

Technology Goals and Strategic Actions:

1. **Student Access:** Provide universal and secure student access to learning resources and support services for all college locations.

ID	Action Items	Lead Manager	Responsible Units - Development	Time-line	Performance Indicators	Dependency	Required Resources
			Responsible Units - Implementation				
1A	Identity management: Implement a new student account system that requires students to individually log into college network resources such as the wireless network or lab computers. Use the district portal student accounts which will eventually replace WebAdvisor accounts	M. Becker	LMC IT District IT		Working authentication system that is available for student user and is based on WebAdvisor.		District and LMC IT staff to design, develop and implement authentication system.
1A1	Wireless Network		LMC IT District IT				
1A1.1	Pittsburg Campus		LMC IT District IT		Wireless system integrates with Identity Management system and requires students to authenticate using WebAdvisor account username and password.	1A	

1A1.2	Brentwood Campus		LMC IT District IT		Wireless system integrates with Identity Management system and requires students to authenticate using WebAdvisor account username and password.		
1A2	Computer Labs		LMC IT District IT				
1A2.1	Pittsburg Campus		LMC IT District IT		Computer lab workstations integrate with Identity Management system and require students to authenticate using WebAdvisor account username and password.		
1A2.2	Brentwood Campus		LMC IT District IT		Computer lab workstations integrate with Identity Management system and require students to authenticate using		

					WebAdvisor account username and password.		
1B	Computer lab operations: Develop and implement college standards to adequately staff and support all current and future student computer labs.		LMC IT TAG		A staffing plan for all computer labs has been developed and implemented. Review staffing needs annually during RAP process.	Budget availability for implementation.	
			Presidents Cabinet				
1B.1	Pittsburg Campus						
1B.2	Brentwood Campus						
1C	Computer lab hardware and software: Conduct ongoing assessment of the adequacy of student computer labs at both the Pittsburg and Brentwood campuses to assure that hardware and software meet the needs of instructional programs. These assessments will utilize program review information and the age of the computers, and will, in turn, be used as criteria for prioritizing the replacement of lab hardware and software		LMC IT Department Deans		Using faculty and staff input, determine that lab software and hardware meet the needs of instruction taking place in each computer lab.		
1C.1	Annually assess performance of				Annual		

	<p>computer labs' adequacy with regard to the mission of the labs.</p>				<p>assessment of computer lab hardware and software is completed and used for resource allocation.</p>		
1C.2	<p>Develop and implement a procedure to:</p> <ul style="list-style-type: none"> • Maintain a database of computer lab hardware. • Determine the ability of existing hardware to meet the needs of each computer lab. • Prioritize the replacement or update of computer lab hardware. 				<p>The procedure is developed, implemented, and utilized in Program Review (PR) and to determine resource allocation (RAP).</p>		
1C.3	<p>Develop and implement a procedure to:</p> <ul style="list-style-type: none"> • Determine the software that is currently installed or required in each computer lab. • Assess the adequacy of currently installed software. • Acquire the software or required software updates/upgrades • Catalog (track) licenses and installation • Deploy the software. 				<p>The procedure is developed, implemented, and utilized in Program Review (PR) and to determine resource allocation (RAP).</p>		

1D	Online courses and/or program: In order to improve student access, provide the technical infrastructure and support for additional online courses and/or program.	T. Beal M. Becker	DEC LMC IT				
1D.1	Determine the ability of current infrastructure and support to meet the needs of existing and anticipated online course and program offerings.				An annual assessment of the current infrastructure (Course Management System (CMS) and server) is performed.		
1D.2	Supplement infrastructure and support to meet the anticipated needs of online courses and programs.				Based on annual assessment in 1D.1, recommendations for infrastructure upgrades are made and acted on.		
1E	Online learning and support services: Provide online access to all learning resources and student support services to assure equitable access and meet identified student needs.	T. Beal M. Becker	DEC LMC IT		Need to clarify this action item – talk with DEC and Kathy Cullar on what resources we should address here and specify them.		
1F	Pay for Print: Continue to develop		LMC IT		Pay for Print		

	and implement the pay-for-print system in all student computing areas.		Library		access is available and functional at all identified student computing areas.		
1F.1	Provide wireless printing in the LMC Library.				Wireless printing is available in the Library.		
1F.2	Provide a location for Pay for Print printing before and after hours.				A location for after-hours printing has been implemented.		

2. Instructional Technology: Support the success of all students through the adoption of proven instructional technologies including the delivery of instructional media for use on and off campus, exploring the benefits of cloud computing such as SlideLive or Tegrity or Sonic Foundry.

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resources
2A	Mac Use Plan: Update all technology documentation to include Macintosh support.	M. Becker C. Corlew	TAG		Guidelines for purchasing, installation, and support of Mac computers are developed.		
2A.1	Enhance Technical Support Availability for Macintosh Computers.		LMCIT		On-campus (tier one) and third party (tier two) support for Macintosh computers is available.		
2C	Online lectures ¹ : Investigate automated processes for capturing on-campus lectures (audio and/or video and/or		LMC IT&S District and				

¹ Instructional materials must meet the electronic and information technology accessibility requirements of Section 508 and be in compliance with copyright laws.

	lecture resources) to publish online. Make recommendations on findings.		groups from other campuses				
2D	Smart classrooms: Continue to develop standards for smart classrooms and upgrade older rooms to meet the new standards with the goal of having all LMC classrooms possessing the necessary technology for instructional effectiveness.	LMC IT&S			Smart Classroom specification is updated annually to reflect LMC's current needs.		
2D.1	Provide regular training for use of Smart Classrooms (training requirements for instructors using Smart Classrooms)	LMC IT&S			Training for Smart Classroom use is scheduled at the start of each semester.		
2E	Instructional video: Develop new processes for efficiently licensing and delivering copyrighted and captioned instructional videos to students on and off-campus and for classroom use by faculty.				Edustream for storage Visit later – contact Frances Moy – need some guidelines, rules, training		
2F	Computer Labs: Investigate the use of desktop virtualization for deploying student computer lab images and implement if practical.				1) The feasibility of desktop virtualization is determined. 2) A plan for implementing desktop virtualization has been developed.		

3. Administrative Computing: Develop and improve secure computing systems and databases to increase institutional efficiencies and help address campus reporting needs and requirements.

ID	Action Items	Lead	Responsible	Time-	Performance Indicators	Dependency	Required Resources
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		Manager	Units	line			
3A	Custom application development: Standardize the development and maintenance of custom network/database applications for college operations in order to increase institutional efficiencies and help address campus reporting needs and requirements.				A set of standard procedures for the development and maintenance of custom network/database applications has been developed.		
3A. 1	Applications required for college operations have been identified.				Applications to replace current paper-based processes have been identified (e.g., Program Review, Resource Allocation Process).		
3A. 2	Develop identified applications				Applications have gone through the following development steps: 1) Initial design of workflow and user interface 2) Development of prototype 3) Testing of prototype 4) Deployment of current version of application 5) Use and identification of fixes and enhancements 6) Re-start at step 2		
3B	Network application support: Develop standardized				A procedure has been		

	procedures for requesting network applications and services.				developed for requesting network applications that requires the use of the process outlined in 3A for development.		
3C	Computer hardware and software standards: Maintain up-to-date computer hardware and software standards				Standards for computer hardware and software have been developed and are updated regularly.		
	Develop and implement processes for centralized institutional purchasing of campus hardware, software and other technology-related items.				A process for centralized purchasing of technology related items has been developed, communicated, and implemented.		
3D	Printer standards and support: Develop and implement standards to govern the purchasing, installation and support of campus printers.				Standards for purchase, installation and support of campus printers have been developed and implemented.		
3D	Develop plans for the replacement of campus computers with the goal of upgrading campus technology as frequently as possible based on funding and other constraints. The goal will be to ensure adequate computing resources for students and staff.				Plans have been developed for the timely replacement of computing resources.	Funding	
3E	Institutional software licenses: Provide institutional licensing and ongoing funding for widely used software such as office-productivity, online courses, antivirus protection, and website content management.				Requirements of institutional software have been identified, license requirements determined, funding sources identified, installation processes		

					created, and update/upgrade/renewal requirements considered.		
	<p>Specialty software licenses: Processes for identification, purchasing, installation and support of specialty software to be used in specific campus areas have been developed and implemented.</p>				Requirements for specialty software have been identified, license requirements determined, funding sources identified, installation processes created, and update/upgrade/renewal requirements considered		
3F	<p>Policies and procedures: Development and the continuous improvement and development of college-wide policies and procedures for:</p> <ul style="list-style-type: none"> • Technology requests, • Services, and • Support. 				<p>College-wide policies and procedures have been developed that outline requests for purchasing technology (software, hardware, etc.), services, and support.</p> <p>These policies and procedures will be evaluated and updated annually.</p>		
3F.1	<p>College-wide policies and procedures for technology have been communicated and are followed by the LMC community.</p>				<p>College-wide policies and procedures for technology have been communicated to the LMC community and are routinely followed. Changes to the policies and procedures will be</p>		

					communicated in a timely manner to the LMC community.		
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4. 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
4A	Wireless access: Build on the existing wireless infrastructure to implement comprehensive wireless access for students, employees and authorized guests throughout the college including key outdoor areas				Expansion of the wireless system will be performed under the District-wide Infrastructure Upgrade Project.		
4B	Network infrastructure standards: Work with District and other campuses in the District to develop updated network infrastructure standards to be applied to all existing and new LMC buildings. Implement the new standards to ensure high availability and quality of service for voice, video and data throughout the college and district.				Network infrastructure standards have been developed at the District level and are updated regularly.		
4C1	Network management: Continue to implement enterprise level network management tools to monitor and control all critical network resources at all college locations.				Enterprise-level network management will be provided by the District-wide Infrastructure Upgrade Project		
4C2	Network management: Develop and implement emergency response procedures for network outages or attacks.				Emergency response procedures for network outages or attacks have been developed and implemented.		

4D	Network storage: Complete implementation of SAN (Storage Area Network) project to provide secure and centralized network storage, backup and recovery services to meet the operational needs of the college.				The implementation of the SAN is complete and centralized network storage is complete and backup and recovery services are operational.		
	Network storage: Develop and implement a data archiving and retrieval process.				Data archiving and retrieval processes have been developed and implemented.		
4E	Disaster recovery: Update and implement the disaster recovery plan developed in 2006 to restore access to critical information resources in case of a catastrophic outage.				The 2006 disaster recovery plan has been updated and implemented.		
4F	Administrative server virtualization: Deploy virtual servers to replace physical servers. This will promote “Green IT”, support disaster recovery, and provide flexibility to provide additional network services and solutions.				All physical servers that can be virtualized have been virtualized. Future network services take advantage of virtualization.		

5. Technology Support: Provide ongoing training and critical support services to faculty, staff and students.

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resources
5A1	Basic Help Desk: Adopt a responsive and comprehensive LMC Help Desk that handles basic college technology support requests in a timely and efficient manner for all college locations.				Develop a comprehensive Help Desk to provide basic support for the following applications: <ul style="list-style-type: none"> • E-mail • Lost passwords 		

					<ul style="list-style-type: none"> • Learning Management System • Campus Network Applications • Hardware issues • Other 		
5A2	Advanced Help Desk: Adopt a responsive and comprehensive LMC Help Desk that handles more advanced college technology support requests in a timely and efficient manner for all college locations.				Develop an advanced Help Desk to provide solutions to support requests that cannot be handled at a basic level.		
5B	Technical staff and managers: Create and maintain the right-size technical support staff and managers to proximate industry best practices and to meet the recommendations of the Gartner Group Total Cost of Ownership recommendations in the California Community College Technology II Plan (CCC_Chancellor's_Office, 2000) .				Sufficient technical support staff and managers have been employed and retained to meet the recommendations.		
5B.1	Technical staff and manager staffing levels are evaluated and staffing recommendations made on an annual basis.				Staffing levels have been reviewed relative to accepted industry standards each year and recommended adjustments made to staffing based on findings.		

6. Digital Communications: Support and help develop digital means of communication between the college, community, and all constituencies.

ID	Action Items	Lead Manager	Responsible Units	Time-line	Performance Indicators	Dependency	Required Resources
6A	Unified communications: Coordinate with District Office			March,	Unified communication is		

	IT to implement a system that unifies all forms of communication including voice-mail, email, and emerging technologies.			2012 – September, 2013	a feature of the new voice-mail system that is being implemented during the District-wide Infrastructure Upgrade Project.		
6A.1	The usefulness of emerging technologies in unified communications is evaluated each year and new technologies are implemented based on evaluations.				Emerging technologies for unified communications are evaluated in conjunction with District IT staff for usefulness and feasibility. Selected unified communications technologies will be implemented.		
6B1	District portal (InSite): The use of InSite is established as the primary mode of communication with the LMC community for: <ul style="list-style-type: none"> • student access to college support services • access to online forms • employee access to College-wide information • employee access to departmental information 		District IT		InSite has been established as the primary communication mode for identified information.		
6B2	District portal (InSite): Awareness of the availability of InSite as a communication and information portal for face-to-face classes is widespread across the campuses.		LMC IT		Instructors are aware of the availability of InSite for use as a supplementary instructional tool and as an alternative to a Blackboard classroom. Instructors are using InSite to supplement face-to-face courses.		
6C	Website development: Marketing department to		Marketing		The LMC website has		

	completely re-structure the LMC website to improve access for current students, future students, high school students, adult students, international students, business and community, faculty and staff.				been restructured to improve access for the identified groups.		
6C.1	Ensure that all faculty and all departments have current and accurate information on the college website and that all web pages are examined by their “owners” on an annual basis at a minimum.		Marketing Web page “owners”		Faculty and all departments have up-to-date web pages and are updating them as needed and not less than annually.		
6D	Video conferencing: Identify the need for additional audio and video conferencing resources to connect individuals/groups between LMC’s Pittsburg and Brentwood Campuses as well as off-site locations.				The need for additional audio and video conferencing resources has been identified and re-assessed annually.		
6D.1	Provide and support additional audio and video conferencing resources as identified.				Additional audio and video conferencing resources have been provided and supported – including training.		
6E	Time-sensitive notifications: Implement a college-wide external 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 message, phone/voice-mail, and email. Utilize the system for any time-sensitive notifications.		Office of Instruction/Marketing		A college-wide external notification system has been identified and implemented. The system will be evaluated annually and updated as deemed necessary.		

7. Professional Development: Provide faculty and staff opportunities for professional development in the areas of technology, media, and in the use of media and technology in instruction.

7A	Instructor support: Provide faculty training and support for the development and delivery of curriculum using instructional technology resources. The goal is to provide students, both on and off-campus, content using these instructional technology resources.		PDAC		Training and support for the development and delivery of curriculum using instructional technology has been provided.		
7B	Technology training for operations and support: Provide ongoing training and support in the use of productivity technologies for faculty, staff, and managers.		LMC IT PDAC		Training and support for the use of productivity technologies has been provided.		
7C	Technology training for teaching and learning: Provide ongoing training and support in the use of instructional technologies for students and faculty.		PDAC		Ongoing training and support for the use of instructional technologies has been provided to students and faculty.		
7D	The need for technology training in all areas is evaluated on an annual basis.		PDAC		The evaluation is completed annually.		