

Shasta-Tehama-Trinity
Joint Community College District

TECHNOLOGY MASTER PLAN

2017 – 2022

Technology Master Plan Mission

The Technology Master Plan (TMP) will support the values and goals established by the Educational Master Plan. It will provide a roadmap by which Shasta College Information Services & Technology Support can efficiently and effectively implement and promote technology systems. These systems will enhance instructional delivery, student learning, and support systems to enable the district to perform its mission and achieve strategic objectives.

Introduction

Shasta College has experienced significant technological changes in its instructional and operational environments, and these changes have fundamentally enhanced our ability to affect student success. Through technology we are building greater awareness of educational opportunities and providing greater access to educational resources for our students, faculty, staff and community members. Technology is changing the way we reach our students both inside and outside the classroom, and has the potential to change the way we communicate, make decisions, and conduct our business as a California Community College.

The Information Systems and Technology Support Department (I.T.) supports the district's mission through its two components. Information Systems manages e-mail services, user accounts, MyShasta and Colleague, phone/voice mail, network/Internet, document storage and web services. Technology Support is responsible for the staff help desk, classroom and lab support, office technology devices, video conferencing/ITV support and AV for public events. The district's online presence via Canvas is supported by the Educational Technology staff within the Library Services and Educational Technology Division and works closely with I.T. to ensure access and availability of the online educational environment.

Shasta College has identified technology and its uses as central to the success of its students and employees. In order to maintain its competitive edge, Shasta College I.T. must support a robust, reliable infrastructure for the effective and efficient delivery of information, instruction, training, and all technology-based services. Technology has become an essential component in the operations of the college, from the delivery of a distance education curriculum, to direct classroom support, to the college's business processes. Information itself is a strategic organizational asset and must be carefully managed and protected. Success at using information technology requires not just a one-time investment but constant updating of hardware, software, methods, and support models. Life-cycle replacement funding should be built into planning at every level of investment in information technology (including instructional labs, personal computers, multimedia, departmental and institutional servers, applications, network hardware and software).

Guiding Principles

- All goals and activities contained in the TMP were developed to directly support the educational goals of the College, as articulated in the Strategic Plan, Educational Master Plan, and Facilities Master Plan.

- The TMP is one of the district’s key strategic plans and plays a critical role in the success of the Strategic Plan, Educational Master Plan, Facilities Master Plan, and ultimately the College Mission.
- As the detailed design and planning phases are implemented through the TMP, the Shasta College I.T. Department will identify technology issues and initiatives to be incorporated into relevant plans.
- A significant number of demands for technology-related support will compete for potentially limited resources; including funding, staff, time and expertise. Consequently, the use of resources allocated to technology will be driven by needs, which are identified and prioritized in this plan as the first step of a selection process involving the appropriate campus committees and decision-makers.

Technology Planning Goals and Activities

1. Annually develop strategic initiatives in support of the mission of the District.

Strategy: Identify patterns in resource requests and help develop institutional strategies for technology deployment.

Activities:

1. Work with students, faculty, staff, departments, and participatory committees to develop initiatives based on the needs of the district.
2. Survey students, faculty, and staff to gain an insight as to their satisfaction with current technology and to identify gaps in technology needs.
3. Host focus groups to assess identified gaps in technological needs.
4. Implement the ECAR student and faculty technology survey on a three-year cycle in collaboration with the Office of Research and Institutional Effectiveness.

2. Develop and implement college-wide technology procedures and standards in collaboration with stakeholders.

Strategy: Improve efficiency and standardize procedures.

Activities:

1. In conjunction with the Business Office, review, update and publish technology purchasing procedures.
2. Review, update and publish standards for technology infrastructure including data center technologies, cabling infrastructure, wireless infrastructure, classroom technologies, and office technologies.
3. Develop and document security procedures and standards for data, access, and physical infrastructure.
4. Develop and implement a Total Cost of Ownership model for technology.

3. Support instruction and student learning through technology.

Strategy: Develop and support a robust device agnostic and comprehensive WiFi network.

Activities:

1. Assess needs and expectations through the use of surveys and focus groups.
2. Plan wireless coverage area according to needs.

3. Evaluate, select, and purchase a WiFi solution and hardware to fit institutional need.
4. Create a secure environment for use by faculty, staff, students and guests.
5. Create WiFi usage policies and procedures.
6. Provide training materials for the safe and secure use of the district WiFi solution.

Strategy: Work with Instruction to plan classroom technology needs.

Activities:

1. Articulate minimum technology standards for classrooms.
2. Support the design of classrooms for the 21st Century by developing a classroom technology plan to meet different instructional approaches.
 - Direct instruction (didactic)
 - Whole group collaboration, inquiry-based learning
 - Small group collaboration, cooperative learning
 - Laboratory/kinesthetic learning
 - Computer Labs
3. Develop experimental classrooms (in collaboration with the Office of Instruction) to test new technology for wide scale adoption.

Strategy: Evaluate the technology used to provide live, face-to-face lecture to distant locations within the district.

Activities:

1. Work with the Distance Education Committee to assess current technologies, and when possible and prudent, make adjustments to design where needs are unmet.
2. Develop a plan to update extended education classroom facilities.
3. Support institutional initiatives to extend this service into area high schools and to support regions outside of the district.

4. Support student services through technology by collaborating and continuing to enhance service delivery via the best innovative practices.

Strategy: Work with Student Services to improve retention and streamline enrollment processes for students.

Activities

1. Implement and support student retention tools (aka Hobson's/ Starfish Early Alert).
2. Support website redesign with a focus on student needs. The new website will be built with a responsive design architecture to support multi-platform/mobile access.
3. Implement a mobile app that supports numerous student information and service needs such as setting appointments, enrolling in courses, and accessing degree and program information.
4. Implement CCCAssess Common Assessment when it becomes available.
5. Fully implement Financial Aid automated processing and self-service functionality.
6. Update transcript template to reflect the baccalaureate degree and other initiatives.

7. Enhance high speed scanning processes to ensure all student records, files and documents are safely warehoused, and accessible through current database platforms.

Strategy: Improve efficiencies and information systems for students.

Activities:

1. Implement single-sign-on student portal that provides access to all online services for which authentication is required.
2. Develop and implement a Student Technical Assistance /FAQ system.
3. Implement automated student education plan builder (aka Hobson's/ Starfish).
4. Improve student, faculty and staff usability of MyShasta while providing better access to information.

5. Improve and increase faculty, staff, and student access to information and related technology throughout the district.

Strategy: Enhance learning opportunities and access to technology for staff and students.

Activities:

1. Implement Office365 for students and staff.
2. Enhance technology training and support for students, faculty and staff.

Strategy: Improve access to information to facilitate informed decision-making for institutional effectiveness.

Activities:

1. Expand deployment of Tableau District-wide for staff and faculty for better access to data and creating a mechanism for making data-driven decisions.
2. Develop relevant data dashboards for both operational and historical reporting.
3. Support the establishment of a data warehouse for better access to historical trend data reporting and analysis.
4. Initiate a MIS data workgroup to make recommendations regarding data pathways.

Strategy: Work with Instruction, Student Services, and Administrative Services to leverage business information systems to improve efficiencies.

Activities:

1. Expand functionality in Colleague to automate business processes including automated workflow for document imaging.

Strategy: Enhance communication between IT and the rest of the Campus Community.

Activities:

1. Provide system outage information via the IT website.
2. Implement the ECAR student and faculty technology survey on a three-year cycle in collaboration with Institutional Effectiveness.

3. Share ideas about classroom technology deployment with the Faculty Instructional Technology Committee to receive feedback and advice.
4. Expand, promote and continue to improve the use of the I.T. Help Desk system.

6. Develop a disaster recovery plan to ensure instructional and business continuity in the event of data and/or services loss due to a catastrophic event.

Activities:

1. Research and implement best practices for disaster recovery and business continuity planning.
2. Evaluate and identify software and hardware necessary to ensure business continuity.
3. Using established planning processes, identify funding mechanisms for purchasing identified hardware and/or software.

Integrated Planning

Shasta College I.T. embraced the district's Annual Area Planning initiative (AAP) process in order to secure support for the hardware and software required for the district to meet its mission, institutional goals and support the Educational Master Plan. The AAP initiative review process steps include Technology Department input in order to provide for more informed equipment and software decisions and to reduce project delays and cost overruns at time of implementation. The AAP process has also been embraced by the Technology Planning Committee (TPC) and is one of the components used to develop TPC goals and activities.

Total Cost of Ownership

Shasta College is moving toward integrating the business practice commonly referred to as the Total Cost of Ownership (TCO), which provides an estimate of the total cost to deploy and maintain a given technology over its lifetime. This is considered an essential aspect of financial planning because technology deployments typically incur, over their lifetime, a variety of direct or indirect operational costs that are less apparent than the initial capital expense of deployment.

One specific aspect of TCO planning is the cost to replace the technology as it ages. This is particularly relevant to Shasta College because, while many technology deployments at the college are initiated by special one-time funds (such as grants, special programs, etc.), the replacement costs are typically borne by the district. As one-time funded projects age, the district must allocate funds to replace or maintain obsolete systems. By budgeting for the inevitable replacement costs, the college will be better able to plan instructional and administrative programs, confident that the underlying technology will be maintained at the appropriate standard.

Assessment and Review

The Technology Master Plan is a five-year plan, so in order to maintain currency and effectiveness, it will be reviewed and the goals and activities updated annually as needed. The TPC will conduct assessments to ensure alignment with district integrated planning and approved Annual Area Plans. Additionally, the TPC will

evaluate the progress the district has made toward each of the goals and activities. Finally, the TPC will review current trends and changes in information technology and education, and will make any necessary recommendations for modifications or additions to the activities listed under each of the goals.

The TPC will evaluate the Technology Master Plan in its entirety towards the end of the five-year cycle. Using survey data and other qualitative assessments, the TPC will evaluate progress and currency of all planning elements and make recommendations for plan revisions if need be.

APPENDIX A

Technology Plan 2017-2022 Performance Timelines

| GOAL | Strategy | Activity | Timeline | Status | Notes |
|---|--|---|----------|--------|-------|
| 1. Annually develop strategic initiatives in support of the mission of the District. | 1. Identify patterns in resource requests and help develop institutional strategies for technology deployment. | 1. Work with students, faculty, staff, departments, and participatory committees to develop initiatives based on the needs of the district. | | | |
| | | 2. Survey students, faculty, and staff to gain an insight as to their satisfaction with current technology and to identify gaps in technology needs. | | | |
| | | 3. Host focus groups to assess identified gaps in technological needs. | | | |
| | | 4. Implement the ECAR student and faculty technology survey on a three-year cycle in collaboration with the Office of Research and Institutional Effectiveness. | | | |
| 2. Develop and implement college-wide technology procedures and standards in collaboration with stakeholders. | 1. Improve efficiency and standardize procedures. | 1. In conjunction with the Business Office, review, update and publish technology purchasing procedures. | | | |
| | | 2. Review, update and publish standards for technology infrastructure including data center technologies, cabling infrastructure, wireless infrastructure, classroom technologies, and office technologies. | | | |
| | | 3. Develop and document security procedures and standards for data, access, and physical infrastructure. | | | |
| | | 4. Develop and implement a Total Cost of Ownership model for technology. | | | |
| 3. Support instruction and student learning | 1. Develop and support a robust | 1. Assess needs and expectations through the use of surveys and focus groups. | | | |

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| through technology. (Continued on next page) | device agnostic and comprehensive WiFi network. | 2. Plan wireless coverage area according to needs. | | | |
| | | 3. Evaluate, select, and purchase a WiFi solution and hardware to fit institutional need. | | | |
| | | 4. Create a secure environment for use by faculty, staff, students and guests. | | | |
| | | 5. Create WiFi usage policies and procedures. | | | |
| | | 6. Provide training materials for the safe and secure use of the district WiFi solution. | | | |
| 3. Support instruction and student learning through technology. (Continued from previous page) | 2. Work with Instruction to plan classroom technology needs. | 1. Articulate minimum technology standards for classrooms. | | | |
| | | 2. Support the design of classrooms for the 21st Century by developing a classroom technology plan to meet different instructional approaches. --Direct instruction (Didactic) --Whole group collaboration, inquiry-based learning --Small group collaboration, cooperative learning --Laboratory/kinesthetic learning --Computer labs | | | |
| | | 3. Develop experimental classrooms (in collaboration with the Office of Instruction) to test new technology for wide-scale adoption. | | | |
| | 3. Evaluate the technology used to provide live, face-to-face lecture to distant locations within the district. | 1. Work with the Distance Education Committee to assess current technologies, and when possible and prudent, make adjustments to design where needs are unmet. | | | |
| | | 2. Develop a plan to update extended education classroom facilities. | | | |
| | | 3. Support institutional initiatives to extend this service into area high schools and to support regions outside of the district. | | | |

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| 4. Support student services through technology by collaborating and continuing to enhance service delivery via the best innovative practices. (Continued on next page) | 1. Work with Student Services to improve retention and streamline enrollment processes for students. (Continued on next page) | 1. Implement and support student retention tools (aka Hobson's/ Starfish Early Alert). | | | |
| | | 2. Support website redesign with a focus on student needs. The new website will be built with a responsive design architecture to support multi-platform/mobile access. | | | |
| | | 3. Implement a mobile app that supports numerous student information and service needs such as setting appointments, enrolling in courses, and accessing degree and program information. | | | |
| | | 4. Implement CCCAssess Common Assessment when it becomes available. | | | |
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| | | 6. Update transcript template to reflect the baccalaureate degree and other initiatives. | | | |
| | | 7. Enhance high speed scanning processes to ensure all student records, files and documents are safely warehoused, and accessible through current database platforms. | | | |
| | 2. Improve efficiencies and information systems for students. | 1. Implement single-sign-on student portal that provides access to all online services for which authentication is required. | | | |
| | | 2. Develop and implement a Student Technical Assistance /FAQ system. | | | |
| | | 3. Implement automated student education plan builder (aka Hobson's/ Starfish). | | | |
| | | 4. Improve student, faculty and staff usability of MyShasta while providing better access to information. | | | |
| | 5. Improve and increase faculty, staff, and student access to information and related | 1. Enhance learning opportunities and access to technology for staff and students. | 1. Implement Office365 for students and staff. | | |
| 2. Enhance technology training and support for students, faculty and staff. | | | | | |

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| technology throughout the district. (Continued on next page) | 2. Improve access to information to facilitate informed decision-making for institutional effectiveness. | 1. Expand deployment of Tableau District-wide for staff and faculty for better access to data and creating a mechanism for making data-driven decisions. | | | | |
| | | 2. Develop relevant data dashboards for both operational and historical reporting. | | | | |
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| | | 4. Initiate a MIS data workgroup to make recommendations regarding data pathways. | | | | |
| 5. Improve and increase faculty, staff, and student access to information and related technology throughout the district. (Continued from previous page) | 3. Work with Instruction, Student Services, and Administrative Services to leverage business information systems to improve efficiencies. | 1. Expand functionality in Colleague to automate business processes including automated workflow for document imaging. | | | | |
| | | 4. Enhance communication between IT and the rest of the Campus Community. | 1. Provide system outage information via the IT website. | | | |
| | | | 2. Implement the ECAR student and faculty technology survey on a three-year cycle in collaboration with Institutional Effectiveness. | | | |
| | | | 3. Share ideas about classroom technology deployment with the Faculty Instructional Technology Committee to receive feedback and advice. | | | |
| 4. Expand, promote and continue to improve the use of the I.T. Help Desk system. | | | | | | |
| 6. Develop a disaster recovery plan to ensure instructional and business continuity in the event of data and/or services loss due to a catastrophic event. | | 1. Research and implement best practices for disaster recovery and business continuity planning. | | | | |
| | | 2. Evaluate and identify software and hardware necessary to ensure business continuity. | | | | |
| | | 3. Using established planning processes, identify funding mechanisms for purchasing identified hardware and/or software. | | | | |