes planning, implementation, assessment, and evaluation.

TECHNOLOGY PLANNING PROCESS

Building upon the 1993-1998, 1999-2004, and 2005-2010¹ plans, the SWC Technology Master Plan 2011-2015 is significantly different from previous plans. The 2011-2015 Plan is the product of a campus-wide dialogue, based on collaborative research, shared planning and decision-making and is integrated into the work of the Shared Consultation Committee. Since 1993, the College was actively involved in the planning process. Where the College fell short was in comprehensive implementation and evaluation. To ensure that not all relevant actions previously listed were ignored, the SWC Technology Master Plan 2011-2015 includes significant parts of the previous plans that serve as a foundation for the next five years.

During spring and fall 2010 semesters, members of the Accreditation Oversight Committee Work Group 6 coordinated the Technology Plan development process. The College also engaged the consulting firm WTC Consulting, Inc. to assist the Work Group with development of the Information Technology (IT) Assessment Final Report (Appendix C). Work Group 6, however, suffered from leadership problems and the goals of the work group were not met. As a result, in February 2011, the Superintendent/ President disbanded Work Group 6 and instituted the Technology Task Team. This Task Team was charged with integrating the 2011-2015

¹ Appendix A

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Master Plan with institutional organizational structures, program reviews, and to create a document that would reflect the current and future technology needs of the College. This team operated as a shared planning and decision-making body, and included key constituent groups from across the campus.

As part of development process, a number of open forums and meetings were conducted with faculty and staff. Table 1 evidences the scheduling and groups contacted for these information-gathering sessions.

TABLE I

Groups Consulted for Technology Plan Development

Group	Date
Multiple Open Forums for Faculty, Staff, and Students	May 3, 2010
Council of Chairs	May 6, 2010
Multiple Open Forums for Faculty, Staff, and Students	May 18, 2010
Meeting with Two Members of Academic Technology Committee	May 18, 2010
Computer Systems and Services Staff	May 18-20, 2010
Dean's Council	June 10, 2010
Student Services Council	June 10, 2010
Business Directors Council	June 10, 2010
Classified Executive Committee	July 19, 2010
Academic Technology Committee	September 7, 2010
Associated Student Organization Executive Committee	September 7, 2010
President's Cabinet	September 7, 2010
IT Audit Report	January 6, 2011

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Work Group 6 Reorganization	February 10, 2011
Superintendent/President Summit	February 10, 2011
Technology Task Team Meeting #1	February 11, 2011
Technology Task Team Meeting #2	February 14, 2011
Technology Task Team Meeting #3	February 15, 2011
Technology Task Team Meeting #4	February 16, 2011
Technology Task Team Meeting #5	February 17, 2011
Technology Task Team Meeting #6	February 22, 2011
Technology Task Team Meeting #7	February 24, 2011
Technology Task Team Meeting #8	February 25, 2011
Technology Task Team Meeting #9	February 28, 2011
Submission of the SWC Technology Plan to the Academic Senate for Approval	March 1, 2011
Submission of the SWC Technology Plan to the Shared Consultation Council for Approval	March 2, 2011
Submission of the SWC Technology Plan to the Governing Board for Approval	March 9, 2011

The following topics were addressed in the open forums and meetings listed above:

- Technologies and technology support for faculty and students that are essential to the viability of the College's academic programs
- Ways in which the College's academic programs and student learning experiences could be enhanced through improved technology and technology support for faculty and students
- Ways in which the College administrative functions could be accomplished more effectively and efficiently

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- Ways in which services to students could be enhanced through improved technology and technology support
- Ways in which technology and technology support requirements for the College may change during the next five years
- Technology and technology support improvements that would have the greatest positive impact on the College
- New planning processes needed to ensure that technology planning is integrated with institutional planning and institutional program review

CONTRIBUTORS TO THE 2011-2015 TECHNOLOGY PLAN

The 2011-2015 Technology Master Plan was developed through the contributions and support of the following Technology Task Team members (Table II).

TABLE II

Name	Position
Larry Lambert, Co-Chair	Online Learning Instructional Support Specialist
Tom Luibel, Co-Chair	Professor, School of Business, Professional and Technical Education
Paul Norris, Co-Chair	Computer Systems and Services, Computer Operations Supervisor
Tom Bugzavich	Community Media Relations, Graphic Designer
Veronica Burton	Articulation Officer
Kathleen Canney-Lopez	Professor, School of Business, Professional and Technical Education
Claudia Duran	Associated Student Organization Representative
Scott Finn	Professor, School of Counseling and Personal Development
Al Garrett	Computer Systems and Services Network Administrator
Jerry Gonzalez	Computer Systems and Services Senior Systems Analyst
Carla Kirkwood	Professor, International Programs
Patti Larkin	Interim Director of Computer Systems and Services
Caree Lesh	Professor, School of Counseling and Personal Development
Chris Martinez	Office Support Services, Word Processor
Maria E. Martinez	Professor, School of Business, Professional and Technical Education
Carl Scarbnick	Professor, School of Math, Science, and Engineering
Elisabeth Shapiro	Professor, School of Business, Professional and Technical Education
Barbara Speidel	Professor, Learning Assistance Services
Mink Stavenga	Dean of Instructional Support Services
Angelina Stuart	Professor, Academic Senate President
Ron Vess	Library Faculty, AOC Co-chair

SWC TECHNOLOGY MASTER PLAN

The purpose of the SWC Technology Master Plan is to address college-wide technology, support, and resource planning in order to further the mission, vision, and strategic direction of the College. It is linked with other institutional plans and program reviews for instruction, student services, and administration. The Technology Master Plan differs from the Information and Technology Services Unit Plan in that the former focuses on college-wide resources, policies, and strategies and the latter focuses on departmental resources, procedures, and operations.

TECHNOLOGY VISION

Southwestern College uses technology and Universal Design principles to support its mission in order to enhance learning and instruction, educational opportunities, personalize student services, and provide effective administrative processes to meet the changing needs of the College and community.

TECHNOLOGY DEFINITION

Technology is a broad subject that applies to many aspects of teaching, learning, research, communication, and operations at SWC. Such technologies are typically categorized as instructional technology or information technology. The former is associated with resources for teaching and learning (academic) and the latter is associated with resources for communication and operations (administrative). These technologies typically include computers, servers, software, databases, printers, networks, network applications, storage devices, video projectors, video conferencing, and the like. Many such technologies are used for both academic and administrative purposes, e.g., computers, networks, email, etc. Thus, it is necessary for the Technology Master Plan to address both information and instructional technologies.

Some technologies at SWC are specific to academic or vocational courses, such as photovoltaic systems, electronic music keyboards, microscopes, and spectrometers, etc. Such technologies are specialized instruments or tools that are discipline-specific or industry-specific. Indeed, faculty members regularly consult with external advisory councils to ensure the use of relevant technologies in their programs. Furthermore, instructional programs engage in Program Review cycles to evaluate the effectiveness of such technologies and develop plans. Program Review plans are tied to resource allocation processes that provide an avenue of funding for specialized technologies.

The SWC Technology Master Plan is focused on planning for instructional and information technology resources that have a broad application across the College. The technology plan addresses how technology resources will be implemented to further the mission of the College and improve institutional effectiveness. This plan does not go so far as to specify the details of all of the specialized technologies that would be included in program reviews; that is left to the subject experts. However, the Technology Master Plan addresses how specialized technologies will be integrated with the technology infrastructure and technology support services of the College.

GUIDING VALUES AND PRINCIPLES FOR TECHNOLOGY

The College's commitment to technology is translated into a set of guiding values and principles for how technology should be created, managed, and supported. These values and principles will serve as the foundation of any technology development in the district, and they will guide discussions on the suitability of future technology action plans.

ACCESS: Technology will be readily accessible to all students, faculty, and staff of the College. The College will ensure that all students, faculty, and staff, including those with disabilities, have required access to computers, software, and technology services. Capabilities will be developed to provide fully functional accessibility to the College and community we serve.

CURRENCY: The College will provide current, up-to-date hardware, software, and communication materials. Policies, procedures, and budgets will be established to ensure technology currency at the College.

RELIABLE TECHNOLOGY SERVICES: Information and instructional technology accessibility will be delivered via a secure, solidly established, centrally operated, redundant, and robust network and computer infrastructure.

TECHNOLOGY SUPPORT SERVICES: The District will provide customer service and training to help the college community access and use technology. Access to information technology support will be provided to the college community through a variety of venues, e.g., phone, fax, e-mail, online, in-person. The availability of customer support will be continually monitored to

provide appropriate staffing and coverage to meet the needs of the college community.

The College will review its technology support based on the following dimensions of customer service:

1. Flexibility: Ability to adapt and adjust when and as needed
2. Responsiveness: Willingness to help and provide prompt service
3. Reliability: Ability to perform the promised service dependably, accurately, and in a timely manner.
4. Assurance: Knowledge, courtesy, and the ability to convey trust and confidence
5. Empathy: Ability to provide caring, individualized attention

STAFFING AND RESOURCES: The College will provide the staffing and resources necessary to support and maintain the technology infrastructure, including

- Hardware
- Software
- Administrative systems
- Course management systems
- Content management systems
- Campus web site
- Faculty, interdepartmental/school websites
- Services
- Training

PLANNING: The technology objectives of the College need to be aligned with institutional priorities, and the technology planning process of the College needs to ensure a high level of inclusion and interaction. The technology planning process provides an opportunity to accomplish the following:

1. Determine the fundamental technology directions of the College.
2. Identify key strategies in taking the next steps.
3. Clarify the actions needed to help departments, divisions, and the College to achieve their broad missions and goals.
4. Articulate what leadership and services the district can expect from college technology organizations.
5. Disseminate knowledge about existing technology services, technology needs, and technology constraints.
6. Evaluate current services and practices, revise, and expand services as needed.

PRIORITIZATION RUBRIC: The following table is the rubric upon which SWC prioritizes technological needs. Program Review drives these prioritizations. However, in the case of State government, Federal government, or other funding agency mandates, these technology needs will receive top priority by the College.

TABLE III

Prioritization Criteria and Weights

<i>Number</i>	<i>Criteria</i>	<i>Weight</i>
1	Extent to which request is identified in institutional program review.	80%
2	Role of the technology in supporting curriculum or College services.	10%
3	Extent to which the request represents a collaborative effort to use technology resources more effectively.	5%
4	Sustainability of the technology in terms of ongoing support requirements and replacement costs.	5%
	Maximum Points	100%

SPEED: The College will make every effort to ensure the speeds of its network, computers, and telecommunications equipment are in keeping with college and statewide standards.

INNOVATION AND LEVERAGING TECHNOLOGY: The District will encourage the college community to explore how to use, leverage, and integrate innovative uses of technology in teaching, learning, and college operations.

TECHNOLOGY SERVICES SUMMARY

A. STUDENT ACCESS: Provide secure student access to learning resources and support services for all college locations.

A.1. Identity Management: Develop and implement a new user account system that requires students to individually log into college network resources, such as the wireless network or lab computers.

A.2. Computer Lab Operations: Develop college standards to adequately staff and support all current and future student computer labs. As technology is consistently evolving, the District will support and adapt to those changes.

A.3. Computer Lab Hardware and Software: Conduct ongoing evaluations of the adequacy of student computer lab hardware and software to meet the needs of instructional programs. These evaluations, to include program review plans and the age of the computers, will serve as important criteria for prioritizing the replacement of lab hardware and software.

A.4. Online Courses and Programs: To increase student access, provide the technical infrastructure and support for current and future additional online courses and programs, such as online tutoring.

A.5. Online Learning and Support Services: Provide online access to all learning resources and student support services to assure equitable access and to meet identified student needs.

A.6. Virtual Desktop Computing: Develop and implement a cloud-based and/or server-based virtual desktop environment that enables authorized network access to specialized instructional software from any college computer.

B. INSTRUCTIONAL TECHNOLOGY: Support the success of all students through the development of instructional technologies, including the delivery of instructional media for use on- and off-campus and Institutional Research. Instructional materials must meet the electronic and information technology accessibility requirements of Section 508, comply with applicable federal and state laws, and embrace Universal Design principles.

B.1. Instructor Support: Provide faculty training, support, and adequate staffing for the development and delivery of

instructional technology resources to students on- and off-campus.

B.2. Online Lectures: Develop standardized and automated processes for capturing on-campus lectures (audio and/or video and/or lecture resources) to publish online.

B.3. Smart Classrooms: Complete the installation of interdisciplinary new media systems in all relevant classrooms. Then develop new standards for smart classrooms and begin upgrading older classrooms to meet the new standards.

B.4. Instructional Content: Develop new processes for efficiently licensing and delivering copyrighted and captioned instructional content to students on- and off-campus.

C. STUDENT SERVICES: Develop, update, and implement Student Services information system and communication services.

C.1. Processing Calendar Development: Develop and review on a periodic basis to determine sustainability and functionality.

C.2 Financial Aid: Conduct ongoing evaluation of Financial Aid services to determine student friendly access and consistency with mandated timelines.

C.3 Matriculation System: Update and maintain matriculation systems for getting information out to students in a timely manner through improved technology.

C.4 Reporting Enhancements: Enhance the reporting systems to improve and automate matriculation data and services.

D. CAMPUS COMPUTING: Develop and improve secure and reliable computing systems to increase institutional effectiveness and provide long-term support for campus computing needs.

D.1. Custom Application Development: Standardize the development and maintenance of custom applications for research, instruction, student services, and college operations in order to improve institutional effectiveness.

D.2. Network Application Support: Develop standardized procedures for requesting network applications and services. Use the SWC Help Desk to centralize user support requests for network applications.

D.3. Computer Hardware and Software Standards: Maintain up-to-date computer hardware and software standards for institutional purchasing and support. Replace computers as determined by Program Review to ensure adequate computing resources for students, faculty, staff, and managers.

D.4. Network Access from Off-Campus Sites: Develop a secure, client-less, login method for authorized employees to access network resources from off-campus locations. Ensure that this login method can be applied to future network applications. [ACCJC/WASC 2008

D.5. Printer Standards and Support: Develop standards to fund the purchasing, installation, repair, and support of office and lab printers and supplies through a centralized clearinghouse.

D.6. Institutional Software Licenses: Create a centralized clearinghouse for institutional software licensing and require that all software purchases go through it. Provide ongoing funding for software, such as office-productivity, online courses, antivirus protection, website development and content management as determined by Program Review.

D.7. Policies and Procedures: Develop policies and procedures for college-wide technology requests, usage, services, and support, to be reviewed on an annual basis.

E. NETWORK INFRASTRUCTURE: Upgrade and maintain the network infrastructure to support comprehensive wireless, voice, video, and data communications with high availability and recoverability.

E.1. Wireless Access: Upgrade and expand the existing wireless infrastructure to implement comprehensive wireless access for students, employees and authorized guests throughout all college locations.

E.2. Network Infrastructure Standards: Continue to update network infrastructure standards to be applicable to all existing and new SWC buildings. Implement the new standards to ensure high availability and quality of service for voice, video, and data throughout the College and District.

E.3. Network Management: Implement enterprise level network management tools to monitor and control all critical network resources at all college locations. Develop emergency response procedures for network outages or attacks.

E.4. Network Storage: Provide secure and centralized network storage, backup, and recovery services to meet the needs of the College. Develop a data archiving and retrieval process.

E.5. Disaster Recovery: Develop a multi-tiered disaster recovery plan to restore access to critical information resources in case of a catastrophic outage. Determine ways to proactively minimize risks.

E.6. Administrative Server Virtualization: Expand and maintain virtual servers to replace physical servers, promote “Green IT,” support disaster recovery, and extend the capacity to offer additional network services and solutions.

F. TECHNOLOGY SUPPORT: Provide ongoing training, staff, funding, and technology support services to meet the needs of students, faculty, staff, and managers.

F.1. Service Level Agreements: Develop service level agreements (SLAs) at all SWC Help Desk locations.

F.2. Technical Staff and Managers: Hire additional technical staff and managers to meet the recommendations of Program Review.

F.3. Technology Training for Operations and Support: Provide ongoing training and support in the use of productivity technologies for faculty, staff, and managers.

F.4. Technology Training for Learning and Instruction: Provide ongoing training and support in the use of instructional technologies for students, faculty, staff, and managers.

G. DIGITAL COMMUNICATIONS: Develop and support multiple, digital means of communication between the college, community, and all constituencies.

G.1. Unified Communications: Coordinate with CSS to implement a system that unifies all forms of communication, including voice-mail, email, and emerging technologies.

G.2. District Portal: Research, develop, and implement a district portal for college communications, student communications, and access to college support services and online forms.

G.3. Website Development: Continue to develop the navigational structure and provide adequate support and staff for the SWC website to improve access for all users at all levels of proficiency. Ensure that all faculty and all departments have current and accurate information on the college website.

G.4. Video Conferencing: Upgrade and support audio and video conferencing resources to connect individuals/groups

between SWC and off-site locations.

G.5. Time-Sensitive Notifications: Implement a college-wide emergency notification system that can be used to send alerts to students and/or employees in a matter of minutes. Such a system would use multiple forms of communication, such as text messages, phone/voice-mail, email, and emerging technologies. Utilize the system for any time-sensitive notifications.

G.6. Emerging Communications: Experiment with emerging technologies to enhance effective communication and institutional effectiveness.

TECHNOLOGY GOALS AND STRATEGIES

The technology goals and strategies are based upon institutional program review, accreditation standards, an assessment of current needs, internal plans, and a review of external trends in academic and administrative computing in higher education. The technology goals are umbrella statements that provide direction for change. The following implementation grid includes a timeline of specific action items that are measurable activities to further the goals and strategies of the plan.

In order to demonstrate the relationship of the Technology Master Plan to the ACCJC/WASC Accreditation Standards and SWC Strategic Plan, each strategy is followed in brackets by references to the applicable accreditation standards and strategic directions of the College.

A. STUDENT ACCESS: Provide secure student access to learning resources and support services for all college locations.

A.1. Identity Management: Develop and implement a new user account system that requires students to individually log into college network resources, such as the wireless network or lab computers. (SWC Strategic Plan (SP) 2009-12, pg 16)

A.2. Computer Lab Operations: Develop college standards to adequately staff and support all current and future student computer labs. As technology is consistently evolving, the District will support and adapt to those changes. (SWC SP 2009-12, pg 50-51 In-Process (IP))

A.3. Computer Lab Hardware and Software: Conduct ongoing evaluations of the adequacy of student computer lab hardware and software to meet the needs of instructional programs. These evaluations, to include program review plans and the age of the computers, will serve as important criteria for prioritizing the replacement of lab hardware and software. (SWC SP 2009-12, pg 50-51 IP)

A.4. Online Courses and Programs: To increase student access, provide the technical infrastructure and support for current and future additional online courses and programs, such as online tutoring. (SWC SP 2009-12, pg 18)

A.5. Online Learning and Support Services: Provide online access to all learning resources and student support services to assure equitable access and to meet identified student needs. (SWC SP 2009-12, pg 50-51 IP)

A.6. Virtual Desktop Computing: Develop and implement a cloud-based and/or server-based virtual desktop environment that enables authorized network access to specialized instructional software from any college computer. (SWC SP 2009-12, pg 50-51 IP)

B. INSTRUCTIONAL TECHNOLOGY: Support the success of all students through the development of instructional technologies, including the delivery of instructional media for use on- and off-campus and Institutional Research. Instructional materials must meet the electronic and information technology accessibility requirements of Section 508, comply with applicable federal and state laws, and embrace Universal Design for all people.

B.1. Instructor Support: Provide faculty training, support, and adequate staffing for the development and delivery of instructional technology resources to students on- and off-campus. (SWC SP 2009-12, pg 53)

B.2. Online Lectures: Develop standardized and automated processes for capturing on-campus lectures (audio and/or video and/or leure resources) to publish online. (SWC SP 2009-12, pg 18)

B.3. Smart Classrooms: Complete the installation of interdisciplinary new media systems in all relevant classrooms. Then develop new standards for smart classrooms and begin upgrading older classrooms to meet the new standards. (SWC SP 2009-12, pg 18)

B.4. Instructional Content: Develop new processes for efficiently licensing and delivering copyrighted and captioned instructional content to students on and off-campus. (SWC SP 2009-12, pg 18)

C. STUDENT SERVICES: Develop, update, and implement Student Services information system and communication services.

C.1. Processing Calendar Development: Develop and review on a periodic basis to determine sustainability and functionality. (SWC SP 2009-12, pg 50-51 IP)

C.2 Financial Aid: Conduct ongoing evaluation of Financial Aid services to determine student friendly access and consistency with mandated timelines. (SWC SP 2009-12, pg 16)

C.3 Matriculation System: Update and maintain matriculation systems for getting information out to students in a timely manner through improved technology. (SWC SP 2009-12, pg 50-51 IP)

C.4 Reporting Enhancements: Enhance the reporting systems to improve and automate matriculation data and services. (SWC SP 2009-12, pg 16)

D. CAMPUS COMPUTING: Develop and improve secure and reliable computing systems to increase institutional effectiveness and provide long-term support for campus computing needs.

D.1. Custom Application Development: Standardize the development and maintenance of custom applications for research, instruction, student services, and college operations in order to improve institutional effectiveness. (SWC SP 2009-12, pg 50-51 IP)

D.2. Network Application Support: Develop standardized procedures for requesting network applications and services. Use the SWC Help Desk to centralize user support requests for network applications. (SWC SP 2009-12, pg 50-51 IP)

D.3. Computer Hardware and Software Standards: Maintain up-to-date computer hardware and software standards for institutional purchasing and support. Replace computers as determined by Program Review to ensure adequate computing resources for students, faculty, staff, and managers. (SWC SP 2009-12, pg 50-51 IP)

D.4. Network Access from Off-Campus Sites: Develop a secure, client-less, login method for authorized employees to access network resources from off-campus locations. Ensure that this login method can be applied to future network applications. (SWC SP 2009-12, pg 50-51 IP)

D.5. Printer Standards and Support: Develop standards to fund the purchasing, installation, repair, and support of office and lab printers and supplies through a centralized clearinghouse. (SWC SP 2009-12, pg 50-51 IP)

D.6. Institutional Software Licenses: Create a centralized clearinghouse for institutional software licensing and require that all software purchases go through it. Provide ongoing funding for software, such as office-productivity, online courses, antivirus protection, website development and content management as determined by Program Review. (SWC SP 2009-12, pg 50-51 IP)

D.7. Policies and Procedures: Develop policies and procedures for college-wide technology requests, usage, services, and support, to be reviewed on an annual basis. (Appendix X). (SWC SP 2009-12, pg 44)

E. NETWORK INFRASTRUCTURE: Upgrade and maintain the network infrastructure to support comprehensive wireless, voice, video, and data communications with high availability and recoverability.

E.1. Wireless Access: Upgrade and expand the existing wireless infrastructure to implement comprehensive wireless access for students, employees and authorized guests throughout all college locations. (SWC SP 2009-12, pg 50-51 IP)

E.2. Network Infrastructure Standards: Continue to update network infrastructure standards to be applicable to all existing and new SWC buildings. Implement the new standards to ensure high availability and quality of service for voice, video, and data throughout the College and District. (SWC SP 2009-12, pg 50-51 IP)

E.3. Network Management: Implement enterprise level network management tools to monitor and control all critical network resources at all college locations. Develop emergency response procedures for network outages or attacks. (SWC SP 2009-12, pg 50-51 IP)

E.4. Network Storage: Provide secure and centralized network storage, backup, and recovery services to meet the needs of the College. Develop a data archiving and retrieval process. (SWC SP 2009-12, pg 50-51 IP)

E.5. Disaster Recovery: Develop a multi-tiered disaster recovery plan to restore access to critical information resources in case of a catastrophic outage. Determine ways to proactively minimize risks. (SWC SP 2009-12, pg 50-51 IP)

E.6. Administrative Server Virtualization: Expand and maintain virtual servers to replace physical servers, promote “Green IT,” support disaster recovery, and extend the capacity to offer additional network services and solutions. (SWC SP 2009-12, pg 50-51 IP)

F. TECHNOLOGY SUPPORT: Provide ongoing training, staff, funding, and technology support services to meet the needs of students, faculty, staff, and managers.

F.1. Service Level Agreements: Develop service level agreements (SLAs) at all SWC Help Desk locations. (SWC SP 2009-12, pg 50-51 IP)

F.2. Technical Staff and Managers: Hire additional technical staff and managers to meet the recommendations of Program Review. (SWC SP 2009-12, pg 54)

F.3. Technology Training for Operations and Support: Provide ongoing training and support in the use of productivity technologies for faculty, staff, and managers. (SWC SP 2009-12, pg 61)

F.4. Technology Training for Learning and Instruction: Provide ongoing training and support in the use of instructional technologies for students, faculty, staff, and managers. (SWC SP 2009-12, pg 61)

G. DIGITAL COMMUNICATIONS: Develop and support multiple, digital means of communication between the college, community, and all constituencies.

G.1. Unified Communications: Coordinate with CSS to implement a system that unifies all forms of communication, including voice-mail, email, and emerging technologies. (SWC SP 2009-12, pg 57)

G.2. District Portal: Research, develop, and implement a district portal for college communications, student communications, and access to college support services and online forms. (SWC SP 2009-12, pg 50-51 IP)

G.3. Website Development: Continue to develop the navigational structure and provide adequate support and staff for the SWC website to improve access for all users at all levels of proficiency. Ensure that all faculty and all departments have current and accurate information on the college website (SWC SP 2009-12, pg 50-51 IP)

G.4. Video Conferencing: Upgrade and support audio and video conferencing resources to connect individuals/groups between SWC and off-site locations. (SWC SP 2009-12, pg 50-51 IP)

G.5. Time-Sensitive Notifications: Implement a college-wide emergency notification system that can be used to send alerts to students and/or employees in a matter of minutes. Such a system would use multiple forms of communication, such as text messages, phone/voice-mail, email, and emerging technologies. Utilize the system for any time-sensitive notifications. (SWC SP 2009-12, pg 50-51 IP)

G.6. Emerging Communications: Experiment with emerging technologies to enhance effective communication and institutional effectiveness. (SWC SP 2009-12, pg 50-51 IP)

SWC TECHNOLOGY MASTER PLAN IMPLEMENTATION GRID

Start Date: 3/1/2011

The Implementation Grid shows the action items, lead manager, responsible units, timelines, performance indicators, dependencies, and required resources that are necessary to further the goals and strategies of the Technology Master Plan.

- ACTION ITEM:** Action items describe the activities for each of the technology strategies. Each action item has a unique ID. The first two characters of the ID refer to the related strategy. For example, action items A. 2a and A. 2d. Both refer to technology strategy A. 2.
- LEAD MANAGER:** The lead manager is responsible for initiating the action items and overseeing the completion of the activities.
- RESPONSIBLE UNITS:** Employees in responsible units will be involved in completing tasks or providing input for the activities.
- TIMELINES:** Timelines provide the fiscal years in which the activities will occur. Fiscal years begin July 1 and end June 30.
- PERFORMANCE INDICATORS:** Performance indicators describe the major outcome of the action items.
- DEPENDENCIES:** Dependencies need to be completed before the action item can be completed.
- REQUIRED RESOURCES:** Required resources are *estimates* that primarily refer to staff/manager time, equipment funding, or existing resources. The time and budget allocations are gross estimates that would be further refined for an actual project proposal.

ACTION ITEMS TABLES

A. STUDENT ACCESS: Provide secure student access to learning resources and support services for all college locations.

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
A.1	Develop and implement new user accounts for student access to wireless, lab computers and online courses	Director of CSS	CSS	2011-2013	Students use the new system to log on to wireless network, lab computers, and eventually online courses, etc.	Active directory user account system	500 hours for 12 months to implement; 8 hours per week for ongoing maintenance and user support. Use existing student domain servers and storage.
A.2.a	Develop a new organizational model for the operation, supervision and technical support of current and future campus SWC locations	Director of CSS Dean of (ISS)	Shared Consultation Council (SCC)	2011-2012	Proposal and service level agreements for an organizational model to provide adequate supervision, staff and technical support of all current and future labs.	Mutual collaboration and planning	120 hours to develop the proposal
A.2.b	Implement the new organizational model for providing adequate supervision, staff and technical support for all computer labs	Director of CSS Dean of ISS	Depends on model	2012-2013	All computer labs have adequate supervision, staff and technical support	Approval of new organizational model for labs	Additional and/or reassigned staff; possibly additional manager

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
A.3.a	Conduct an annual prioritization process to determine which student computer labs and related servers should be replaced, reissued, or removed for the following school year based upon the age of the computers and program review plans using project management reporting tools	Director of CSS Dean of ISS	Technology Committee in collaboration with Academic Technology Committee (ATC) and CSS	2011-2015	All labs have up to date computers and related servers per current hardware and software standards	Annual funding	\$1.2 million per year as determined by Program Review to replace older lab computers and servers; funding sources may include instructional equipment, building remodels, etc.; 640 hours each year to replace the computers and servers
A.3.b	Develop and implement new policies and procedures for installing updated software in student computer labs using project management reporting tools	Director of CSS Dean of ISS	Technology Committee in collaboration with ATC and CSS	2011-2012	Documentation of new policies and procedures for updating software in computer labs	Mutual collaboration and planning	80 hours to develop the policies and procedures; 120 hours per semester to implement

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
A.4.a	Install an effective, stable course management system	Dean of ISS	Technology Committee and Online Learning Center (OLC) in collaboration with ATC; ISS	2011-2012	Project plan for courses to be on an effective, stable course management system	Successful installation of effective, stable course management system in collaboration with ATC	240 hours to install and test effective, stable CMS; must renew CMS license each year; 96 hours of training for support staff
A.4.b	Provide reliable, synchronized communication among all systems that interface with the CMS	Dean of ISS	Technology Committee in collaboration with ATC and Dean of Student Services (SS); CSS; OLC	2011-2013	Students are added/dropped/ Re-enabled in CMS within 24 hours of adding/dropping in WebAdvisor; ideally, updates will occur within the hour.	Automation of student enrollment data transfers between Colleague, WebAdvisor, and CMS	240 hours for District IT to implement automation procedures; 160 hours for SWC to implement automation procedures; 8 hours per week for ongoing maintenance and user support
A.4.c	Provide support to instructional departments or divisions if they elect to develop fully online certificate or degree programs	Dean of ISS Online Learning Center Instructional Support Specialist	Office of Instructional Support Services Online Learning Center	2011-2013	New online programs	Substantive change approval from ACCJC/WASC Development of new online programs	Additional staff and technology resources to assist with online course development and faculty support; 120 hours per week for ongoing support

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
A.5.a	Collaboratively develop action plans and service level agreements with Student Services to provide new or enhanced online student support services (e.g., advising, counseling, enrolling, etc.)	Dean of ISS Dean of SS Dean of School of Counseling and Personal Development (SCPD)	CSS ISS	2011-2015	Increasing student success by providing additional student support services online	Mutual collaboration and planning	320 hours to develop plans; 20 hours per week for ongoing maintenance and user support
A.5.b	Collaboratively develop action plans and service level agreements through ISS for providing new or enhanced online instructional support services (e.g., tutoring, test taking, e-books, digital support, etc.)	Dean of ISS Vice President of Academic Affairs (VPAA)	ISS Library	2011-2013	Increasing student success and more effective instruction by providing additional instructional online support services	Mutual collaboration and planning	80 hours to develop plans; 120 hours per week for ongoing maintenance and user support
A.6.a	Explore options and pilot cloud-based computing environment for student access from lab computers	Director of CSS Dean of ISS	Technology Committee in collaboration with the ATC	2011-2013	Conduct a pilot cloud-based computing within labs	Survey pilot participants	160 hours to pilot test. Use existing technology resource

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
A.6.b	Implement cloud-based computing environment within labs	Director of CSS Dean of ISS	Technology Committee in collaboration with the ATC	2013-2015	Cloud-based access from labs	Successful cloud-based pilot	\$300,000 for server licenses/hardware; ongoing license costs (TBD); 20 hours per week for ongoing maintenance and user support; potential savings on computer replacements since this could extend the useful life of lab computers

B. INSTRUCTIONAL TECHNOLOGY : Support the success of all students through the development of instructional technologies, including the delivery of instructional media for use on- and off-campus and Institutional Research. Instructional materials must meet the electronic and information technology accessibility requirements of Section 508, comply with applicable federal and state laws, and embrace Universal Design

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
B.1.a	Provide additional support of faculty in the development of instructional media to be used on or off-campus and ensure that media meet Universal Design standards	Director of CSS	CSS VPAA	2011-2013	Increased quantity and quality of faculty-produced instructional media	Additional staff and management	80 hours per week for 2 Online Learning Specialists for ongoing support
B.1.b	Provide a comprehensive support system to meet the needs of instructors who are teaching online or preparing to teach online and ensure that online resources are accessible for all students	VPAA	ISS Technology Committee ATC OLC Office Support Services (SS)	2011-2015	Increased student retention and success in online courses.	Additional staff and management	60 additional hours per week for ongoing support by an Online Learning Specialist
B.1.c	Hire digital content media support staff	VPAA	ISS Staff Development	2011-2013	Faculty survey and student success rates	Funding and reorganization	80 hours per week for two digital content media support specialists

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
B.1.d	Adequate support for Office of Institutional Research using Data Warehouse to facilitate Program Review	SCC Director of CSS Director of Research	CSS Office of Research IPRC	2011-2015	Effective support through reliable and sufficient data from the Office of Research in support of Program Review for appropriate decision-making	Funding Staffing Scalable across the institution	160 hours per week for three information analysts
B.2.a	On a pilot, obtain input from faculty regarding instructional needs; present options to the Technology Committee and interested parties	Director of CSS VPAA	CSS Technology Committee ATC	2011-2013	Online faculty survey, full-time and adjuncts	Viable option(s)	120 hours to explore models and conduct pilot test; may need to purchase additional hardware/software for testing
B.2.b	Design a system to digitally capture, caption, and publish classroom lectures online	Director of CSS VPAA	CSS	2013-2015	Lectures are captured and delivered online to increase student access and success.	Successful pilot project	Dependent on funding and faculty; 20 hours per week to support the system
B.3	Develop a proposal to complete the installation of interdisciplinary new media systems and support in the classrooms, labs, and meeting rooms	Director of CSS	CSS Technology Committee ATC	2011-2013	All remaining viable classrooms, labs, and meeting rooms have systems installed	Funding	80 hours to identify the needs and develop the proposal.

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
B.4	Develop and implement new procedures for efficiently licensing and delivering copyrighted and captioned instructional media content to students on and off-campus; provide training for faculty and staff	VPAA	CSS Library Disability Support Services (DSS) Technology Committee ATC	2011-2013	Documentation of procedures for efficiently licensing, captioning and showing videos in online courses	Mutual collaboration and planning	80 hours to develop new procedures; 8 hours per week for implementation

C. STUDENT SERVICES TECHNOLOGY : Develop, update, and implement Student Services information system and communication services.

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance	Dependency	Required Resources
C.1	Ongoing planning, scheduling, system preparation, testing, training, and consultation to support information technology in processing calendars for the Admissions Office, attendance accounting, and state reporting; this will also include online registration and training network schedules.	Vice President of Student Services (VPSA) VPAA Director of CSS Dean of SS	ISS CSS Research Office	2011-2013	Staff available for input and development to define process and procedures	Mutual planning and collaboration	Support staff; 30 hours per week for research, assessment, planning
C.2.a	Refine an effective system that will execute student awards and electronic disbursements to avoid late payments to students	VPSA Dean of Student Services Dean of Financial Aid Director of CSS	Financial Aid Office CSS	2011-2013	Reduced wait time between FAFSA and pay outs	Funding, additional staff, and continual upgrade of systems	Funding needed to support design and implementation needs
C.2.b	Implement ACH (Electronic Fund Transfer) of financial aid awards to allow students to receive disbursements in an electronic mode with a deposit into their personal bank accounts	Dean of SS Director of Financial Aid	Financial Aid Office	2011-2012	Evidence of ACH deposits	Funding to support changes and/or additions to the system	Funding and staff; 20 hours per week to implement

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance	Dependency	Required Resources
C.2.c	Calculate and forecast average Pell Grant Award using a 2-year reporting period	VPSA Director for Financial Aid	Financial Aid Office	2011-2014	Data will be used to project distributions over a 2-year period.	Staff and system use	30 hours per week for system upgrades and for calculation and forecast
C.3.a	Ongoing user-requested enhancements and changes to degree audit and E-Advising module	VPSA Dean of SCPD Director of CSS	Admissions Office Dean of SCPD CSS	2011-2015	Modifications will be made to improve system use and functionality.	Mutual planning and collaboration	6 hours per week for enhancement and changes to degree audit
C.3.b	Continuous updates to SARS hardware and software	VPSA Dean of SCPD Director of CSS	Student Affairs Dean of SCPD Director of CSS	2011-2012 with annual review	Modifications will be made to improve system use and functionality.	Hardware, software, and staffing	10 hours per week for updates; funding consists of approximately \$20,000
C.3.c	Explore a process to provide students with unified communication and information dissemination, e.g., Facebook, Twitter, email	VPSA Director of CSS	Student Affairs SCPD CSS	2011-2012	Student communication mode will be used for mass dissemination of relevant college information.	Input from stakeholders and system capabilities	50 hours initially for set-up and use; ongoing administrative management for 20 per week
C.3.d	Create a Continuing Education application/registration web application	VPSA VPAA Director of Continuing Education	Student Services Continuing Education CSS	2011-2013	Development of application and implementation	System set-up, programming, monitoring, and response	20 hours per week for application processing

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance	Dependency	Required Resources
C.3.e	Modify the f2f Wait List functionality, including allowing students on Wait List first access to newly open sections and co-requisite courses	VPSA Director of CSS Dean of SS	Student Services CSS	2011-2013	Develop and implement a process to accommodate function	Policies and procedures development	120 hours for system modification
C.4.a	Ongoing improvement to MIS reporting, including matriculation data collection for improved accuracy using Data Warehouse as a management tool	VPSA VPAA Director of CSS Director of Research	SCPD CSS ISS	2011-2015	Develop project plan to improve reporting	Planning and collaboration	Sufficient staffing to monitor plan outcomes
C.4.b	Continued adherence to mandated reporting requirements to both external and internal agencies, e.g., includes FTES reporting, MIS, Enrollment tallies, CalWORKs, and electronic transcript transmission to SDSU	VPSA VPAA Director of CSS Director of Research	Student Services SCPD ISS CSS	2011-2015	Mandated reports are generated consistent with requirements.	Staffing and management	20 hours per week to generate and examine report accuracy
C.4.c	Design and implement an automated process to merge duplicate student records	VPSA Dean of SS Director of CSS	Student Services CSS	2011-2013	Build an automated process	Mutual collaboration and planning	80 hours per week for design and 120 hours for implementation

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance	Dependency	Required Resources
C.4.d	Consolidate student system records	VPSA Dean of SS Director of CC	Student Services CSS	2011-2014	Programming staff and management	Staffing for initial implementation, training, and sustainability	80 hours per week for design and 120 hours for implementation
C.4.e	Implement a CCC Tran for online transcript requests and electronic exchange with other community colleges, and with four-year public and private institutions.	Dean of Student Services Director of CSS	Admissions CSS	2011-2012	Near seamless transfers with other community colleges and with four-year public and private institutions with an effective electronic interchange	Admissions office and CSS collaboration; a clear and well-designed CCC Tran process	Funding and 160 hours for implementation
C.4.f	Implement online credit and non-credit positive attendance tracking Reporting for faculty and State reporting	Dean of Student Services Director of CSS Dean of ISS	Admissions CSS ISS	2011-2012	An accurate and comprehensive positive attendance tracking system that results in accurate and reportable numbers	Determine which software best fits the needs of stakeholders through collaboration	Funding needed for positive attendance software replacement and staffing; technical support at positive attendance tracking locations
C.4.g	Enhance Satisfactory Academic Progress (SAP) process in DATATEL to elevate or reduce manual processes and accommodate new regulatory requirements	Dean of Student Services Director of CSS Director of Financial Aid	Financial Aid	2011-2013	An electronic process that measures progress and effectively queries and reports needed associations with rules and regulations	Mutual planning and collaboration	Programming and reporting structure that returns adequate and useable data for SAP and access to new regulatory requirements; funding and staffing as necessary

D. CAMPUS COMPUTING : Develop and improve secure computing systems to increase institutional efficiencies and provide long-term support for campus computing needs.

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
D.1.a	Develop an online application for program reviews (Instruction, Student Services, Administration) based on the new forms and processes; design for future integration with other college planning and resource allocation databases	Dean of ISS	Director of Research Dean of ISS Dean of Student Services Dean of Counseling	2011-2014	A college-wide accessible system for entering, tracking, and archiving via digital, machine-readable means; annual program reviews	Sufficient programming staff and management	1,500 hours, depending upon the design specifications; 20 hours per week for ongoing maintenance and user support; use existing server and storage resources
D.1.b	Implement the assessment-tracking program for student learning outcomes (SLOs) that is integrated with the existing eLumen program	Director of CSS	CSS Office Research Office ISS Student Services	2011-2012	A college-wide, accessible system for assessing student learning outcomes of instruction and support services	Programming staff and management	1,500 hours depending upon the design specifications; 20 hours per week for ongoing maintenance and user support; use existing server and storage resources
D.1.c	Continuous development of CurricUNET	Curriculum Committee Dean of SS	Curriculum Committee ISS	2011-2015	An improved web curriculum system	Programming staff and management	20 hours per week for ongoing maintenance and user support

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
D.1.d	Develop, expand, and support SARS Suite applications (Trak, Grid, Call, Alert, eSARS) for managing student appointments and tracking student services, tutorial FTEs via positive attendance in compliance with Title 5, and instructional hours at all campus locations	Director of CSS Dean of Counseling Dean of SS Dean of ISS Learning Assistance Services Coordinator	Student Services ISS CSS	2011-2012	SARS Suite applications are installed and supported as needed	Programming staff and management	20 hours per week for ongoing maintenance and user support; annual license renewal cost of \$20,000
D.1.e	Develop online forms for students to register for events or apply for services. Develop technical standards for accessible entry, submission, confirmation, auditing, security, storage, approval, workflow, data protection, archiving, etc.	Director of CSS VPSA VPAA	ISS Student Services	2011-2015	All popular college and district student forms are available online.	Functional, reliable web site	Dependent on scope of project

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
D.1.f	Implement a resource scheduling application that integrates with Datatel Colleague to provide detailed information about room scheduling, inventory, and utilization	Director of CSS	CSS ISS	2011-2012	Schedulers can use this system to schedule classes, meetings, performances, etc., and get room reports.	Collaboration with ISS and Facilities	District to provide estimate of staff time; 120 hours to input resource information; ongoing license costs; staff training; ongoing maintenance and support
D.1.g	Expand the document imaging system to additional offices as requested	Dean of ISS Director of CSS	ISS CSS	2011-2013	Additional offices can use the ImageNow document imaging system to go paperless and conserve paper and storage resources	Funding for document imaging software and hardware; development of new business procedures for managing documents per office	120 hours per department; funding for document imaging software licenses and scanners; funding to replace servers and storage every 4 to 5 years; 8 hours per week for ongoing maintenance and user support
D.1.h	Develop Load Pay – changing formula for paying adjunct faculty from hourly to load-based	Director of CSS	HR CSS ISS Payroll SCEA	Tabled for now	Tabled by Administration	Tabled	ISS involvement with Human Resources and Payroll

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
D.1.i	Implement the Assignment Contract Tracking component of Datatel.	Director of HR	HR ISS CSS Payroll	2011-2015	Contracts are created electronically through Colleague	Funding, consulting and change business practices. Completion of D.1.t	24 months – change Chart of Accounts to baseline of Colleague standards
D.1.j	Implement Time and Attendance Entry directly into the County Payroll system for hourly employees and many special assignments. SWC Human Resources Benefits module.	Director of CSS Director of HR	CSS HR Payroll	2011-2013	Successful submissions of file(s) to County Department of Education	Funding, consulting and completion of D.1.t	Funding, consulting from County, 160 hours.
D.1.k	Develop and implement a HRT electronic workflow	Director of CSS	CSS HR	2011-2013	Forms successfully submitted to HR	Funding	Funding, consulting, 160 hours
D.1.l	Develop People Admin for adverse impact reporting requirement	Director of HR	CSS HR	2011-2012	Reports satisfactory produced	Funding, consulting, training	Funding, consulting, 120 hours
D.1.m	Implement on-line Benefits module	Director of CSS VPHR	CSS HR Payroll	2011-2013	Integration of benefit information in the HR module	Funding, consulting, training	Funding, consulting, 80 hours

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
D.1.n	Review and implement Self Service Copier Card Reader by which access to SWC's self-service copiers is controlled.	OSS Supervisor	OSS	2011-2013	Users trained and using process for self copying	Funding	80 hours from OSS
D.1.o	Develop and Implement Continuing Education Module, placing non-credit training into the college's primary systems.	Director of CSS	CSS Continuing Ed Admissions ISS	2011-2012	Successful registration of students through Web Advisor	Consulting	Programming and consulting, 80 hours
D.1.p	Implement Campus Organizations to tracking and support for student organizations	Director of CSS	CSS Student Activities	2011-2012	Campus clubs and organizations tracked	Consulting	Programming and consulting, 40 hours
D.1.q	Implementation of an Electronic Student Educational Plan (SEP), e-Advising and Degree Audit reporting for the School of Counseling and Personal Development, and Evaluations office	Director of CSS Dean of SCPD	CSS Counseling	2011-2013	Successful implementation of Student Ed Plan and Degree Audit	Funding, consulting	Consulting, programming, funding

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
D.1.r	Develop and implement the automation of Governing Board documents	Director of CSS	Superintendent – President Office CMR	2011-2013	Successful posting of on-line documents	Funding, consulting	Funding, training, consulting Coordination with Community and Media Relations
D.1.s	Organize and implement a campus wide Datatel Users Group	Director of CSS	CSS and Colleague Users Director of Research	2011-2012	Regular meetings and feedback from Colleague users	Support from the campus	Time for Colleague users to meet
D.1.t	Change the current Chart of Accounts to allow Baseline Colleague implementation	VPBFA	BFA CSS	2011-2012	Chart of Accounts changed	Funding	Funding, consulting, 12 months
D.1.u	Develop Online Budget development and Budget transfer processes	VPBFA	BFA CSS	2011-2012	Chart of Accounts changed	Completion of D.1.t	Funding, consulting, 12 months
D.1.v	Develop various HEAT processes	Director of CSS Director of Facilities	CSS Facilities Maintenance	2011-2012	Reports satisfactory produced and assignments made	Funding, consulting, training	Funding, consulting, 80 hours

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
D.2.a	Develop a centralized system for supporting users of custom applications	Director of CSS	CSS	2011-2013	An application support system that is integrated with the SWC Help Desk	Input from Research Department and stakeholders	60 hours to develop new procedures for support and provide training for staff; may need to purchase additional licenses for help desk system
D.2.b	Develop service level agreements for the support of the various network applications that are used by different departments	Director of CSS	CSS with input from various constituencies	2011-2015	Improved support of network applications	Adequate staffing	32 hours for the development of each SLA
D.2.c	Create and implement a course scheduling module that is web-based	Dean of ISS	ISS CSS Facilities	2011-2015	Web-based course scheduling module is implemented; improved efficiency of course scheduling through one paperless process	Funding Collaboration with all scheduling constituents	Possible module purchase through CurriCUNET: \$150,000
D.2.d	Create and implement a web-based Program Review module	IPRC VPAA Director of Research Director of CMR	CSS IPRC CMR Research	2011-2013	Successful submission of electronic program reviews	Funding Collaboration with all Program Review stakeholders	\$150,000 for initial cost; 40 hours to implement

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
D.3.	Conduct an annual proposal process to replace 20-25% of faculty and staff computer systems each year	Director of CSS	CSS	2011-2015	Faculty and staff offices have up-to-date computer equipment	Annual funding	\$80,000 initial cost; 160 to hours each year to install/configure computers
D.4	Develop and implement a new system for network access from off-campus that does not require the installation of client software; this authentication system will provide permission-level access to all authorized network resources	Director of CSS	CSS	2011-2012	Employees can securely access authorized network resources from off-campus	Upgrade existing firewall software	40 hours to research and implement; 8 hours per week of ongoing maintenance and user support
D.5.a	Develop and publish printer standards to govern the purchasing, installation, repair, supplies, and support of office and lab printers (network and stand-alone) and purchase through the technology clearinghouse	Director of CSS	ISS CSS	2011-2012 with annual review	Improved communications for printer purchasing and support processes	Funding, Dependent upon the establishment of the technology clearinghouse.	40 hours to develop and 4 hours per semester to update

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
D.5.b	Review, maintain, and upgrade existing pay-for-print system in computer labs	Dean of ISS Director of CSS	ISS DSS	2011-2015	The pay-for-print system is easier to deploy, maintain, and support in computer labs	Adequate staffing and funding	8 hours per week for ongoing maintenance and user support; use pay-for-print budget
D.6.a	Develop and implement ongoing funding for institutional software licenses as determined by Program Review	Dean of ISS Director of CSS Institutional Program Review Committee (IPRC)	ISS CSS	2011-2015	Reliable source of funding for institutional software	Prioritization of funding	\$100,000 per year
D.6.b	Develop software library and license documentation to account for all copyrighted software installed on any college-owned computer/server	Dean of ISS Director of CSS	ISS CSS Purchasing	2011-2013	CSS staff can readily locate software or license for any application installed on any computer	Collaboration between CSS, ISS, and Purchasing	160 hours to implement; 10 hours per month for ongoing maintenance
D.6.c	Create a centralized clearinghouse for institutional software licensing and provide staffing	Director of CSS VPBFA	CSS Purchasing	2011-2012	Institutional software licensing is ordered through the staffed centralized clearinghouse	Funding Staffing for CSS and Purchasing Coordination with Program Review	60 hours a week for one full-time and one part-time staff person to oversee and purchase all institutional software

ID	Action Items	Lead Manager	Responsible Units	Timeline	Performance Indicators	Dependency	Required Resources
D.6.d	Create a centralized clearinghouse for institutional hardware and peripherals and provide staffing	Director of CSS VPBFA	CSS Purchasing	2011-2012	Institutional hardware and peripherals are ordered through the staffed centralized clearinghouse	Funding Staffing for CSS and Purchasing Coordination with Program Review	60 hours a week for one full-time and one part-time staff person to oversee and purchase all institutional hardware and peripherals
D.7	Development of policies, procedures, and guidelines for college-wide technology requests, usage, services, and support to be included in the SWC Procedures manual as applicable	Director of CSS	CSS Technology Committee in collaboration with ATC	2011-2013	Users will have a better understanding of technology policies and procedures	Policies and procedures reviewed by SCC	40 hours for the improvement or development of each policy or procedure

E. NETWORK INFRASTRUCTURE: Upgrade and maintain the network infrastructure to support comprehensive wireless, voice, video, and data communications with high availability and recoverability.

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resources
E.1.	Ongoing review of current physical and logical design for the SWC network at all campus locations, focusing on high-availability/ high-bandwidth data (wired/ wireless), video, voice communications	Director of CSS	CSS	2011-2015	Documentation of network design	Funding	480 hours to research, develop, and document network design
E.2.a	Replace redundant network switches for the core network at the main distribution facility	Director of CSS	CSS	2011-2013	Improved network availability	Infrastructure project; scheduled network outage	Funding; purchase and installation of core switches; 320 hours to research, configure, install
E.2.b	Install an additional Internet connection to CENIC for redundancy and failover of Internet connectivity	Director of CSS	CSS	2011-2015	Improved Internet availability and redundancy	CENIC project prioritization	Funding for equipment; 80 hours to coordinate and install
E.2.c	Upgrade the electrical backup system to provide power for important network services and related devices in case of a power outage	Director of CSS	CSS	2011-2015	Operational servers remain accessible during power outages	Funding and site survey	An electrical generator and power system that is connected to the main distribution center

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resources
E.3.a	Acquire and implement an enterprise level network monitoring and managing systems at all college locations; develop a service level agreement for network policies and monitoring	Director of CSS	CSS	2011-2013	Readily monitor and control all necessary network traffic	Staffing	Funding for enterprise level network monitoring and management servers and software; 240 hours for research and installation at all college locations.
E.3.b	Proactively monitor network activity at all SWC locations to detect and remedy network failures or malevolence	Director of CSS	CSS	2011-2015	High network availability	Enterprise network monitoring system	2 hours per day, 7 days per week, for monitoring; additional time is required for responding to problems.
E.3.c	Implement network bandwidth shaping to prevent one type of traffic, such as video, from overwhelming all other types of traffic such as web browsing	Director of CSS	CSS	2011-2015	The network will not be overly congested by one type of traffic, such as video.	Network monitoring; approved network shaping policies and procedures	160 hours to research and install; 4 hours per week for ongoing maintenance and user support
E.3.d	Explore and possibly implement a two-factor authentication method for staff and managers who have access to sensitive data	Director of CSS	CSS	2011-2015	Staff and managers use two-factor authentication method to access sensitive data.	Successful pilot of two-factor authentication.	160 hours to explore and pilot a new system. 4 hours per week for ongoing maintenance and user support. Adequate funding for hardware, software and training.

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resources
E.4.a	Develop and implement a plan to identify and remove older data from the SWC network storage arrays onto a fixed storage medium for long-term archive	Director of CSS	CSS	2011-2013	More space is available for current network storage needs	Long-term archive solution	160 hours for initial planning and set up and about 8 hours per month for ongoing maintenance and user support
E.4.b	Provide additional network storage space for employees; In the short-term, this can be accomplished through expanding the existing storage array. In the long-term, new storage technologies may be needed.	Director of CSS	CSS	2011-2013	Ample storage space for documents	Funding	Short-term solution \$20,000 for the expansion of the existing storage technologies; 60 hours to install
E.4.c	Establish secure offsite storage of all backups and archive data files; establish process for destruction of data storage units	Director of CSS	CSS	2011-2012	Secured storage implemented	Secure location for tapes, DVD's, etc.	Funding and secure storage location

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resources
E.5	Develop a multi-tiered disaster recovery plan to restore access to critical information resources in case of a catastrophic outage	Director of CSS	CSS	2011-2012	An approved disaster recovery plan	Funding, staffing, and design	360 hours to develop the plan; need additional storage resources to implement the plan. Virtual servers would help
E.6.a	Virtual servers to replace physical servers in the SWC domain (employee network); Virtual servers consume less power and are more reliable and expandable than current servers.	Director of CSS	CSS	2011-2012	Access to virtual servers	Funding	\$300,000 for servers, licenses, storage, racks, etc.; 160 hours to install virtual servers and decommission old servers; 8 hours per week to monitor and maintain

F. TECHNOLOGY SUPPORT: Provide ongoing training and technology support services to meet the needs of students, faculty, staff, and managers.

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resources
F.1	Develop service level agreements (SLAs) for the Help Desks for all SWC locations	Director of CSS Dean of ISS	Technology Committee ISS CSS ATC OLC	2011-2013	SLAs to cover the major functions of the Help Desks	Collaboration	80 hours for the development of each SLA
F.2	Develop a prioritized staffing plan for hiring additional computer and network staff and management based on Program Review	VPAA	ISS CSS Technology Committee ATC Human Resources (HR) VPAA	2011-2012	An SCC-approved plan for hiring new technical staff and management	CSS Program Review	80 hours to develop the staffing plan; funding
F.3.a	Provide employee training workshops on-campus and online throughout the year	VPHR	CSS Staff Development	2011-2012	Employees are more proficient in the use of these applications.	Employee participation	160 hours per semester for developing/ delivering workshops

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resources
F.3.b	Provide ongoing training and cross-training for CSS staff and management to increase their technical proficiencies and knowledge	VPHR	CSS Staff Development	2011-2015	Technical staff are more proficient and able to cover for each other.	Staff and management participation in classes, workshops, conferences, etc.	20 hours per person per year, maximize the use of district funds for management and classified staff training.
F.4	Provide faculty and classified employee training workshops on-campus and online throughout the year	VPHR	CSS Staff Development	2011-2015	Employees are more proficient in the use of these applications.	Employee participation	20 hours per semester for developing/ delivering workshops

G. DIGITAL COMMUNICATIONS: Develop and support multiple, digital, means of communication between the college, community, and all constituencies.

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resource
G.1.a	Establish district-wide project to unify communications for voice, email, and emerging technologies	Director of CSS	CSS	2011-2015	Unified communication system	District-wide technology infrastructure project	Funding
G.1.b	Implement a one-card system for universal access to all District services and transactions	Director of CSS VPSA VPBFA Dean of ISS	Student Services Bookstore Library Cashiering Facilities	2011-2015	Universal access to all District services and transactions; all District access points are enabled	Collaboration between all relevant College units; distribution of cards and student use of cards for transactions	Funding Infrastructure Technical system development
G.2	Collaboratively develop and implement a project plan for best utilizing the district portal for college communications, student communications, online forms, etc.	Director of CSS	CSS	2011-2015	Portal project plan	Installation of portal and expansion to SWC	160 hours to develop the plan; 16 hours per week to implement the plan; 8 hours per week for ongoing maintenance and user support
G.3.a	Develop new and updated web pages for all offices and departments on campus (required activity)	Director of CMR	All units	2011-2013	All departments are represented on the website with current information	Employee involvement from each department	64 hours per week for training and support of departmental employees

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resource
G.3.b	Hire staff to support faculty in creation and porting of web pages on SWC Website	VPBFA Director of CMR	CMR	2011-2013	All faculty pages moved to SWC web site	Employee participation	16 hours per week for supporting page development
G.3.c	Ongoing review and improvement of the search engine and navigational links of the website through extensive user testing	Director of CMR	CMR	2011-2013	Users can readily find information on the website using search or navigation	Stakeholder input	240 hours for testing and implementation
G.3.d	Remove former SWC website (www2.swccd.edu) from the Internet; provide SWC employees with at least three months of advance notification of when the former website will be removed	Director of CMR	CMR	2011-2014	Website removed	All necessary information from the former website is provided on the new website	24 hours to check the former web services and decommission the website
G.4	Provide additional audio and video conferencing resources to connect individuals/groups between all SWC locations using either software-based systems or new video conferencing units if needed; encourage the use of video-conferencing to reduce travel	VPHR	CSS	2011-2012	Available audio-video conferencing resources for meetings spanning both locations	Appropriate network access between meeting locations; appropriate lighting and sound at each conferencing location	Additional software-based systems or portable video conferencing unit(s); 4 hours of support per meeting.

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resource
G.5	Implement a college-wide emergency notification system to send alerts to students and/or employees in a matter of minutes via one or more self-selected communication means; examples include class cancellations, power outages, etc.; consider digital signage	VPBFA Chief of Campus Police Director of CMR	CSS Campus Police CMR	2011-2012	Notifications can be readily sent to students or employees	Input from Administration and Finance, ISS, Student Services	Depends on the system—it may be possible to fund one system in place of all of the disparate systems used by different offices.
G.6	Create an emerging technology Special Interest Group (SIG) to apprise the Technology Committee of new developments in emerging technologies	Director of CSS	Technology Committee	2011-2015	The Technology Committee and interested parties have updated information about emerging communication technologies	Participation in SIG Participation in users' groups	60 hours per semester for reading publications/websites, attending conferences, discussing findings, and documenting recommendations

TECHNOLOGY INTEGRATION CHART

