



## Information Technologies Activity Report

MAY–SEPTEMBER 2014

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### Farber HPC cluster now available

Building on the success of the [Mills High-Performance Computing \(HPC\) cluster](#), UD Information Technologies (IT) has released [the University of Delaware's second community cluster](#) for use. The new cluster has been named **Farber** in honor of David Farber, UD professor and Distinguished Policy Fellow in the Department of Electrical and Computer Engineering.

On September 16, access to the Farber cluster was granted to University researchers who had invested in the new cluster. Farber has been configured to be very similar to Mills; therefore, anyone with experience on Mills should find Farber a familiar environment.

UD's HPC cluster program is designed to give researchers who need to perform complex computational tasks cost-effective access to the computing power they need.

[The Farber cluster](#) will give more UD researchers access to HPC resources and will provide faculty with faster compute nodes and more storage than is available on Mills.

The University uses community cluster architecture for HPC systems. Periodically, IT staff members work with University faculty to develop the specifications for an HPC cluster, with the purchase financed by both IT (cluster infrastructure, storage, and networking) and individual faculty researchers (individual compute nodes).

The community cluster model is advantageous for researchers, allowing them priority access to high performance computing power while sparing them the ongoing financial liability of purchasing and running their own computing clusters.

Compute nodes are still available for purchase in UD's Farber HPC cluster. See the [Farber information page](#) for detailed information about the new cluster. To inquire about purchasing compute nodes, send email to [it-hpc-interest@udel.edu](mailto:it-hpc-interest@udel.edu).

Farber users can provide feedback by submitting a [Research Computing Help Request form](#), specifying **High Performance Computing** and **Farber cluster**.

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### Annual Tech Fair: October 28

We invite faculty and staff to explore the ways technology can help them, their clients and their students by attending the annual IT Tech Fair to be held Tuesday, October 28, 10:30 a.m.–2:30 p.m., in the Multipurpose Rooms of the Trabant University Center. Lunch will be provided.

The Tech Fair is a unique opportunity for faculty and staff to familiarize themselves with the technology services offered by UD. University staff members who provide technology support and manage central systems will be available for questions, short discussions, and hands-on experience with technology tools.

In addition to staff from IT, the 2014 Tech Fair will include representatives from campus units that provide support for various technologies:

- Human Resources;
- Procurement;
- Office of Communications and Marketing;
- Registrar's Office;
- Institutional Research; and

- Student Multimedia Design Center.

The goal is to offer something for everyone; we hope that members of the campus community will attend and test new equipment while enjoying a light lunch.

For more information, [visit the 2014 Tech Fair website](#).

Those who plan to attend are encouraged to [register online](#) so we can plan accordingly.

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## Planned Outages

Several UD systems will be unavailable during system maintenance in late September:

- Saturday, September 20, UD Time, HR Prod, and UDSIS will be unavailable while patches and updates are applied.
    - UDSIS will be unavailable most of the day, starting at 6:00 a.m.
    - The HR systems will be unavailable for several hours starting at about 2:00 a.m.
  - Tuesday, September 23, shortly after 5:00 p.m., the Financials reporting instance will be unavailable during maintenance.
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## Security, Privacy, and Safety

### Secure UD Training

IT launched the Secure UD training program in June 2014.

This training program is part of the University's new Secure UD information security awareness initiative and is designed to equip faculty and staff with the knowledge and resources they need to properly use and protect UD's data and other confidential information.

The training, which uses online video training modules, is available to faculty and staff who have access to University information systems and resources. So far, 720 UD employees have completed the program, and another 400 have started to work through the training modules.

For more information, visit the [Secure UD Training](#) website or read the Secure UD [UDaily announcement](#). We expect to remind the campus about the Secure UD initiative during October, National Cyber Security Awareness Month.

The message we want all faculty and employees to remember is that "You are a target. Information security is everyone's responsibility."

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## Infrastructure

### New CATV system

The University of Delaware switched its cable television provider to Comcast on August 23. The new service is completely digital and offers a wider selection of channels. (View the [full channel listing](#).)

On-campus televisions need a QAM-256 tuner in order to receive the signal properly. Visit the [Campus Cable TV \(CATV\) help page](#) for more information, or contact the [IT Support Center](#).

## Research Support

### New Research Computing website

IT has redesigned its [Research Computing website](#) to provide more information about the many services offered to campus researchers, including technical support, programming assistance, training opportunities, data management, GIS and visualization, computing sites, servers, and software.

The new site includes a [Research Computing Help Request form](#) that will make it easier for UD researchers to contact IT staff. In the **Problem details** section of the form, researchers can choose from a variety of topics including data management, education and outreach (training requests), assistance with grant writing, GIS, high performance computing, programming assistance, and technical support.

### VSCSE training

IT participated as an in-person site for all three [VSCSE 2014 Summer School Courses](#): "Harness the Power of GPU's: Introduction to GPGPU Programming" (June 16–20), "Data Intensive Summer School" (June 30–July 2), and "Science Visualization" (August 25–26). More than 1,400 people participated in the training at satellite sites around the country.

Each of the courses hosted in 304 Pearson Hall (Studio C) reached the maximum registration, 25 participants. The majority of on-campus participants were from UD, with others from St. Joseph's University, Lebanon Valley College, and Hood College. One on-site teaching assistant was funded by VSCSE to provide help throughout each course. For more information about each course, visit [UD's VSCSE website](#).

University researchers are invited to use the [Research Computing Help Request form](#) and select **Education and Outreach** to request that we facilitate other specialized training.

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## Teaching and Learning

### Faculty Transformation Grants update

The Center for Teaching and Assessment of Learning (CTAL) and IT Academic Technology Services (IT-ATS) jointly funded 15 projects as part of the 2014 Transformation Grant program. An investment of \$150,000 is being made in a range of innovative teaching projects across campus. All projects are being developed or implemented during the 2014-2015 academic year with a target of completion at the end of spring 2015.

### IT supports UD's first MOOC

Thanks in part to his Faculty Transformation Grant and consulting support from IT-ATS, assistant professor of Art Jon Cox is the first UD faculty member to teach a MOOC (Massive Open Online Course). A MOOC is an online non-credit course designed to allow a large number of students to participate from around the world, the majority of whom would not be physically located at the UD campus or enrolled in other UD courses. Cox's MOOC, "Phoneography: The Basics of Cell Phone Photography," will teach a global community of students to see photographically. Over 1,100 students have signed up so far. For more information read the [UDaily story about Cox's MOOC](#).

### Sakai upgraded to version 2.9.3

Sakai 2.9.3 contains significant performance improvements, updated technical infrastructure, hundreds of bug fixes (over 600 bug fixes and over 20 security improvements), and accessibility improvements. Significant features have been added to the Resources, Gradebook, and Section Info tools.

Although the main features and navigation patterns remain similar, the user interface has been updated to offer more intuitive shortcuts to features used most often by clients. Consult our [Sakai@UD blog](#) for more information on this upgrade.

### Canvas@UD

The number of faculty members adopting Canvas, an alternative to the Sakai learning management system, continued to grow at a steady pace. Faculty interested in using Canvas can request a course site or a consultation with IT-ATS staff on the [Canvas gateway page](#).

As of September 10, 2014, more than 200 course sites have been published on Canvas for the fall semester, reaching over 7,000 students.

### Fall events for faculty

This semester's [First Friday Roundtable on Teaching](#) series began on September 5. Even though this semester's series focuses on teaching increasingly larger classes, the topics are still useful and interesting for all who teach at UD. Information about October's and November's sessions is listed below:

- "Asking questions that encourage critical thinking in large classes": October 10, 3:30 – 5:30 pm, Gore Hall 208. This Roundtable will focus on how we can effectively ask questions that help students develop and demonstrate critical thinking skills. [Register online](#).
- "Creating assignments and providing student feedback in large classes": November 7, 3:30 – 5:30 pm, Gore Hall 208. In this Roundtable, we will focus on how we can effectively create assignments and provide feedback to students in large classes. [Register online](#).

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## Business Systems

### Oracle Database Security

The IT Management Information Services (IT-MIS) database administrator (DBA) team has been working with IT Network and Systems Services (IT-NSS) to move the University's central database servers and Peoplesoft application servers to a new private network. These steps further strengthen the security of the databases and applications that use them.

The DBA team has also been working with the security team in IT-NSS to place selected database and application servers behind a Web Application Firewall (WAF). This device traps known breach techniques and learns to identify new patterns to help thwart unauthorized access of data via Internet attacks. For example, the DBA team has been working with the HR programming team to relocate the UD Time database and application infrastructure behind firewalls and within the new private network.

We are continuing to apply these same methodologies to other non-PeopleSoft databases and applications to provide the same protections for all the applications supported by our various teams.

The DBA team has also been implementing Oracle Network security methods to encrypt network database traffic as it travels from server to server, as well as implementing encrypted backup files to protect data at rest in files on campus and in offsite storage locations.

### Application security improvements

IT Web Development (IT-WD) is migrating all production Web applications from the current "primus" server to a more robust and protected environment. This migration began in August and will continue until all applications are residing on the new server ("udapps"). Automatic redirects are being applied to "primus" so that the transition to the new location should be seamless. Application owners may be asked to verify application usability on udapps before the application is released. In addition, application owners should advertise redirected URLs which do not contain server names, such as [www.udel.edu/webreg](http://www.udel.edu/webreg), instead of advertising a URL that includes "primus" or another server's name.

### Payment Forms Request Process

On June 25, IT-WD began using an automated tracking system, BMC FootPrints, to handle incoming form requests. This system is the same that is currently used by the IT Support Center (ITSC), as well as other UD departments.

IT-WD made the decision to use this system in order to better track requests through each step of the process. Notification is given to the entire IT-WD group when a request is submitted. We are employing the system to

- improve request tracking
- decrease initial response time
- provide better follow-up and communication during development and testing
- enable seamless backup coverage within the group.

If you have a request that needs to be submitted, you may do so by using the new [Payment Form Request](#). You may also send an email to [itwd-req@udel.edu](mailto:itwd-req@udel.edu). Both methods will log your request in the FootPrints tracking system and notify IT-WD staff of your request.

### New year financial balances process

During the third and final accounting periods, prior fiscal year totals for non-budget purpose codes have historically not been included in new fiscal year accounting information and balances. To eliminate this confusion for the campus community, the Controller's Office, IT-MIS, and IT-WD have partnered to create a new process that calculates prior year balances and brings them forward to the new fiscal year during the third close timeframe. This process eliminates the need for units to retrieve totals from both the prior and the new year to obtain a complete balance. This process is run on a daily basis during the closing period, and allows units to view complete new year balance information earlier in the new fiscal year through UDataGlance and UD Financials Query Reporting.

### Student "Emergency Contacts" app updated and renamed: "My Annual Review"

In partnership with the Registrar's Office, IT-WD enhanced the Emergency Contacts application, which students are required to review and update annually. The enhancements include

- providing an overview of academic information for matriculated undergraduates
- giving students the ability to elect a preferred phone number and student address
- and providing an overview of the student's current parent/guardian permission settings.

Due to the nature of the updates, the application name was changed to "My Annual Review." Additionally, in an effort to guide students to the resources they need for managing their information, instructions for updating their information are emailed to students.

### IT-WD continues improvements to My Finances

IT-WD partnered with Student Financial Services and the Institute for Global Studies to add travel study payments to My Finances. Students now manage travel study bills alongside their student account. Students, and parents or guardians who have been granted access, can choose to combine installment payments, for both the student account and travel studies, into one transaction.

My Finances was also upgraded to allow on-demand generation of personalized billing statements. Students can still search and sort their account activity to review items billed, payments posted, and aid disbursed. But the improved Statements section offers the ability to customize and download a billing statement. Each statement comes on University letterhead that can be printed for personal records or used as documentation for a third-party payer.

### Student Information System updates

- UDSIS was updated with a round of patches and fixes from Oracle the weekend of June 7.
- Critical Financial Aid patches have been applied to UDSIS to enable early implementation of the SULA flag for Federal Student Aid.
- UDSIS is scheduled to be patched on September 20, to apply the next round of upgrades from Oracle.
- In collaboration with the Registrar's Office, IT-MIS has implemented an automated transcript process through the National Student Clearinghouse, streamlining the process to provide faster service to students.

### Course Inventory improvements

IT-WD worked with the Registrar's Office to enhance the Course Inventory Web application with an option to nominate a course to fulfill a University Breadth requirement. A new search criterion was also added to allow faculty to include University Breadth nominations in their search results.

The Course Inventory application is used annually by departments, colleges, and the Faculty Senate to review and approve course catalog changes. Questions on the course inventory can be directed to Suzanne Stanley in the Registrar's office.

### Stop the clock Web Form

IT-WD recently partnered with the Office of the Provost, the College of Arts and Sciences, the department of Psychology, and Human Resources to create a new Web Form which can be used when there is a need to stop the tenure clock for birth, adoption, or other FMLA reasons. The form can be found in [Web Forms](#). Tenure-track faculty members or their HR Liaisons may initiate a form to notify affected parties. The form fulfills the notification process per the [Collective Bargaining Agreement](#) policy (9.5). Additional information may be obtained via the [Collective Bargaining Agreement](#) or by contacting the Provost's Office at [\(302\) 831-7299](#).

### ACA affects HR systems

The Affordable Care Act (ACA) enacted by the US government affects health insurance coverage and consequently some of UD's Web Forms. IT-WD worked with HR to modify forms such as the JED, S-Contract and its Amendment, GNCP and its Amendment, ACA View, Additional Assignment Web Form, and the Additional Pay View so that data needed to be in compliance with the ACA was accurately collected or shared via secure Web Views. Several of these forms and views are now live with the others expected to go live in the upcoming weeks. Since early 2014, HR has reached out to departments letting them know these changes were coming as well as publishing this [informational website](#).

ACA regulations also require some non-benefited employees (e.g., student and miscellaneous wage employees) to provide evidence that they have health insurance coverage. In order to comply with these regulations, IT-MIS is working with HR to make a number of modifications in the PeopleSoft HR system to determine eligibility for health benefits. These modifications include the creation of new batch programs, changes to existing bolt-on tables, and changes to UD Time policy profile configuration data.

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## IT Support Center

The start of a new school year is always one of the busiest times at the IT Support Center (ITSC). Our on-duty staff received over 450 phone calls and about 100 requests for help via email, text message, twitter, or the [ITSC Help Request form](#) during move-in weekend (August 23-24). For the second year in a row, the largest number of questions students asked were about connecting television sets to UD's cable TV system.

All told, during the first week of the semester (August 23-August 29), we received about 1,900 phone calls, and almost 1,100 other requests for assistance.

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## Personnel

### New staff

**Sean Barefoot** started working in IT Client Support & Services (IT-CS&S) in August as an IT Support Consultant I. Sean will provide technology support to faculty and staff. He comes to IT-CS&S after providing technical computing support in the government sector and in private industry for the last three years.

**Sourabh Dwivedi** joined IT-WD in June as an Applications Programmer I. Sourabh recently graduated from the University of Maryland with a Masters in Information Management. Prior to his recent studies, Sourabh worked as an application developer in academia and as a systems engineer in private industry. He will work as a Java programmer on Web applications.

**David King** joined IT-CS&S in early September as an IT Systems Support Consultant II. He will maintain and support department and site servers and provide second-tier support for central IT services such as Exchange, SharePoint, and Active Directory. Before coming to UD, Dave worked for a Pennsylvania School District, providing systems administration and technology support for a large user base.

**Jann Sutton** will join IT-ATS in late September as an Educational Technology Consultant II. She will provide instructional design support and help faculty improve teaching and learning through the effective application of technology. Jann comes to IT most recently from the UD Research Office but was previously an Instructional Designer in the UD's Division of Professional & Continuing Studies for over 15 years.

**William Totten** became a member of the IT-NSS unit as a Systems Programmer IV. His primary responsibility is to provide system administration, programming, and analysis for the High Performance Computing (HPC) clusters maintained by central IT. Bill has extensive experience as a Systems Administrator and provided systems support for over six years for HPC clusters at a prominent cancer center and research institute.

**George Watson** started working in University Media Services (IT-UMS) in September as a Performance Events Technician. George will be primarily responsible for technical operations in the Roselle Center for the Arts but will also be heavily involved in other major events supported by UMS. George comes to IT-UMS after serving 12 years as the Technical Coordinator for the Bob Carpenter Center.

### Retirees

During the summer, three IT staff members retired from the University.

**Dave Adkins** (Applications Programmer III), IT-MIS, retired after 24 years of service.

**Ann Amsler** (Technical Writer), IT-WD, retired after 31 years of service.

**Lou Borsos** (Network Technician III), IT-NSS, retired with over 17 years of service.

We will miss them all and appreciate the many years of service they've given to IT and UD. Thank you, congratulations, and best wishes to the latest IT retirees!

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The IT Activity Report is published 4-6 times a year. Archived reports are located at <http://www.udel.edu/it/activity-reports.html>. If you have comments, questions, or suggestions for future articles, contact the IT Communication Group at [it-commgroup@udel.edu](mailto:it-commgroup@udel.edu).