

Annual Report
2016-2017

Annual Report 16/17 WCU Information Services & Technology

*“Supporting student success through
strategic information technology”*

WCU
WEST CHESTER
UNIVERSITY



Reflections on the Year, IS&T Vice President Dikran Kassabian

During my first full year at West Chester University, I spent time getting to know the University and its mission, getting to know the President and the Cabinet team I had joined, and getting to know the IS&T Division. I met with faculty members and administrators as often as I could, and they weren't too shy to let me know what they hoped IS&T could be. I was grateful. The Information Services & Technology division had a good reputation on campus, but there was room for improvement.

Table of Contents

Reorganization of IS&T	3
WCU Annual RECAP Conference	3
Web Page Redesign.....	4
Service Catalog	4
Faculty/Staff Laptops	5
D2L 5-Year Extension	6
Support Calls & Faculty Development	6
Tech Fee Helps WCU Support Student Success	7
Digital Media Center	8
Disaster Recovery & Mission Continuity	9
RamNet, RamCast, RamCloud & RamPrint	10
Aerial Drone Guidance & Draft Policy	12
Collaborating with Public Safety & Facilities on Ephones	12
Enterprise Applications	13
Onbase & TargetX	13
Core, Border, and Firewall Wireless Expansion/Upgrade.....	14
IPv6	14
Network Enhancements	15
BPMC Photos and Stats	16
Annual Report	18
Courses Taught, Publications & Presentations.....	24
In Conclusion	26

“By the end of FY17, we had transformed the shape of the organization”

Our colleagues around the campus wanted an IT organization that could partner with them not only to solve problems and deliver great solutions, but also to suggest ideas and brainstorm on how strategic Information Technology could make us ever better.

With the benefit of input from the community, we found ways to realign the organization to be more responsive, and to put focus where it is most needed. We read industry research. We looked at models used by other universities, and considered what would work best for WCU given our unique situation. By the end of FY17, we had transformed the shape of the organization and selected a set of leaders. Along the way, we operated scores of services and ran dozens of major projects, all aligned directly with the university's mission and strategic plan. In the pages that follow, we offer a sampling of our accomplishments to share with you how the IS&T Division supports West Chester University and its students through strategic Information Technology.



Reorganization of IS&T

The Information Services & Technology Division was re-organized during FY2017 into three departments each providing a distinct set of services – **Educational Technology & User Services**, **Enterprise Services**, and **IT Infrastructure Services**. Late in the year, **Distance Education** joined the division as a fourth department. Supporting the four departments is the **Office of the Vice President**, from which administration, budget support, contracts, project management and information security services are provided to the entire division as well as to the broader campus community.

<p>Educational Technology & User Services</p> <hr/> <p>Tech Fee Multimedia Tech Support Help Desk D2L LMS Digital Media Center Training</p>	<p>Distance Education Services</p> <hr/> <p>Instructional Design Learning Technologies DE Faculty Support DE Student Support DE Program Support</p>	<p>Enterprise Services</p> <hr/> <p>Web Services Student Info Sys Other Enterprise Applications</p>	<p>IT Infrastructure Services</p> <hr/> <p>Networking Telecommunications Servers Data Storage Data Centers ResNet</p>
<p>Office of the Vice President</p> <hr/> <p>Administration, Budgets, Contracts, Project Management, Information Security</p>			

WCU Annual RECAP Conference

RECAP is an annual conference held each May at West Chester University, showcasing “the use of technology

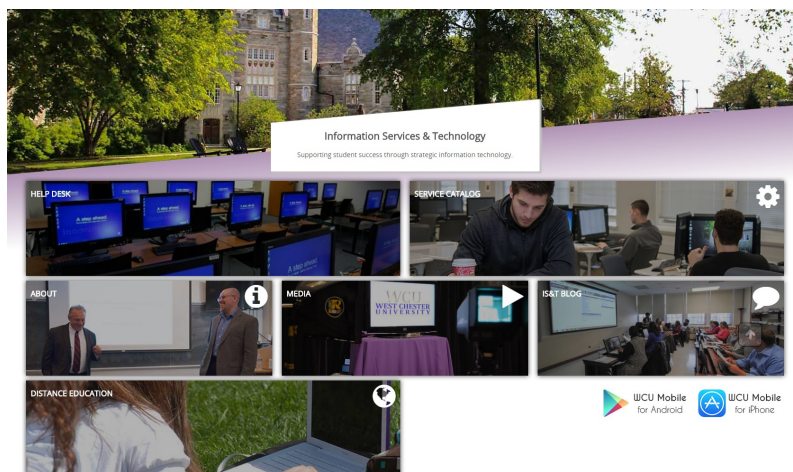


to enhance teaching and learning in higher education.” The conference dates back to 1996, when the acronym for the conference was coined (Resources for the Electronic Classroom: A faculty/student Partnership). Our conference this past May was the 21st RECAP Conference – a pretty impressive run! Over the years RECAP has grown to involve faculty from Pennsylvania's State System of Higher Education and regional higher education institutions, and to

reflect advances in technology related to teaching and learning in higher education. Roughly 150 attendees this year spent the day sharing their thinking on course design and technology tools that work to support the success of our students.

Webpage Redesign

The IS&T website has been redesigned with a focus on usability and a modern, up-to-date look. The site integrates images and brighter colors, and offers a more interactive and user-friendly experience. One of the most important new elements is the *Service Catalog*.

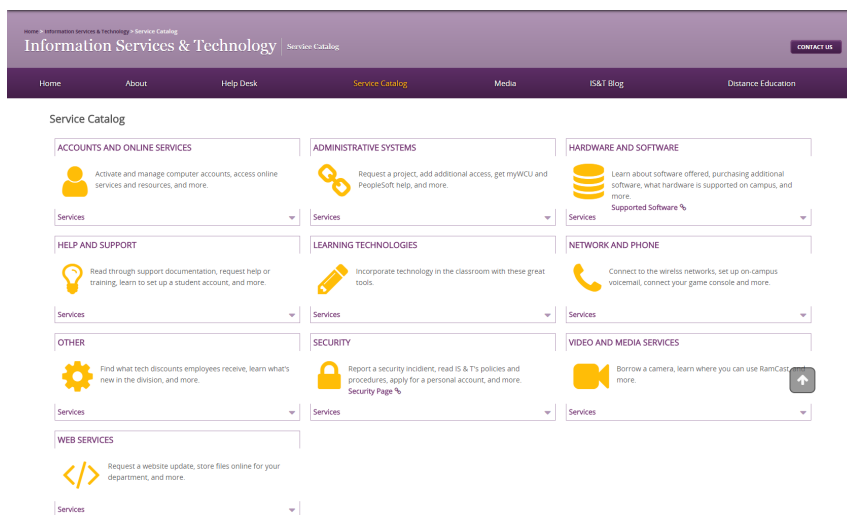


“The site now offers a more interactive and user-friendly experience”

The Service Catalog

The Service Catalog, one of the newest features, provides a central point for users to find services that the IS&T division provides for campus. By listing service areas on a single page, navigation is simplified.

The IT Service Catalog defines and categorizes information technology services provided to the campus community. The goal is to allow faculty, staff, and students to quickly identify services and to enhance the understanding of what each service provides including the general description for each service. Over the coming months, we will be updating and improving our service catalog to align with University goals and mission.



Faculty/Staff Laptops

IS&T is excited to announce an enhanced line of supported Windows and Apple products that will serve as the improved standard models:

Lenovo M900 Desktop, Lenovo P40 Yoga, Apple MacBook Air.

The change focuses on performance, mobility, and

personal choice, backed with the confidence of university support. The cost of these models will be covered by IS&T PC Replacement Funding when selected as a primary device, with no charge back to the department (accessories excluded).



“The change focuses on performance, mobility, and personal choice, backed with the confidence of university support”

The Equipment:

IS&T is encouraging faculty to consider a laptop rather than a desktop computer as their primary device, as this will better equip them for wireless presentation classrooms, and Active Learning Spaces. The Lenovo P40 Yoga operates on Windows 10, comes standard with a 14” touch display, biometric security feature, and converts into a tablet for increased mobility. The 13” MacBook Air is lightweight, and runs on OSX Sierra; it is the most commonly requested MacBook at WCU. The Lenovo M900 Desktop is a robust workstation intended for office clerical work, and includes a 24” monitor. All Systems include: Microsoft Office 2016, Sophos Anti-virus, Malware protection, Adobe Creative Cloud, Firefox & Google Chrome.



Standard Desktop

- In-Stock
- Windows 10
- Core i7
- 1 TB Storage
- 8 GB Memory
- 24" Display
- 3 Year Warranty



Lenovo P40 Yoga

- In-Stock
- Windows 10
- Core i7
- 512 GB Storage
- 8 GB Memory
- 14" Display
- 3 Year Warranty



Apple MacBook Air

- In-Stock
- OSX Sierra
- Core i7
- 512 GB Storage
- 8 GB Memory
- 13" Display
- 3 Year Warranty

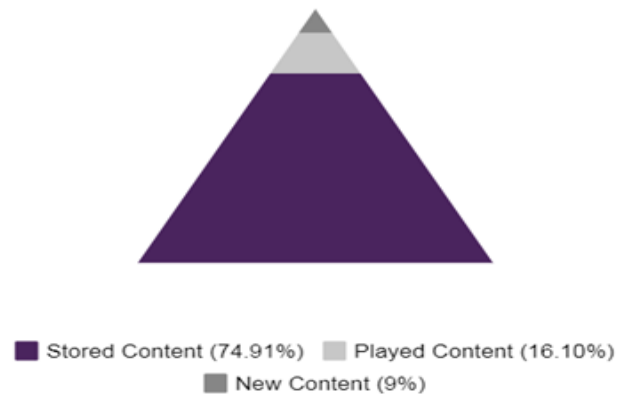
D2L 5-Year Extension

A Learning Management System (LMS) is a key component of educational technology at any university. At WCU, we use an LMS called Brightspace by Desire2Learn (or simply “D2L”). As our existing PASSHE contract for D2L was expiring, WCU needed to decide on its future LMS.

IS&T and Academic Affairs held open forums and a special assembly with CAPC to facilitate discussion and harmonize the needs of faculty and goals of administration. The CAPC vote to continue with Brightspace by D2L was unanimous. The new contract period is between July 1, 2017 and June 30, 2022, with three optional 2-year extensions.

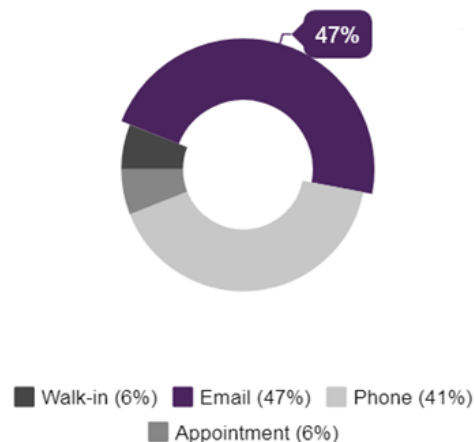
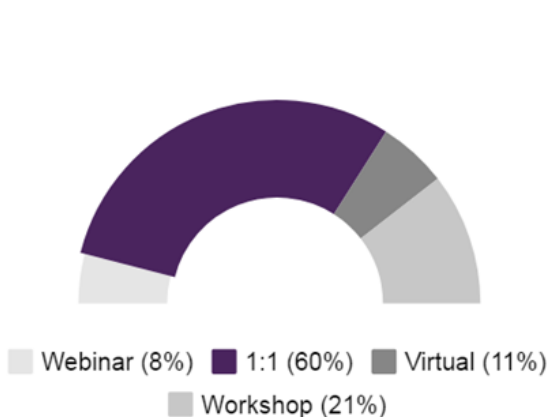
17,655 Viewing Hours

Over 6,000 videos were played in Academic Year 2017, accumulating to nearly 18,000 hours of total viewing! The average view time of these videos is 8 minutes.



Support Calls and Faculty Development

IS&T D2L Services tracked over 4,000 support incidents, requests, and projects in AY17. Of these, 60% were faculty, 28% were students, 11% were staff, and the final 1% were external users. The LMS Office has held over 200 training and development workshops for faculty. Sessions are offered monthly through the FAST Training calendar in a variety of formats; Webinar, one-on-one, and face-to-face.



Technology Fee Helps WCU Support Student Success

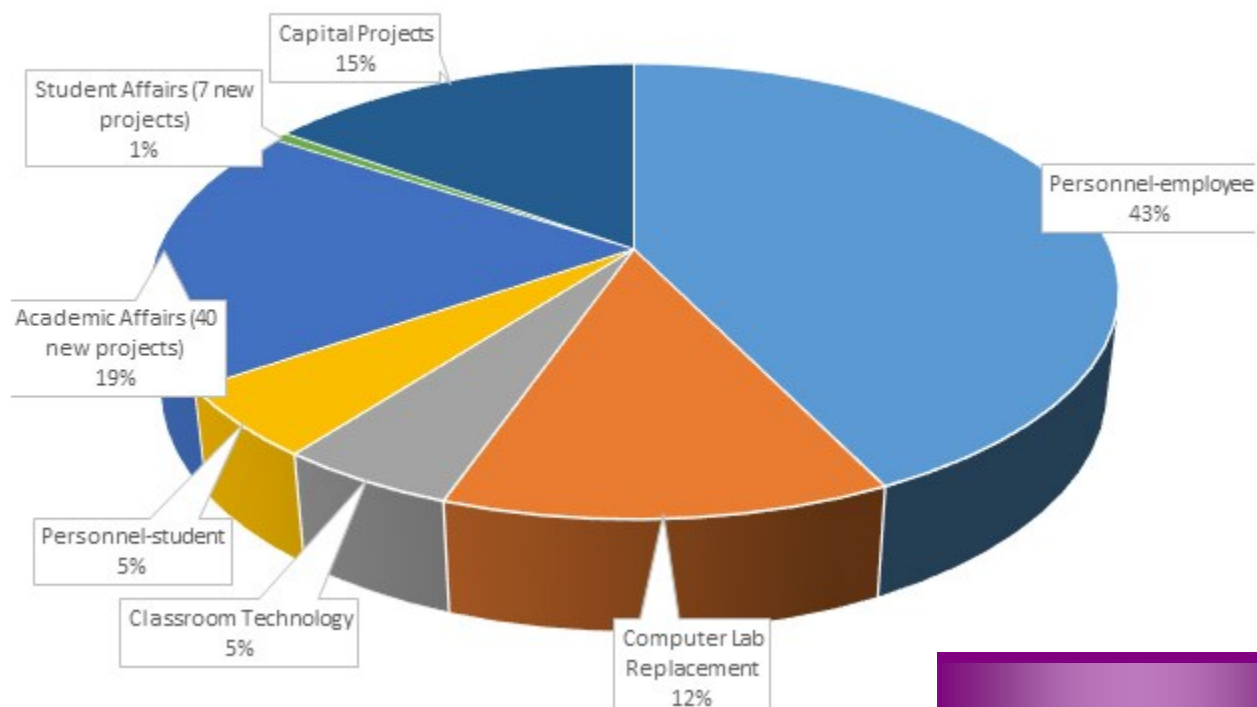
Each year, Student Technology Fee makes it possible for more than 17,000 students at West Chester University to use technologies that help enable success in and outside of the classroom. From tools for teaching and learning to digital security and expanded wireless Internet across campus, Technology Fee funded services have a daily impact on the academic, research, and co-curricular pursuits of students.

The Technology Fee team implemented 60 individual projects working collaboratively with the Division of Academic Affairs and Student Affairs for the 2016-17 academic year. The projects range from annual software license/maintenance renewals, including the online databases and subscriptions that students use in the Library, Career Development Center, and Learning Assistance and Resource Center (LARC), to computers, tablets, multi-function devices/3D printers, and software and hardware that are deployed for teaching and learning spaces.

“Technology Fee funded services have a daily impact on the academic, research, and co-curricular pursuits of students”

Various science equipment was also deployed this year for student use in many department programs such as Biology, Chemistry, Geology, Physics, Health, Kinesiology, Nursing and Sports Medicine. New equipment and software was installed in 25 computer labs campus wide supporting multiple computing platforms.

FY17 Tech Fee Funds=\$7,914,846 million



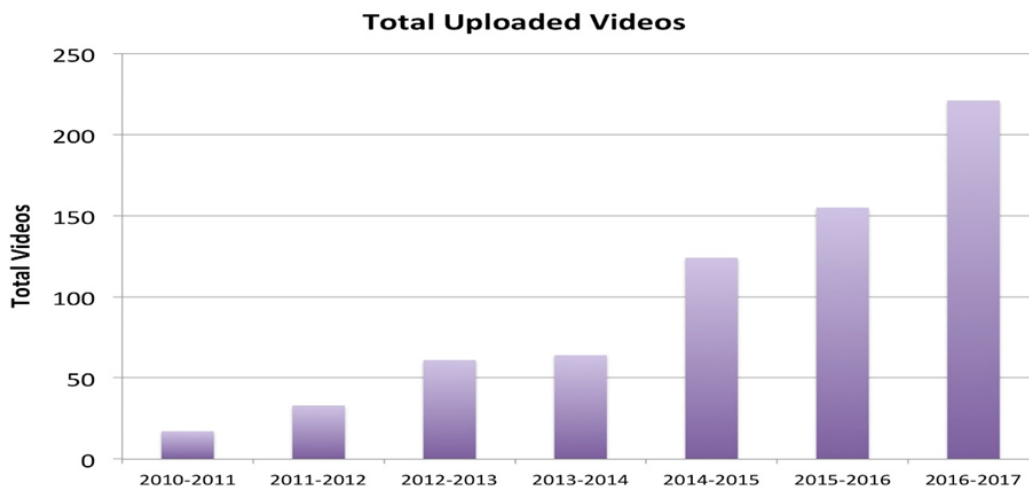
Digital Media Center

The Digital Media Center (DMC) continues to provide broadcast-quality recording services for the campus community. Recording services include concept development, pre- and post-production services, video recording, and video distribution. Our editing services create professional and visually dynamic video presentations supporting the new era of digital learning. The DMC also offers the use of a state-of-the-art studio, designed to support a wide range of multimedia and communications needs for the campus community.

Some highlights of videos produced this academic year are listed below:

- **President's State of the University Address** – Produced three videos and all visual content for the event.
- **End of Year Holiday video** – Collaborated with the Office of Communications to create the End of the Year Holiday video which had over 40,000 views.
- **Center for Community Solutions** – Created promotional video for the Center.
- **You Are Welcome Here** – Worked with the Center for International Programs to record various 'You Are Welcome Here' messages.
- **Commencement** – Recorded highlight videos as well as all three ceremonies each semester and was streamed live to the entire world. The highlight video received over 15,000 views in first few days following it's posting.
- **Ram Pride Highlights**

Digital Content Growth for WCU DMC YouTube Channel



Disaster Recovery and Mission Continuity

IS&T has been conducting IT disaster recovery testing yearly since 2013. The testing has primarily focused on the configuration and the operation of selected hardware and software.

This year, IS&T collaborated with the Chester County Department of Emergency Services (CCDES) to conduct a tabletop exercise. The focus of this exercise was to present an emergency situation and to assess IS&T response in support of day-to-day operations both within and beyond our division, during and after the situation.

“The focus of this exercise was to present an emergency situation and assess IS&T response in support of day-to-day operations”

The IS&T leadership team and representatives from various campus offices participated in the event facilitated by CCDES. The After-Action report indicated our core capabilities are aligned to the objectives, and some potential improvements were identified and will be pursued.

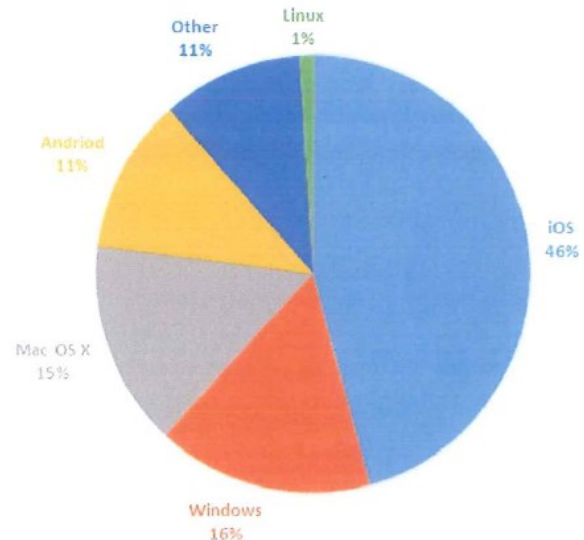


RamNet

RamNet is a collection of wired and wireless network technology and infrastructure which provide Networking Services for all of WCU. Networking Services at WCU are and continue to be an ever-increasing critical component for faculty, staff, and students. These services enable and enhance research, education, classwork, administration, communication, and ultimately lend themselves as a crucial component to the mission of the University, which is student success. This results in the need for a highly resilient, high performing, adequately staffed network team, and high performing network infrastructure.

At WCU, the backend infrastructure which supports RamNet is made up of over 600 network switches, 100+ network routers, 8 wireless controllers, 2700+ wireless access points, two sets of load balancers, and 10+ firewalls.

RamNet Wireless Device Usage



RamCast

RamCast allows for wireless visual collaboration on shared displays between faculty, staff and students from any device sharing content including applications, documents, images and videos. After a successful rollout and adoption in the Business and Public Management Center (BPMC), this technology has now been expanded to 150 locations on campus including teaching and learning spaces, active learning spaces, conference rooms, seminar rooms and student meetings rooms.

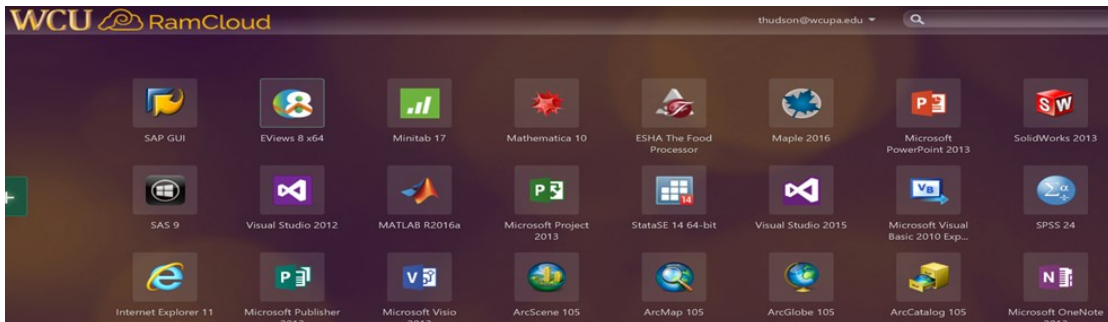


RamCastPromo video: https://www.youtube.com/watch?v=8sV_yRk6HdU

RamCloud

RamCloud allows us to securely deliver applications for faculty, staff and students to learn and work from any location using any device (including mobile devices) whether university owned or personal. As part of the continued transformation of business and IT models in the coming years and to support the undergraduate, graduate, hybrid and distance education programs, this technology has been a major step for us in the adoption of the bring-your-own-device (BYOD) strategy.

This year we completed an upgrade to the Provisioning Services infrastructure software that will allow us to move forward in offering the latest versions of all published software and operating systems. Software upgrades were completed for classes in Nutrition, Math, Computer Science, Physics and Geography and Planning departments as well as statistical software for classes across disciplines and currently, we offer over 30 applications for students, faculty and staff via RamCloud.



RamPrint

RamPrint is a service that allows students to print documents from any device and location on campus to select university printers. Documents are kept in a personal print queue for retrieval by students at a time and location convenient for them with just a swipe their WCU ID card. The new multi-function devices offer copying and scanning capabilities which allow for documents to be emailed to the student. The campus printers for student use are configured on the print server to track printing using PaperCut to limit each student to 125 pages per week. Effective July 2, 2017, all printers were configured to print duplex by default as part of a sustainability initiative working collaboratively with the student community to reduce the amount of printed paper.



Aerial Drone Guidance and Draft Policy

During the past year, West Chester University established specific guidance and a path to formal policy regarding the sanctioned use of aerial drones on campus in ways that are consistent with the University mission. The guidance recognizes that (1) Some uses of drones, such as for research and education, are clearly consistent with the mission; (2) Aerial Drones and their flights are regulated by the FAA; (3) We have concerns that include but are not limited to safety, privacy, and noise level when it comes to drone operation; and (4) There are local ordinances for the surrounding municipalities that apply to aerial drone flights. Recognizing all of this, IS&T led an effort to bring together representatives from the faculty, students, Public Safety, Facilities, and Academic Affairs to develop draft policy and establish the requirements and approval processes. During July of 2017, the first approved drone flight (by Professor Joby Hilliker and his grad student) took place.



Collaborating with Public Safety and Facilities on Campus Ephones

Maintaining Emergency Phones (“Ephones”) is difficult on many college campuses because the elements can cause recurring problems for technology deployed outdoors. In the summer of 2016, many WCU Ephone towers were in need of repair. IS&T, Public Safety, and Facilities teamed up over the last year to pursue those repairs and greatly improve the campus Ephones. We also developed plans for more frequent testing, service contracts, and replacement of the oldest towers. Going forward, the three campus teams will work together and with the campus community to consider approaches for the future, including newer Ephone tower technology, smartphone apps, combinations of the two, and more.



Enterprise Applications

The IS&T Enterprise Applications team implemented an Electronic First Semester Scheduling Prototype for incoming freshmen. Previously, academic departments created first semester freshmen scheduling recommendations on a static word document. Now a standard series of electronic forms in myWCU will be used by academic departments to indicate the recommended schedule.

"With this new module, tuition payments are automatically posted so that when the student views online statement information, up to the minute information is reflected"

The prototype data and placement data will be used to create data files organized by student and academic plans, resulting in a tool to aid in enrollment planning. The team also worked with the Bursar's office to implement Nelnet's Real-Time Integration module. With this new module, tuition payments are automatically posted to the student's PeopleSoft financial account so that when the student views online statement information, up to the minute information is reflected.

OnBase and Target X

IS&T has assumed the responsibility of supporting and further implementing two new Enterprise Applications to various departments on campus: Hyland's OnBase and Salesforce's TargetX.



OnBase, which is an Enterprise Content Management (ECM) system, has currently been implemented in the Undergraduate Admissions and Graduate Studies Offices to manage the application review process. The Registrar Office is preparing to go live with a Transfer Course Equivalency module to assist in automating the transfer transcript process and assign credit to transfer courses. In addition, the complete tenure/promotion process has been automated within OnBase eliminating the need for many binders that in the past each faculty member had to create in preparation for the tenure/promotion process. Future implementations of this application include streamlining many of the forms used in Human Resources and automating the coordination of the various documents that are part of projects within the Facilities department.



TargetX, which is a Customer Relationship Management (CRM) system, is being used by Undergraduate Admissions and Graduate Studies Offices to recruit, track, and monitor students from a prospect to an enrolled student via email campaigns, events, and social media. Additional features/modules, such as: online applications, student portal, retention/advising, etc. are being considered as future enhancements.

Wireless Access Expansion and Upgrades

This past year, the IS&T division began working on a wireless network assessment to identify academic and administrative buildings which lacked wireless network connectivity or were inadequately outfitted for current wireless network demands. The initial report was broken down into different priority levels and the team addressed several of those priorities this year. First year priorities included deploying a total of 78 latest generation wireless access points in 13/15

University Avenue, Filano Hall, 811 Roslyn Avenue, Farrell Stadium, McCoy Farmhouse, the Veterans Center, Reynolds Hall, Old Library, and the Warehouse. These buildings all now have strong wireless networking capabilities. In



addition, 400+ wireless access points were upgraded in academic and administrative buildings across campus to provide the latest generation of 802.11ac wireless standard networking to the WCU community. This generation of wireless access point technology provides “wired-like” network speeds for mobile devices including laptops, tablets and smart phones.

IPv6 (Internet Protocol Version 6)

WCU’s networking team has made significant progress this year in its multi-year IPv6 (Internet Protocol version 6) deployment project which began in 2010. IPv6 is the next generation Internet Protocol designed to eventually replace what we use today, which is IPv4 (Internet Protocol version 4). In the mid-1990s, it became evident that the IPv4 protocol would eventually run out of IP address capacity due to the increasing popularity and use of the Internet. IPv6, the new version of the Internet Protocol, was designed to accommodate all new network-based technologies for the foreseeable future. Just this year, we deployed IPv6 on all WCU campus networks which includes both wired and wireless connections. This positions WCU at the forefront of the new Internet connectivity standard and provides end-to-end connectivity to new IPv6 educational technology services for all faculty, staff, and students.

Network Backbone Enhancements

Several backend enhancements were made to WCU's core network infrastructure this year. This core infrastructure is the heart of any enterprise network and provides all backend connectivity for wired and wireless network access. In particular this year, WCU's core routers, border routers, and firewalls were all upgraded and replaced with new higher capacity hardware. The new network routers provide 10G, 40G, and 100G network interfaces to meet the ever-increasing network bandwidth needs of the University. To secure this added network capacity, WCU's firewalls were upgraded with the latest generation Palo Alto Networks firewalls.

"The new network routers provide 10G, 40G, and 100G network interfaces to meet the ever-increasing needs of the University"

These new firewalls can provide secured network traffic for 8 million network connections, a 4x increase over our previous firewalls, and nearly 40Gbps of protected network throughput. All of these strategic backend network enhancements support WCU's current networking needs and also the anticipated growth in networking needs over the next five years.



Business and Public Management Center

This past January, WCU opened its new Business and Public Management Center. This new five-story building, encompassing over 96,000 square feet of space, is now the largest academic building on WCU's campus. In order to meet all faculty, staff, and student technology needs, the IS&T Division delivered its latest investment of \$2.8 million Technology Fee dollars to outfit this state-of-the-art building with the latest generation video conferencing and lecture capture capabilities, cloud-based presentation and printing technology, LCD screens and technology connections in every collaborative space, alcoves for student group work, digital monitors displaying current university and BPMC news feeds, and innovative, flexible classroom design to facilitate group work.



“The Business and Public Management Center was outfitted with \$2.8 million in state-of-the-art technology”

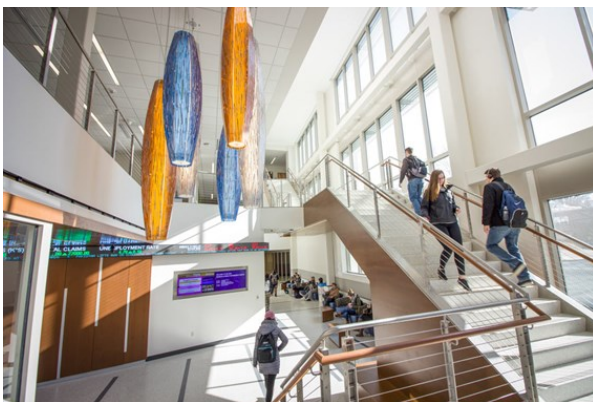
This latest generation technology is connected using high performance, reliable and resilient network infrastructure. This infrastructure includes over 130 wireless access points, dense wireless coverage in all academic classrooms, redundant 10Gbps backbone connectivity to both of WCU's data centers, and 37 network switches which provide connectivity for 1,500 Ethernet ports and over 220 networked presentation, collaboration, and interactive audio/visual systems.



Business and Public Management Center

There are 25 tech-enabled classrooms featuring RamCast wireless presentation systems, lamp-less projection systems with motorized screens, wall mounted displays, ceiling mounted document cameras, height adjustable podiums and assistive listening for ADA compliance. Five collaboration classrooms are outfitted with 4-6 multiple wall mounted monitors to allow for student group work using RamCast. Three student meeting rooms are equipped with RamCast wireless collaboration technology. There are 160 tablets in charging carts for classroom instruction and (2) GIS computer labs with 58 computer workstations. Two additional computer labs will be added in August 2017 and there are three multi-function printers located on the first three floors to provide student cloud printing capability using swipe-to-print technology from their personal devices via RamPrint. A stock ticker is located on the 1st floor vestibule displaying real-time market data from the New York Stock Exchange and touch screen monitors on the 2nd floor display energy management information and building LEED data. There are also digital signage monitors located in each lobby and elevator area on all five floors. BPMC Promotional video:

<https://youtu.be/rg2NF7jD8Zc>



Annual Report

The following report items were provided to President and Cabinet as part of a set of quarterly update reports throughout the year. They are provided here as reference material to show the broad range of project work done.

Activities Related to Divisional and Plan for Excellence Goals

Most Prominent Activities and Outcomes Achieved in the Following:

1. Academics

- Participated in Capital Projects meetings for Wayne Hall, BPMC, South Campus Student Center, and Dub-C Autism Program (DCAP) in order to coordinate large technology deployments.
- In support of FY17 Tech Fee Requests, the team compiled, prioritized, and finalized project requests totaling over 4 million dollars, worked with the budget office to establish 54 new cost centers, and created a SharePoint library for tracking projects.
- Partnered with Academic Affairs on TargetX, a cloud-based Constituent Relationship Management system that replaces the Oracle On-Demand CRM system. TargetX supports communications for the entire life cycle of a student from prospect to alumni.
- Partnered with the Registrar's Office on a new Change of Major Workflow process. Students will no longer need a paper form to request major changes. A new online form will present valid major change options to the student and route forms to department approvers.
- Partnered with Student Affairs to enhance the Early Alert system by adding 41 new courses to the program and adding an attendance tracking module to allow GA's to better track their students. With these enhancements, hundreds of more students will be eligible to receive support services, increasing student success and retention.
- Partnered with Graduate Studies on the Electronic Graduation Clearances process, moving from a time consuming manual paper process to an efficient online process.
- Redesigned and implemented 10 new websites including a site for the Doctorate of Education and the Dub C Autism Program.
- D2L services worked with Academic Affairs & CAPC to detail PASSHE's LMS evaluation process, and obtain feedback from faculty about system functionality and any concerns with D2L.
- In addition to offering 21 faculty FAST training workshops and 85 one-on-one consultations, the D2L Office also co-presented two Learning Technology Boot Camp classes for Faculty with the office of Distance Education, and multiple orientation programs for students and faculty. The D2L office also presented a Mediasite introduction at D2L Bootcamp during the week-long New Faculty Orientation, which was recorded and made available for faculty as video on-demand.
- IT Help Desk processed 232 new equipment requests and closed over 3000 incidents and service requests during this quarter, while D2L Services resolved 750 support requests, including 14 installations of Camtasia.
- HEAT work orders: The Tech Services Team completed over 500 Incident and Service Requests tasks between October 1 and December 31, 2016.
- Capital Projects: Capital projects are underway in Wayne Hall, BPMC, South Campus Student Center, and DCAP.

Annual Report

- FY17 Tech Fee Requests: Finalized over \$4 million of projects, with 54 new cost centers that have been funded and set up. Projects are being tracked on SharePoint.
- Coordinated preventive maintenance to clean and test presentation equipment in classrooms campus wide in preparation for the start of the fall semester.
- Installed Mersive wireless presentation, connectivity, and control panel upgrades in 36 classrooms. Upgraded projectors in 13 classrooms to provide better reliability and performance.
- Presented Mediasite introduction at D2L Bootcamp. The New Faculty Orientation was recorded and made available for faculty as video on-demand.
- Coordinated video conference connectivity between West Chester and University College of Cayman Islands for Mathematics Calculus class.
- The IT Help Desk and D2L Services logged between 3,000 and 4,400 calls each quarter.
- The Help Desk Technicians set up over 100 faculty workstations in BPMC, as well as emergency relocation and setup of 70 offices from Wayne Hall into Anderson, Recitation, and BPMC.
Recorded 60 mock interview segments for both undergraduate and graduate Social Work students.
- Completed projector and control panel upgrades, as well as the addition of RamCast wireless presentation in classrooms in the Sturzebecker Health Science Center.
- IS&T staff members collaborated with the Advising Committee to evaluate appointment scheduling software, including TargetX and ScheduleOnce, for faculty and students.
- The Distance Education Services team supported WCU faculty on online and blended course design, development, and technology integration with 685 email/phone support and 93 faculty consultation meetings.
- A total of 520 Mediasite video recordings were created for the 10 Speech and Hearing Clinic therapy rooms.
- The IT Help Desk prepared for FY18 faculty and staff desktop and laptop computer upgrades. Under a revamped IS&T program, higher-function laptops for both Windows and MacOS users will be provided with no additional cost for those selecting the recommended Mac laptop.
- IS&T staff members co-presented a session at RECAP on Active Learning spaces.
- The Enterprise Applications team implemented an Electronic First Semester Scheduling Prototype for incoming freshmen.
- The Distance Education Services team conducted two Online Faculty Development Programs in the spring and summer with 32 faculty participants and conducted six Friday webinars, two seminars, and one monthly self-paced online training program.
- The Distance Education Services team submitted the annual SARA enrollment report to NC-SARA (National Council for State Authorization Reciprocity Agreement), and submitted the annual SARA participation fee to Pennsylvania Department of Education.
- Implemented a new OnBase module, Transfer Course Equivalency (TCE). With this module, Registrar staff can quickly take course data from incoming transcript and post student's course equivalencies to PeopleSoft.

Annual Report

- Developed a Class Roster Attendance Tracking process. Developed a tool in myWCU to assist faculty in capturing student attendance to fulfill a PASSHE attendance policy. The class rosters also now displays student photos, which drastically helps with taking attendance. Over 3,500 classes entered attendance verification information during the first week of classes.

2. Enrichment

- Enterprise Services implemented a redesign to the WCU homepage in August, including a large hero image, a long main page with sections for News, Events Calendar, Videos, Philadelphia campus, Fast Facts, and a featured campus event. The team also released an updated version of the WCU Mobile app that offers the capability to switch personas and receive modules specific to your role. A “Facilities” module has also been added, allowing users to enter work orders from their phones.
- Completed an Oracle 12C upgrade to the PeopleSoft Campus Solutions databases that provides enhanced performance, system administration tools and new application development functionality.
- Staff attended Campus Technology 2016 Conference and Digital Signage Conference.
- Participated in the Distance Ed Voice Thread course in D2L to improve awareness of tools and skills being used by Distance Ed. Also Participated in training on Practice (Apprenet), a web-based video collaboration and assessment tool. The course runs until the end of the month.
- The InfoServices department migrated to the new CMS, OUCampus; Student Affairs site will follow after fall training is completed.
- Partnering with the Office of Service Learning & Volunteer Programs, the DMC helped produce and edit a short recruitment video for the Department of Nutrition’s trip to Honduras.
- Produced a RamCast promotional video about the new technology and ease of use.
- Recorded interview with WCU President Dr. Fiorentino and began post production work on a profile video of Dr. Fiorentino, that was shown before the inauguration ceremony in April.
- The D2L staff completed the Developing Course Materials online course in February.
- Participated in professional skills development and training including a Microsoft System Center Configuration Manager (SCCM) training for technical staff, Sonic Foundry’s Unleash conference, the Online Learning Consortium Innovate Conference and New Media Consortium Annual Conference, and the national ResNet Student Technology Conference.
- We also presented at the University of Delaware Educational Technology Conference, 43rd Annual Meeting of the National Organization of Nurse Practitioner Faculties, RECAP, and delivered a featured Campus Technologies online webinar to hundreds of viewers around the country on virtual desktop systems.
- IS&T also offered 56 Faculty and Staff Training (FAST) workshops.
- DES launched an iPad initiative and worked with the Tech Fee team to distribute 21 iPads to support online faculty.
- The Web Services team made several major enhancements to the WCU campus map and site search, and the Enterprise Applications team redesigned the Orientation Fee process.
- Developed a process for Institutional Research that migrates current snapshot and reporting table data to the Reporting Database and the SIM data warehouse, getting them as close to “live” as possible.
- Created a site in SharePoint for the President’s Cabinet so that all important information regarding the Cabinet meetings is in a single place and easy to find, such as the agenda, announcements, minutes, and a calendar.

Annual Report

- Developed a method for students to sign a Financial Statement Agreement. With the use of activity guides, students are presented with a task in myWCU to read and sign this agreement. A hold is placed on the student's account until agreement is signed.
- Implemented new Verification Business Rules and Processing for Financial Aid Year 2018. Defined and redefined specifications for the new verification business rules. Included is the logic to handle the federal government regulation for "Prior-Prior" year.

3. Sustainability

- Technical Services managed reimbursement of \$17,732.50 for recycled technology equipment and received reimbursement of \$2,800 for Lenovo OnSite Warranty repairs.
- D2L Services formed a *WCU LMS Support & Design Team* to promote collaboration among the Library, Distance Education, & IS&T. Topics include system tool updates, tool advertising, training, and challenges faced by faculty and instructional designers.
- IT Infrastructure Services completed the first phase of upgrades for LAN switches and wireless Access Points across campus. 120 LAN switches and 280 wireless Access Points were replaced. N&T also worked with Facilities Design & Construction to complete renovation of Sykes Student Union 2nd floor student organization meeting rooms.
- IS&T coordinated with the Budget Office, Human Resources, Institutional Research, and the Vice President for Administration and Finance to collect, compile, and submit required information for the annual Oracle PeopleSoft applications license report.
- IS&T coordinated with the Budget Office, Human Resources, Institutional Research, and the Vice President for Administration and Finance to collect, compile, and submit required information for the annual Oracle PeopleSoft applications license report.
- IS&T provided new training opportunities for 43 Custodial services and Facilities staff members for tasks such as checking email and completing the HR personnel data sheet. These classes leverage the FAST training program to advertise and manage schedules.
- IS&T developed an FY17 divisional initiatives document and began to migrate it to SharePoint as the central coordination point for ease of reporting and maintenance.
- Purchased Oracle licenses in accordance to the 3-year student enrollment projection.
- Reviewed contracts, such as the Gartner agreement for the VP of IS&T's office, Ciber's service agreement, SOW for Registrar's Office, and Practice XYZ agreement for Distance Ed Office.
- Worked with IR office to analyze needs and arrange demonstrations with IUP and vendor SAS.
- A member of Chester County's Emergency Management unit presented facts about the tabletop exercise to prepare for the annual IS&T disaster recovery testing.
- Implemented IPTV services for students in affiliated housing residence halls.
- Ordered server and storage upgrades for Microsoft Exchange campus email system.
- In addition to 80 faculty FAST training workshops and 57 one-on-one consultations, a winter boot camp is scheduled in January to help prepare faculty for the spring semester.
- Implemented E2Campus test messaging capability for the Philly campus. An admin for the campus will be responsible for posting the campus closing and cancellations.
- Collaborated with Chester County Emergency Unit to map out a tabletop exercise on May 16, 2017 focusing on IS&T response to emergency situations occurring in an academic building.

Annual Report

- Collaborated with Institutional Research on the analysis of WCU's reporting needs and solution. Lead the WCU BI team to engage in meetings with SAS, IUP, SIMS, Clarion, and SAS's client to review their BI solutions, implementation, configuration, and approach to BI and Data Warehouse.
- In addition to offering 30 faculty FAST training workshops and 22 one-on-one consultations, the D2L Office held a Winter Boot Camp in January as faculty were preparing for the Spring term.
- Planning has begun for the 21st annual RECAP Technology Conference for Teaching and Learning in Higher Education, scheduled for Thursday, May 18, 2017.
- Ordered hardware and software to upgrade Microsoft Exchange for Faculty, Staff, and Students.
- Analyzed the impact of Fall 2016 enrollment on Oracle license compliance and purchased 400 Oracle user licenses per the 3-year student enrollment projection.
- Collaborated with Chester County Emergency Unit (CCEU) to conduct a successful tabletop exercise in May focused on IS&T response and coordination with other University offices during a flood occurring inside an academic building. CCEU reported our response as satisfactory.
- Supported the upgrade of the campus fire alarm system, and also the upgrade and repair of the campus EPhone system, through IT Infrastructure Services.
- Completed provisioning new Single Mode fiber optic backbone cabling connections for 30 buildings across campus in support of Environment Health and Safety multi-year conversion.
- Began the annual technology refresh for 20% of the campus wireless network. This year, 500 wireless Access Points will be replaced with the latest 802.11ac wireless technology.
- Ordered, received, and began installation and configuration of new equipment to upgrade enterprise data backup systems in Allegheny and Bull data centers.

4. Diversity

- The DMC recorded a weekly *WCU Diversity Update* in their studio.
- Enterprise Services created a new International Student page focusing on resources required for these students and streamlining the admissions process.
- Provided a list of services and programs to the Council on Diversity, Inclusion, and Academic Excellence for Spring 2017. Installed software for students with vision impairments in the OSSD. Provided videos to promote diversity for the MLK brunch, Women and Gender Studies, as well as training to create accessible email. Implemented new content management system for WCU website to increase accessibility, redesigned OSSD's website, as well as a new webpage to recruit out of state students, and created the mandatory participation in Autism training.
- Continuing collaboration with Social Equity, presented a draft preferred first name policy to the cabinet. The approval of a local policy is on hold, as PASSHE prepares a state-wide policy regarding preferred name. Currently outlining a technical workflow to support the local policy.
- Researched screen-readers such as ReadSpeaker, Docrader, and TextAid that integrate with LMS. Screen-readers can assist students with visual impairments and learning disabilities.
- Enterprise Services is collaborating with Social Equity and Office of Services for Students with Disabilities to create an accessibility website addressing ADA policies, procedures, training, and documentation for faculty.
- IS&T member on the University Forum committee has volunteered to work with other committee volunteers to review the proposals submitted for the 2017-2018 RFP.
- Enterprise Services created an interactive map on the International Admissions page which indicates the country of origin of our visiting students.
- Participated in campus discussions on new WCU Chief Diversity and Inclusion Officer (CDIO).

Annual Report

- Working with PASSHE through the Office of Social Equity, the Web Services team created a site for the 2017 State System Summit which celebrates the world of equity, diversity, and inclusion within the higher education ecosystem. The summit is scheduled for Nov 16 & 17.
- The DMC worked with the Women and Gender Equity department on campus to produce a promotional video to communicate the resources they offer to the campus community.
- A new website and online form was created by the Web Services team for the Internationalization Laboratory, which is an effort to develop a comprehensive WCU “Global Strategy” where our students can interact purposefully with people from diverse places, cultures, and traditions.

5. Engagement

- The Digital Media Center provided support for the President’s State of the University Address, Student Move-In Day, day in residence halls, new student programs orientation, and the bike share event. The videos were recorded and made available on the university website, social media, and digital signage across campus.
<https://www.youtube.com/watch?v=B5htlvEwv0A>
<https://www.youtube.com/watch?v=SaBXutSfbVQ>
- Completed installation of the projector, audio reinforcement, and wireless presentation equipment in the new Center for Contemplative Studies facility in the Ehinger Office Annex.
- WCU Weekly, Quad Minute Updates, Ram Center, WCU Entertainment, and WCU Weekend segments were all recorded in the DMC Studio.
- The First Year Writing Program is ongoing. This quarter focused on helping faculty get familiar with the ePortfolio and workflow. Held two “on the spot” help sessions to assist faculty.
- Worked with New Student Programs to create New Student Orientation online additional courses.
- The 20th Annual RECAP conference was a huge success with 180 attendees and 13 Higher Ed institutions. Amy Goldman, Co-Executive Director of the Institute on Disabilities at Temple University, provided an insightful keynote on access and technology. iNOV8 team showcased a variety of new emerging technologies.
- Created a new Distance Education Advisory Committee meeting to discuss DE related issues on campus and held our initial meeting. This forms the beginning of an IT Governance structure for WCU.
- WCU Online social media presence continues to grow with 10,676 views on twitter, 1,710 on YouTube, and 5,590 users reached on Facebook.
- Provided support for the Undergraduate and Graduate Commencement ceremonies including live streaming watched by 6562 viewers from 19 different countries.
- Presented an overview of the AV technology in the new Business and Public Management Center for attendees of the Alumni Weekend open house.
- The LMS team co-led the PASSHE web conferencing RFP writing and evaluation process.
- The Web team reworked the Mather Planetarium web site and forms to work with mobile devices. Both live and pre-recorded shows are available to the public throughout the year covering a variety of celestial bodies.
- Developed a set of reports and transactions for the Center of International Programs to help track the status of their students, such as major or address change, academic status, and who have holds on their accounts. These processes help comply with state and federal rules.
- The Student Employment Search (Twardoski Career Development Center) previously listed off-campus employment opportunities for students. To increase student success, the Web Team updated this web application to allow the TCDC to now connect students that are seeking on/off campus employment, research opportunities, and graduate assistantships. There have been 79 new opportunities since the expansion of the application.

Courses Taught, Publications, and Presentations

Publications Written by IS&T Professionals

- Li, R., Bunk, J., & Smidt, E. (2017). Understanding faculty and student attitudes about distance education: The importance of excitement and fear. In *Handbook of Research on Humanizing the Distance Learning Experience*.
- Smidt, E., Li, R., Bunk, J., Kochem, T., & McAndrew, A. (2017). The meaning of quality in an online course to administrators, faculty, and students. *Journal of Interactive Learning Research*, 28(1), 65-86. Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). Retrieved from <http://www.learntechlib.org/p/174185>.

Presentations by IS&T Professionals

- Drass, J., Young, B., Griffin, L., & Keefe, L. (2017). Our Learning Roadmap: How D2L is Evolving at West Chester University. Presentation at WCU Annual Conference RECAP. West Chester University, PA.
- Drumm, M. (2017, March 4). A Closer Look at How Teachers Tame Twitter. University of Delaware Educational Technology Conference.
- Drumm, M. (2017, May 18). Don't Judge an eBook By its Print Version. West Chester University RECAP.
- Friedman, T., & Singh, J. (June 2017). West Chester University Innovates with BYOD Initiative to Expand Distance Learning Program (Webinar). <https://campustechnology.com/webcasts/2017/06/citrix-west-chester-university-innovates-with-byod-060817.aspx>
- Gargiulo, P., Young, B., Dougherty T. (faculty) & Mrkich, Shannon (faculty). (2017). Using e-portfolios to Evaluate Student Writing Proficiency. Presentation at Drexel University E-Learning Conference. Drexel University, PA.
- Griffin, L. (2017). Leveraging D2L for Placement Exams. Presentation & Poster Session at WCU Annual Conference RECAP. West Chester University, PA.
- Griffin, L., Keefe, L., & Turner, S. (student). (2017). Leveraging the LMS for Placement Exams. Presentation at D2L Fusion Conference.
- Hudson, T., & Yamamoto, N. (2017). Why Active Learning Spaces? Presentation at WCU Annual Conference RECAP. West Chester University, PA.
- Li, R., Smidt, E., Bunk, J., McAdnrew, A., & Florence, M. (2017). Discussing the importance of Excitement & Fear. Presentation at ECTC: Understanding Student Attitudes about Distance Education.
- McGinley, V., Fisher, M., & Pantazes, T. (2017, May 18). Choose Your Own Simulation. West Chester University RECAP.
- Mrkich, S., & Pantazes, T. (2016, November 4). Content Interactivity Does It Matter? West Chester University Distance Education Open House.

Courses Taught, Publications, and Presentations

Presentations by IS&T Professionals (continued)

- Mrkich, S., & Pantazes, T. (2017, January 17). Content Interactivity Does It Matter? West Chester University Scholarship of Teaching, Learning, and Assessment Conference.
- Mrkich, S., & Pantazes, T. (2017, May 18). Content Interactivity Does It Matter? West Chester University RECAP.
- Partridge, K., Singh, J., & Friedman, T. (March 2017). Strategies for Standardizing IT in Support of BYOD. Presented at Annual E-Learning Conference. Drexel University, PA.
- Smidt, E., Li, R., Bunk, J., Kochem, T., & McAndrew, A. (November 2016). The Meaning of Quality in an Online Course to Administrators, Faculty, and Students. Paper presented at the World Conference on E-Learning (E-Learn 2016). Washington, D.C.
- Smidt, E., Li, R., Bunk, J., Kochem, T., & McAndrew, A. (November 2016). What does “quality” in an online course mean to students, faculty, and administrators? Paper presented at the 8th Annual Conference on Quality Assurance in Online Learning. Portland, OR.
- Sincavage, J., & Chang, C. (March 2017). Planning and Conducting an IT Disaster Recovery Plan. Presented at ACUTA Annual Conference.
- Wilbur, V., Pantazes, T., Knestruck, J., & Wilkinson, M. (2017, April 17). Nuts & Bolts of Online Teaching. 43rd Annual Meeting of the National Organization of Nurse Practitioner Faculties.

College Courses Taught by IS&T Professionals

Dikran Kassabian—Drexel University

College of Computing and Informatics

- Web Architecture & Technology
- Distributed Computing & Networking

Lauren Keefe—Gwynedd Mercy University

Graduate and Professional Studies

- Social & Political Foundations of Education
- Culminating Project

Kim Slattery—Neumann University

Division of Business & Information Management

- Principles of Marketing
- Retail Marketing
- Principles of Management

Division of Arts and Sciences

- Multimedia & Digital Design

In Conclusion

The Information Services & Technology division at West Chester University is committed to supporting student success through flexible, cost effective, and secure strategic information technology. Our team supports a broad set of University functions, from student learning and faculty instruction and research, to the activities of the many administrative offices at WCU that manage processes, data, facilities, budgets, and much more.

The annual report in the preceding pages is a high-level look at some of the large projects and activities undertaken by IS&T over the past year. Additionally, we have managed thousands of IT infrastructure components (network devices, servers and storage, etc.), scores of computer labs and technology-enabled classrooms, operated dozens of services including email, calendar, web services, student information systems, learning management systems, document management systems, and much more.

In IS&T, we share the goals of the University.

We support students and the people who contribute to their success.

IS&T

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