CALIFORNIA STATE UNIVERSITY
SAN BERNARDINO
Information Technology Services

Information Technology Services

Portraits of Innovation

Annual Report 2019-2020

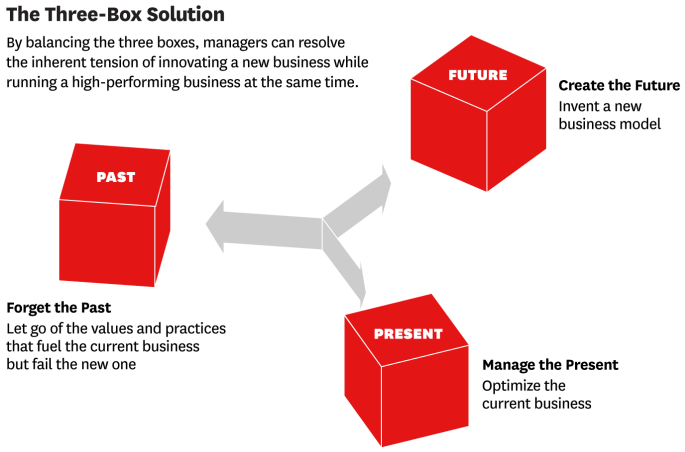
WE DEFINE THE *Future*

ITS Annual Report Executive Summary

The ITS Leadership Team started out the new academic year with the annual leadership retreat reflecting on our accomplishments from the past year and focusing on the theme 'Supporting the Academic Mission through Innovation. In support of the academic mission of CSUSB, the leadership team committed to the following actions:

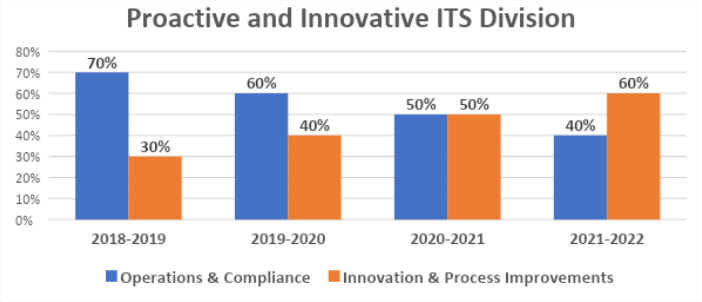
Adopted a Strategy

We adopted the Three Box Solution. We continue to be excellent in our current operation, while defining our future, forgetting what was holding us back in the past.



Resourced the Strategy

Over the years, we started moving funds from operations to innovation as demonstrated below.



Put People First at ITS

We focused on empowering our staff through professional development opportunities.

- Involved our teams in the decision-making process
- Provided them professional development opportunities
- Empowered them to Fearlessly Innovate
- Presented the problem and got out of their way as they found innovative solutions to solve them

A Commitment to Assessment

We intentionally started paying attention to the assessment of our efforts in supporting the academic mission of the University. We began documenting how the ITS Strategic Plan implementation supported the following University initiatives:

- Graduation Initiative 2025
- Quarter to Semester Conversion
- WASC Accreditation 2021
- University Strategic Plan Implementation

We were pleased to discover that all our initiatives aligned with and supported one or more of the above initiatives.

COVID-19

As COVID-19 lockdowns started in March, our agile ITS Team was able to work with our students, faculty, and staff in transitioning all three constituents to a virtual teaching, learning, and working environment. The infrastructure that we had built, and competencies developed over the past several years came in handy as we chartered into the unknown world of virtual Campus.

Several of the initiatives that we had drafted for a two-year implementation were accelerated due to COVID-19. We discovered inefficiencies that existed and process improvements that were long overdue and pursued them with vigor. As weeks went by, we rolled out resources, training, and enhanced support to all the three constituents of our Campus Community.

A commitment to world class customer service, innovation, and assessment

As we prepare for the upcoming academic year, our teams are upgrading the infrastructure and charting operational plans to enhance services and support we provide for the campus community. We will continue to assess our efforts for their effectiveness. The ITS Team in collaboration with divisions, colleges and departments across the University is committed to providing our students, faculty, and staff a world class experience this academic year!

In this report, I am pleased to showcase portraits of innovation from the past academic year, which put us on a solid trajectory to support the academic mission of California State University San Bernardino.

Samuel Sudhakar
Vice President & CIO
Information Technology Services

CSUSB Vision Statement

CSUSB aspires to be a model for transforming lives.

ITS Mission

Our mission is to support student, faculty and staff success by providing world class customer service, fostering faculty-led innovation and research, and enhancing operational efficiency through the effective use of information technologies.

Core Values

- Fairness & Equity
- Transparency
- Integrity
- Innovation
- Consultation
- Communication
- Collaboration

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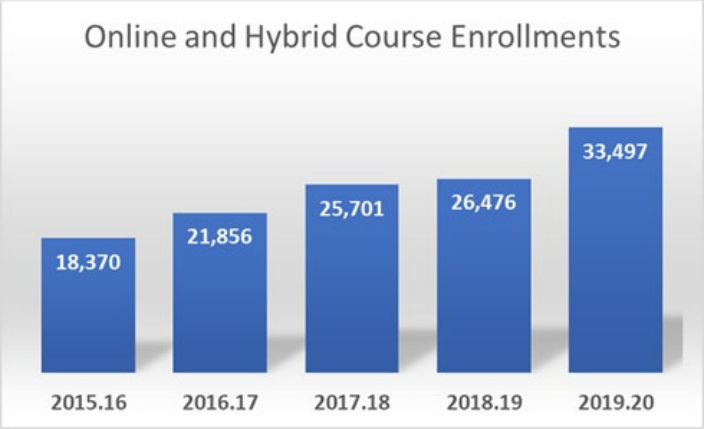
E-Learning

GOAL 1

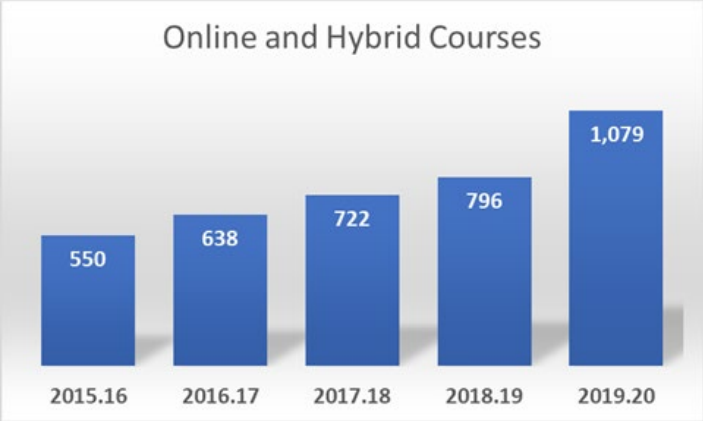
E- Learning – Online and hybrid course development • Faculty support • Instructional design • Learning management systems • Faculty communication portals • Affordable Learning Solutions (ALS) • Chancellor Office initiatives • Video conferencing • Classroom and student engagement

E-Learning Academy

The E-Learning Academy was launched in the fall with goal to increase quality online courses and programs over the next two years. The program dovetailed with the AASCU Student Success Academy which prioritized this initiative.

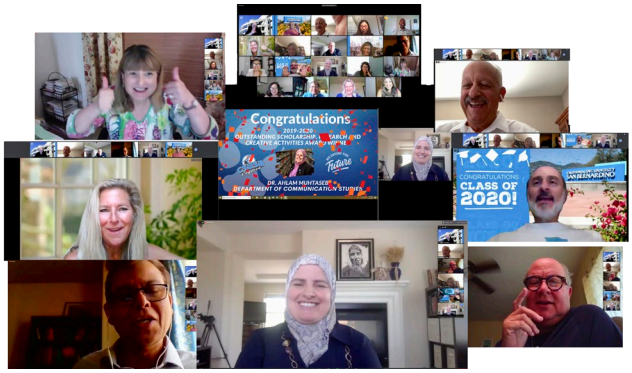


- The E-Learning Academy, a partnership between Academic Technologies & Innovation and the Teaching Resources Center (TRC) kicked off a two-year program for a learning community of 8-20 faculty members who will engage in collaboration, support, and reflection for the purpose of developing and implementing good online sections of high demand and low success courses. The target implementation date for the new online sections is by the end of the Spring 2020 term, with certification by the end of summer 2020.
- The number of quality online courses offered by the University continues to grow to create access to high demand courses for students at the San Bernardino and Palm Desert Campuses



Instructional Designers are ATI's Pandemic First Responders

When our state's and university's leaders announced a state-wide stay-at-home order in March 2020 which encompassed CSUSB, ATI's instructional designers mobilized on a dime and mounted more than 100 workshops and webinars on best practices and important tools related to virtual teaching in eight weeks, offering 20 per week in the intensive transition period in late March and early April. Of about 1,000 total CSUSB tenure-line and temporary faculty, about 400 unique faculty attended this training, with an additional 500 repeat attendees. On such topics as "Building and organizing your Blackboard course content," "Zoom security: Best practices," "Enhancing social presence with VoiceThread," and "Virtual course tune-up," these workshops addressed both best practices generally and getting the most out of specific academic technology tools.



Affordable Learning Solutions (AL$)

The Affordable Learning Initiative, a partnership between ATI, the TRC, The Library and the Bookstore reached a new milestone this year with the implementation of the Inclusive Access Program (IAP), saving CSUSB students $3.3 Million over a four-year period.

Succeed in Virtual Courses

Leading a team of grant-funded graduate students, ATI Faculty Associate Dr. Mihaela Popescu developed a Blackboard-based course in "Learning From a Distance." Based on a similar course originated at CSU Channel Islands, this short course was intended to help prepare all CSUSB students with knowledge and habits to help them succeed in their virtual courses in Fall 2020 and beyond.

Faculty Helping Faculty

With an acute need to support faculty in the transition to virtual teaching, ATI and the TRC with the support of Academic Affairs created the Faculty Peer Tech Advisors (FPTAs) program. Through a competitive application process, one faculty member from each of the five colleges were selected to serve as FPTAs to fellow faculty for three critical weeks around the start of the Spring quarter. Funded by a stipend from Academic Affairs, each advisor held about 13 hours of Zoom virtual office hours each week from March 30 to about April 20; appointments were available to book via the ATI Instructional Continuity website, and hundreds of faculty received support from these Peer Advisors.

Extensive Online Resources Created Overnight

As part of the pandemic response, ATI and TSC created several useful new webpages of resources for faculty, students, and staff. Among these were a "triage" page (linked from the COVID-19 banner on the CSUSB homepage and every campus webpage) listing links to resources for the three types of campus community members; an ATI instructional continuity page with FAQ sections on best practices in virtual teaching and links to listings of current workshops and an archive of recordings of past workshops; and TSC pages for resources for students and staff, including links to training in Zoom and other vital technologies. In addition, ATI created a webpage with direct links to the individual instructional designers' calendars where faculty can sign up for Zoom appointments.

Extended Reality

"Extended reality" (XR) is a term that refers to all technologies that involve computer-generated environments that reproduce the experience of embodiment. Such technologies include 360-degree video, augmented reality (AR), mixed reality (MR) and virtual reality (VR). This year, the xREAL (extended reality and learning) Lab, a partner entity to ATI, was established. The mission of the lab is to (1) provide an interdisciplinary framework for faculty, students, and staff to collaborate on producing new, impactful educational XR experiences; (2) research and assess new ways to use educational XR for student success; (3) explore connections between the campus and community, industry, and academic partners that will lead to the creation of XR experiences that promote the social good. A number of innovative projects have been developed this year using these technologies. Dr. Bibiana Diaz created a small documentary on East LA Chicano Artist, Oscar Ramirez using 360 video technology. Instructor Scott Vance from the Music department used augmented reality and 3D images to demonstrate the parts of a piano, and currently, Professors Andrew Thomas and Britt Leatham are testing 3D scanned materials for use in AR. Professor Cheryl Brandt in the Nursing department has been working the xREAL Lab to develop a VR Nursing simulation for her students. The xREAL Lab is a very exciting source of cool innovation within ITS.

Classrooms in 360 degrees

360-degree image content is a great tool to view locations on the campus. Classrooms in 360 degrees is a project that will capture all the CSUSB/PDC classrooms, community spaces and lecture halls using 360-degree images. Using the web service Momento360, images can be distributed through links or for educational purposes imported into Blackboard. This led to the first 360-degree vendor inspection of the Coussoulis Arena for the classroom support team. All the vendors competing for a bid were able to view the venue using the 360-degree images. These images can be used for multiple purposes across the campus.

3D Scanning as a Service

3D scanning became a new service for faculty within ATI this year. The Artec scanner is a joint acquisition between the visual arts department and ATI and is used to capture objects and preserve them in a digital 3D format. In this format, the object can be imported into a virtual reality or augmented reality environment. This cool technology has been used by MFA student Rebecca Waring-Crane and Instructional Technologist Yutong Liu for Ms. Waring-Crane's art exhibition "Family Tree." Her idea is to recreate her body parts in wood, slice them into pieces, and then reassemble them into a 3D object. In another project, Dr. W Britt Leatham provided 30 different rocks samples to experiment with using the Artec Scanner. The goal was to build a digital bank of samples for the Department of Geological Sciences by using both 3D scanning and photogrammetry technologies.

Example of Agility

The pandemic made the canceling of the 4th Annual Tech Talks a very real possibility. Fortunately, with the leadership of Tracy Medrano and ATI Faculty Associate Dr. Mihaela Popescu, the technical expertise of Jonathan Brooks, and Coyote Radio's marketing team, they quickly converted the 4th annual ITS Tech Talks into a successful online event. The timely subject of this Tech Talks was "Transitioning From In-person Instruction to a Virtual Teaching and Learning Environment." A student panel was heard for the first time and shared their experiences about "The Good, the Bad and the Ugly" of online learning. Keynote address given by Dr. Montgomery Van Wart. The faculty panel of Dr. Craig Seal, Dr. Oraib Mango, Dr. Sharon Kalkoske and Dr. Bibiana Diaz provided great insight to their experiences with online learning.

Active Learning

ATI working with the ITS classroom support team and the College of Arts and Letters established the Active Learning and virtual reality lab in UH 043. The active learning space accommodates 24 students and provides 24 laptops for students to work in collaborative groups. The space also has two virtual reality desktop computers and two virtual reality laptops for students and faculty to test virtual reality learning applications, and hosts the CSUSB VR Club meetings.

Re-Purpose

We re-configured the Rogers Gateway open computer lab in RG 215, the Rancho Mirage Student Center lobby, the Health Science Lobby, and the third floor lobby of the Indian Wells academic building so students had comfortable and functional seating and flexible spaces for collaboration. All these areas were sorely needed and therefore became very popular with our students and the feedback was heartening. Students really felt that they now had some spaces so they could study and/or congregate. This was done through ITS division who shared its largesse by giving us furniture that we could repurpose in our open areas, thus providing our students with tables and seating that encouraged collaboration and communication.

A Stable Blackboard

ATI and the Office of Strategic Technology Initiatives worked with Blackboard to collaboratively migrate CSUSB's Blackboard environment from a Managed Hosting data center in Virginia to an AWS Cloud environment. This transition allowed for greater stability in our Blackboard environment and positioned CSUSB to begin adopting the Blackboard Ultra platform in the future.

Recycle

PDC IT team, along with CSUSB Property Management team, successfully tracked and completed a campus-wide inventory. While validating our assets, we identified old and obsolete equipment that was then recycled back to the San Bernardino campus. Some of the items were auctioned, while others were salvaged according to guidelines. This inventory was challenging as records needed to be validated and data cleaned up. To date, both PDC and Property Management have accurate records of what assets are on campus as well as in PeopleSoft.

Reuse

This was the biggest challenge that the PDC IT Team faced this academic year. Faculty, staff and classroom space are finite on the Palm Desert Campus. Even though we are growing our programs, adding tenured track faculty, adding classes, and expanding our services, our physical space remains the same. This year we moved 47 faculty or staff, added 10 faculty cubicles, relocated the Salton Sea Archives and the Osher Lifelong Learning programs (e.g., their computers, phones, printers, and staff). The new cubicles needed computers and monitors, which we were able to equip by reusing the extra computers from a lab that were freed up from the remodel of our Library. We upgraded those existing computers with new hardware to make them faster, and new, operating system, to make them more efficient and manageable.

Re-Purpose

By being resourceful, The PDC IT team (1 Network Specialist, 1 ITC, 2 Equipment Specialist and 1 MPP) were able to provide the 1600 students, and approximately 100 faculty and staff with the areas, space, and equipment needed to contribute their success. The Palm Desert Campus IT team must be resourceful in its scope of support, because a wide variety of skills are required to be provided to the campus. Covering 4 buildings over one campus, we provide network, telephone, alarm, surveillance, classroom, desktop, remote, video, audio, photographic, videography, events (on and off campus), application, operating system, theater, radio, web conferencing, and distance learning support, while trying support 40 other programs and services offered on campus. We are small but mighty.

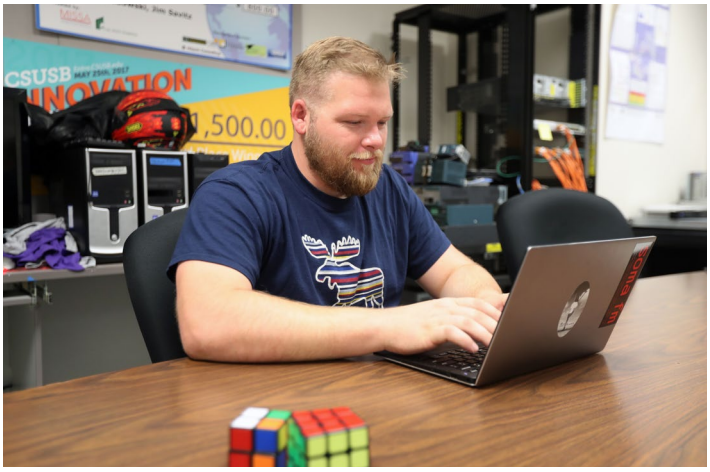
Training Scaled Up Just in Time

The Training Services team began offering both Microsoft Teams and AdobeSign training to the campus community. This was such a timely move especially when the pandemic hit and the campus moved to a remote environment. Microsoft Teams allows users to work collaboratively and AdobeSign converted many paper forms require signatures to digital forms using digital signatures. The trainings offered by Training Services made the transition to these tools easier for the campus community. Training Services also coordinated training with Academic Technologies & Innovation to provide training for faculty, students and staff in the use of Zoom for collaboration and security features.

E-Learning: Looking Ahead

CSUSB Summer Virtual Teaching Institute

With the emergency transition to virtual teaching and learning in place for Spring and the announcement that the CSU would remain largely all-virtual for Fall 2020, ATI and the TRC worked with leaders from the Faculty Senate and Academic Affairs to design a Summer Virtual Training Institute (SVTI) intended to help all of CSUSB's faculty further strengthen the quality of their virtual teaching in Fall semester. The SVTI has three tracks: Track One registered more than 300 CSUSB faculty in the CSU Office of Chancellor-designed course "Introduction to Online Teaching with QLT," in which faculty "students" get broad and deep exposure to best practices in virtual teaching using the CSU's own rigorously developed QLT rubric and standards for online teaching. Track Two, designed for faculty with some knowledge and experience in high-quality virtual teaching, consisted of faculty-conceived and faculty-facilitated Faculty Learning Communities, which developed knowledge and tools around virtual teaching topics of interest to faculty. Track Three offered the opportunity to take the Association of College and University Educator's (ACUE's) microcredential course "Promoting Active Learning Online," funded by the Office of the Chancellor.



Scanning the Unscannable

Photogrammetry will become a new ATI service for faculty sometime in 2020/2021. There are objects that cannot be easily scanned using Artec scanners due to the size of the object or how much light the object reflects or absorbs. To address these challenges, photogrammetry is the solution; ATI is currently testing software and hardware to address these challenges and provide additional media services.

Next Gen Extended Reality

Currently, we are focusing on finding learning solutions for the kind of remote teaching forced upon us by the COVID-19 pandemic. Our work on fully-immersive and fully-interactive VR will have to be put on hold until those environments can be untethered from expensive headsets and computing power. However, there is a lot to be done in the area of augmented reality, and we have already started working on projects that aim to recreate the experience of learning in a photo studio or a STEM lab via 3D, interactive digital objects that create a sense of immersion and embodiment for students. Additionally, by exploring strategic industry and community partnerships and mobile, distributed production, we hope to expand our collaborations and the scope of work to assist more faculty in creating a truly phenomenal virtual course experiences despite these difficult conditions.

iCoyote

GOAL 2

iCoyote – Mobile everything • Improve classroom technologies • Electronic forms, Student communication portals • Enterprise workflow management • World class one-stop services and collaboration technologies

iCoyote

As we were following the ITS strategic plan in developing and rolling out initiatives that were geared towards student engagement and success, COVID-19 came upon us. The following initiatives were accelerated due to the immediate need to support our students in the new virtual environment:

ChatBots
Change of Major and Course Overload forms
Virtual Labs for Students

Better Degree Audit System

The degree audit system underwent extensive reprogramming to accommodate the changes from quarter to semester. Exceptions to the audit process will take exceptions online from the student's advisor through an approval workflow process and will make the changes automatically.

Conversion Analytics

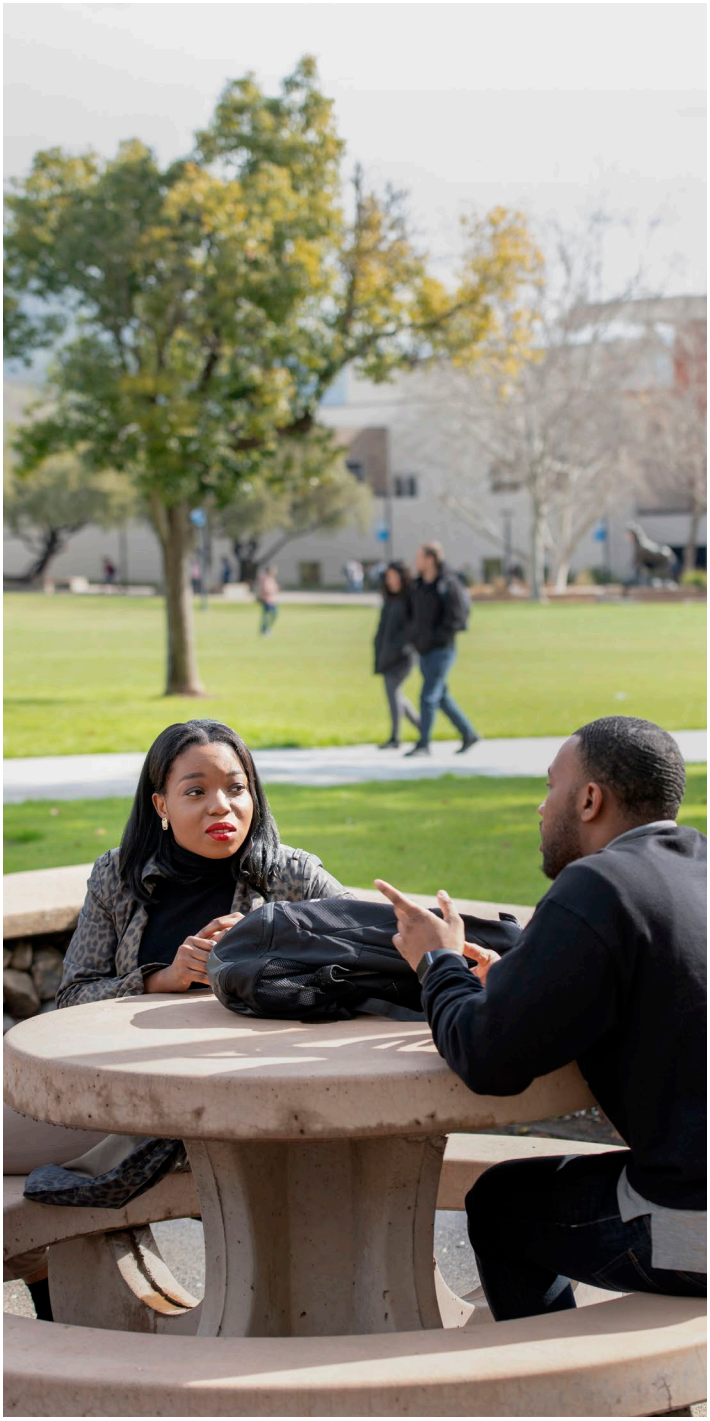
Dashboards were created to inform those working on Q2S whether students are predicted to graduate in a quarter system or semester system. Extensive modifications were also made to our institutional dashboards in order to reflect the changes in the data from converting from quarter to semester terms.

EAB Modifications

Q2S retrofits were performed on EAB to maintain accurate information on our students. The EAB platform allows faculty, advisors and staff to connect with students in a coordinated care network designed to support student success efforts through predictive analytics, population health monitoring, outreach, appointment scheduling and reporting.

Extensive Modifications

Over the course of a few years, extensive modifications were performed in Peoplesoft modules particularly in financial aid, student records, academic scheduling, and student financials. A Q2S information page was also created to inform campus constituents.



Seamless Integration

Q2S collaborated with academic scheduling in the implementation of CourseLeaf Curriculum (CIM) Module so it integrated seamlessly with PeopleSoft.

Admissions and Orientation Quickly Go Virtual

In response to the COVID crisis, many in-person events were converted to webinars, and all new student orientation sessions occurred online. Our CRM tool Radius facilitated the registration and communication for these events and orientation sessions as well as support the transition of many in-person applicant and student services to online forms. The ease with which forms, event registration, and communications can be created, deployed, and managed in Radius meant that admissions could continue to service and process applicants while working remotely, and with minimal interruption to services.

Automated Probation Contracts

A new solution was created to replace a paper probation contract with manual workflow with an automated process that would deliver accurate and relevant information to students and would automatically update student academic records while removing enrollment registration holds. A VETI Grant Initiative!

Automated Undergraduate Leave of Absence Form

The paper Leave of Absence (LOA) form was replaced with an online form via their Student Center in MyCoyote. The information is automatically routed to Advising & Academic Services Office's to review to approve or deny. Student's program status is automatically updated upon approval. A VETI Grant Initiative!

Automated Change of Major Form

Students can now submit a request to change their major online. In addition, workflow was developed for behind the scenes administrative business processes to help the Office of the Registrar manage students changing their major.

Pre-Enrolling First-Time Freshmen for Fall 2020

Teaming up with our partners from Academic Services, Office of the Registrar, and other ITS departments, our first-time freshmen were pre-enrolled in specific classes based on their math, English, and major needs.

Improved Student Class Permissions

We provide new functionality for students to request special permission for units overload, concurrent enrollment, department consent for closed class, adding and/or dropping classes after the registration calendar allows. Thus, the manual and paper petition process are now totally eliminated and the approval process is streamlined between student, class instructor, department chair, college dean, and Office of Registrar.

Online Change of Grades Request

With the impact of the COVID-19 epidemic, ACBI was tasked to design and build a new online form for students to request a change to their grading basis between letter grades and credit/no-credit as well as developing an automated process to post the change.

SWIPE OUT HUNGER

STUDENT HUNGER IS REAL. WE CAN HELP END IT.

Swipe Out Hunger

The Enterprise Service Management (ESM) team worked with The Obershaw DEN to create online submission forms for meal requests and meal donations to students with food insecurity. This process replaced a partially implemented set of forms that were put in place with the help of web services for the initial go live/phase one deployment. This new process makes it simple for students to gain access to food on campus. The student submissions go through an approval process with representatives from the Den. When approved, an automated message is sent to the student to notify them of the approval and where they can check their balance (onecard.csusb.edu/balance) and where they can spend their meal swipes (CCD Commons).

Improved HR Recruitment Process

On June 18th, 2020, CSUSB launched its first recruitment process in CSU Recruit, a part of the CHRS project and powered by PageUp. All full time faculty recruitments for the 2021/2022 academic year are now being recruited through CSU Recruit. This new system brings many enhancements and benefits to CSUSB including automated approval workflows, a built-in onboarding process for smoother applicant transition to campus, and an enhanced applicant experience with resume parsing and mobile device compatibility. This next year we will see the onboarding of all Staff, Management, and Part Time Faculty recruitments into the CSU Recruit platform.

Digitizing Student Employment Forms

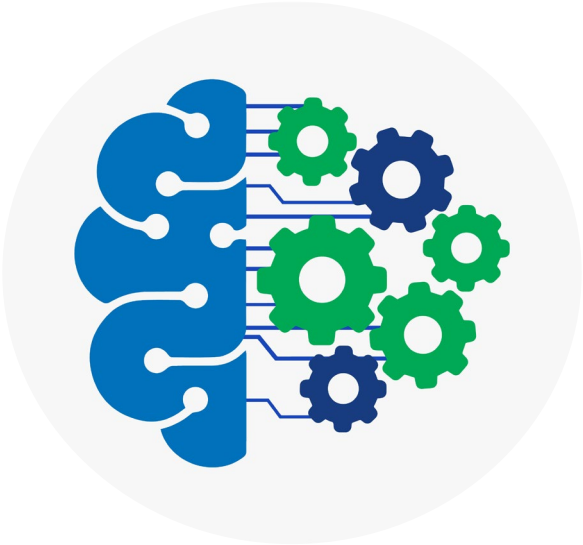
The Enterprise Service Management (ESM) team worked with Student Employment to begin digitizing paper forms. The three forms that were digitized were Position Change Request, Pay Rate Change Request and Separation Request. Digitizing these forms helps to improve the workflow process for all parties involved. The ESM team will continue to work with Student Employment to digitize other forms, such as the Student Assistant Employment Transaction Request Form.

A New Look for CSUSB Website

On September 3, 2019, CSUSB published a new website design that appeared universally across all sites. The new design came with more real-time content such as office hours, events, important dates, CSUSB news, and social media posts. The design also provided more space for content and a condensed menu for each individual website. New content types were developed to help create more aesthetically pleasing layouts, an easier to read format, and elements that grab attention, such as calls to action. This new design was a collaborative effort between Digital Transformation, the Office of Strategic Communication, Admissions and Student Recruitment, and the input of hundreds of students, faculty, and staff.

Nursing Application Transformed

Digital Transformation worked with the Nursing Department to digitize their complex BSN Application. This 2-month project helped students, staff, and faculty complete, submit, process, and approve applications remotely. This allowed each group to socially distance during the pandemic and continue to conduct the business of processing applications for this impacted program.



Chatbots

A chatbot is an opportunity to consistently, accurately, politely, and omnipresently provide our constituents with answers to their most common questions. After launching the first chatbot at CSUSB on the Financial Aid website in Spring 2019, Digital Transformation has been hard at work programming bots for Advising, Admissions, Center for International Studies & Programs, and other key departments who service students. When the pandemic hit, additional chatbots were launched for Parking Services, the Career Center, and the Technology Support Center. Some included live agents, ready to jump in and help answer questions.

Student Technology and Resources (STAR) Team

This team of ITS student assistants are standing by to answer your technology questions or to direct them to the appropriate response team and resources. The STAR team is available Monday – Saturday, 8am – 5pm to assist you. You can reach them live during this time through the TSC bot on the Technology Support Center website: **https://support.csusb.edu**, via e-mail: **starteam@csusb.edu** or by calling 909-537-STAR(7827)

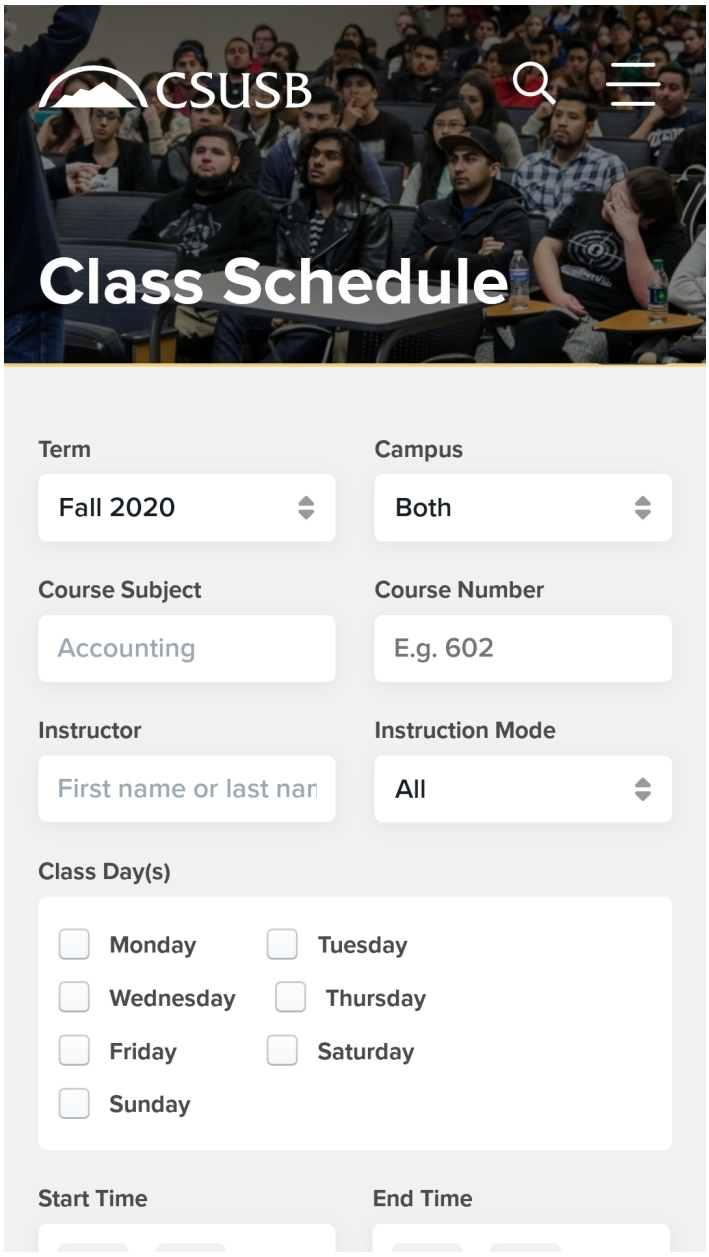
Come and Get It! - Free Food for Students

Come & Get It! is an opt-in food availability program that seeks to create an avenue where departments, offices, and campus organizations can offer leftover food from events to CSUSB students in a timely, equitable, and efficient manner through the myCoyote mobile app.

Testing of this new app feature continued up to March 19, after which on-campus events were suspended due to COVID-19. Working with the campus food vendor, Digital Transformation intends to launch this program as soon as all students return to campus and catering activity is fully resumed.

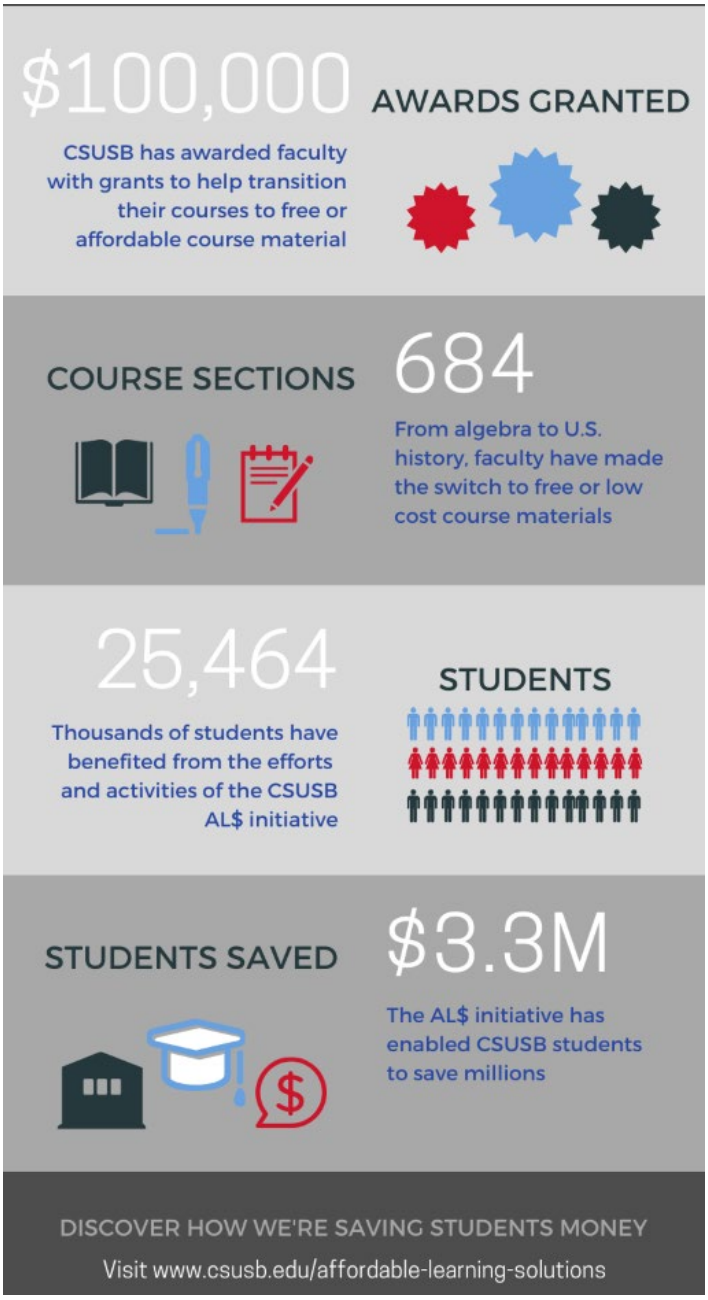
Brand New Class Schedule

On April 1, 2020, a newly designed Class Schedule was published. Along with the universal branding of CSUSB, it included a more robust filtering system in a mobile-friendly, responsive layout. Features include links to instructor profiles, course descriptions, and easy-to-read, real-time seat and waitlist availability. A table view with sortable columns and the ability to export to Excel are also features of the new Class Schedule.



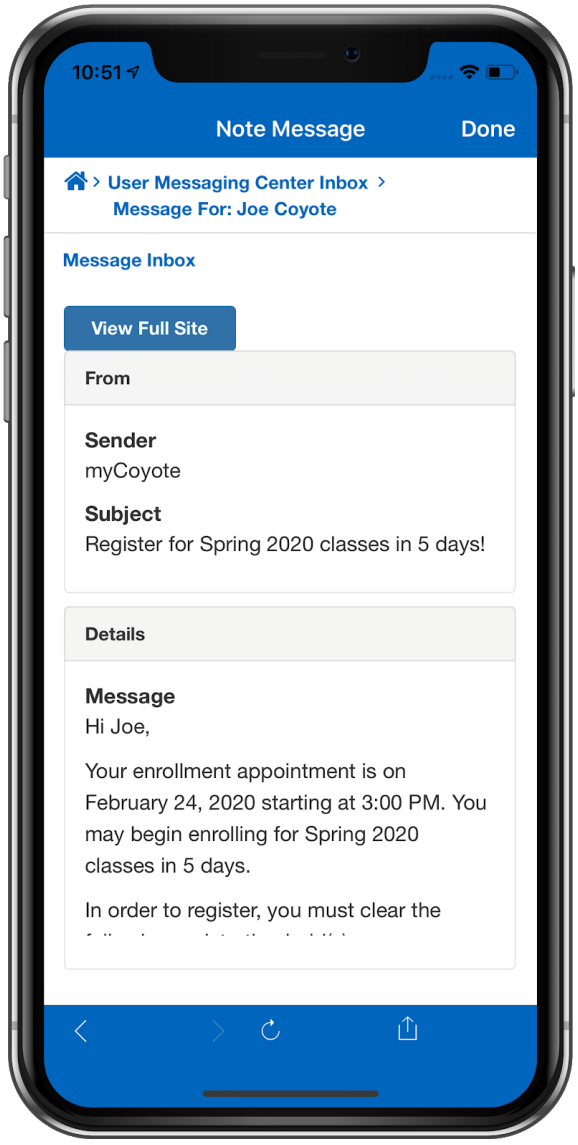
Coyote Labs (Virtual Computer Lab Resources)

Many computer labs across campus are now accessible by students from a web browser at **https://csusb.edu/coyote-labs**. Once students are logged in, they can access all the software on these lab computers as if they're physically in the computer lab. Many popular software packages are available including SPSS, ArcGIS, JMP, R/RStudio and more.



Effective Student Registration Notifications

In late 2019, we launched personalized notifications through the myCoyote portal and mobile app. Students received notifications about their exact registration date and time, along with any holds that might prevent them from registering. The more than 9,000 active students who have downloaded the mobile app, received several push notifications, beginning 10-days prior. Records show that there was an overall 10% point increase in students registering on their designated registration date.

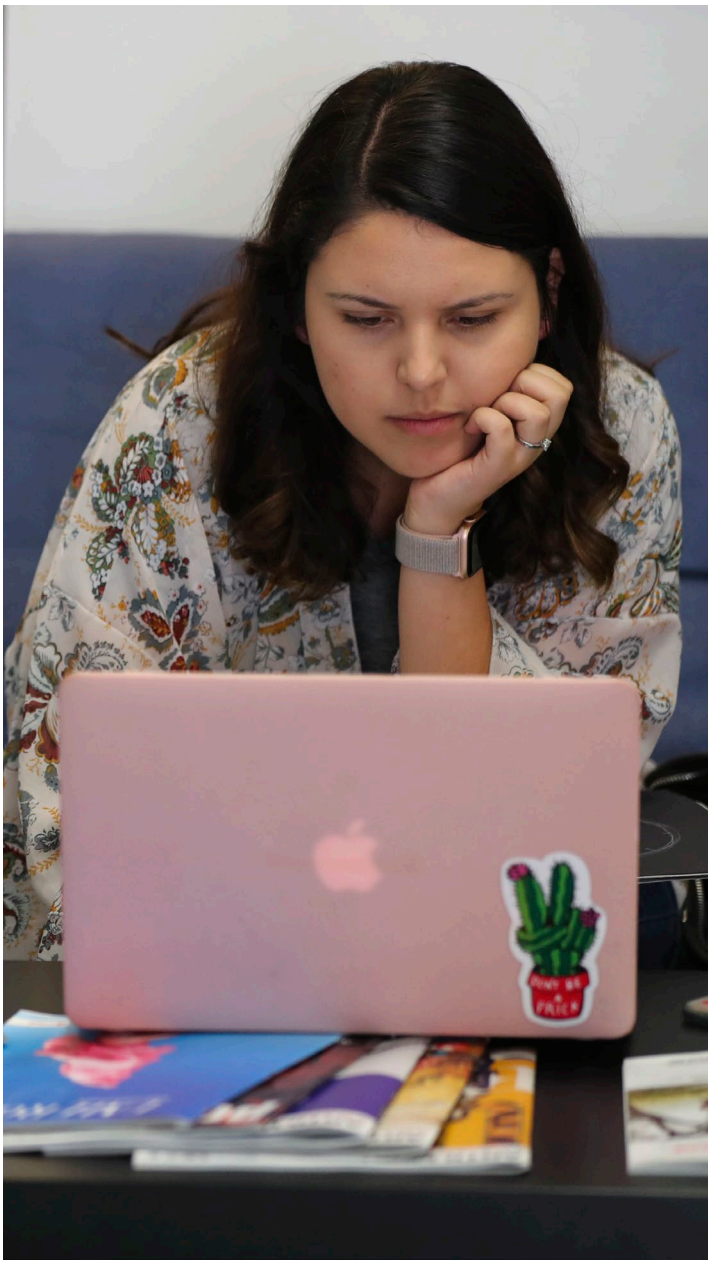


Improved HR Processes

The Enterprise Service Management (ESM) team worked with Human Resources to migrate two of their forms from NeoGov to the Enterprise Service Management tool, Cherwell. The two forms that were moved were the In-Range Progression and Reclassification forms. Moving these forms from NeoGov to Cherwell helped to improve the workflow processes, along with benefited cost savings.

Extensive Skills Training

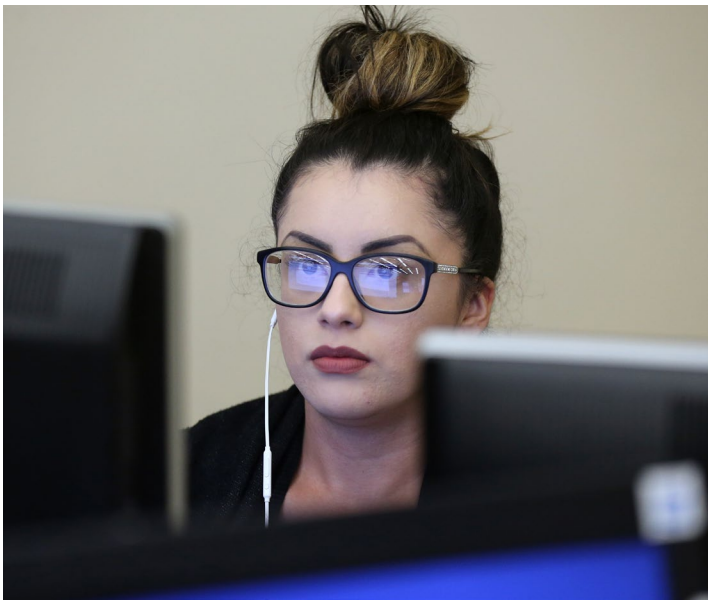
In July 2019, CSUSB transitioned from using Lynda.com to LinkedIn Learning. This migration happened as a part of LinkedIn's purchase of Lynda.com, and granted CSUSB access to a larger library of high quality training videos for our campus. Additionally, we're seen increased utilization of the LinkedIn Learning library with a total of 1,330 CSUSB employees accessing the platform to view 3,291 hours of content.



iCoyote: Looking Ahead

Expansion of the Digital Automated World

The Enterprise Service Management (ESM) team will continue to digitize paper forms and help to develop new automation processes into the Enterprise Service Management tool, Cherwell. Some of the forms that will be coming online soon include Parking Permit Request, Transfer of Expenses, Chargeback Request and Invoice Request. The ESM team will also continue to onboard the college techs onto Cherwell to help assist and track their technical needs.



Improved Account Summary in Student Center

We Update the Account Summary Box in Student Center AND Account Inquiry Page to include additional information, including Anticipated Financial Aid, Balance Due, and Overall account balance.

Digitized Course Repeats

The course repeat process will convert to a digital process that will drastically cut down on processing time. The current paper process involves 4 people from different offices and can take 1-2 weeks for processing. Digitizing will drastically reduce processing time by automating some parts and centralizing it.

Enhanced View Of My Advisor

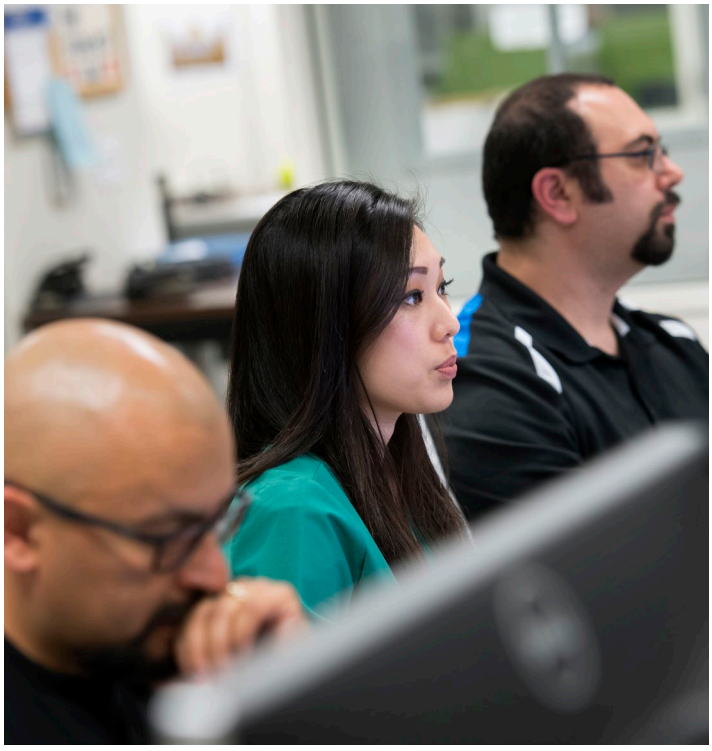
In addition, assigning students advising committee base on student's major, the proposed enhancement will assign additional advising committee for various student groups: e.g. UGRD students' earned units < 45 semester units, PDC, EOP, Honors, Athletics, Veterans, etc.

Student Financial Agreements Self-Service

Develop process to collect Student Financial Agreements for active students each term. This improvement must redirect the student to the agreement page (Activity Guide) upon attempts to access “Student Center.”

Automated Finance Delegation of Authority Phase 2

Streamline and automate the data maintenance within campus bolt-on DACS data repository for approved request with interface to Quaesita.



Better Faculty Additional Pay System

This is an automated additional pay system used to track faculty additional pay.

Going Online

Create an online form for the staff to enter changes to their benefits until the implementation of eBenefits as part of the CHRS Project.

Graduate Degree Audit

Just like the undergraduate programs, we will start to build graduate level degree audit programs.

Features

- Redesign of public home page
- Come & Get It - Free Food
- Cody Chatbot Portal/App Integration
- Open Parking Spaces
- Campus Directory Integration
- Course Schedule Integration
- Academic Calendar Integration
- Dining Options and Hours
- One-stop Guide to Graduation
- Meal with a Mentor

myCoyote Future Features and Functions

Personalized Notifications

- Holds for past due, department advising, and end sexual violence training
- Progress to Degree Advising
- Incompletes, discontinuation, course repeats, not enrolled, grad check
- Course-specific Tutoring and Supplemental Instruction

Advisor and Student Progress Interfaces

The Student Success Technology Team is aggregating student data into what will be a student profile section of the campus portal, displaying things such as Major, Minor, Expected Graduation Term, Advisor Contact Info, Holds, Courses Schedule, Next Registration Appointment Date, and GPAs. Concurrently, the same group is working to create a single pane portal for academic advisors to improve the efficiency of standard advising practices.

Potential Chatbot Topics

- Financial Aid
- Student Financial Services
- Career
- Parking
- Admissions
- GEAR UP
- Technology Support
- Advising
- Tutoring
- Appointments
- International Studies
- Orientation
- Registrar
- Student Health
- Campus Directory
- Campus Events
- Basic Needs
- Academic Calendar Date
- Dining Options
- Map Locations
- Nursing Program

Mapping the Campus

By the end of 2020 CSUSB will have a fully interactive campus map that will integrate into the myCoyote mobile app and offer features that will include wayfinding for students to locate their classroom, find student services, campus dining options and events. Anyone looking for a computer lab or a study room, a restaurant, a conference room, or a faculty office, will simply have to use the map to guide them.

Process Improvements

20 processes from around campus will be automated or improved to increase efficiency and allow access from anywhere at any time. Functions such as applications, uploading of documents, official requests for changes, and other common and frequently used administrative processes will be included.

University Analytics

GOAL 3

University Analytics – Institutional intelligence • EAB • Enterprise data warehouse • Financial data warehouse • Predictive analytics • End user empowerment intelligence

University Analytics

The Institutional Intelligence Team in collaboration with Undergraduate Studies, Enrollment Management, Colleges & Departments developed and delivered customized dashboards that provided timely insights into student success metrics, which has poised to deliver the best two and four year graduation rates for the University since the beginning of the GI 2025 initiative.

Improved Accuracy for All

The Office of Institutional Research & Analytics purchased EMSI to better track our alumni in the workforce. During the validation process, we discovered that EMSI's algorithm did not consider the recency of all available employment information. This limitation often resulted in the most recent employment information not being presented in the software. Through collaboration and consultation with EMSI, their team was able to improve the algorithm and provide more accurate alumni information for any U.S. institution using the EMSI product.

Precision Planning

Summer 2020 was the last quarter term prior to a semester conversion. Due to the shortened term, one term instead of three terms, it was necessary to assist in the planning of course offerings without impeding students' progress. The advent of COVID19 added another layer of unpredictability in students' course taking patterns. IR staff utilized several disparate databases to generate reports of Juniors and Seniors who needed classes in Spring and Summer to stay on track for graduation. By Spring quarter, dashboards were developed that pinpointed exactly which students needed certain classes and whether they filed for grad checks (or not). This involved a very precise targeting of Juniors and Senior for course offering and maximizing space given a short summer term.

Data Literacy at PDC

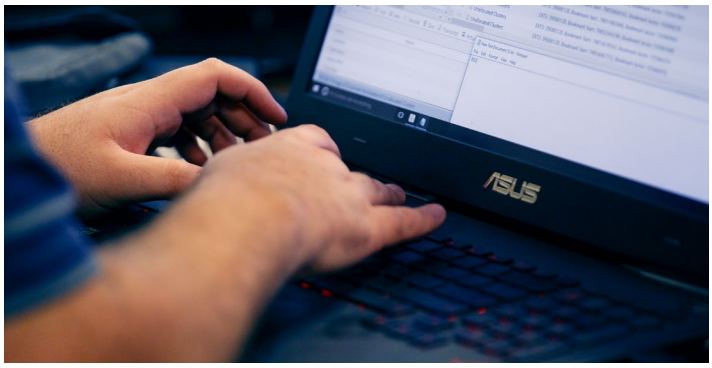
Several dashboards were created to assist with enrollment and course planning. One IR staff member has been assigned to work at PDC twice a week to reinforce data literacy.

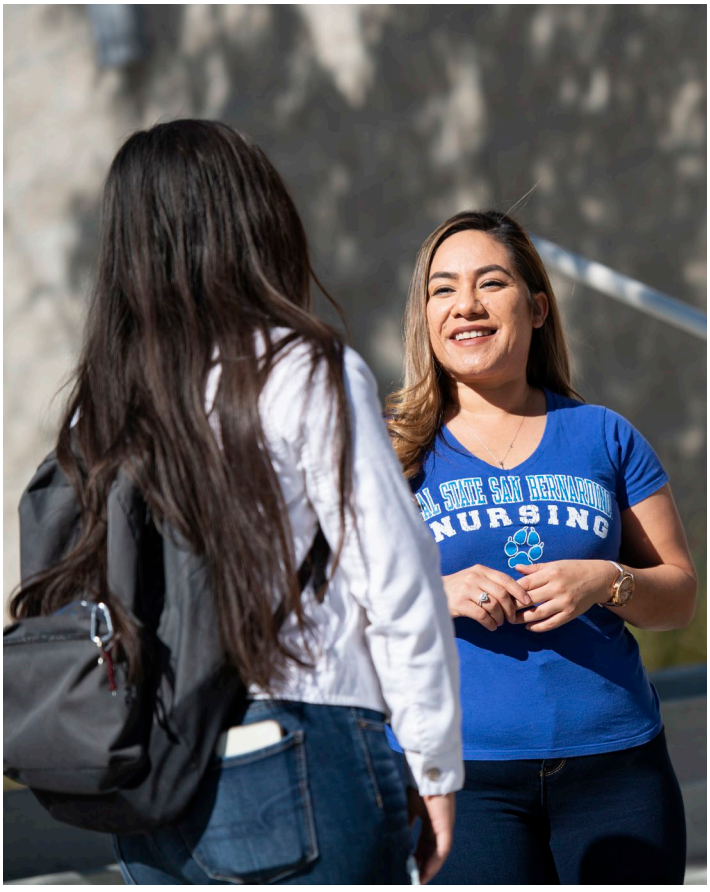
A More Informed ASI

In collaboration with ASI, the Office of Institutional Research & Analytics provided research and data literacy workshops for ASI Student Advocates. These workshops provided students with first-hand experience on how to understand, analyze, and use data effectively. In turn, this empowered ASI Student Advocates to use their own data collected from student feedback surveys and to provide key insights to campus wide committees.

Clearer Pathways to Student Engagement

The Office of Institutional Research & Analytics partnered with Student Affairs to categorize programming and events into higher-order themes connected to measurable outcomes. Following a pilot study conducted at the Palm Desert campus, an enhanced tracking and assessment framework is now being utilized.



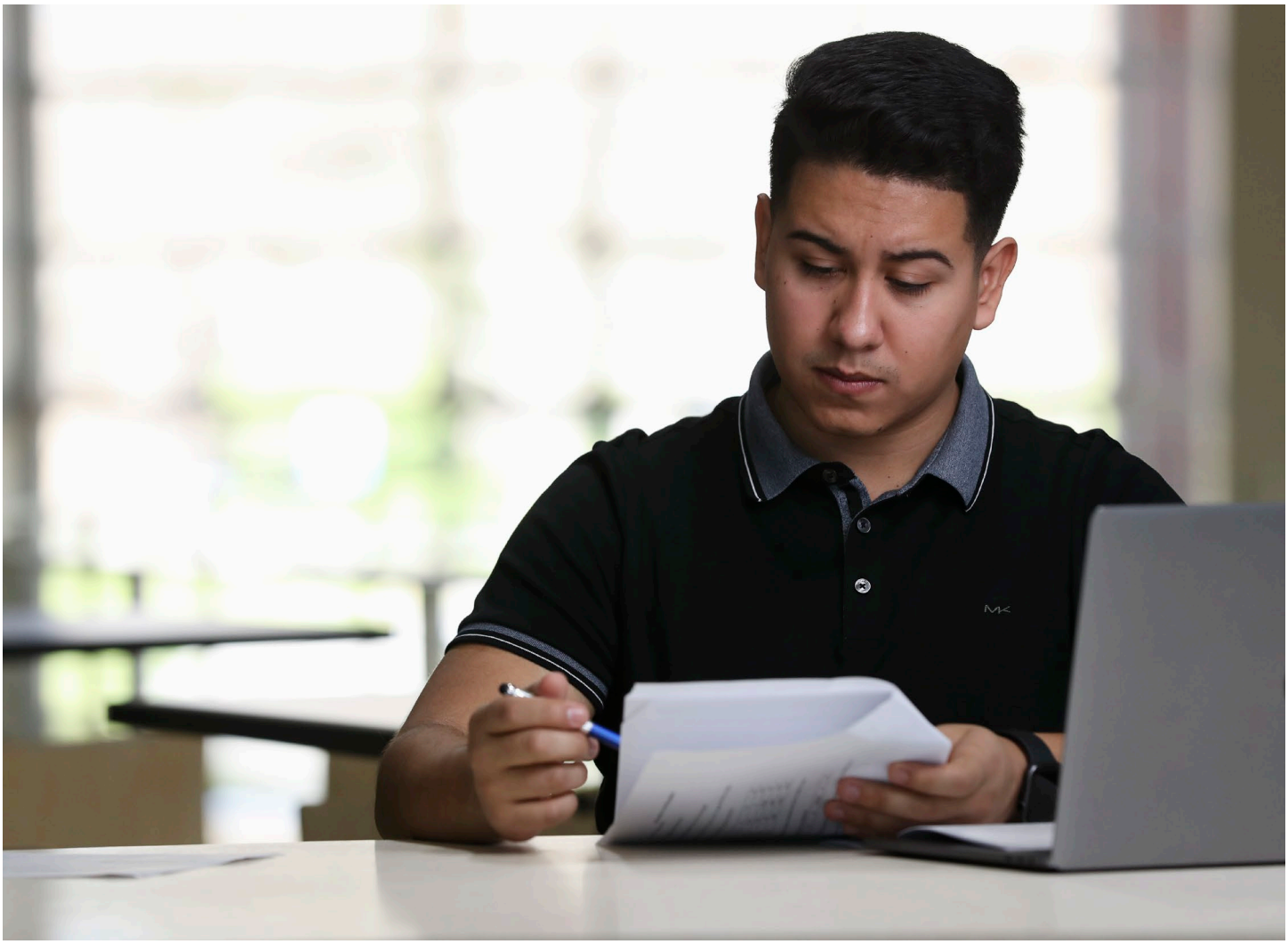


More Informed Advisors

Partnering with Undergraduate Studies, the Office of Institutional Research & Analytics developed a series of student level dashboards designed for lead college advisors and associate deans. These dashboards show cohorts of students and their progress towards degree. College advisors and associate deans received periodic training and extensive discussions which promoted data accessibility and data literacy for our stakeholders.

PS and Advising Enhancements

GPA for major and degree program completion status are two fields that never existed in Peoplesoft. Instead, this information was only available in the PAWS report which limited the accessibility of the data. In collaboration with ACBI and the Office of the Registrar, the Office of Institutional Research & Analytics assisted in the integration of major GPA and degree program completion status into PeopleSoft. These enhancements in PS allow a more efficient way of tracking students for advising, a reduction in the number of placed advising holds, and the ability to intervene early with potential graduates who are missing courses and requirements during the registration process.



University Analytics: Looking Ahead

- IR plans on a comprehensive early-warning system that combines PeopleSoft, Blackboard and EAB data.
- IR would like to Incorporate an API for EAB that will allow for the reporting of advising metrics and data integrations to support the student profile project.
- Obtain an enterprise level BI tool that will provide the campus with true self service capabilities while managing collaboration, increasing usability, and meeting security requirements.
- With our access to EMSI Alumni Outcomes, IR plans on creating a career reports for majors on areas like job growth, major to career connections, and preferred skills.
- We recently purchased a video storytelling software. We intend to increase our video animation to tell data stories.
- IR, along with the Office of Strategic Initiatives, will assist the Division of ITS in streamlining weekly, monthly, and end of the year reports.

Stable & Secure Infrastructure

GOAL 4

Stable and Secure Infrastructure – Next generation wired and wireless networks (Indoor and Outdoor) • Cloud architectures • Information security & privacy • University policies • Distributed technologies • User provisioning and authentication systems, Green technologies.

Stable and Secure Infrastructure

The San Bernardino and Palm Desert Campuses went through a comprehensive wireless network upgrade this past summer. In addition, coverage and reliability of the WiFi connectivity in parking areas were improved at both campuses for students who needed connectivity as the campus went virtual in Spring.

Information Security Audit findings were closed out with collaboration with Colleges, IT Governance Sub Committees, and IT Governance Executive Committee.

The Cloud Services team has provided virtual desktops and servers for years. With Covid, there was not time to build virtual labs quick enough. To help the colleges technicians provide student and faculty access to the physical labs, the Cloud Services team provided tools and expertise to connect our virtual systems to physical hardware. By leveraging our internal systems, we were able to quickly provide access to physical computer labs either to a specific cohort or to all students. As we focus on the future, we are working to enable direct access to applications without the need to connect to a workstation.

In addition to the responses to Covid, the team has worked to bring up our first IP6 Wi-Fi in the CGI building, continue to expanded Wi-Fi to areas around campus and dramatically increased access to our two parking structures located in the rear of the campus, completed a network upgrade that supports innovation and research by providing a more robust network.

Faculty High-Performance Computing Research

The enablement of remaining innovation grant credits from the CSU Chancellor's Office has allowed the ISET team to utilize Amazon Web Services credits to assist faculty in a 3D modeling project. Egyptologists Dr. Kate Lizka and ISA Mr. Bryan Kraemer were faced with the challenge of trying to produce 3D mesh representations of archeological sites located in Egypt's Eastern Desert at Wadi el-Hudi. In 2019, CSUSB faculty, staff, and students collected data for the 3D models as part of the Wadi el-Hudi Expedition (www.wadielhudi.com). The expedition resulted in a comprehensive photogrammetric survey consisting of more than 14,600 photographs which consumed over 200GB of storage. These scientists partnered with ITS to find a way to support the massive 3D rendering. For the largest render, the Agisoft Photoscan software needed multicore CPUs, multiple high-end GPUs and an estimated 600 GB of RAM, something that is simply not available with local resources. Our on-going efforts to use Amazon Web Services (AWS) and Pacific Research Platform (PRP) provided efficient high-performance computing with stand-alone customized computing and high-performance parallel cluster to accomplish their rendering needs.

Source: Wadi el-Hudi Expedition 3D Modeling
http://www.wadielhudi.com/techniques.htm

Enhancing Security Through Automation

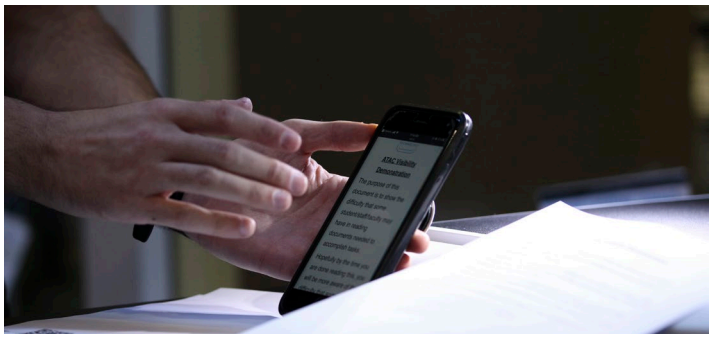
With growing sophistication of phishing attacks, the information security team continues to improve, enhance and automate processes to combat these attacks. By integrating the campus spam filtering system, network firewall, and our Office 365 email system, as well as the establishment of new campus standards, the information security team can now automatically un-deliver messages that pose ongoing security and financial threat to the university. This drastically reduced our response time by about 83% for phishing attacks that harvest account credentials and leave the university vulnerable.

Implementation of Electronic Signature

The COVID-19 pandemic accelerated our launch of an electronic signature initiative CSUSB. With the Adobe Sign platform, many of the campus processes have transformed from paper-based to an online format. In a short three-month span from March to June 2020, nearly 9,000 documents have been processed electronically since the campuswide launch of this platform.

Rearchitecting Document Management in the Cloud

CSUSB was awarded Amazon Web Services (AWS) credit from the CSU Chancellor's Office to explore the feasibility of a document management system under a shared-service model. We successfully implemented a proof of concept using many "cloud native" AWS managed services including: AWS Managed Microsoft AD, FSx (managed filesharing) and RDS (managed database). In addition, with scalability in mind, we architected the system to utilize the Chancellor's Office Single Sign-On SAML proxy for authentication and authorization, allowing for the possibility of a multi-campus shared service.

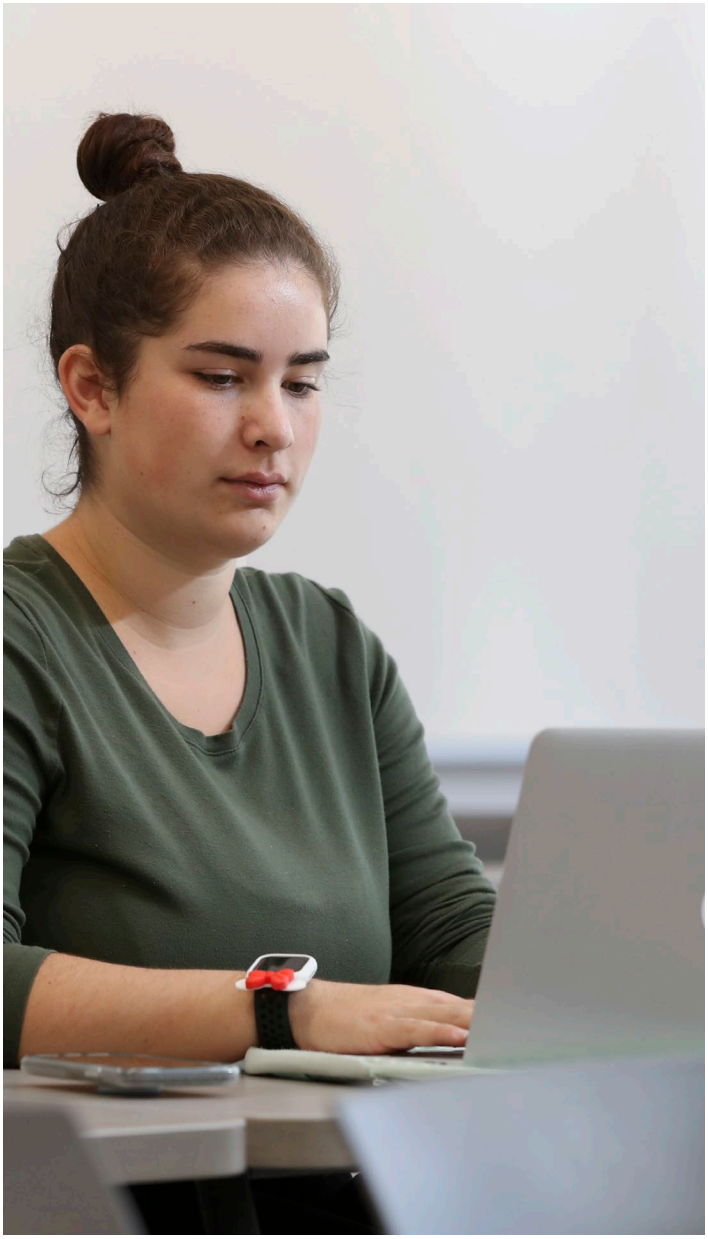


Reimagining Identity Management and Single Sign On

Our identity management team embarked on a journey to reimagine our identity management system (IDMS). How users activate their accounts, reset passwords, perform self-service, and how user identities are synchronized across the many university systems will all be enhanced when the new system goes live in Summer 2020. In addition, we continue to enhance single sign-on (SSO) by migrating the majority of our systems from CAS to Shibboleth. Eight new platforms were integrated with SSO, including ACUE, CampusLab, GrubHub, Risk and Safety, Terra Dotta, YOU@CSUSB, CSU Buy, and Everfi.

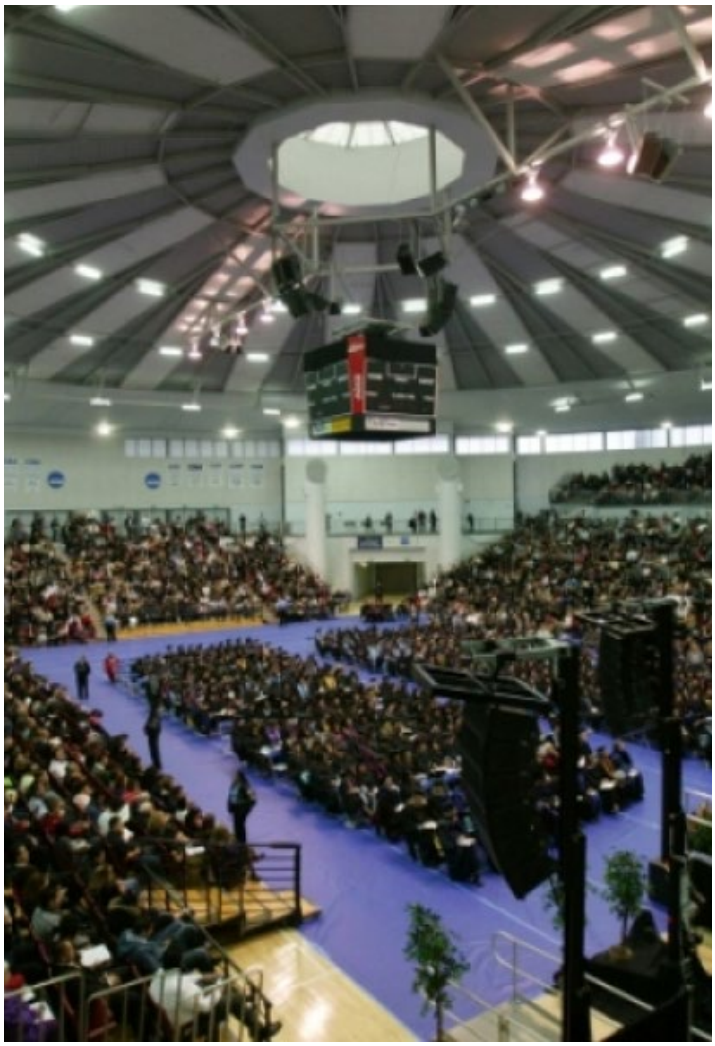
Critical System Upgrades and Platform Improvements

ACBI performed important updates and platform improvements such as migrating the campus' Oracle Database to Database Appliance, Peoplesoft HR CS Oracle 12c release 2, Oracle Linux 7.6 Operating System, CFS 9.2 MP 3.0 Fluid User Interface Phase II, Advance Server Migration and Advance 2018 Upgrade, and PeopleTools 8.56.08 Upgrade for CS.



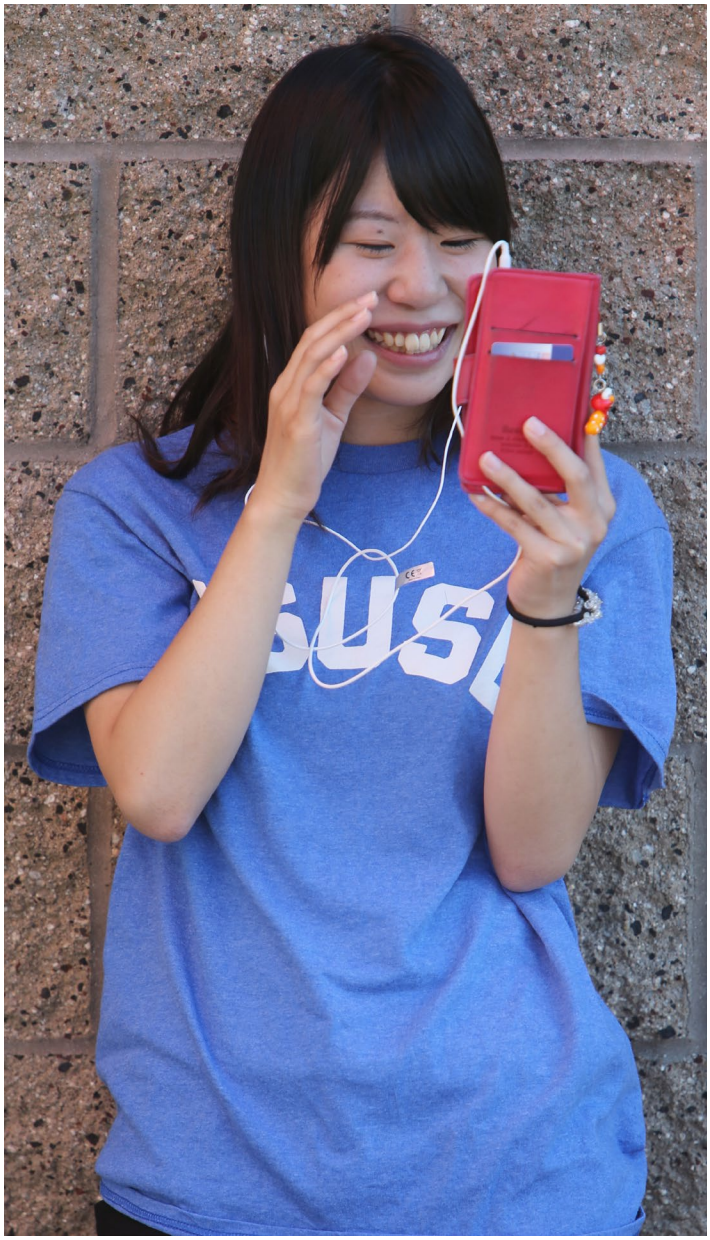
Arena Audio Upgrade

Thanks to the support of the CSUSB Administration, the Distributed Technology Services (DTS) department was awarded a one-time funding of $190,000 to upgrade the aging Coussoulis Arena audio system. This upgrade will modernize the original speaker system from 1995. Due to the COVID-19 pandemic, the DTS technicians performed the first "Virtual Job Walk" with the Procurement Office using 360 degree photographs, hi-tech cameras, and computers to show the competitive bidding vendors all aspects of the arena and to answer their questions. We are hoping to have the winning vendor perform the upgrades by the end of Summer, 2020.



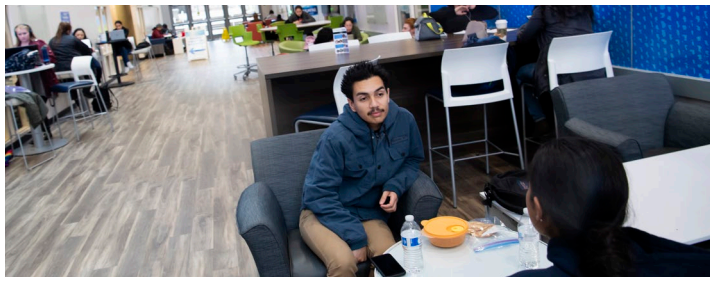
No More Lines

The Technology Support Center (TSC) has launched a new online photo submission tool. This will allow students to upload their ID card photos online without having to come to campus. The application will use artificial intelligence to flag photos into categories of Approved, Pending Approval or Denied. This new process will help eliminate lines of students waiting to take photos for their OneCard.



Less Fell for the Bait

The Office of Compliance Initiatives has been sending out phishing simulations to the campus community since 2016 to educate our users and prevent them from becoming victims of cybercrimes. The trend in the phishing results between scenarios is positive. In summer 2019, 2124 faculty, MPP, and staff received the phishing exercise, 584 users (27%) clicked on the link, and 136 (6%) reported to **abuse@csusb.edu**. In winter 2020, 2282 faculty, MPP, and staff received the phishing exercise, 158 users (7%) clicked on the link, and 248 (11%) reported to **abuse@csusb.edu**.



Protecting Data Assets

The OCI is responsible for informing the campus community of laws and regulations applicable to the security of information. Some include access control, HIPAA, FERPA, PCI, GLBA, CCPA, GDPR, NIST, and ISO27001. There are standards and guidelines that the office maintains and makes available to the campus community via the website. The OCI conducts periodic training made available through the SDC and on a one on one basis. All campus product purchases are filtered through the OCI and security reviews are conducted as necessary. Collaborative discussions are held with departments to review security concerns and/or provide recommendations on how they can improve their security posture.

Educating Campus About Information Security

October 2019 National Cyber Security Awareness Month (NCSAM) activities were in full effect at CSUSB! The OCI hosted numerous campus events during NCSAM. This past year, each week in October was assigned its own Cyber Security Theme such as “Own IT”, “Secure IT”, “Protect IT”, and “#BeCyberSmart." Other activities included weekly tips to campus community, phishing quizzes, cyber security poster scavenger hunt, and weekly raffles. In addition to NCSAM, the OCI sent out quarterly information security tips to the campus community to aid in information security awareness such as Security Tips to Keep Summer Fun, Black Friday Shopping, and COVID-19 Scams.

Enforcing Access Control

A Periodic Certification Template was created in collaboration with the Technology Support Center, utilizing Cherwell Management System to foster a new process for auditing access controls in health information systems. The OCI conducted 8 user access audits this year to include Peoplesoft, EAB, Health Systems Applications, and vSphere.

Easier Access Approvals

The OCI has been using OnBase to manage the workflow of the On-line Computerized Information Access (CIA) Request Form since 2015. Since then, there have been many changes made to improve the form. The latest is the implementation of the new Manager View which has been, by far, the best improvement to the CIA process. Its implementation has significantly improved the end user’s experience by implementing similar views throughout the workflow.

Keyless Entry

The Technology Support Center (TSC) implemented a keyless entry technology using the Coyote OneCard. The new chips inside the OneCard phases out the old magstripe readers around campus. Soon, TSC and Facilities Management will replace external door access on buildings around campus.

Stable & Secure Infrastructure: Looking Ahead

The Cloud Services team and ISET have worked together to also explore Microsoft Azure labs. This environment provides computer labs to faculty and students much like we are providing with our on-prem solution. The system is a bit different because the costs are lower because it is a student lab and the costs are based upon actual access and usage, not simply because we have reserved labs. And like our current system, it too can only deliver a single application such as SPSS. This new way of providing labs can be very beneficial and cost effective.

We are purchasing high-end Extron switches to upgrade many of our classrooms in order to enhance the multimedia experience in the classroom.

No More Cards

TSC will introduce a mobile Coyote OneCard and eliminate physical ID cards. This will provide the ability of students to check their ID card balance, purchase items with FlexCash, and view their OneCard photos using the mobile app.

For next year, ACBI anticipates performing major upgrades and platform improvements on PeopleTools 8.57 Upgrade for Student and HR, CFS 9.2 and PeopleTools 8.57 Upgrade, Advance 2019 upgrade, EMS Upgrade 35, and ACBI Web Host Server System Upgrade.

We plan on installing numerous Pan-Tilt-Zoom (PTZ) web cameras in many of the classrooms. These cameras come with 12X true optical zoom and are Zoom and Microsoft certified.

The Distributed Technology Services Department, in conjunction with the college technicians, has future plans to improve the classrooms, lecture halls, and labs around campus by installing state-of-the-art cameras, microphones, matrix switchers, and more!

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These are just a few of the improvements that the Distributed Technology Services Department plans on implementing in the foreseeable future. All of this equipment will allow for a more enhanced instructional experience and an improved classroom learning environment. We will continue to standardize equipment across campus so that faculty can have a seamless experience no matter which classroom they are teaching in.

In addition to the new webcams, we are purchasing exceptional Lapel Microphone Systems from companies such as Shure, Sony, and Sennheiser. By using these microphones, faculty can experience 1) close vocal proximity to get that crisp, broadcast quality sound, and 2) convenience and comfort which one can achieve with a close proximity to the microphone without the need for microphone boom stand.

Distributed Technology Services, in partnership with the Department of Social Work in the College of Social and Behavioral Sciences and the Colton Joint Unified School District, has created and is implementing a counseling intake system for use at the Colton Joint Unified School District to be used by CSUSB student researchers and Colton counselors. This project supports CSUSB faculty success and student success in the CSBS Social Work department, as well as the Colton JUSD employees and their students.

- The Office of Compliance Initiatives plans on more clever phishing expeditions to test the campus as well as new festivities and opportunities to educate campus on being cyber safe.
- We will embark on a new sensitive data inventory survey and risk assessment.
- We will utilize the new periodic certification template in future access control audits.
- Additionally, we will create a new security administrator view in OnBase for easier review.

iEngage

GOAL 5

iEngage – Inland Empire Regional Broadband Consortium (IERB) • Riverside county digital divide project • Collaboration with SBCUSD on GearUp and Other programs • Engage with the office of Community Engagement on Community Technology Projects.

iEngage

We continued our work with the Colton Unified School District on their health management system project

We started working with the Val Verde Community Unit School District on bringing connectivity to their students

Organized Advancement Activities

iModules Encompass Enterprise integrates with Ellucian Advance so you can manage all online engagement activities in one place for University Advancement.

Tech Training Services

ITS Training Services and OCE have partnered to offer free software training courses for our local nonprofit agency staff. ITS has opened up these training courses for any of our current nonprofit partners to join in through a special registration process. The goal is to provide some valuable professional development for our partners, especially given that nonprofit budgets have been stretched due to demand for assistance created by the pandemic and the social distancing requirements that prevent large fundraising events.

iEngage: Looking Ahead

Sharing Broadband Connectivity

We have started working with the Fontana, Rialto and Val Verde School Districts, the Inland Empire Regional Broadband Consortium, CENIC and the National Community Renaissance (NCORE) to help bring broadband connectivity to underserved areas in San Bernardino and Riverside counties. Additionally, we have started working with CENIC on Community Internet Exchange Points (IXPs). CSUSB is licensee of seven FCC Education Broadband Services (EBS) licenses in San Bernardino and Riverside counties. Through partnership with Yucaipa Calimesa Joint Unified School District and Victor Valley College, CSUSB provides cellular broadband coverage to these entities as part of the campus' strategic goals of community engagement.

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Information Technology Services

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Information Technology Services