



## Information Technology Strategic Plan 2010-2013

*Vision Statement: In alignment with the college mission, De Anza will use information technology to enhance access, learning, retention and success.*

### **Guiding Principles**

De Anza College is complex in both its organization and its technology which requires competing information technology (IT) needs be carefully evaluated to ensure the optimal use of limited resources. Information technology decision-makers must therefore balance:

- Innovation vs. stability/reliability
- Standardization vs. autonomy/experimentation
- Ease of access vs. security/privacy
- Consensus vs. efficiency in decision-making
- Centralization vs. distributed services
- Proprietary vs. open source

### **Critical Issues**

Areas in which the campus faces significant IT-related opportunities or challenges include the following:

- 1. Teaching and Learning:** Integrating technology into classroom-based instruction to increase access to information and enhance student learning.
- 2. Student Experience:** Continuing to deliver high-quality technology-mediated courses, programs and student services.
- 3. Security, Reliability, Access:** Collaborating with district Educational Technology Services (ETS) to provide, implement and support appropriate and secure campus information technology.
- 4. Staff Development:** Providing ongoing technology-related professional development and training programs for all employees.
- 5. Communications:** Facilitating effective communication and open access to information.
- 6. Funding:** Allocating appropriate district and college funds for technology as a part of a comprehensive, long-range plan for implementing the De Anza College Information Technology Strategic Plan.

**7. Governance Structure:** Maintaining an appropriate campus technology governance structure with major responsibility for prioritizing and coordinating campus technology initiatives in accordance with the De Anza College Information Technology Strategic Plan.

### **Critical Issue 1. Teaching and Learning**

Integrating technology into classroom-based instruction to increase access to information and enhance student learning.

#### **Description or Problem Statement**

In order to promote more effective learning, pedagogical practices increasingly emphasize teaching students how to find, evaluate and apply information rather than to simply memorize facts. This information literacy is specifically called out as a core competency in the college mission.

New learning tools and learning spaces are needed to bring together people with common interests and to foster collaboration among students and among instructors, as well as collaborations among students, instructors and other learning partners.

The digital teaching and learning environment raises new, complex questions concerning copyright and intellectual property. A user-friendly management infrastructure is needed to protect our own rights and to respect the rights of others.

Campuswide leadership, a coherent governance structure, and sufficient ongoing funding to fully support priorities are needed to support effective teaching and learning.

A culture of continuous analysis and feedback is necessary to ensure De Anza delivers both relevant and useful technology.

#### **Examples/Existing Challenges**

1. Instructors do not always know how to create effective project-based learning and assessment alternatives to traditional lectures and standardized exams and tests.
2. Some classrooms are not flexible enough to accommodate both lecture and non-lecture pedagogical styles, both of which may be used within the same course.
3. The current classroom physical and technological infrastructure may not be equipped to support collaborative learning.
4. Many instructors do not have the skill-set to foster collaborative learning outside of class.
5. Instructors who are collaborating on interdepartmental, interdisciplinary, team-taught courses do not have adequate tools to support these courses.
6. There is limited awareness of how to leverage the sophisticated social networking environments (e.g., Facebook) to which students are accustomed.
7. Instructor use of course Web sites, webcasts and other instructional technology tools are not always keeping pace with student demand.

8. Instructors and college administrators may unwittingly violate copyright laws when posting and distributing course materials, syllabi and other materials.
9. Faculty members see more instances of student plagiarism due to online access of material.
10. Teaching innovations tend to be driven by individual entrepreneurs, and there are few mechanisms to encourage sustainability and portability so that innovations can be scaled.
11. Instructor training and support either are not available, or instructors cannot easily identify and locate the services they need.
12. Demand for 24/7 support services is increasing.
13. Instructors have limited access to and little training on assessment, evaluation and feedback tools.

## **Preliminary Goals**

**Teaching and Learning 1:** Provide support and troubleshooting assistance in a Web-based environment for students having instructional technology-related issues.

**Teaching and Learning 2:** Provide levels of technology in the classroom that will lead to success for students with different learning needs.

**Teaching and Learning 3:** Continue installation of additional smart classrooms so that all classrooms will have multimedia equipment by 2015.

**Teaching and Learning 4:** Develop and implement mechanisms to improve retention and persistence in all courses.

**Teaching and Learning 5:** Establish college-specific standards for technology-mediated course delivery tools.

**Teaching and Learning 6:** Collaborate with ETS and the Technology Resources Group to maintain classroom-related technologies on a regular and efficient schedule.

**Teaching and Learning 7:** Continuously monitor industry trends to identify new technologies and their potential applications to teaching and learning and student services.

**Teaching and Learning 8:** Support campus initiatives regarding De Anza's commitment to Information Literacy as a core competency.

## **Current Actions to Meet Goals**

1. The Catalyst system provides Internet-based course delivery and in-house student technical support for both on-campus and online instruction.
2. A campus-wide Web content management system allows campus faculty to provide more consistent, up-to-date Web information for students.

3. Measure C will provide funding to continue to equip classrooms with the latest in digital multimedia presentation tools.
4. Wireless implementation, when completed, will allow larger numbers of students to access instructional information more quickly and conveniently.

### **Future Actions Needed to Meet Goals**

1. Provide the opportunity for all instructors to teach in a classroom environment that offers appropriate learning technologies and supports a diverse range of teaching strategies.
2. Create a learning environment that supports communication and collaborations among students, instructors and other academic partners.
3. Explain and describe the tools and features available in the course management system and the content management system to assist faculty in application of each system as appropriate.
4. Track, assess, integrate and support emerging collaborative and sharing technologies, including social networking tools, to enhance the learning environment.
5. Promote pedagogical methods that use technology to increase the effectiveness of learning.
6. Research and design classrooms to accommodate active learning techniques, especially for large-enrollment classes.
7. Develop a technology training plan to provide training for effective use of campus-supported tools.
8. Develop a plan to raise awareness of significant legal and ethical issues concerning sharing of intellectual property and other digital content among students, faculty and staff.
9. Regularly update Fair Use Policy for digital media.
10. Support the use of alternatives to traditional course materials (e.g., Open Courseware, accessible technology, digital textbooks, etc.)

### **Critical Issue 2: Student Experience**

Continuing to deliver high-quality technology-mediated courses, programs and student services.

#### **Description or Problem Statement**

Historically, student systems focused on enabling staff who, in turn, provided service to students. The needs of prospective, current and former students must be fully integrated into a self-service model, which requires addressing the needs and expectations of a diverse and changing population. Prioritization and funding are needed to develop and support the self-service model.

## Examples/Existing Challenges

1. Online resources may not be available to students to facilitate the matriculation processes (from admissions through follow-up) due to lack of leadership, best practices and professional assistance to develop the services.
2. Online assessment is not available to students.
3. Online advising is inadequate to meet student demands.
4. Online educational planning is not available to students.
5. The current processes are cumbersome, involving many disparate system interactions.
6. Students must use multiple systems for technology-mediated learning and student services.
7. There is no opportunity to earn an online degree.
8. Faculty lack training in technology and pedagogy for teaching technology mediated courses, making the student experience less fulfilling.

## Preliminary Goals

**Student Experience 1:** Provide technical and design support to assist faculty in the use of technology in the teaching and learning process.

**Student Experience 2:** Provide technical and design support to assist faculty and staff in the use of technology for support of the matriculation process.

**Student Experience 3:** Encourage development of “hybrid” course offerings to bring practical applications into the classroom.

**Student Experience 4:** Survey students on their experience to identify priority needs and demands for self-service model.

**Student Experience 5:** Provide a completely wireless environment to provide greater access to the Internet by students.

## Current Actions to Meet Goals

1. Evaluation and selection of a new Educational Information System (EIS), which would provide a more user-friendly online registration system for students and would allow better integration of student support subsystems, is under way.
2. Work is proceeding on an “Early Alert” system tracking student progress and alerting relevant faculty and staff of performance issues.
3. The Technology Resources Group is in the early planning stages of designing a suite of online student support services from registration through transfer or graduation.
4. Staff hired to support faculty development of distance learning and technology-mediated courses.
5. The adoption of Moodle as an open source learning management system will facilitate a consistent user experience.
6. Wireless networking is being implemented campuswide.

7. Portal implementation is providing students, faculty and staff with better access to campus resources, services and online course materials.

### **Future Actions to meet Goals**

1. Research best practices and technologies being used by other colleges.
2. Obtain additional staff, including a director or coordinator, to facilitate the development and direction for implementing online technologies.
3. Enhance and support a “full service” portal for faculty, staff and students.

### **Critical Issue 3: Security, Reliability, Access**

Collaborating with district Educational Technology Services (ETS) to provide, implement and support appropriate and secure campus information technology.

### **Description or Problem Statement**

1. De Anza College has numerous systems on our network. These include student lab computers, faculty and staff systems, and computers in departments that have inadequate technical support.
2. The technology climate at De Anza incorporates a mixed model in which centralized, distributed and autonomous systems coexist. There is a lack of awareness concerning the security implications of this environment. Effectively educating the campus community on computer security issues is also impeded by the lack of training and resources.
3. Processes and practices for safe and secure computing across the campus are insufficient.

### **Examples/Existing Challenges**

1. Technology refresh has been limited by lack of resources and lack of a prioritization scheme during budget planning.
2. Staff resources in most departments have been stretched due to budget cuts.
3. Data contained on staff and faculty machines are not automatically backed up.
4. No central repository exists for sharing documents.

### **Preliminary Goals**

**Security, Reliability, Access 1:** Communicate security risks and potential solutions to all campus employees and students on a regular basis.

**Security, Reliability, Access 2:** Promote the use of technologies, such as MyPortal/Banner and workflow processing, to automate routine tasks and paperwork.

**Security, Reliability, Access 3:** Develop and recommend procedural safeguards that protect confidential and personal information.

**Security, Reliability, Access 4:** Develop training to explain the importance of backing up mission critical data.

### **Current Actions to Meet Goals**

1. MyPortal/Banner now functional for faculty, staff, and students.
2. Online Family Educational Rights and Privacy Act (FERPA) safety training program now under way by the district.

### **Future Actions to meet Goals**

1. Support implementation of an identity management system to authenticate faculty, staff and student portal users.
2. Educate and encourage faculty and staff to regularly back up data.
3. Work with ETS to develop a plan for providing centralized document sharing and backup repositories.

### **Critical Issue 4: Staff Development.**

Providing ongoing technology-related professional development and training programs for all employees.

### **Description or Problem Statement**

Budget cuts have severely limited faculty and staff opportunities for professional development.

### **Examples/Existing Challenges**

1. Faculty lack technology training in general and especially in pedagogy for teaching technology-mediated courses.
2. Staff lack training in use of standard productivity tools and office applications.
3. Multiple methods of Web content management exist.
4. There is very limited support for Manila.

### **Preliminary Goals**

**Staff Development 1:** Develop and implement methods for obtaining faculty and staff input related to technology training needs.

**Staff Development 2:** Support release time and tuition incentives for employees to benefit from available technology training opportunities.

**Staff Development 3:** Encourage development of training opportunities that help fill staff development needs.

**Staff Development 4:** Provide ongoing and current information to all employees about what technology is currently available throughout the district and college and how to access it.

**Staff Development 5:** Establish and implement a Web-based training site including self-paced modules for training and professional growth.

**Staff Development 6:** Develop strategies to encourage the development and use of open educational resources and public domain materials.

**Staff Development 7:** Develop an organizational structure with support staff to assist in the development of high-quality technology-mediated learning materials.

**Staff Development 8:** Collect and disseminate “best practice” research related to technology-mediated learning.

### **Current Actions to meet Goals**

1. Catalyst training is in place.
2. iTunes training is in the planning stage.
3. The Electronic Curriculum Management System (ECMS) is in place.

### **Future actions needed to meet goals**

1. Identify location for training programs.
2. Provide funding for training programs.
3. Provide training for student support.

## **Critical Issue 5: Communications**

Facilitating effective communication and open access to information.

### **Description or Problem Statement**

Many faculty, staff and administrators are not fully informed of technology options, initiatives, challenges or proposed solutions.

### **Examples/Existing Challenges**

1. It is difficult to locate technical information when needed.
2. A standard district e-mail address is not used by all employees.

### **Preliminary Goals**

**Communications 1:** Provide technologies that facilitate multiple methods of communication. Develop standard methods for employee communications.

**Communications 2:** Facilitate easy sharing of information and effective communications across the campus.



**Communications 3:** Provide specific training related to policies associated with Americans with Disabilities Act (ADA) requirements, fair-use copyright law, intellectual property, etc.

**Communications 4:** Clearly communicate the program and budget plan for upgrading/replacing computers and other equipment available for student use on a regular cycle.

**Communications 5:** Include ETS in discussions when developing goals for expanded needs of technology use by the college.

**Communications 6:** Identify technical and social aspects of communication methods available to the college.

### **Current Actions to Meet Goals**

1. Campus communications such as Campus Memo and Staff Development News are being regularly disseminated.
2. RSS feeds have been made available from college sites.
3. Announcements are being posted to MyPortal.

### **Future Actions to Meet Goals**

1. New employee training should include technical resources available for use.
2. Expand the campus-wide use of the Web Content Management System to allow campus faculty and staff to provide more consistent, up-to-date information.

### **Critical Issue 6: Funding**

Allocating appropriate district and college funds for technology as a part of a comprehensive, long-range plan for implementing the campus Information Technology Strategic Plan.

### **Description or Problem Statement**

There is no common approach to decision-making or comprehensive assessments of the technology funding strategy for the campus as a whole. IT funding proposals tend to make their way up to the deans, who may or may not have the resources to fund them or to build them internally. It is this fragmentation that makes the coordination and comparison of campuswide IT investment decisions such a daunting task.

### **Examples/Existing Challenges**

1. New projects are easy to identify but hard to prioritize, execute, fund and support.
2. Projects sometimes move forward without planning, support or coordination.

### **Preliminary Goals**

**Funding 1:** Provide strong advocacy to support appropriate funding for technology and technology support.

**Funding 2:** Prioritize technology spending in accordance with institutional goals. Work toward balancing standardized solutions with specialized needs.

**Funding 3:** Develop a funding plan for technology to be refreshed on a regular and predictable basis and incorporate Total Cost of Ownership (TCO) concepts into the acquisition and support of campus technology.

**Funding 4:** Work to secure partnerships (government, industry, universities etc.) that can provide alternate methods of acquiring and supporting our information technology.

### **Current Actions to Meet Goals**

1. Participation in partnerships, including iTunesU site, CCN.
2. Accreditation Self-Study currently under way.

### **Future Actions to Meet Goals**

1. Integrate the Information Technology Strategic Plan into campus planning and budgeting initiatives.
2. Work toward a localized grant funding resource.

### **Critical Issue 7: Governance Structure**

Maintaining an appropriate campus technology governance structure with major responsibility for prioritizing and coordinating campus technology initiatives in accordance with the college Information Technology Strategic Plan.

### **Description or Problem Statement**

Information technology (IT) should support the teaching and learning, student support services, research, public service and engagement missions of the college. Campuswide technology governance, funding and structure should advance these missions.

Governance (i.e., who makes campuswide decisions about information technology, and how they are made) and structures should be clear and transparent. Governance, funding and structure should foster true partnerships between ETS and the campus.

- a. The role and functions of ETS for the campus should be clearly defined and delineated, and differentiated from the role and functions of the Technology Resources Group and other campus technology support mechanisms. Governance and funding allocations should recognize that differentiation.

b. The needs associated with campuswide information technology and the budgeting process should be closely aligned; i.e., the decisions resulting from the academic and administrative deliberative mechanisms should be clearly reflected in budgetary decisions.

### **Examples/Existing Challenges**

1. The governance, funding and structural roles of technology support are unclear to most people on campus.
2. There is no campuswide process for discussing technology needs, priorities and potential investments.
3. There are no mechanisms to identify and disseminate best practices from any unit to any other unit on campus.

### **Preliminary Institutional Goals**

**Governance Structure 1:** Maintain and support the Technology Task Force as the primary technology policy-making and advisory group at the campus.

**Governance Structure 2:** The Technology Task Force will create a transparent process to review and prioritize proposed and ongoing projects that integrate teaching, learning, support services, research and technology.

**Governance Structure 3:** The Technology Task Force will develop a process or structure for determining campus priorities for ETS project implementation and coordination.

### **Current actions taking place to meet goals**

1. The Technology Resources Group works closely with both users and ETS on many campus-wide technology projects and initiatives.
2. Creation of this Information Technology Strategic Plan to address key issues.
3. The website for the Technology Resources Group explains the different services offered by the TRG, as differentiated from services offered by ETS.

### **Future actions needed to meet goals**

1. Promote awareness and utilization of this Information Technology Strategic Plan across the campus.
2. Stakeholders (e.g., governance groups, administrative personnel, technology staff, etc) must embrace the use of this Information Technology Strategic Plan and, where appropriate, be accountable to assign responsibility for key processes.
3. Coordinate Information Technology Strategic Plan goals with strategic planning initiatives and budget processes.
4. Develop a schedule and process both for reprioritizing and completely rewriting the Information Technology Strategic Plan.