



IRT will launch 3D printing lab for students

Bringing access to 3D printing and model making to the William Paterson community, Instruction & Research Technology announces the new Design, Build & Learn Lab. Located in room 120B of the Media Services wing of the Cheng Library, the new lab brings 3D printing technology to the whole university. The back bone of this new space is 4 MakerBot Replicator+ 3D printers, capable of printing volumes up to 11.6 x 7.6 x 6.5 inches from PLA (polylactic acid filament). Two computer workstations are available for users to model and print their own projects on available software, such as Autodesk Fusion 360 and MakerBot Print. With the ability to import STL files from other applications, such as Wolfram Mathematica and PerkinElmer ChemDraw, users can implement this technology across various classes and disciplines. Users can also capture their own real world data with the 3D scanner. Prints can be finished and refined on site at the available work bench. Numerous hand tools are available for use and there is a small table for group study and collaboration.

For more information on utilizing the Design, Build and Learn Lab for your classes or curriculum please contact Chris Weber at weberc@wpunj.edu, x3288. Relevant design software is available to deploy throughout campus for students and faculty to use. Download [“MakerBot in the Classroom: An Introduction to 3D Printing and Design”](#) for a head start on how to integrate this technology in your classroom and visit [MakerBot’s Thingiverse for Education](#) for more projects and lessons.

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Contact IRT (973)720-2659

www.wpunj.edu/irt

Highlighting Faculty who integrate technology in highly effective ways into their curriculum:



Toni LaSala, of the Kinesiology department, knows that if a picture is worth a thousand words, then video must be worth even more.

Over in the Communication department, Joann Lee also had her students recorded on video. But in this case, students in her Announcing class were recorded in Hobart Hall's Presentation Training Classroom, reciting scripted announcements and outside copy.



(Cont'd. on p. 2)

3D PRINTING

REVOLUTIONISING

the

CLASSROOM

3D Printers have actually been around for about 25 years. Barriers like costs are breaking down, so they are now very affordable and easy to use. 3D Printing has caught the attention of educators who are looking into ways to incorporate it into the classroom.

Using 3D Printers in the classroom could mean:

Biology students can study cross-sections of hearts or other organs.



Design and Engineering students can make prototypes of their creations.



Chemistry students can print out complex molecules to study.



Architectural students can print new or existing designs.



Engineering students can print modified car or robot parts.



History classes can print artifacts for closer examination



Geography students can print out topography, population or demographics of an area.



Graphic design students can create prototypes of product designs



Food Technology students can design molds and cookie cutter templates



Faculty Technology Highlights (cont'd.)



Also in the Communication department, Lorra Brown worked with IRT to digitize a video title, Corporate Social Responsibility: From Principles to Profit. Because this title was not available anywhere on the web, neither freely nor commercially, this title could be digitized on the grounds of Fair Use



There are many other ways to present what you know, of course; not just video. Working with his colleagues the Marketing and Management department and with IRT, Rajiv Kashyap developed a capstone project that has all students in the program create e-Portfolios.

Neici Zeller, from the History department, and Solomon Nyaanga and Jet Mboga, from Marketing and Management, were just three of the faculty members who taught in the new Active Learning Classrooms in University Hall in the Spring 2016 semester (UNVH115 and UNVH128). For more information on each usage of teaching with tech-

New Classroom Technology Installations and Upgrades

Recently, IRT worked with Capital Planning to install state-of-the-art classroom technology in University Hall. We hope that you have had a chance to experience it. In University Hall, there are 10 standard classrooms with our ADA compliant lecterns and intuitive touch panels for controls. The registrar had noted in prior discussions that there was a desire for larger seminar rooms as well as rooms with electric outlet access. Because of that, rooms 116 and 117 have flip top units with USB power charging and standard outlets for laptop and mobile device charging.

The 4 seminar rooms in University Hall (Rooms 120, 121, 204, and 205) have a wireless touch panel to allow the faculty to be mobile and control the room from anywhere in the room. The seminar rooms have all the standard amenities of our digital classrooms, with the added advantage of not having to stay close to the classroom furniture.

We are also proud to announce 2 new classrooms that have been installed and tested. These are the new Active Learning Classrooms. They are based on a more interactive delivery with an emphasis on group work rather than individual focus. The faculty and students have expressed a number of positive comments about the room as well as having the ability to integrate Bring Your Own Device (BYOD) into the two rooms to allow for more collaborative work.

University Hall also features 4 large Groups Study Rooms and 7 Small Group Study Rooms with flat panel monitors and the capacity to plug in laptops or mobile devices for presentation.

IRT has also begun working with the biology department to utilize wireless, collaborative screen sharing. Currently we have installed a program called Solstice. This turns the PC into a collaborative screen in which both faculty and students can present their content via the wireless network. No more need for adaptors or dongles. Participants simply log into the session and can present their content for the rest of the class. If there is further interest, please submit a helpdesk ticket (www.wpunj.edu/helpdesk) to request this software solution in your classroom.

Hobart Hall 301 is now a smart classroom. This was originally an audio lab, however, as it grew into more and more classes, it became time to add the same learning spaces standard for a smart classroom as all others at William Paterson University. The room now has a standard digital classroom setup completed by an ADA standard lectern, but houses an iMac instead of a PC. There is a laptop connection with VGA and HDMI connectivity for those who bring in their own laptop or mobile device.

Last year, IRT provided upgrades to three Library rooms (University Hall kept us pretty busy). This year, IRT is planning a phased-in upgrade to Raubinger Hall classrooms beginning with electric screen replacements, to be followed next year with a High Definition (HD) digital upgrade. This year, Lecture Halls: SCIE2063 and SCIE2064; Atrium 144; Ben
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IRT Announces a new Teaching and Learning Curriculum

IRT's **Center for Teaching and Learning with Technology (CTLT)** is now offering a teaching and learning curriculum based on twin goals of promoting faculty support for integrating technology with both **course design** and **course delivery**. Each of the two curricula addresses central issues in teaching with technology in order to provide faculty with new pedagogical perspectives and each contains four parts.

Curriculum One, *Integrating Technology with Face-to-face Education*, focuses on tools essential to modern teaching.

Enhancing your Traditional Course with Blackboard and Beyond – for instructors experienced with Blackboard, this workshop concentrates on issues related to assessments, discussion forums, multimedia and course layout (1 day).

Integrating Social Media with Coursework helps instructors incorporate blogs, collaborative document work, media sharing, and social networking into course projects and assessments (2 hour workshop followed by one week online).

Aligning Learning Objectives with Course Content helps faculty create a course map illustrating how each course element supports and ultimately relates back to the course/module learning objectives (2 hour workshop followed by one week online).

Active Learning Institute helps faculty implement the active learning strategies and evidence-based practice appropriate to the classroom environment (1 day).

Curriculum Two, *Principles of Course Design*, introduces elements to help faculty prepare technology-enhanced courses.

Applying the Quality Matters Rubric explores the Quality Matter rubric for online course design and provides a framework for improving the value of online and blended courses (1 day).

Designing Courses Using Open Educational Resources helps faculty locate, analyze and use open (i.e. no cost!) educational resources including textbooks, quizzes, multimedia and even complete courses (2 hour workshop followed by one week online).

Principles of Universal Design is a stepping-off point for building technology-enhanced courses that are usable and accessible for all members of the student community (2 hour workshop followed by one week online).

Blended Learning Boot Camp helps faculty prepare courses that combine face-to-face and online learning through the application of research and experience (1 day followed by 4 days online and ending with 1 day).

For a schedule of sessions and more information please see:

<http://bit.ly/wpu-tlt-curricula>

Please feel free to contact IRT at x2659 or email krucinskit@wpunj.edu with any questions about the new curriculum offerings.



Computer Security/Data Protection

Computer security and data protection is more of a challenge these days. Data theft and data encryption attacks require more than just a common password for protection. WPU has deployed two methods to strengthen protection. The first, from a user prospective, is, for the most part, transparent. It is federated authentication using Shibboleth and InCommon. The other, to protect servers, file services, and critical applications is more complex in that it requires a set-up and an additional authentication step.

The Federated/Shibboleth/InCommon authentication process occurs when the User Name and Logon Page is presented by WPConnect. The objective is to bind all cloud providers and applications to this logon and our portal. The username and password is never captured by an application or server other than WPConnect. The logon process is always on WPU servers and never shared. A token is passed with authorization to the application which is either cloud or internally hosted. Agreed-upon data such as e-mail addresses, 855 numbers, or department may be passed, as well, depending on the application and our agreement with the provider based on our InCommon membership. The most efficient way to access these services is the WPConnect link. In most cases a secondary logon will not be required, the process will be entirely transparent. In fact, when accessing a remote cloud application directly, not through WPConnect, the logon process will be directed back to WPU to the familiar logon page.

Two Factor Authentication is a bit more complicated but becoming more common in use by banks, credit card companies, and even an option for Google. Registering a device, such as a cell phone, is usually the first step. When a logon is attempted a text or call is made to the device which must be entered to logon. WPU also allows the “Duo” application to be installed on smart phones so an approval request can be sent to the smart phone app in order to be accepted. Thus, an entry of a number is not required. To protect critical financial, group files, student data and records WPU has always required a Virtual Private Network (VPN) connection which encrypts data when accessed from off-campus locations. To further protect the data a secondary, two factor authentication is now required. Instructions on the setup and VPN access can be found by going to the [ITWiki](#) and searching for VPN Remote Access.

New Student Evaluation Sheets

The scanner for Student Evaluations was upgraded. The new scanner cannot accept the current opinion response forms so it is now necessary to use a new form effective immediately, for the Fall 2016. The new Student Opinion forms are printed by the Print Shop (see Bldg. #37 on map at right), as needed, and may be delivered directly to your department.

To obtain the forms you or your department staff just need to go to www.wpunj.edu/printservices, logon, search the catalog for “evaluation”, specify the quantity of the form you require, add to the cart, proceed to checkout and place the order. Your department will not be charged for the forms.

The charges will be absorbed by Information Technology.

In an effort to reduce our carbon footprint in alignment with the Strategic Plan, please specify the exact number of evaluation forms needed at a given time. This will aid in reducing unnecessary paper and toner consumption, and the need to store spare copies.

If you have questions or problems, please contact the Information Technology Help Desk at 973-720-4357.



Updated Online Course Evaluation Procedures

In the Spring 2016 semester, the campus moved to a new system for handling online course evaluations. With this new system, faculty members no longer have to request that their online course(s) be evaluated unless they have any special requests. When the evaluation period opens, the students will receive emails, inviting them to participate in the evaluations for each of their online courses. Faculty members will also be emailed, notifying them that the evaluation period has begun. And to help encourage participation, students will get one or more reminders, during the two-week evaluation periods, though faculty members are welcome and encouraged to send their students reminders of their own as well.

What constitutes a special request? Tenured faculty members who need the non-tenured evaluation procedure to be used because they are up for promotion or range adjustment should make that request by no later than October 24, 2016. To do so, go to the Web Help Desk (www.wpunj.edu/helpdesk) and create a ticket with a request type of "Online Course Evaluations". Be sure to provide all of the details requested in that form.

For more information about the recent improvements to the online course evaluations process, or to make any special requests, please feel free to contact us by emailing OnlineCourseEvals@wpunj.edu.

New Classroom Technology Installations and Upgrades (cont'd.)

Shahn 20; Wing 101, and Raubinger 01 and 101 will actually undergo an HD upgrade. Finally, this year, IRT plans on upgrading the Center for Teaching and Learning with Technology to the same level of active learning with a mobile touch panel and AV control that one can experience in University Hall's Active Learning Classrooms (see picture below).



Check out the new Uniprint printer in Century Hall. Learn more about printing at wpunj.edu/print. #wpunj



8:40 AM - 23 Sep 2016

Resident students can now print in Century Hall. A Uniprint printer was recently installed there for easy access.

Follow IT on Twitter at @WPUNJ_Help for updates and alerts.



New IT Staff: Please Welcome

Chris Songer—Enterprise Network Services

Chris Songer joins Enterprise Networking & System Services as a Network Engineer. Chris began working at the University in 2008 as an Student Technology Assistant. In 2009, he moved to the role of Help Desk Technology Assistant (HDTA) working out of the Coach House. While working as an HDTA, Chris assisted in resolving faculty and staff computer issues and was a participating member of the Computer Replacement Program (CRP) team deploying computers on campus.

In 2011, he began working with the ResNet team, where he has been the lead support technician since 2014. His first project with the ResNet Team was adding full wireless coverage throughout the dorms. Chris, along with the other members of ResNet, has worked extensively to help make the task of connecting to the campus network a well-known and simple process. Chris was involved in many projects and upgrades around main campus, including expanding wired and wireless coverage, installing network lines, and solving connectivity issues. Chris will now be responsible for the day-to-day operation of the ResNet unit, which includes all networking projects in the dorms as well as the supervision of part-time network technicians.



Jen Spero—User Services Support Supervisor

Jen joins the Information Technology User Services group as the User Support Supervisor, a role in which she manages IT's Field Support staff. She has over 10 years of experience in higher education Information Technology, and has worked in both User Services and Networking roles at her previous institution. She has a Master of Engineering with a concentration in Network Information Systems, as well as a Bachelor of Engineering in Computer Engineering from Stevens Institute of Technology.

