

Response to Offsite Review Summary of Lines of Inquiry
Additional Information Request #8:
Evidence Illustrating How IT Resources Support the Campus Mission
August 2018

With the arrival of a new campus Chief Information Officer in December 2016, the central campus technology organization restructured its division to enhance synergies between teams within the organization, and formally renamed itself Information Technology Solutions (ITS). The organization had previously been known as Computing & Communications (C&C). This was done to better serve the broader campus mission of teaching, learning and research while also ensuring effective support for campus administration. There are five key areas of focused improvement:

1. Increased effectiveness through a new organizational structure, new brand and new mission
2. Campus engagement and communications improvements
3. Academic and research technology enhancements
 - a. General technology improvements
 - b. Increased support for online / hybrid learning
 - c. Classroom and computing lab technology improvements
4. Administrative technology enhancements
 - a. New Ellucian Banner student information system
 - b. New UCPATH administrative systems for human resources, payroll and finance
 - c. Improved reporting and analytics
 - d. New cybersecurity footprint
5. Support for data-driven decision making across campus

New technology organization, brand and mission

Under its new organizational structure, the ITS leadership team is made up of the following positions and areas of responsibility. All of the positions report directly to the Chief Information Officer as the senior-most technology strategist on campus.

- **Executive Director for Academic & Research Systems:** aligns a collaborative approach to academic and research technology activities in support of the campus academic and research mission.
- **Executive Director for Campus Support & Assessment:** sets the vision for campus technical support, communication, training, documentation and continual improvement assessment.
- **Deputy CIO:** sets the strategic vision for comprehensive, integrated enterprise applications in support of campus programs.
- **Chief Technology Officer:** envisions and implements scalable, secure technology infrastructure solutions for the campus.
- **Chief Information Security Officer:** sets the tone and direction for inclusive information security initiatives for the campus.
- **Chief Financial & Administrative Officer:** provides administrative support to ITS through budget and financial strategy, licensing and procurement, human resource management and related matters.

The following structure defines the ITS functional organization structure and outlines each organizational area of responsibility. The darkest blue horizontal columns identify the major functional divisions of the organization. The lighter blue boxes identify actual reporting line segments while the yellow boxes identify additional functions provided by the team without separate management segments.

<h2 style="text-align: center;">ITS Organizational Structure</h2>				
Enabling customer (campus) success through accountability, scalability, ingenuity, simplicity and diversity.				
ADMINISTRATIVE SUPPORT				
Provides administrative support to ITS through budget and financial strategy, licensing and procurement, human resource management and related matters.				
ACADEMIC & RESEARCH SYSTEMS Under the strategic leadership of the Executive Director, aligns a collaborative approach to academic and research technology activities in support of the campus academic and research mission.	CAMPUS SUPPORT & ASSESSMENT Under the strategic leadership of the Executive Director, sets the vision for campus technical support, training, documentation and continual improvement assessment.	ENTERPRISE SOLUTIONS Under the strategic leadership of the Deputy CIO, sets the strategic vision for comprehensive, integrated enterprise solutions in support of campus programs.	ENTERPRISE INFRASTRUCTURE Under the strategic leadership of the Chief Technology Officer, envisions and implements scalable, secure technology infrastructure solutions for the campus.	INFORMATION SECURITY Under the strategic leadership of the Chief Information Security Officer, sets the tone and direction for inclusive information security initiatives for the campus.
ACADEMIC ENGAGEMENT	CAMPUS HELPDESK	PORTFOLIO & RELATIONSHIP MANAGEMENT	STRATEGIC ARCHITECTURE	CAMPUS AWARENESS
Develops strategy for the practice of supporting instructional experiences which enhance the teaching, learning and research endeavors such that they are more effective, appealing and innovative; partners with the VPUE to establish more effective channels for student success.	Develops and provides superior first contact technical customer support to faculty, students and staff through phone and remote support mechanisms.	Defines and administers complex portfolio and demand management across the enterprise & special projects; serves as lead business liaisons to units across campus.	Sets the strategic direction for campus infrastructure in support of innovation through effective resource optimization.	Formalizes campus information security awareness campaigns and socializes prevention strategies across campus; develops educational awareness artifacts for campus dissemination; establishes a collaborative approach to cybersecurity.
MULTIMEDIA & CLASSROOM TECHNOLOGY	ENDPOINT SUPPORT & MANAGEMENT	FINANCIAL SYSTEMS	IDENTITY & ACCESS MANAGEMENT	GOVERNANCE & COMPLIANCE
Establishes classroom and multimedia standards for campus teaching and event spaces. Provides just-in-time support for classroom technology; provides elevated support for VIP campus events.	Provides comprehensive endpoint support and management of campus hardware such as laptops, desktops, mobile and point-of-sale devices in accordance with established information security measures (FERPA, PCI, HIPAA, etc).	Defines appropriate architecture and development efforts in support of campus financial system requirements.	Establishes effective identity and access management practices. Provides reliable enterprise middleware components.	Authors campus information security policy and socializes into the campus culture for improved cybersecurity; establishes formal campus guidelines and practices in order to provide a secure framework for teaching, learning and research at all levels.
RESEARCH LIAISON	CAMPUS COMPUTING LABS	HR SYSTEMS	NETWORK & COMMUNICATIONS	THREAT INTELLIGENCE & MANAGEMENT
With the aim to raise the profile of research in learning technology through the use of research liaison functions, the liaison is to inspire research that informs solid methods and contributes to the development of research technology policy and practice. In partnership with our Deans and their colleges, provides strategic faculty technology support. In partnership with our Research & Economic Development and Library partners, provides strategic research thinking and collaboration.	Establishes innovative practices in support of teaching and learning computing labs. Provides effective procurement and maintenance of hundreds of lab devices; manages campus loaner program in collaboration with academic requirements.	Defines appropriate architecture and development efforts in support of campus human resource system requirements.	Provides reliable and responsive network and telecommunication services including remote campus support and management.	Establishes formal vulnerability management and threat intelligence practices through formal penetration testing programs; assists campus partners with cybersecurity assessment.
	COMMUNICATION & ASSESSMENT	STUDENT SYSTEMS	SYSTEMS ENGINEERING	SECURITY OPERATIONS
	Defines and administers campus service assessment and continuous improvement practices through formal service assessment; leads the campus technology awareness and training initiatives.	Defines appropriate architecture and development efforts in support of campus student system requirements.	Delivers optimal systems infrastructure and superior performance in support of enterprise solutions; manages effective disaster & business continuity practices.	Defines formal incident response plans and practices for the entire campus in order to establish appropriate reporting and recovery compliance procedures; establishes a collaborative culture and approach to incident response.
		CAMPUS WEB SOLUTIONS	DATABASE ADMINISTRATION	
		Defines appropriate architecture and development efforts for custom campus web applications including departmental web applications, campus portals, ServiceNow workflows, UCR website(s), etc.	Defines architecture standards and optimal performance for database administration; manages effective disaster recovery and business continuity practices.	
		CAMPUS REPORTING ARCHITECTURE	DATA CENTER OPERATIONS	
		Ensures effective use of campus reporting and analytics tools through effective dataset and infrastructure management.	Monitors and ensures secure, optimal data center and network operations.	

New ITS Brand and Mission

Upon completion of its organizational restructure, the ITS leadership team engaged with an industry leading organizational change expert to reimagine their purpose in support of the campus mission of teaching, learning and research. The ITS mission is to *enable customer (campus) success* through the effective application of technology in the areas of teaching, learning, research and administrative support. With a mission to *enable customer success*, the entire ITS organization now weighs their efforts against the value contribution to the campus user.



After launching a new mission, the ITS leadership team established five key pillars to organizational effectiveness – accountability, ingenuity, scalability, simplicity and diversity.

Accountability is the foundation of all ITS initiatives. High performance requires a culture built on accountability.

Ingenuity is required for the development of creative solutions to complex problems.

Scalability is essential to effectively supporting a growing campus with increased computing needs.

Simplicity ensures a sustainable support structure that is also easy to understand by campus users.

Diversity brings a variety of experience and thought in approach to solution development.

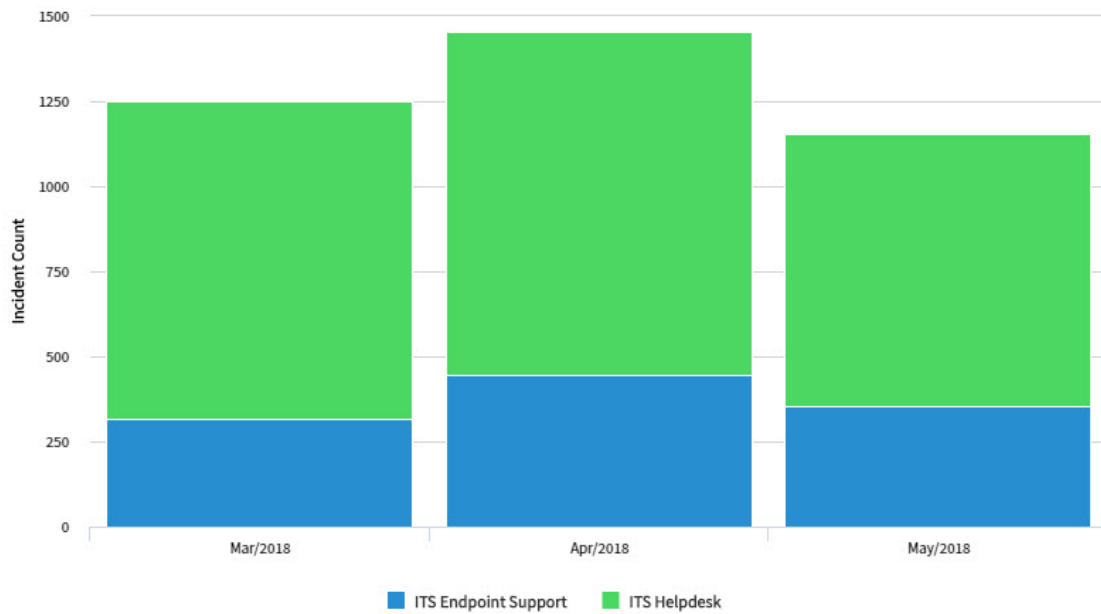


Campus engagement and communications improvements

With the ITS reorganization and new mission to *enable customer (campus) success* came a formal structure around campus technology support. No longer were unanswered helpdesk calls commonplace. Three major enhancements to the campus support engagement initiatives in the last 18 months are outlined below.

- 1. Building a Best Practice Tiered Support Structure:** Almost 60% of the central technology support organization is now certified in *ITIL Foundations* practices having never had this training prior to 2017. ITIL (formerly an acronym for Information Technology Infrastructure Library) is a set of detailed best practices for information technology service management (ITSM) that focuses on aligning technology services with the needs of business. The campus technology support practices are now structured in a multi-tiered environment where a Tier 1 helpdesk is staffed with knowledgeable support staff with the goal of first contact resolution for campus users by the means

of remote support. When a support incident requires local, hands-on assistance (or if the user prefers such an approach), the support incident is escalated to a Tier 2 endpoint support team that visits users on-site. Support incidents are escalated to highly specialized Tier 3 support teams only when necessary. In addition, ITS implemented a single ServiceNow software solution to replace three different technology support ticket solutions that were previously deployed by the department. A single solution aids in more efficient user support by providing the users with a single-window perspective on their issue and technical support staff with a tool that allows seamless ticket transfers between support teams. Incident totals from the three most previous months are shown below. Incidents are defined in ITIL practices as unplanned interruptions to a technology service.



Opened Totals		Incident Count Totals
Mar/2018 Total		1,249
Apr/2018 Total		1,455
May/2018 Total		1,154
Opened	Assignment group	Incident Count
Mar/2018	ITS Endpoint Support	317
	ITS Helpdesk	932
Apr/2018	ITS Endpoint Support	445
	ITS Helpdesk	1,010
May/2018	ITS Endpoint Support	353
	ITS Helpdesk	801
Total		3,858

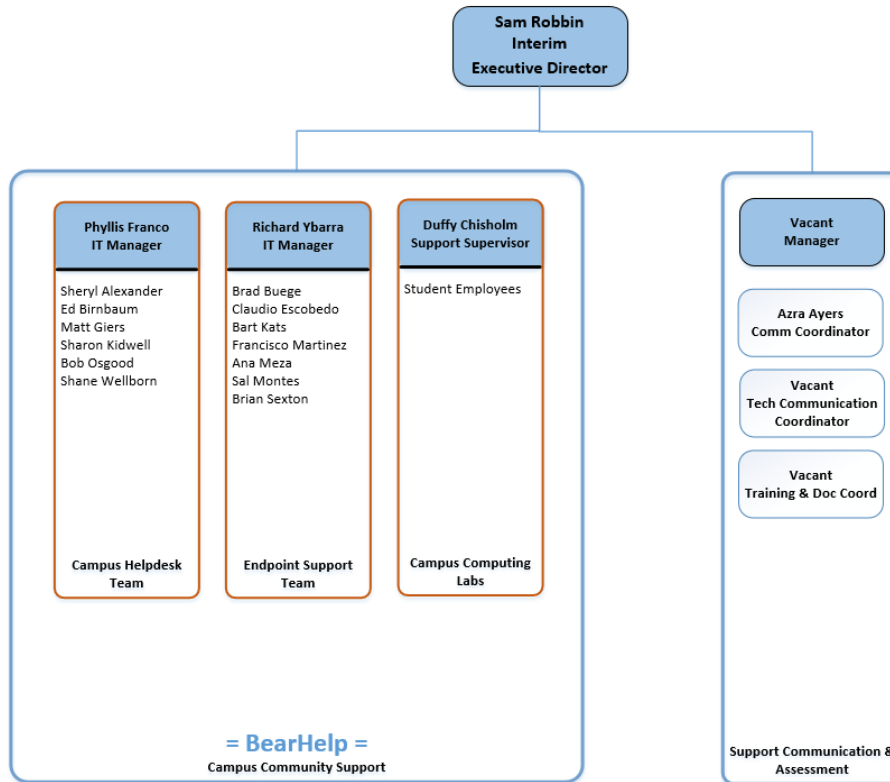
In addition, ITS deployed a new customer satisfaction survey that attaches a survey to every closed incident. Out of 374 customer satisfaction surveys completed, the following ratings were received out of a 5-point scale. For any customer that submits a 3 rating or below for any question, the Executive Director for Campus Support and Assessment calls the end user for additional feedback in an effort to improve support efforts.

Survey Question	Score
Was the team member that worked your incident courteous and respectful?	4.86
Were you satisfied by the speed of the initial contact from our Helpdesk?	4.64
How happy are you with the incident resolution received?	4.62
Were you happy with the speed in which your incident was resolved?	4.54
Was the incident easy to report?	3.78
Overall Average	4.49

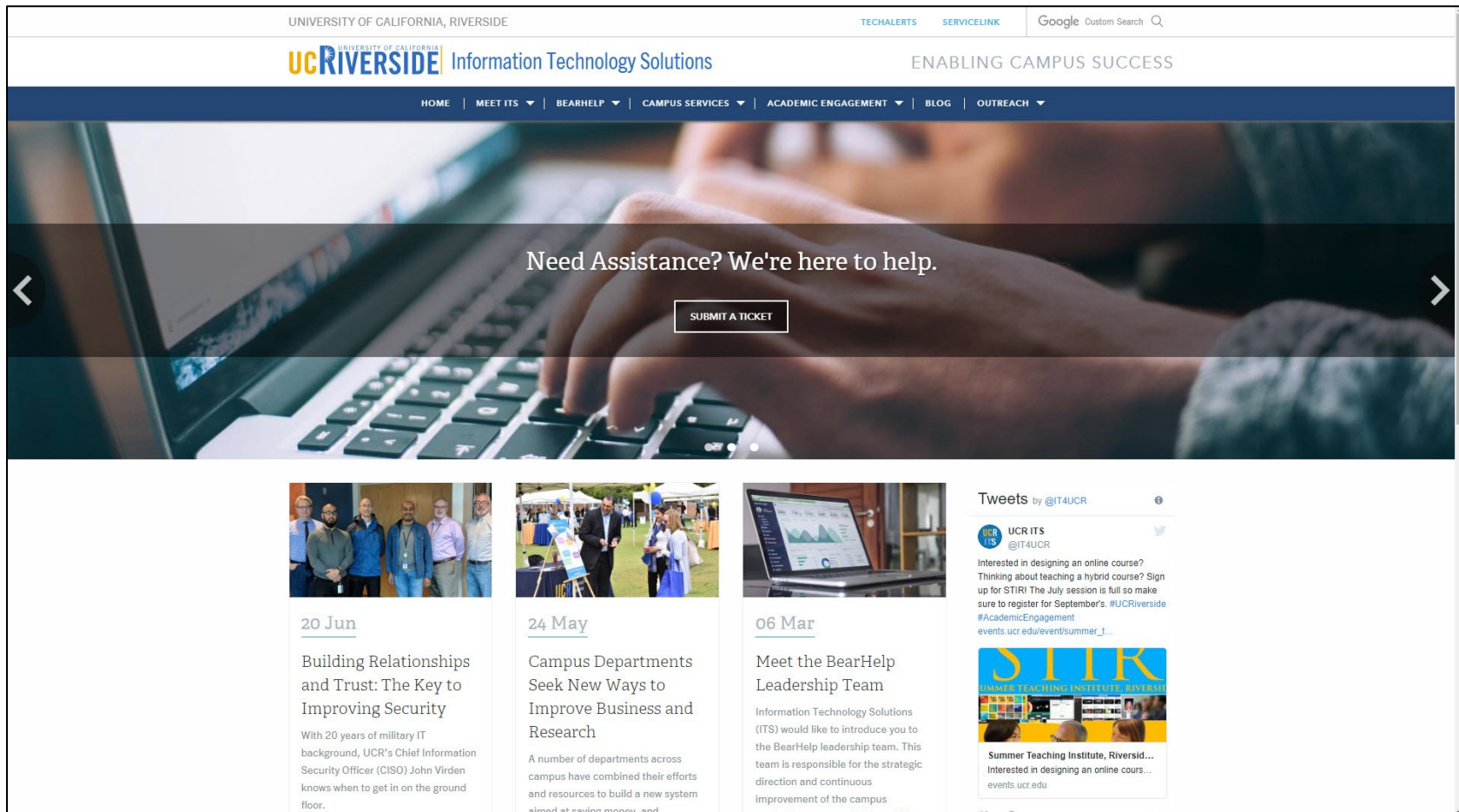
In discussion with users regarding the ease of submitting an incident, they mention the new support portal does not have enough links in enough places to direct users where to submit an incident. The team is looking at ways to improve the interface for campus users.

2. Formalized Communications & Assessment Team: In order to improve communications and user awareness across campus, an ITS Communications Coordinator position was created in June 2017. For the past year, this Communications Coordinator focused on promoting ITS services and support options for faculty, staff and students by developing communications collateral (such as banners, posters, handouts, etc.) and participating in campus-wide awareness events such as new faculty workshops, new student orientation and campus staff events. By the end of 2018, an entire team focused on formal campus communication, training, documentation and support assessment will exist through the reassignment of vacancies. This team is organized alongside the campus support organization to stay abreast of support issues as a means for insight into their areas of focus for training and documentation.

Campus Support & Assessment



3. **New ITS Website:** The technology division will launch a new website before the Fall 2018 quarter in order to provide a single location to find information and documentation on the full technology service catalog. The website was completely reorganized to better reflect services to campus as opposed to an internal organizational structure. Content related to instructional guides was migrated to the new campus knowledge base solution within the ServiceNow platform for better organization and search capabilities. The website content will focus on informational content around services, announcements and support options for campus constituents. A screenshot of the new website is included below:



Academic and research technology enhancements

ITS made a concerted effort to expand academic and research technology efforts over the last few years.

General technology improvements

In response to faculty requests for more local storage capacity for large research datasets, in 2017 ITS launched a new [high capacity research storage](#) solution (branded as “R’Cloud”) that provides all faculty on campus with three terabytes of locally hosted, fully replicated storage specifically for their research needs. The new R’Cloud solution offers both desktop and mobile clients that allow faculty to quickly access, view and share their research content – complete with file encryption at rest and in transit.

The broader ITS-supported academic and research technology portfolio consists of the following solutions:

- A full suite of collaboration software via Google Apps
- A robust Learning Management System via BlackBoard (branded “iLearn” at UCR)
- Rich web-conferencing via Zoom
- Effective classroom technologies such as [clickers](#), [Catchbox](#), [iPads for Instruction](#), [Kahoot](#) and [Swivl](#)
- General research support using [Qualtrics](#) and [Amazon Web Services](#) (AWS)
- Innovative learning studio solutions via [Learning Glass](#) and green screen studio
- Lecture capture via [MediaSite](#)
- Digital repository via [MediaAMP](#)
- Ad-hoc training, short lecture topics via [Lynda.com](#) (faculty and staff access only)

Increased support for online / hybrid learning

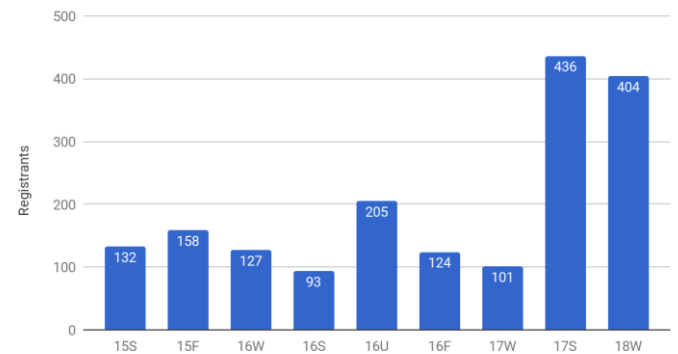
Hybrid/online instruction supports the campus mission in multiple ways. First, it helps extend access by creating greater flexibility for our students who often must juggle academic responsibilities along with work and family obligations. Second, it offers a delivery modality that some students find preferable for learning effectiveness – including, for example, the ability to rewind and rewatch lectures as often as needed. Third, it helps avoid capital costs that would otherwise be needed to grow our student population. To better support the campus initiative for increased hybrid/online instruction, the ITS Academic Engagement team focused efforts on a few key areas over the last few years:

- a) Increased participation by faculty in instruction innovation workshops
- b) Increased participation by faculty in the UC Innovative Learning Technology Initiative (ILTI) grants
- c) Increased Learning Glass video production and support

a) Increased participation by faculty in instruction innovation workshops: The Academic Engagement team holds an annual [Faculty Instructional Innovation Studio](#) (FIIS) attended by UCR faculty, lecturers, staff and teaching assistants. Due to improved marketing, relocation of the workshops to the Teaching and Learning Center (which has a larger capacity and more central location), and growing campus interest, recent instructional innovation studio sessions experienced strong growth in registered participants over the prior year.

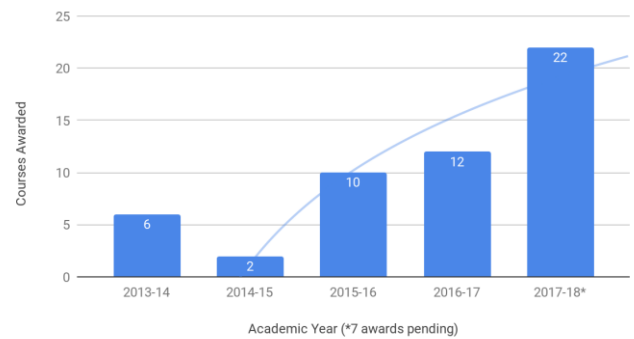
With a 313% growth in interest, experiential hybrid programs include: “flipped” faculty presentations, interactive showcase panels, 5-minute lightning talks, case studies, (virtual) field trips and a hands-on lab called the “[Exploratorium](#).”

Number of Registrants by Quarter (2015-2018)



b) Increased participation by faculty in the University of California (UC) Innovative Learning Technology Initiative (ILTI) grants: ITS instructional designers support faculty with proposals, budgeting, course design and course production to bring emerging educational technologies to the classroom. Over the past 5 years, UCR has received over 50 [ILTI](#) course awards worth over \$3.5M (with seven additional courses pending award in 2018) thanks to the assistance provided by ITS instructional designers to faculty during their proposal development. In partnership with faculty, ITS instructional designers have also saved students approximately \$1.5M in textbook expenses between Fall 2015 and Spring 2018 through the Affordable Course Materials Initiative (ACMI).

ILTI Courses Awarded in Past 5 Years (Total = 52)



c) Increased Learning Glass video production and support: The [Learning Glass](#) is a lecture capture system that allows instructors to record their whiteboard lectures in a state-of-the-art video production studio. The final recording allows students to see the annotations while listening to the lecture, as well as view the instructor delivering the talk. This combination produces an engaging instructional video, while giving students a personalized learning experience. Over 800 learning glass videos of varied lengths have been produced so far. Learning Glass videos have been implemented in over 30 courses, spanning a broad range of disciplines including mathematics, sciences, and arts.

Classroom and computing lab technology improvements

The Multimedia and Classroom Technology division is responsible for supporting both classroom and computer lab technology environments. Three areas of service enhancement include:

1. To date, the Multimedia and Classroom Technology team has successfully upgraded 87 classrooms ([classroom technology map](#)) with best-in-class feature sets such as standardized control systems, full high definition projection, digital signal transmission, wireless presentation connectivity, triple matrixed presentation systems, touch screen annotation/tablets and SmartBoard displays that maximize whiteboard space. Each student enrolled at UCR over the previous five-year period has engaged in coursework at these 87 locations, representing a total of over 22 million enhanced student instructional hours. In addition, technology deployed and supported by the Multimedia and Classroom Technology team also facilitated hybrid and online learning via Zoom, Mediasite lecture captures, supplemental micro-lectures, LMS-native discussions and quizzes, and classroom polling software.
2. The campus computing labs are also going through revitalization. In response to growing demands for teaching labs that support computer-intensive software such as [ArcGIS](#), ITS implemented virtual teaching labs using [Amazon Workspaces](#) last year. To quote one professor who used the new virtual lab this year:

“Students had continuous access to the software at all times irrespective of their type of computer at home; no need for software installation. Office hours were more efficient as students could bring their own laptop or tablet to ask questions about particular aspects of the software.”

3. Given the UCR student demographic, ITS will launch [laptop and tablet checkout kiosks](#) in Fall 2018 to better support our students’ need for increased access to personal computing options. The kiosks will provide 24-hour rentals for Windows, Mac and Chromebook devices loaded with required UCR software, which will allow students to take the loaner devices home to enhance their study time away from campus.

Administrative technology enhancements

During the last two years, two major technology implementations successfully launched at UCR – a new student information system and a new payroll system. The new student information system is the Ellucian Banner solution which is hosted and administered locally. The new payroll system is the PeopleSoft HCM solution which is hosted and administered by the University of California Office of the President (UCOP).

New Ellucian Banner student information system

Prior to October 2016, the student system was on an aging IBM mainframe that had not seen a hardware upgrade since 2006. Functionally, the mainframe solution was not on a relational database so the system had to go offline every night from 10:00pm to 8:00am for batch processing. With an aged system, technical support resources were scarce.

UC Riverside implemented the Banner Student module in October 2016 combining the undergraduate admission, registrar, financial aid and bursar functions into a modern student enterprise resource system. The implementation project cost just under \$12 million over a three-year period. The Banner implementation project had six major functional goals, all of which were accomplished:

1. Improved self-service options, including 24/7 access (with minimal downtime for maintenance)
2. Real-time access to the schedule of classes during registration
3. Improved course planning functionality
4. Improved course scheduling functionality
5. Improved payment options, including Visa and Western Union and no fees for ACH (e-checks)
6. More bursar processes implemented online (to free staff time from manual data entry)

In addition to the core Banner Student modules, UCR also implemented the following integrated solutions:

- **Degree Works** replaced the previous degree audit system. One important benefit of Degree Works is the ability to extract degree audit data to use this information to assess student success and inform enrollment and course planning. It is also far more user-friendly for students.
- **Banner Document Management (BDM)** replaced the legacy student document management solution. BDM allows core student support offices to tie paper documents directly with the Banner student record – with one click. This reduced staff time spent searching for paper documents and/or logging into a separate system to look at documents received.
- **Banner ODS/EDW and Cognos** reporting tools replaced the previous student data warehouse. The Banner Operational Data Store (ODS) and Enterprise Data Warehouse (EDW) provide a more consistent view of institutional data for the campus and more timely access to data. Cognos is a business intelligence analytical reporting tool that is integrated with Banner ODS and EDW.

Since going live, the project team has completed several system improvements while ensuring very little local customization to the vendor provided solution. Pursuing local business process optimization instead of system customization ensures future vendor upgrades to the system will not impact system functionality.

There was a one-year system stabilization period after implementation to address the campus concerns regarding the system and process changes. Most of the campus users had not experienced a major student system overhaul such as this. The project leadership team worked with the campus users to develop a formal list of system enhancements that needed to be placed into production during this system stabilization period. In October 2017, one year after launch, the project leadership team declared the system stabilization period over in collaboration with the user community.

New UCPATH administrative systems for human resources, payroll and finance

UC Riverside joined UC Merced as the first pilot campuses to implement the new UCPATH system. [UCPATH](#) is the University of California (UC) initiative to replace a 35-year old payroll and personnel system by implementing a single payroll, benefits, human resources and academic personnel solution for all UC employees. UCPATH stands for UC payroll, academic personnel, timekeeping and HR. UC Riverside went live on the UCPATH solution in December 2017. The system is now in a stabilization period as the campus community adjusts to the new business processes.

Several ITS staff worked for over five years to support this UC wide system implementation. In order to ensure the successful launch of this new system, ITS diverted resources from other smaller projects to assist with this herculean effort. In preparation for additional UCPATH modules scheduled to release in March 2019, ITS is developing a brand new Human Resources Management System (HRMS) that will replace five separate human resources (HR) related applications at UC Riverside and offer full integration to UCPATH. This initiative will greatly enhance staff support across campus by reducing the number of disparate systems that staff support personnel have to interact with on a daily basis and improving system integrations across the broader HR platform. Administrative support functions involving talent acquisition, recruitment, reclassification, classification and compensation and performance review management will all see improved functionality through the release of the new HRMS solution in March 2019

Improved reporting and analytics

Improved reporting tools scheduled for FY19 will greatly enhance administrative reporting capabilities. Instead of relying on technical resource intensive custom reports, ITS is working with Institutional Research and other campus leadership to leverage established datasets to develop a just-in-time/do-it-yourself reporting solution on top of the [Microsoft Power BI](#) suite.

New cybersecurity footprint

ITS invested heavily in cybersecurity over the last five years. With the arrival of a new campus Chief Information Security Officer (CISO) in 2017 came even more cybersecurity enhancements. Key areas of cybersecurity improvements over this period are outlined below.

- ITS implemented a new border firewall in 2018. As an essential component in detecting and protecting the campus network from unwanted traffic and intrusion attempts, the new redundant border firewall puts the campus in the best position to protect against cybersecurity threats than ever before.
- ITS implemented [Duo multi-factor authentication](#). While the current implementation is in an opt-in status, forced enrollment for users with access to sensitive systems is scheduled for November 2018.
- ITS implemented [FireEye network security solutions](#) to provide improved visibility and protection against sophisticated cyber threats.
- ITS now holds a monthly campus-wide cybersecurity meeting for all college/department technology staff to collaborate and plan future projects.
- ITS reallocated internal staff resources to build a dedicated team of six cybersecurity professionals that report to the campus CISO.

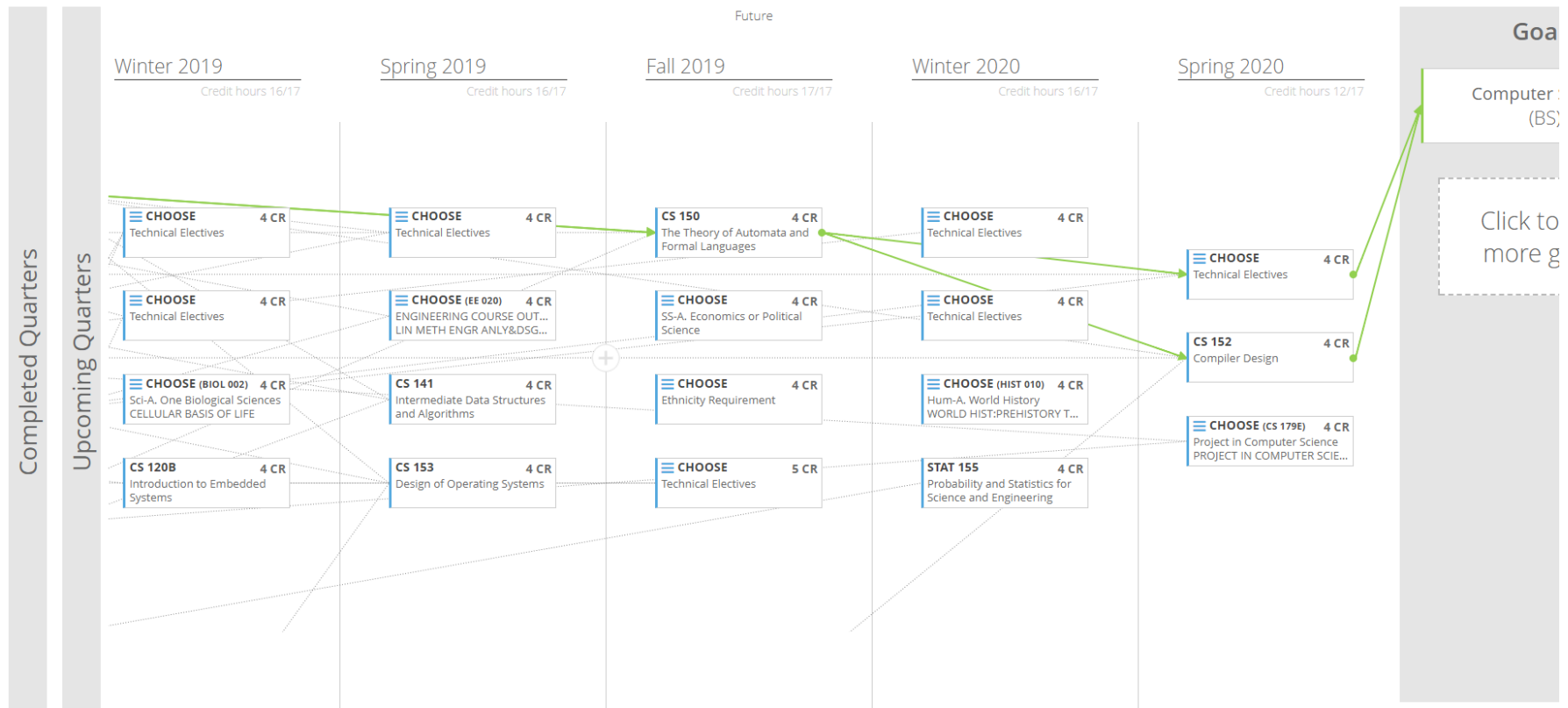
Supporting data-driven decision making across campus

The transition to the Banner student information system and related integrations, including the Degree Works degree audit system, has enabled a foundation for new data-driven efforts related to student success and timely progress to degree. Through the use of the [Civitas Illume](#) and [EduNav SmartPlan](#) solutions, campus leaders, advisors and students will make more informed and strategic choices in their academic decisions.

Civitas Illume: [Civitas Illume](#) is a predictive analytics platform that uses student information system data and historical performance data to help identify segments of the student population that are predicted to persist through their degree at lower rates than their peers, and to help design targeted interventions to assist these students. For instance, by identifying part-time STEM majors who have a low persistence prediction and have not enrolled for Fall by the end of the Summer midterm, advisors are able to focus time reaching out to those students to assist with their enrollment before the Fall term begins.

Student ID	First Name	Last Name	Email	Persistence Prediction	Last Enrolled Term	Next Enrolled Term
861	Brendon			Low	Spring 2018	Fall 2018
862	Hannah			Low	Spring 2018	Fall 2018
861	Justin			Low	Spring 2018	Fall 2018
862	Edgar			Low	Spring 2018	-
862	Ashley			Low	Spring 2018	-
861	Betsy			Low	Spring 2018	-
861	Michael			Moderate	Spring 2018	Fall 2018
861	Isaura			Moderate	Spring 2018	-
862	Lehieu			Moderate	Spring 2018	Fall 2018
862	Rikki			Moderate	Spring 2018	-
862	Amaray			Moderate	Spring 2018	Fall 2018

EduNav SmartPlan: Another solution building on the Banner implementation is the introduction of a dynamic degree planning tool, providing GPS-like adaptability for planning a student's path to degree. While the campus has long had static four-year (and, in some cases, three-year) course plans representative of the common path through a major, students often deviate from their plan because a course is dropped or failed, or they may want to understand the impact of changing their major or other educational opportunities such as study abroad. SmartPlan dramatically simplifies the conversation between student and advisor by streamlining the complex process of finding the shortest path to degree when a student's goals or experiences do not perfectly align with the traditional, static degree plan. By visualizing the relationship between courses and the critical path to degree represented by the heavy green line below, students see how each class builds upon the next, further cementing the learning outcomes and competencies built over time.



Future Initiatives

ITS is hard at work preparing for several major service enhancements to support the teaching and learning mission of the institution. Some of the major projects include:

- Substantial Banner student system upgrade to the latest vendor release to provide an improved user experience
- A new dashboard for advisors that pulls data from several separate systems into a single screen to improve advisor ability to serve students
- Improved network infrastructure renewal to provide better network services to campus
- A new student health management system to better manage student health services
- Improved data analytics and business intelligence tools
- Increased cybersecurity initiatives

Summary

In summary, with new leadership and a renewed mission, the ITS organization has successfully realigned its strategy and mission to deliver effective technology in support of the institution's mission of teaching, learning and research while ensuring effective support for campus administrative initiatives. With new demand management practices in support of broader shared governance scheduled to be established this coming Fall, ITS will continue to improve its technology delivery in support of faculty, students and staff across campus.