COLORADO COLLEGE
Office of Information Technology Services

2019-2020 Annual Report

It is an honor to share with you the 2019-2020 annual report for the Office of Information Technology Services (ITS) at Colorado College.

We completed a very successful year, even with the COVID-19 pandemic adding unexpected challenges to everyday operations. ITS not only was able to accommodate increased technology needs during this time, but led efforts to help move instruction online by providing the tools, resources, and support that students, faculty, and staff needed when they needed them. You will see many of those extraordinary accomplishments outlined in this report.

I hope you will take a few minutes to review these achievements and come to know as I do that we are fortunate to have the dedicated and hard-working people we do.

Brian Young
Vice President and
Chief Technology Officer

ITS Strategies

In continuing support of the college's strategic plan, Building on the Block, ITS continues to focus on the following:

- **Learning Network**: improved infrastructure for a better overall technological experience for all who live, study, work, and visit here.
- **Outreach:** ongoing contact with all campus constituents to address their technological needs.
- **Cloud and Mobile:** increased mobile services on the CC mobile app platform through development and integrations.
- **People:** sustained positive and vision-driven culture to support those in and outside of ITS.
- **Professional Development:** ongoing learning within and outside of our expertise to support the campus and exemplify leadership.

Through communication, creativity, ownership, and trust, ITS works to provide everyone who lives, studies, works, visits, and plays here an exemplary technological experience. How can we help you succeed? Call us and find out; we are excited to work with you!

We bring innovative solutions and technology to the academic and administrative work of the college.

2019-2020 Budget Numbers

Operating Budget:	$2,364,023.20
Capital Equipment Budget:	$1,468,732.00
Total:	$3,832,755.20
Operating Expenditures:	$2,124,086.21
Capital Expenditures:	$1,439,213.81
Total Expenditures:	$3,563,300.02
Budget Surplus:	$269,455.18

★ Budget COVID-19 Highlights ★

- The budget surplus listed above purchased campus-wide supplies of personal protective equipment (PPE) to enhance the campus' safety during the pandemic.

- ITS Operations Manager Lucie Tennis partnered with the Finance and Administration and Facilities Offices to lead the purchase, distribution, and management of supplies for campus-wide use.

ITS Budget Advisory Team

- Reviewed 54 submissions for divisional budget expenditures

- Implemented a new workflow system for submissions through OSTicket.

- Hosted a lecture for the ITS Division by President Jill Tiefenthaler focused on financial awareness.

- Developed multiple solutions for various budget scenarios, including budget reductions.

Operations, Including Budget

- Created a new budget structure within the division to better support transparency and a sense of ownership.

- Saved approximately $29,000 annually by eliminating duplicated services.

- Participated in CC's p-card pilot program, cutting the number of ITS p-card users in half, helping to minimize potential fraud.

- Centralized the purchasing process.

➡	**Moments to Celebrate:**	⬅

"I was so impressed with how ITS supported faculty during the move to remote teaching. I relied heavily on Weston Taylor and Chad Schonewill, as well as Jennifer Golightly, and truly couldn't have done the teaching without their support and guidance."

Jane Hilberry, Professor of Creativity and Innovation

CC Office of Information Technology Services

Operations, Including Budget, Continued

- Developed relationships across campus by hosting events with other divisions.
- Partnered with the QUAD Innovation Alliance; Human Resources; and the ITS Diversity, Equity, and Inclusion team to create a mentoring program for female identifying staff, with its launch to occur in 2020-2021.

New Content Management System Coming Soon

In Fall 2019, ITS met with colleagues from across campus to review a new content management system (CMS) to replace the current one (dotCMS), which has been in place for over 10 years. Requirements for the new CMS included ease of maintenance, as well as a robust and supremely stable platform on which to work.

The group spent the next eight months examining potential replacements including Drupal, Terminal 4, OUCampus, and Hannon Hill's Cascade. They attended multiple demonstrations from each vendor, tried sandbox environments, spoke with other

New CMS, Continued

institutions, and solicitated feedback from the CC community.

Hannon Hill's Cascade system became the final, chosen selection. This new system shares some of the same technology with our current solution so that the college can leverage existing knowledge. It offers flexibility, a sizable presence in the academic community, and greater cost-effectiveness than the current platform. The migration to this new system will occur during the first half of the 2020-2021 year.

A big thank you to Manuel Rendón and the ITS team involved, as well as Brenda Gillen (Advancement), Dan Ellsworth (Math/Computer Science), Lo Wall (Communications), Karen To (Communications), and Mark Lee (Communications) for their critical work in making this new CMS a reality.

Printing Statistics:

There were 3,363,557 pages printed in 2019-2020. That is a stack of paper that is as tall as the Comcast Technology Center building in Philadelphia.

Consider your options before you print!

Moments to Celebrate:

"This year, we also wish to recognize the incredible work our ITS team has done transitioning so much of CC's courses and culture into an online format in a short amount of time. We are grateful for everything they have done and will proudly be presenting them with a certificate in recognition of their work supporting our community!"

Collaborative for Community Engagement

Did you know?

ITS staff are located in four different buildings across campus: Tutt Library, Armstrong Hall, Spencer Center, and Collins House.

CC Office of Information Technology Services

Canvas

Fall 2019

454	284	2,099	5,015	3,152	23,475	952
Courses	Teachers	Students	Assignments	Discussion Topics	Files Uploaded	Media Recordings

Activity by Date

■ Page Views Only ■ Participation

Spring 2020

527	328	2,259	6,537	5,848	26,961	4,202
Courses	Teachers	Students	Assignments	Discussion Topics	Files Uploaded	Media Recordings

Activity by Date

■ Page Views Only ■ Participation
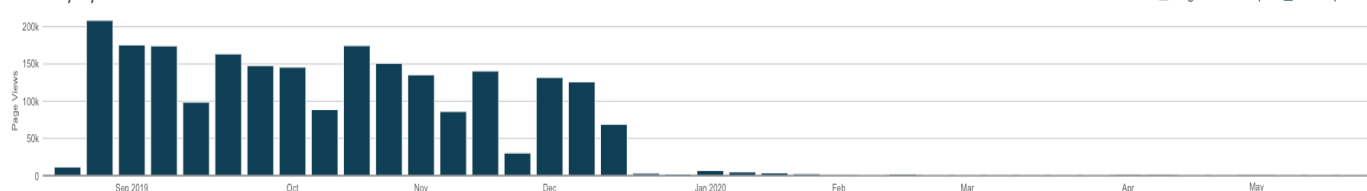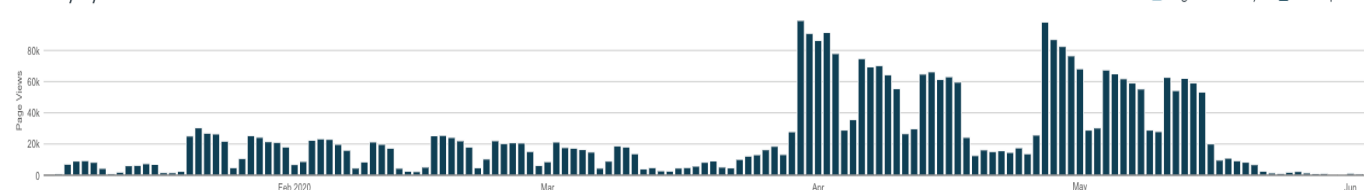
In a typical year, Canvas, the college's learning management system (LMS), is heavily used. While use went up in every analytic measured when the college transitioned to online learning in the spring due to the pandemic, some of the data didn't increase as significantly as might be expected. The biggest use increases were in media recordings, discussion topics, and assignments:

Analytic Type	Spring 2019	Spring 2020
Media Recordings	379	4,202
Discussion Topics	3,070	5,848
Assignments	4,446	6,537

Multiple LTI integrations were completed in Canvas in 2019-2020, as well as the addition of four new tools — GoBoard, FlipGrid, VoiceThread, and Hypothesis — to increase the functionality of Canvas for everyone.

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ITS Ambassadors Program

This program is designed to give tech savvy employees across campus access to and training in different CC technology services to help increase expertise and resources available.

Training was done throughout the year and included DocuSign/Excel tips and tricks, as well as WebEx and Jabber. Additional training will be offered in the 2020-2021 year. Members of the group were added to ITS' campus emergency outage application so they can help spread the word when outages occur. ITS may also provide them with additional access to other systems to help in appropriate situations.

The ITS Ambassadors program continues to remain strong, even as many college employees began working from home during the pandemic. Once staff and faculty begin to work on campus again, we hope to expand the program further.

Solutions Center COVID-19 Highlights

The ITS Solutions Center has a reputation of providing stellar customer service while managing multiple, varied requests from constituents all across campus each and every day. When the decision was made to move classes online and most employees to work from home, the team jumped into action to provide additional services to make the transition as smooth as possible.

- Organized a Student Online Course Ambassador program and trained and paid 32 student workers to serve as front line technical support in the Block 7 and 8 courses they were already taking.

CC Office of Information Technology Services

Solutions Center COVID-19 Highlights, Continued

- Faculty appreciated the extra help and support and students appreciated a way to earn money when their on-campus jobs were suddenly gone.

- Created test Canvas courses for faculty members and coordinated 185 volunteer students, staff, and faculty servicing as "students" to allow those faculty to practice online teaching and learning tools.

- Participated in practice Zoom sessions held by faculty and their "students" as they learned the software for their classes.

- Held multiple one-on-one Zoom sessions to help answer questions as everyone acclimated to learning and working in an online environment.

- Created multiple web resources specific to the pandemic: a webpage guide to working remotely based on information gathered from everyone in the ITS Division, a student resource webpage for online learning, a how to deal with Zoom bombing webpage, a brief video on webcam and microphone tips, and email lists for Blocks 7 and 8 teaching faculty to help with communication.

What we want to be known for: Service

We prioritize excellent service and customer education in all we do.

Solutions Center COVID-19 Highlights, Continued

- Loaned dozens of laptops to students, staff, and faculty.

- Loaned dozens of iPads and Apple Pencils to faculty for use in online teaching.

- Conducted online Excel@CC sessions to field questions about working from home.

- Worked in conjunction with the Dean's Office to coordinate the first online-only faculty meeting in Block 7 using a Zoom webinar format. 158 people attended and multiple votes were tallied. Some faculty commented that they felt it ran more smoothly than an in-person meeting.

- Coordinated efforts in the Solutions Center to manage their own work-from-home schedules to ensure service did not diminish during this hectic time.

- Created a VMware option that allows staff to access CSGold from off-campus so that changes to Gold Cards and door access can be done remotely.

- Added a webinar license to our Zoom account for large events and gatherings.

➡ Moments to Celebrate: ⬅

"Every time I call the ITS help desk and/or stop by and/or email, the responses and help I get are 5-star and consistent. I don't know what you do or how you attract top-notch people but it's so nice to have a department full of competent, capable, and nice colleagues."

Tiffany Kelly, Director of Alumni and Family Relations

Solutions Center COVID-19 Highlights, Continued

- Procured 450 Zoom licenses for use during Blocks 7 and 8 and integrated them into Canvas.

- Created remote events to celebrate students and their accomplishments including a virtual women's soccer banquet and a senior send-off for the Business and Economics Department (with the ITS Events team).

- Purchased 100 temporary Screencast-O-Matic licenses to give faculty an easy way to create and upload screen recordings.

- Deployed a new server for Computer Science students to use for remote access.

- Deployed a WebWork server as a problem-solving system for the Math Department.

Additional Solutions Center Highlights, Continued

- Conducted training sessions for departments to transition to Adobe Sign, which will continue into the summer and fall of 2020.

- Implemented online FunQuest payments through DocuSign to offer a secure, convenient payment option.

- Hosted multiple Excel@CC courses focusing on security, Microsoft software, WebEx, Zoom, and more.

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Additional Solutions Center Highlights, Continued

- Started the "Workshops on Demand" program to create bookable technology workshops in a central place for departments to schedule at their convenience (collaboration between Devon Sherwood, user support specialist—technology engagement, and Meghan Rubenstein, curator of visual resources in the Art Department).

- Introduced a Windows deployment server to cut the deployment time for Windows computers by automating certain IT administrative tasks.

- Deployed more than 90 new PC laptops and desktops, most prior to mid-March 2020.

- Completed 159 student, faculty, and staff Mac repairs

- Deployed 170 faculty and staff new and reconfigured Macs using the JAMF application for their configuration and IT administrative tasks.

- Deployed 53 faculty and staff new and reconfigured iPads, also using JAMF.

- Completed ongoing maintenance in various Mac labs across campus, as well as for the loaner Mac computers and iPad carts.

- Assisted Italian, French, Spanish, and Art History courses with the use of the Oculus Quest VR headsets so students could take virtual field trips around the world with the Wander VR app (picture right).

Moments to Celebrate:

In response to assistance with multiple Zoom alumni career panels for students: "Today went AWESOME and we couldn't have done it without you. Zero problems, hiccups, issues. Couldn't have been more perfect! Whoop whoop!"

Gretchen Wardell, career coach, Career Center

DocuSign's Environmental Impact

Implemented in 2016, DocuSign is software that enables people to create documents for electronic signature, saving time, energy and paper.

Since 2016, the following have been saved:

- 1,043 pounds of wood (approximately 209 reams of paper)

- 2,789 gallons of water.

- 2,346 pounds of CO2 gas

⭐ Network COVID-19 Highlights ⭐

- Prior to the pandemic, virtual desktop infrastructure (VDI) was only in the testing process within ITS. Once the campus shifted to distance learning and off-campus working, the Network team expanded to over 230 virtual desktops.

- Rebuilt and supported 10 large remote desktop hosts that allow for multiple people to connect to the VDI environment all at once in order to use campus and lab software that are normally only available on campus.

- Acquired and quickly set up, configured, and added additional server hardware to support the vast increase needed in our VDI.

- Increased memory and resources to virtual servers to handle the capacity of remote working.

- Created standby remote desktop "farms" as a contingency for failure or overload.

- Increased inbound/outbound bandwidth.

- Added 2Gbps backup to our primary internet connection.

- Created an easier remote connection for the Finance and Administration Office.

- Added a password reset feature to the single sign-in page.

- Added Jabber for remote accessibility to voicemail and campus phone usage and extended solutions for main office department numbers.

- Enabled both Google Meet and Zoom to work through the single sign-in page.

Additional Network Highlights

- Created a new ArcGIS enterprise server infrastructure to expand availability of ArcGIS to the campus and allow access to the service from off-campus.

- Conducted an emergency repair to the Armstrong Hall datacenter uninterrupted power supply (UPS) without causing a campus outage.

- Built and replaced dozens of Linux and Windows servers.

- Upgraded the college's primary server storage to be active between the Armstrong Hall and Barnes Hall datacenters for critical servers and desktops.

- Managed multiple moves or "vmotions" between virtual machines (VM) through the assistance of VMWare High Availability and VMWare Distributed Resource Scheduler with next to no disruption to campus.

- Began upgrades and additions to the fiber connections on campus (done by Facilities Services) in preparation for the team to do a network upgrade.

➡ Moments to Celebrate: ⬅

"David (Ziemba) and Bill (Costner) worked on identifying and disconnecting old CenturyLink legacy accounts and were able to wrap that up today (4/20/2020). We are anticipating about $500 per month in savings campus-wide. Thought I'd share some positive news!"

Lucie Tennis, Operations Manager, ITS

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ITS Diversity, Equity, and Inclusion Team

- Conducted CC's first-ever diversity virtual reality (VR) experience for 15 staff and faculty at the 2019 Fall Conference (photo, right).

- Hosted a VR film viewing of "traveling While Black" for the President's Office.

- Hosted a "Pop Tart Pop-Up" event for students to build a sense of community. Approximately 40 students attended.

- Partnered with the QUAD Innovation Alliance, Human Resources, and the ITS operations manager to create a mentoring program for female identifying staff, with its launch to occur in 2020-2021.

- Hosted a breakfast for female-identifying students to meet visiting female esports players.

- Upgraded 30 laptops, making them available for year-long loans for students without one.

GIS Lab

In addition to advising multiple senior thesis projects and hosting the usual classes, Matt Cooney, GIS technical director, stated that the lab's year also included work on:

- A new class from Professor Nicolyn Woodcock in the English Department using story maps to visualize "The Transpacific Geography of Didion's Democracy."

- A paper and maps published by a retired Chemistry professor that helps to identify unidentified bodies using a method by which lead isotopes found in soldiers' tooth enamel can be traced to where a soldier grew up.

- A Pikes Peak Community Health Partnership Safe Needle Disposal project collaboration.

Several in-progress projects were also paused due to the COVID-19 pandemic:

- As part of the collaboration with PPACOG, work with a home owner's association in Palmer Park in Colorado Springs sitting against the mountains in an wildland urban interface that has concerns over nonexistent evacuation plans that would likely trap people in the event of a wildfire.

➡ **Moments to Celebrate:** ⬅

Written to Matt Cooney by two of his student workers: "Thanks for setting the bar impossibly high for any other boss we ever have. You're the greatest and more. Thanks for quite literally changing our lives."

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GIS Lab, Continued

- The quality of life indicators project with the Pikes Peak United Way to visualize data that can be used to drive change and communicate the impact of inequities across the region.

Additional highlights for Matt include:

- Attending the Google 2019 Geo For Good Summit where many gathered to share ideas about how geospatial technology can be used to address social and environmental injustices. At the summit, Matt was able to learn about and acquire Google Earth Wall which has applications for the Data Viz Wall in Tutt Library (picture, below).

All of these projects provide opportunities for the GIS Lab student workers to get into the community and work on their GIS skills in a manner that has direct community impact, as well as provide professional development opportunities.

⭐ ITS Academic COVID-19 Highlights ⭐

Jennifer Golightly, academic applications specialist, stated that the following occurred to support the move to and ongoing function of online learning:

- Created multiple online workshops for faculty focused on: online teaching, combining functionality with online pedagogy, Canvas tips and tricks, use of online discussions, how to create online assignments to name just a few. Multiple sessions of each workshop took place. All workshops were well-attended.

- Hosted virtual open attendance workshops for online teaching technologies.

- Formed a group of experienced online teachers from CC's faculty and staff to work with faculty teaching in Blocks 7 and 8 to answer questions about online pedagogy.

- Created a framework of basic principles of online pedagogy so faculty teaching in Blocks 7 and 8 would hear a consistent message about best practices.

- Co-chaired the Transition to Online executive task force with CC Professor Jane Murphy. Steve Lawson, Traci Freeman, and Drew Cavin were the other members of the task force.

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ITS Academic COVID-19 Highlights, Continued

- Created online pedagogical resources for faculty moving their classes online, including a course-building checklist and a handout on designing an equitable online class.

- Led numerous one-on-one and group meetings with faculty to help them build their online courses.

- Began work to support fall classes by serving on two working groups to develop a plan for course deliver modes and faculty teaching in those modes.

- Offered group and one-on-one workshops for faculty teaching online in the summer.

- Began writing, in collaboration with Professors Jane Murphy and Re Evitt, the Designing for Fall 2020 guide for faculty to provide pedagogical support for designing courses in hybrid, online, in-person, and flex modes.

Additional ITS Academic Highlights

- Led a Digital Liberal Arts (DLA) learning circle for the Crown Center and hired two student workers to serve as the first DLA fellows.

- Worked with a number of faculty on class-based DLA projects, including two with Matt Cooney in the GIS Lab.

Moments to Celebrate:

"Jennifer (Golightly), thank you for your calm, your great pedagogy suggestions, your advice to keep things chill and not to lecture for three hours. I am deeply indebted to you!"

Re Evitt, associate professor of English

Video Communications Statistics

Video communication has been an important tool for the college for some time, but became vital to its operations after CC moved to online learning and working from home in mid-March. Zoom, WebEx, and others all provided critical services during this time with the following numbers of note (Zoom/WebEx combined only; other providers' data is unavailable for the full year).

6,112,754 minutes

27,391 total meetings

152,104 participants

Top 10 Locations by Meeting Participants
United States
Spain
Canada
United Kingdom
China
Germany
Russian Federation
Costa Rica
Italy
Thailand

Office of Information Technology Services

Technical Events Team

Our Technical Events team is known for outstanding support for all types of events across campus, from simple drop offs/pick ups of equipment to complicated all-day symposiums with multiple events requiring different set-ups, equipment, and in-person staff management, and this year was no exception.

| Block	Total Number of Events
1	81
2	125
3	126
4	80
Half-Block	58
5	70
6	131

One event of particular note was the Educating Children of Color Summit that uses over 30 campus spaces, including all of the large theatres and arenas on campus. The event required all hands on deck to make it a success (picture left).

As they began to plan for their busiest time of year in Block 7, COVID-19 had other things in mind. With the switch to online learning and working from home, the team helped in other ways, such as making sure the campus was appropriately marked for social distancing, checking all assisted listening devices across campus to make sure the college remains ADA compliant, assisting with spaces that were being used for students who had to remain on campus, and running Zoom webinars.

The team managed the transition to Zoom for all types of webinars and events that were taking place. At least 36 webinars were held. All were managed by this team and included thesis presentations, baccalaureate celebrations, town hall meetings, the Block Plan Institute (with 350 participants per day), and the first CC Conversations event that had 284 registered participants. The largest webinar hosted was a town hall meeting about classes/academics in which 943 participants registered. A highly successful faculty meeting also used this technology.
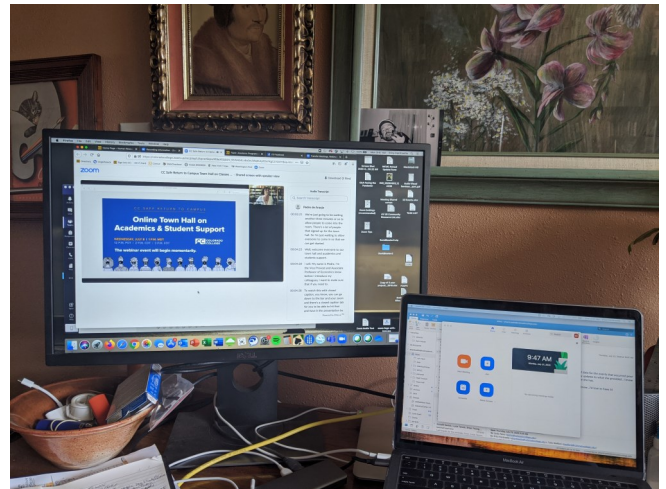
To make it easier for campus constituents to schedule a Zoom webinar, it was included in the Events Management section of the CC single sign-on page and can be reserved like any meeting space on campus.

Office of Information Technology Services

Classroom and Venue Technology

Throughout the year, including during the pandemic, many updates, upgrades, and additions were made to the technology located in the classrooms and venues across campus:

- Shove Chapel—upgraded sound system, including adding speakers, new wireless microphones, a new mixer, and additional inputs/outputs.

- Stewart Field—designed and installed a new sound system (picture below).

- 822 N. Weber, Debate House—added a multimedia presentation space and two conference rooms.

- Carriage House—built a large teaching/event space with a interactive smart board and lecture capture/streaming system, lounge TV/digital signage, and two video conferencing/interview rooms.

Classroom and Venue Technology, Continued

- ITS Conference Room, Armstrong Hall—replaced the existing display and added a second with quad view for analytics. Also replaced the control system (picture below).

- Max Kade Theatre—replacement of all Audio Visual equipment: laser projector, Crestron control, electric screen, and surround sound system (will be totally completed in August of 2020).

- Advising Hub—built two conference rooms as part of the remodel.

Classroom and Venue Technology, Continued

- Robson Arena—continued planning the AV systems.

- Gaylord Hall—added a lecture capture and live-streaming system.

- WES Room—added Crestron controls, a podium mic to the in-room speakers, and a Blu-ray player. Replaced old speakers.

- Classrooms across campus—added six additional smart classrooms and life-cycle replaced equipment in approximately 60 classrooms.

The Baca Campus also underwent a major renovation of its audio visual equipment.

- Baca conference center's main room—installed an audio/video playback system which includes a high quality sound system, laser projector, 137" diagonal electric screen, Blu-ray player, wireless microphone, HDMI input with Thunderbolt and USB-C adapters, and audio jack for other devices. A backup option was also added to be able to project from a computer.

Classroom and Venue Technology, Continued

- Baca classroom—upgraded TV with articulating mount and added a sound bar and subwoofer for an enhanced audio experience. A Blu-ray player and HDMI cable with adapters were also added.

- Baca library—all enhancements completed in the classroom were also added to the library. The equipment was moved to the display case for a more optimal viewing experience.

Did you know?

You can check out equipment like cameras, microphones, and computer projectors through the Audio Visual Support office.

CC Office of Information Technology Services

Qualtrics Usage Statistics

1,018 surveys created (does not include CC Psychology Department surveys).

These surveys **generated 43,667 responses.**

Responses

Total: 43,667

⭐ Enterprise Information Systems COVID-19 Highlights ⭐

- Created a process to separate the course evaluations for Blocks 7 and 8 and provide results to the faculty.

- Created a Gold Card swipe notification system for Campus Safety so they could monitor when unauthorized individuals tried to enter a building.

- Made multiple significant changes to the system to accommodate the new spring 2020 semester schedule, as well as J-Block that will be added for spring 2021. These changes are ongoing.

Additional Enterprise Information Systems Highlights

- Created a custom Honors Convocation app.

- Helped with the Advising Hub set-up in Banner.

- Created a custom Housing app.

- Enhanced the Canvas integration with

Additional Enterprise Information Systems Highlights, Continued

- real-time components.

- Integrated Stellic, Summit, and MarketPay with Banner.

- Continued maintenance and improvements to the integration landscape for the student insurance program and accessibility applications.

- Implemented Snowflake and Matillion for the college's data warehouse, where data will be processed, organized, and analyzed. The infrastructure for the data lake, where raw data from across platforms will be located, was also created. Data was ingested into the lake from multiple systems, including Banner, Slate, and PowerFAIDS. Additional data will continue to be added.

- Upgraded Cognos, Oracle, PageBuilder, WebLogic, SSO Manager, and WebTailor. Banner received multiple upgrades, and server upgrades and migrations from Windows to Linux were done.

- Discovered and mitigated security vulnerabilities.

- Progressed disaster recovery plans with the Network team.

- Continued work on E911 reporting, real-time Gold Card maintenance, and phone usage monitoring.

➡️ Moments to Celebrate: ⬅️

"Thank you so much for making the transition to an online Block 7 work so well. I could not have done this without all of the insights, time, and resources you provided."

Aju Fenn, professor of economics

CC Office of Information Technology Services

Esports Highlights

- Hired one of the founding students of the program as the first full-time employee for esports at CC. This position allows CC to foster new career paths for students in esports and open the door for expansion of the program.

- Expanded to a second lab space. The new lab focuses on inviting other on campus to the CC gaming community and features six gaming computers, three Nintendo Switches, a tabletop gaming table, and a couch area with two TVs for viewing esports competitions or casual console gaming. This lab expanded the gaming community, with approximately 100 students gaining card access to it (picture above).

- Hosted events during New Student Orientation which allowed new students and parents to get involved and be informed about esports on campus (picture below).

- Employed seven student workers who developed interpersonal, leadership, and management skills, as well as media and broadcasting skills.

- Celebrated official team players ranking in the top 1% of players in North America, with four of those players ranking in the top .01% of all players.

- Set the minimum GPA requirement at 2.0 for varsity students. This was monitored each block.

- Finished undefeated in fall online tournaments for League of Legends with a 5-0 record. The Overwatch team finished the season 9-5, ranking in the top 40 of 500 schools.

- Finished undefeated in the spring Southern Collegiate Athletic Conference (SCAC) competition for League of Legends at 5-0. The Overwatch team also finished undefeated at 5-0. The Rocket League team finished 2-2.

- Competed at many state tournaments in Super Smash Brothers. The most notable finish was at a regional tournament where one of CC's players finished seventh out of 132 entrants.

- Created esports jerseys with the new athletic logo. There are plans to sell them in the bookstore next fiscal year.

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Esports Highlights, Continued

- Worked to increase diversity and inclusion by hosting events called "Fem Fridays" on the first and third Fridays of each block to focus on giving female-identifying students a time where the lab is open only to them.

- Hosted a campus-wide "First Mondays" event on the first day of Block 6. A panel of speakers from across the country addressed the topic of diversity and inclusion in esports.

- Awarded the Alaska Award for diversity and inclusion in esports to Caroline Li and the MysticMonk3y Award for teamwork and passion for esports to Andrew Choy.

- Collaborated with local schools and other youth organizations to introduce students to esports in a higher education environment to encourage them to attend CC.

- Created YouTube videos to help the campus get to know the esports players.

Multi-Factor Authentication (MFA)

While implementation of MFA started in the spring of 2019 with several test individuals/groups, adding it for faculty and staff began in earnest during summer of 2019.

The MFA implementation team of Linda Petro, Chad Schonewill, and Jeff Montoya, with help from Katharina Groves, spent a great deal of time in one-on-one and group settings, based on everyone's individual needs, going through the set-up process. Others in the Solutions Center were also recruited to help spend time with individuals

Multi-Factor Authentication (MFA), Continued

throughout the entire year, steadily increasing the numbers of active users until, at the end of February 2020, all faculty and staff were using MFA.

Students joined in the process in September 2019 and were automatically added in small batches after receiving advanced notification it was coming their way. The final group, MAT students, were added in June 2020, making the MFA implementation across campus complete!

Several achievements occurred throughout the process:

- The first time a new technology was implemented in mostly one-on-one and small group settings according to what worked for individuals. This greatly raised the acceptance level of the new technology and comments like, "that wasn't so bad," were common.

- A new bypass code generator was created to accommodate those who lost or did not have access to a their MFA device.

Did you know?

The ITS tech adoption group and process is in place for anyone thinking of purchasing applications, software, systems, platforms, online services, or other technologies to address an issue, manage data, or help with office efficiency.

This is in place to help address security and integration concerns up front in order to make the application's deployment as easy as possible.

CC Office of Information Technology Services

Multi-Factor Authentication (MFA), Continued

- Banner SSB became available directly from off-campus without needing VMware.

- Password reset requirements were removed from most active accounts (those with advanced/sensitive levels of access still have requirements in place).

Once implemented, there were zero phishing attempts for the rest of the year from compromised CC accounts, down from an average of two to three per month (there were occasional higher spikes as well).

Information security is of the utmost importance in today's world and the implementation of MFA is a step forward in protecting one the college's most valuable assets, its data.

Security and Applications Highlights

- Deployed F5 Global Traffic Manager to allow for geographic failover of web services. This is a technology that allows the college to build fault tolerant and highly available services so our users notice little to no downtime when a failover is needed. The first service to use this was the college's single sign-in page.

- More than 100 applications now link through single sign-in.

Security and Applications Highlights, Continued

- Deployed Google GSuite access for the campus (signing on with your CC email now has you use the single sign-in page for access).

- Added password reset functionality to the single sign-in page, allowing the college to drop an additional service.

- Deployed an ArcGIS server.

- Activated the Robson Arena live construction camera.

- Migrated NetPartner, a financial aid application, to use single sign-in

- Provided additional remote access options through SSLVPN and VPN to increase productivity by not requiring access by way of Horizon View.

- Wrote the MFA bypass code generation app.

- Wrote the MFA warning app.

- Upgraded single sign-in and other back end applications.

- Automated some of Financial Aid's processes.

- Completed the technical set-up for the MFA implementation.

- Migrated endpoint computer protection to Crowdstrike Falcon, saving $10,000 annually over the previous software.

- Caught 18,122 messages as spam and blocked 3,753 emails with malicious attachments through the Office 365 Advanced Threat Protection application.

- Remained committed to business and academic continuity.

Office of Information Technology Services

Security and Applications Highlights, Continued

- Conducted penetration testing/security posture scoring and remediation, which determined the use of obsolete https ciphers and cryptographic protocols on many web applications. These were all remediated.

- Conducted educational phishing simulations to identify end user risk with regard to social engineering liability.

- Completed a formal risk assessment in compliance with the Financial Aid audit, which highlighted areas of risk. Most risks have been remediated, with others to be addressed in the new fiscal year.

Project Management Highlights

- Led the MFA implementation.

- Worked with Human Resources to research, choose, and coordinate the installation of a sound masking system for the HR conference room. This room will serve as the test environment to see how the college might implement the technology elsewhere on campus.

Did you know?

ITS introduces and tests new and emerging technology in the Class of 1967 Tech Sandbox (Tutt Library). Students, faculty, and staff can come and experiment to bring their ideas to life.

A few of the sandbox items for use are the Microsoft Hololens, HTC Vive, Cubex, Raspberry Pis, and Epson 10000xl scanner.

Moments to Celebrate:

"I was having a very hard time implementing the use of WebEx in my work, and nothing was seeming to make sense. Angie Bardsley, Ian Knapp, and Weston Taylor went above and beyond in assisting me to make this happen with excellent communication, patience, and problem solving. I want to commend them."

Brenna Sturgeon, mental health counselor

Project Management Highlights, Continued

- Collaborated with the Dean's Office to help them acquire an audience response/voting system for use during the faculty meetings. The system is also available for checkout for class usage.

- Participated in several COVID-19-related groups to bring more people physically to campus safely during the pandemic and researched multiple technologies such as room occupancy monitors that could help with this effort.

New Hires for 2019-2020

We were excited to welcome these new employees to ITS this year:

- Jazmine Newsome, EIS specialist

- Rajesh Sajeevan, database/systems administrator

- Nick Gutschow, data warehouse administrator

CC Office of Information Technology Services