



# IT ANNUAL REPORT 2018



**WEBER STATE UNIVERSITY**  
Information Technology



# R I S E



## RESPOND

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Be responsive to the current and future needs of the changing educational environment.

## INNOVATE

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Provide creative solutions to improve learning and increase accessibility.

## SECURE

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Provide training, information, resources, and tools which protect the confidentiality, availability, and integrity of University data.

## EMPOWER

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Empowering faculty and staff with tools to lead the University forward.

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# LETTER FROM THE VICE PRESIDENT



**Dr. Bret Ellis**

Vice President of  
Information Technology

WE ARE PLEASED TO PRESENT THE ANNUAL REPORT FOR THE Information Technology (IT) Division for the 2017-2018 academic year. This year the focus has been on "student success" for the IT Division and the University.

This report highlights a number of the important, high-impact projects completed this year. Projects included: "student success", training and support, information security, risk, and career ladders/job families. Over fifty (50) of the initiatives and projects were met or significantly moved forward.

Our Division employees continue to be our greatest asset and their commitment to innovation and computing resource availability is valued.

We will continue our efforts to provide employees with the necessary tools to allow them to be successful in providing University support.

A handwritten signature in black ink, appearing to be the initials 'BE' with a stylized flourish.

# INFRASTRUCTURE SERVICES

*Implementing and supporting IT solutions to empower faculty, staff, and students.*



**Mark Green**

Associate Director  
Infrastructure



**Allison Knowlton**

Manager  
Support Operations



**Mark Buxton**

Manager  
Systems Administration



**Jonathan Karras**

Manager  
Network & Communication



**David Fernelius**

Senior Manager  
Database

THE MAIN FOCUS FOR THE INFRASTRUCTURE SERVICES department is to implement and support IT solutions the University has selected. The four teams provide reliable computer systems to run the University's administrative applications to support faculty, staff, and students.

The Support Services team is the front line contact for customers. The team helps resolve application problems and any technical issues with the technology being used.

The Systems Administration team provides reliable computer systems to run the University's administrative applications.

The Network & Communication Services team provides reliable and stable networks and telephone systems so that customers can connect to their needed applications and the Internet.

The Database Services team provides secure, dependable databases to house the University's mission critical data.

These four teams work very closely together to provide a stable and secure computer infrastructure so that customers are able to be more successful and productive at their jobs and to make sure that they have the support with quick resolutions to problems as they arise.

# INFRASTRUCTURE ACCOMPLISHMENTS

Project Title	What and Why	Customers	Impact
<b>Student Services Building Wireless Density Increase</b>	To increase wireless coverage to serve customers. To increase wireless availability in the Student Services building.	WSU Community	Upgrades to the original installation have increased wireless coverage to serve customers.
<b>Stromberg Gym Wireless Density Increase</b>	To increase wireless coverage to serve customers. To increase wireless availability in the Stromberg Gym.	WSU Community	Upgrades to the original installation have increased wireless coverage to serve customers.
<b>Outdoor Wireless Density Increase</b>	Increased outdoor wireless coverage from 8 to 26 access points to increase wireless availability in crucial sitting and gathering areas across campus.	WSU Community	The block party and other outdoor activities now have improved wireless coverage.
<b>Davis Building 2 (D02) Data Center Power</b>	Power was not redundant, and the breaker capacity was full. Without redundancy, there is a single source for power failure. There wasn't an option to add additional needed hardware since there weren't any breakers to connect to any other equipment.	WSU Community	Increased breaker capacity and combined path around the Universal Power Supply gave the capability to add additional hardware in order to have redundant power.
<b>DUO Support</b>	The IT Service Desk assisted in the implementation of DUO across campus by being involved in the planning, testing, communication, support, and training.	Faculty and Staff	To support the campus community after the DUO implementation.
<b>Service Desk Incidents Handled</b>	The IT Service Desk acted as a single point of contact to assist the campus community with technical issues, challenges, and questions.	Faculty, Staff, Students, and Community	The IT Service Desk offered support and issue resolution to users in over 21,000 documented incidents.
<b>Banner Upgrades and Patches</b>	There were major Banner upgrades and patches needing to be applied.	All Banner Users	Keeping Banner up-to-date and in compliance.
<b>Banner Database Security Improvements</b>	Removed approximately 2,500 user database accounts no longer being utilized. Each impermissible user database account is a potential risk to security.	WSU Community	Removed unneeded roles and system privileges from database accounts.
<b>Degree Works 5.0 Upgrade</b>			

## PROJECT HIGHLIGHT

# WIRELESS DENSITY IN THE STUDENT SERVICES CENTER

There are periods of heavy usage of the wireless connectivity in the Student Services Center. Due to the heavy usage, students and staff were not able to login to the wireless network.

### Background

Conference rooms 167 and 152 are both used quite a bit and students are logging into the wireless network in the lobby area while meetings are being conducted. Due to the heavy usage, both the conference room members and students were not able to login to the wireless network. Also, there have been additional departments added to the Student Services Center building.

### Solution

To increase the wireless density in the building to meet the demands and needs of the community.

### Results

The upgraded wireless density has allowed for additional devices to access the network. Since the upgrade, there has not been an outage for the building.





The Financial Aid & Scholarship office has moved to a paperless system. Using notebook computers, students fill out the forms at the windows. During times of high traffic, we were unable to get a connection. Advisers often need to use notebook computers during advising sessions. The Student Services Center was unable to meet the needs of students.

**Jed Spencer**  
Director of Financial Aid



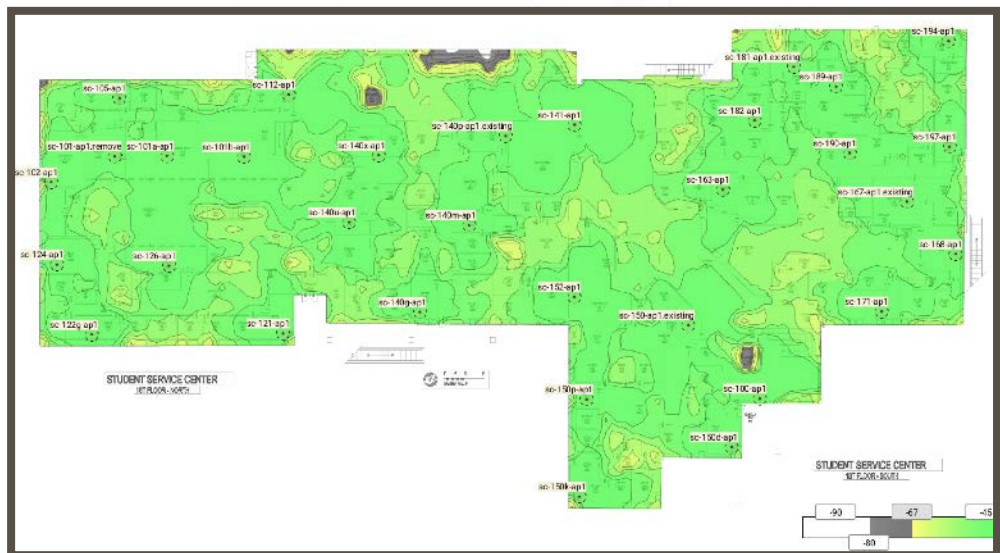
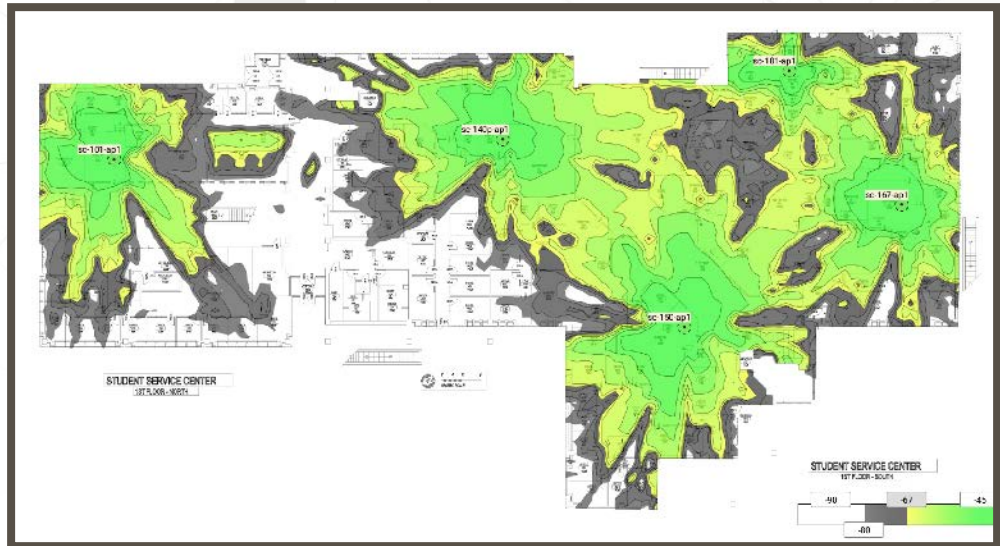
The student services building is where a lot of electronic transactions occur. It is vital to the University that the wireless density is adequate to meet business demands. My exempt staff is all required to have a laptop and dependent on the wireless system to conduct business.

**Dr. Casey D. Bullock**  
University Registrar



As a First Year Experience (FYE) peer mentor, working in the student services center, I have noticed an improvement in wireless connectivity when presenting to FYE students. This has been a significant change is my ability to do my work and support student success.

**William Kirshner**  
FYE Peer Mentor



# ACADEMIC TECHNOLOGY SERVICES

*Providing flexible technology services to enhance academic learning.*



**Shelly Belflower**

Director  
Academic Technology Services



**Alan Ferrin**

Manager (CATS)  
Creative Academic  
Technology Solutions



**Matt Cain**

Manager (CTS)  
Classroom Technology Services



**Jeremy Harvey**

Manager  
Academic Web  
Services

THE IT ACADEMIC TECHNOLOGY SERVICES (ATS) focuses on providing effective technology services to enhance and support academic learning.

Each ATS team focuses on the area of their expertise. The Classroom Technology Services (CTS) team provides reliable technology and classroom support. They work closely with Campus Technology Coordinators (CTC) to provide expanded service in classrooms and for events.

The Creative Academic Technology Solutions (CATS) team provides media to enhance classroom instruction as well as broader media coverage.

The Academic Web Services (AWS) team designs and provides frameworks for academic content in support of academic departments, programs, and events.

The ATS team looks for opportunities to design, promote, and support the University in academic technology endeavors with software and solutions to match needs with successful outcomes.



# ACADEMIC TECHNOLOGY ACCOMPLISHMENTS

Project Title	What and Why	Customers	Impact
<b>Media</b>	Media produced to support WSU's efforts to raise financial support for students, faculty, facilities, and programs.	Faculty, Staff, and Students	The Creative Academic Technology Solutions (CATS) team produced media and several other scholarship support videos leading to financial support for WSU: Lindquist Hall Renovation, Nolan Archibald's contribution, and CATS team support.
<b>Do-It-Yourself Room Upgrade</b>	Provides a facility for students and faculty to record media. Resources have been set-up; lighting, computer, reference monitor, Cintiq tablet, camera, and backdrop. Series of instructional videos are being set-up in the summer of 2018 to accommodate faculty and students for the upcoming Fall semester.	Faculty, Staff, and Students	Provides an opportunity to record lectures in a professional setting made simple so that technology wouldn't get in the way of instruction/learning.
<b>Classroom Capture Facility Upgrades</b>	To automate the recording of lectures in key rooms across campus.	Faculty, Staff, and Students	Collaborative effort with Classroom Technology Services (CTS) and CATS to upgrade key rooms across campus: Union Ball (UB) Room, Smith Auditorium, and Elizabeth Hall Auditorium.  To create an automated process to capture lectures that were previously a manual process.
<b>Information Security Office Website</b>	The Information Security website needed to be updated. The content, images, design, and navigation were outdated.	Faculty, Staff, and Students	The reorganized website includes information on services and security guidelines as well as quick information about threats.  <a href="http://www.weber.edu/iso">www.weber.edu/iso</a>
<b>Nursing Lab</b>	A collaborative effort between the College of Health Professions and IT at Davis campus helped to solve a lag in the simulation lab audio.	Faculty and Students	Greatly improved the learning experience for students being taught and assessed in the rooms.
<b>Public Facing Room Upgrades</b>	The new campus digital standard replaced the outdated AV equipment in both the Ogden and Davis locations.	Faculty, Staff, Students, and Community	The upgrades have reduced the number of calls for support, and the new campus digital standard makes it easier to provide rooms that meet customer needs. <b>Davis Campus:</b> Analog system replaced by the new campus digital standard. <b>Browning Center Conference Room:</b> Need for video conferencing. <b>Shepherd Union Ballrooms:</b> Added in streaming and recording capabilities. <b>Lindquist Hall:</b> Helped save \$100K in costs by not going through a contractor and using our in-house staff. <b>Elizabeth Hall:</b> Equipment to run through an Extron system that would allow a scaling digital system.
<b>ACT Lab</b>	Provides new AV technology for the department of Visual Arts. The ACT Lab is seen by many community members.	Faculty, Staff, Students, and Community	Students utilizing the ACT Lab stations can be shared on the giant TV at the front of the room to provide a better learning experience.

## PROJECT HIGHLIGHT

# NOLAN ARCHIBALD GIFT TO WSU



*"They (CATS) went above and beyond and worked closely with Nolan and his staff to produce a video he would like. He was very pleased with what they did and was complimentary of their work.*

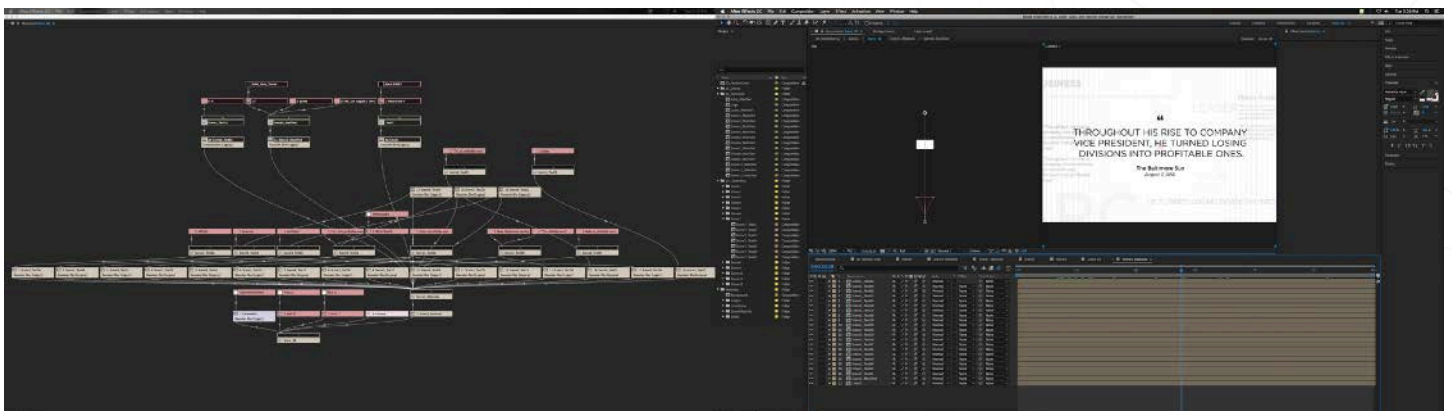
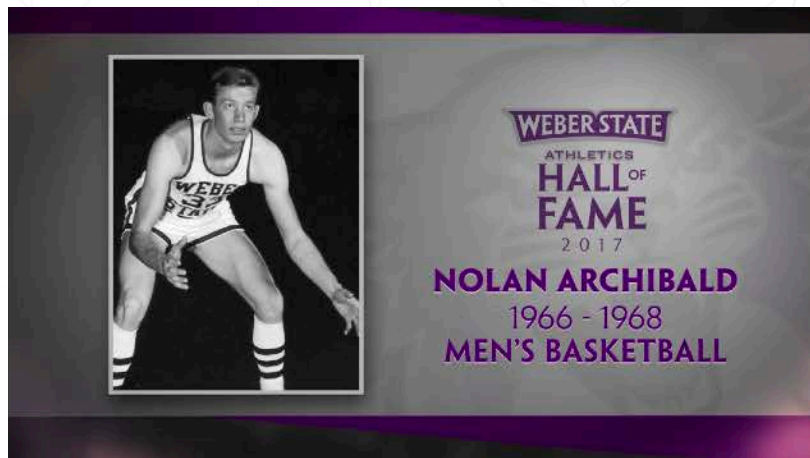
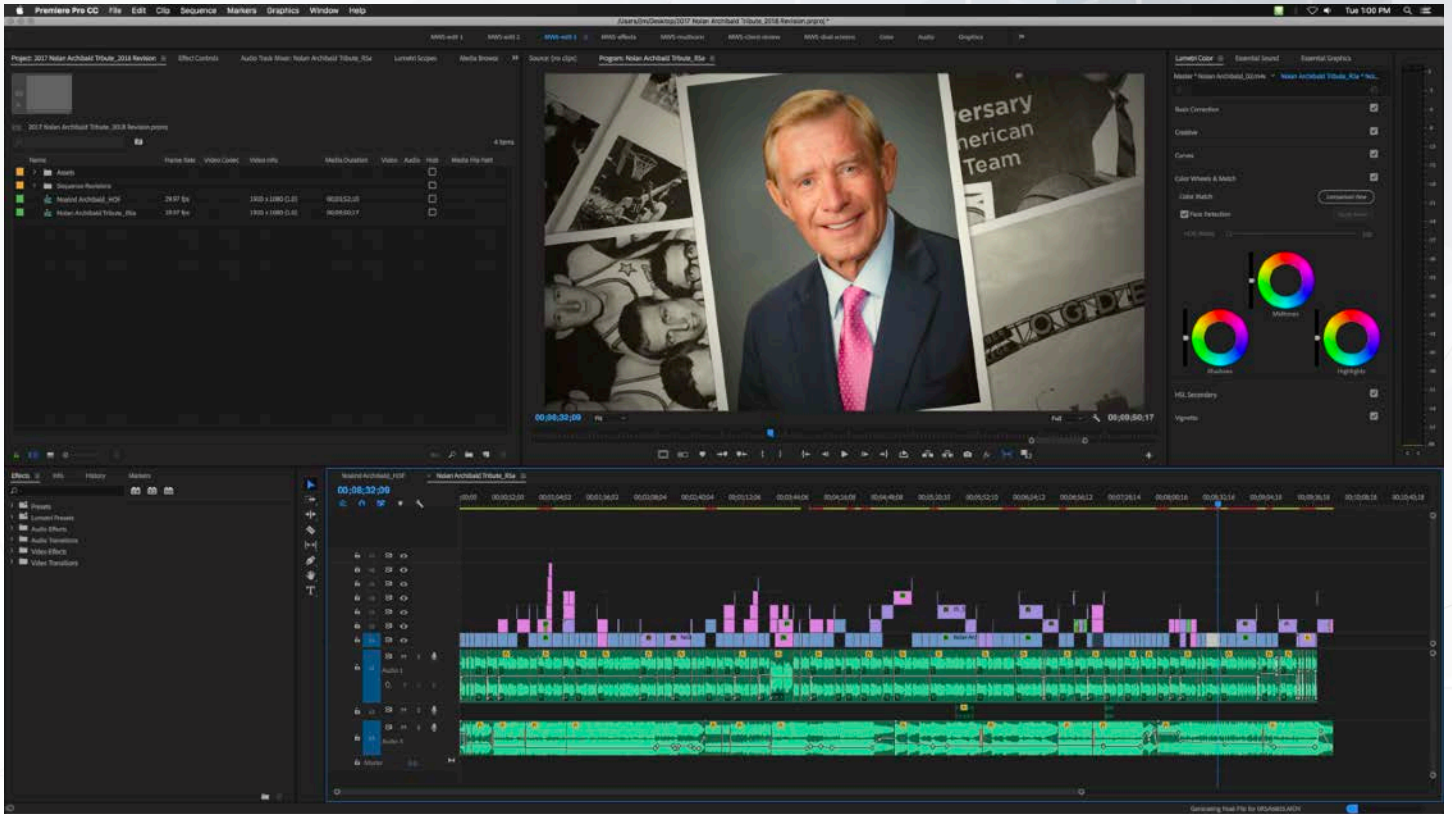
*Their efforts were helpful in securing a large donation Nolan gave to the men's basketball program."*

**Paul Grua**  
*University Athletics Media Relations and Marketing*

The CATS team produced a highlight video and life sketch for Nolan Archibald as part of our Athletics Hall of Fame ceremony in February 2017.

In addition, they produced a much longer, more detailed video on a full life sketch of Nolan, including his time at Weber State University and his business success.

Nolan Archibald was nominated to the Weber State University Hall of Fame in 2017. Upon seeing the video sketch the CATS department created for the event, Nolan decided to donate one million dollars to the University's athletic program. Nolan also requested a longer, 20-minute video life sketch to be produced to encompass his business accomplishments as well as his athletic achievements. Nolan could have had any Hollywood style production house create this longer tribute video, but he chose to have it produced by the CATS team at Weber State University.



# IT BUSINESS SERVICES

*Communicating IT planning and strategic vision.*



**Shelly Belflower**

Interim Director  
IT Business Services



**Heidi Munk**

Directed Projects



**Ty Naylor**

IT Marketing and  
Training Manager



**Jared Van Orden**

IT Finance and  
Office Manager



**Nancy Jarvis**

Policy and Planning  
Associate Administrator



**Lucas George**

Project and Portfolio  
Administrator

THE IT BUSINESS SERVICES (ITBS) DEPARTMENT FOCUSES ON communicating strategic information and planning through products, policy, training, and events to our Weber State University community and constituents.

Our vision includes:

- 1) Ensuring customers are aware of how to request IT services;
- 2) Providing the conduit for customer feedback to help enact improvement on products and services;
- 3) Ensuring every employee receives the training they need or access to training; and
- 4) Ensuring employees know and understand the policies and procedures for using technology.

We provide financial overview and solutions for IT projects.

# IT BUSINESS SERVICES ACCOMPLISHMENTS

Project Title	What and Why	Customers	Impact
<b>IT Leadership &amp; Manager Retreats</b>	Leadership/management opportunities and training provided talent development in the IT Division. For the Division to meet the future demand of the University, it is critical in developing future leaders from our existing pool of employees.	IT Division Members	Current employees (20+) and possible future leaders/managers of the IT Division attended the bi-annual meetings.
<b>Career Ladders</b>	<p>An App created by IT programmers converted the Weighted Activity Matrix (spreadsheet) for assigning compensation values in the IT Division into a useable format.</p> <p>The ITD Employee Compensation App provides increased morale and staff retention.</p>	IT Division Members	The IT Division's goal is for every employee to know current and future expectations for job advancement.
<b>IT Surveys</b>	Participated in local, national, and industry/across industry surveys. The data analysis contributes to the various disciplines and influences the IT Division decisions for future planning.	HR, IT Governance Council (ITGC), Data Executive Governance Council (DEGC), IT Division, and President's Council	These surveys help to calibrate IT services, establish comparable salaries and provides new ideas for improving the IT Division.
<b>IT Trainings</b>	Provided campus employees and staff over thirty (30) facilitated IT classes in a variety of productivity and creative software packages.	Faculty, Staff, and Students	Increased visibility of IT training and to market the Division's desire to help with university software training needs.
<b>JIT Training</b>	Provides a brief overview of software features and functionalities.	Faculty, Staff, and Students	Allows immediate and 24/7 access and exposure to various software catalog functions. Coming Soon!
<b>Adobe Connect</b>	Adobe Connect and ESync provide a close mimic of a facilitated classroom experience readily offered online.	Faculty, Staff, and Students	Allows instructors to provide non-local students with an online experience very similar to a traditional facilitated classroom. ESync allows easier access through Canvas courses to Adobe Connect.

# APPLICATION DEVELOPMENT SERVICES

*Developing and managing critical applications that support student success, teaching, and learning and promote institutional effectiveness.*



**Peter Waite**

Associate Director  
Application Dev Services



**Roy Bradburn**

Senior Manager  
Student Application  
Development Services



**Ron Jensen**

Senior Manager  
Admin Application  
Development Services



**Ben Barraza**

Senior Manager  
Web Application  
Development



**Kevin Goodrich**

Senior Manager  
CE Application  
Development Services

THE PRIMARY FOCUS OF THE APPLICATION DEVELOPMENT Services department is to provide the best possible digital experience and application access for students, faculty, staff, and the community.

Application Development Services is comprised of three teams: Student Application Development, Administrative Application Development, and Web Application Development.

The Student Application Development supports many student systems, including Banner, and develops applications for partners in Admissions, Registration, Advising and Continuing Education.

The Administrative Application Development provides support for Banner's administrative applications and develops custom applications for partners in Human Resources, Payroll, Facilities Management, Finance, Accounts Receivable and others.

The Web Application Development provides support to the university eWeber portal, management of the Weber.edu web site, such as Site Manager, and campus support for mobile apps. The Continuing Education Application develops, implements, and manages applications for Continuing Education, including marketing, course registration, and other support related activities.

Each of these teams work together on projects to rapidly meet the needs of campus partners, while maintaining functional expertise on systems and applications in their respective areas.

# APPLICATION DEVELOPMENT ACCOMPLISHMENTS

Project Title	What and Why	Customers	Impact
<b>Hobsons Starfish Implementation</b>	The Hobsons PAR application implemented in conjunction with Starfish provides predictive analytics to support the student retention initiative.	Faculty and Students	Provides faculty and advisors with real-time student information and alerts them to potential issues that may interfere with student retention and progress toward graduation.
<b>Concurrent Enrollment Process and Registration</b>	Custom application enabled WSU to collect vital information on Concurrent Enrollment Students and allowed them to register and pay for courses easily.	Staff and Students	During Fall 2017 registration, nearly 9,000 high school students enrolled in over 18,000 courses for credit at WSU.
<b>Registration Schedule Builder (RSB)</b>	The name Registration Schedule Builder (RSB) replaced Visual Schedule Builder (VSB). RSB allows students to register for classes online including using mobile devices. Students can access the application from the eWeber portal and gives them the capability to import their schedule from CatTracks or they can type in the prefix and number, enter the title or search by an instructor.	Faculty, Staff, and Students	RSB is a new software tool to help students design the most optimal course schedule based on WSU's course offerings and their personal preferences.
<b>Major Pages Application</b>	The Major Pages project specifically encourages students to explore all the major offerings at WSU through interests, career prospects, and ultimately to discover the perfect major for them. This will serve as a hub between disparate systems from the web, recruitment, application, and major declaration in assisting students to make the right decision at the right time.	Students	<p>"The Major Pages project is critical to WSU's recruiting efforts. These pages provide a window into the academic offerings of the university and are at the forefront of our academic information/marketing efforts to prospective students."</p> <p>Bruce Bowen Associate Provost for Enrollment Services</p>
<b>Canusia Implementation</b>	Canusia provides an electronic mechanism to permit concurrent enrollment adjunct instructors to submit their annual adjunct request form (which can be up to 10-12 pages long). This will allow more than 400 concurrent enrollment adjunct instructors to submit their documents and the CEP office to forward the online submission to the various departments for approval.	Faculty, Staff, and Students	Provides rapid approval of course syllabi by departments and provides the ability for Concurrent Enrollment administrators to manage instructors at Utah high schools.
<b>Google Analytics</b>	A revamp of how we manage Google Analytics on campus has allowed us to understand better the experiences users are having across all our WSU websites.	Staff	We are now able to see better which academic programs are generating interest and which of our marketing campaigns are driving prospective Wildcats to the website. Not only are users better exploring majors, but they are also engaging with recruiters on campus.

## PROJECT HIGHLIGHT

# CONCURRENT ENROLLMENT

In August 2017, an entire registration platform was designed to replace the Ellucian product that was used at the time, Flexible Registration (FlexReg). FlexReg was antiquated and did not work with the latest security standards; in fact, it had stopped working altogether and was completely unusable.



*“The IT Division stepped up to the plate in creating a solution that would work in spite of a breakdown in our vendor software FlexReg. Each of the players showed great professionalism and saved the day as we registered over 9,000 Concurrent Enrollment Students. We owe each of them a great deal of gratitude.”*

**Brian Steklein**  
Associate Dean  
Continuing Education

### Background

Concurrent Enrollment students, those that are in high school classrooms receiving WSU credit, are an incredibly important part of WSU’s annual freshman cohort. They make up about twenty-five percent of the incoming class every year! In August 2017, a week before Fall registration, it was discovered that there were issues with the registration process for these students.

### Solution

An ad hoc team from the IT Division and Continuing Education rolled up their sleeves and went to work. In just a week, they were able to write an entire registration platform for WSU’s Concurrent Enrollment students to replace FlexReg.

### Results

During Fall 2017 registration, nearly 9,000 school students enrolled in over 18,000 courses for credit at WSU! The project was initially just a fix to get through Fall 2017, but Continuing Education has decided to adopt it for all their Concurrent Enrollment registrations, saving the University thousands of dollars.



# REGISTRATION SCHEDULE BUILDER (RSB)

Registration Schedule Builder (RSB) is a tool to help students design the most optimal course schedule based on WSU's course offerings and their personal needs, allowing students to select multiple courses and view schedule options based on their personal preferences.



*"I asked a few students, how do you design your course schedule? The responses ranged from I cross my fingers and hope for the best to I have all the possible scheduling options mapped out on sticky notes and spreadsheets. Many students are challenged with trying to find the optimal schedule from the broad array of course offerings in the semester. Selecting a course schedule for the next semester can be overwhelming, that is where Registration Schedule Builder (RSB) comes in."*

**Dr. Casey D. Bullock**  
University Registrar

### Background

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RSB provides a visual user interface to make course registration easier. Currently, we use the Banner registration system, and it's not as visual, and students can only register for one course at a time versus RSB, where students can visually align their complete schedule.

### Solution

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To create a new software tool to help students design the most optimal course schedule based on WSU's course offerings and their personal preferences.

### Results

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A student can import their schedule from CatTracks, or they can type in the prefix and number, enter the title or search by an instructor. Once the student has selected the desired courses, RSB will generate all possible schedules based on the combination of courses chosen. The student can then narrow down optimal schedules by entering in additional information such as filter by all morning schedules, or filter by campus. Or, the student can block time for work or other activities and RSB will display a schedule that best fits the student's needs.

# INFORMATION SECURITY OFFICE

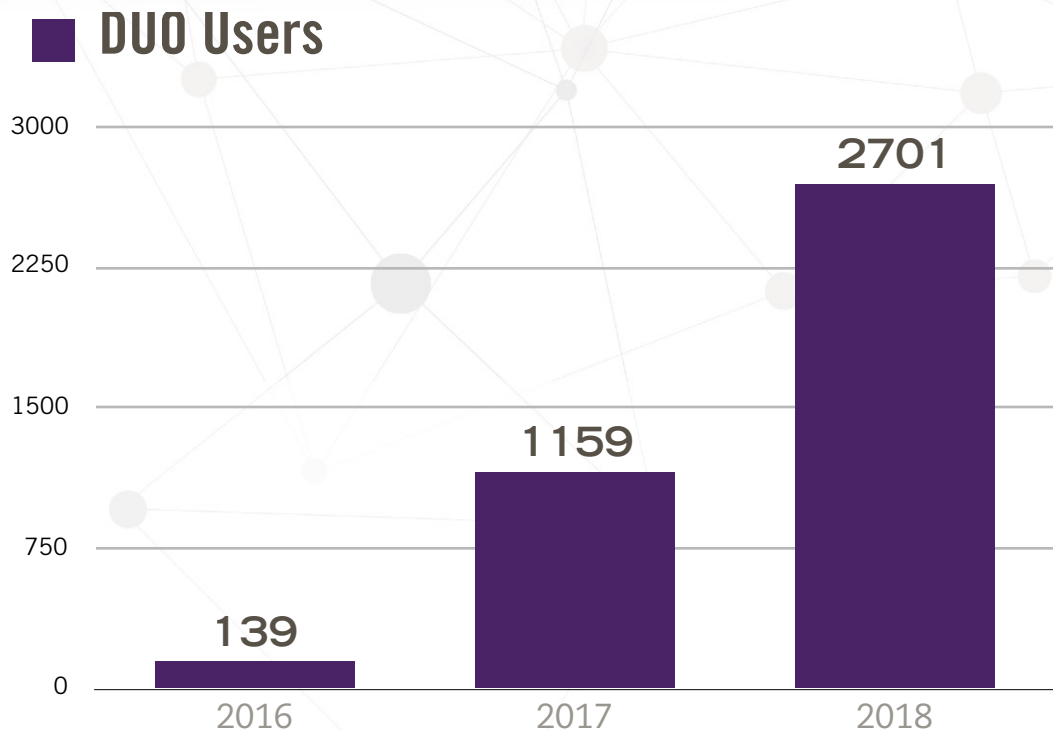


**Andrea Grover**

Manager  
Information Security  
Office (ISO)



THE INFORMATION SECURITY OFFICE (ISO) GOAL IS TO PROVIDE information, resources, and tools to provide confidentiality, availability, and integrity of University data. We accomplish this by developing and modifying policies and procedures, conducting an annual risk assessment, providing training to University employees, and working with multiple groups and individuals across the University and other institutions to obtain and disseminate information and resources. The ISO also works closely with internal groups to resolve identified risks and mitigate potential risks.



# INFORMATION SECURITY ACCOMPLISHMENTS

Project Title	What and Why	Customers	Impact
<b>Master List for Disaster Recovery</b>	A master list to identify all critical applications and systems to recover in the event of a disaster and to provide continuity of operations for the University. The master list has already been utilized to provide information for the state audit, the USHE Security assessment, and the assessment of the Financial Aid Systems and Services.	WSU Community	Improved security to recover in the event of a disaster.
<b>System Security Plan (SSP) for Financial Aid</b>	A System Security Plan (SSP) for Financial Aid to comply with the Federal requirements to protect Controlled Unclassified information, such as Financial Aid data we receive from the Federal government.	WSU Community	To retain the ability to accept Financial Aid.
<b>Information Security Awareness (ISA) Training</b>	Continue to provide monthly Information on Security Awareness (ISA) as part of the WSU New Employee Orientation training program. The ISA training is available to all WSU employees, and a separate session is provided for all new supervisors.	Faculty and Staff	Improved security through user awareness.
<b>Risk Assessment</b>	The annual security risk assessment, incorporating recommendations from the information security task force, data security stewards, and CTC members to evaluate internal and external incidents and industry recommendations.	WSU Community	A reduction of risks to the University by remediation or resolution of identified risks. The risk assessment provides a ranking system to determine which information security risks are highest for the University.
<b>DUO Mobile Application</b>	<p>DUO Mobile protects sensitive data and systems by adding a layer of security on every login attempt made on campus. This two-factor system notifies the user whenever a login is made using their Wildcat username and password. The user is then notified and asked to verify the login using their cell phone or a key fob.</p> <p>Finished Implementation for all provisioned salaried employees with access to sensitive data or systems.</p>	WSU Community	Improved security by reducing the potential of compromised accounts allowing access to sensitive data or systems. Also, reducing the need to work with staff on a one-to-one basis.



**WEBER STATE UNIVERSITY**  
Information Technology