# TECHNews

For The University of Mississippi Faculty and Staff

### **Prerequisite Checking Turned On**

University of Mississippi must have their ducks in a row, or at least have met the prerequisites for the courses they select.

"We are pleased to add transfer equivalency determination and course prerequisite checking to the list of University services," explains Assistant Provost Ann Canty. "The system will not allow students to register online for courses unless they have the proper prerequisites."

A prerequisite may be a previously completed class or

other requirement, such as a minimum grade in a course or on a standardized test.

"Prerequisites are established by academic departments to ensure that students are adequately prepared," notes Associate Provost Maurice Eftink. "Until now, prerequisites were really only advisory in nature, but several offices have worked very hard to enable this feature which can check a student's record on the fly as he or she tries to register."

Because 55% of current

undergraduates have completed courses at other academic institutions, determining the UM counterparts to their transferred work is critical to the registration process.

"The academic departments have done a lot of work to set the course equivalencies," says Denise Knighton, Assistant Registrar, "and then Eddie Upton in the Office of Information Technology has uploaded those agreements into the system. So far we've gotten almost 28,000 agreements in place, but there are still more to do."

Knighton reports that eight staff members in the Registrar's Office have worked hundreds of hours, even coming in over the

Nark Your Calendar!

Office of Information Technology

S askets, bonnets, and a major SAP upgrade will be part of the long Easter weekend for Ole Miss in 2006. From 5:00 p.m. on Thursday, April 13, to 8:00 a.m. on Tuesday, April 18, SAP and all dependent applications will be unavailable for use. During this time, users will not be able to access many online services or perform such tasks as creating purchase orders. Christmas break, to enter the transfer work of currently enrolled students and course information from other institutions.

"For 88 of our top feeder institutions, including Mississippi community colleges and universities, we just downloaded the entire electronic catalog," relates Knighton. "But then there are students coming from schools that aren't feeders, and they may have taken 15 or 16 courses there, so you've got to enter all that information as well."

According to Knighton, this type of data entry will be an

ongoing process.

"There will always be students coming from even one or two institutions that aren't in the system yet," she notes. "And if another institution changes its course identifications, as both Auburn and Millsaps did recently, that information has to be entered as well."

While the workload may be big, Knighton feels the payoff will be even bigger.

"A lot of departments did prerequisite checking manually

in the past," says Knighton. "A student with transfer work would have to take a copy of his or her transcript to the department in order to get into a class. Now the system will do all that automatically."

Canty reminds departments that only they and not the Registrar's Office can correct or override a prerequisite if a qualified student is blocked from registering for a course.

"There is a new link under student information in the online interfaces for advisors, department chairs, and graduate program coordinators called 'Transfer Equivalency Report,'" explains Canty. "Initially many records will say 'pending,' but as the Registrar's Office runs more and more agreements, this link will be very helpful in ascertaining the status of a student's transfer work."

"We'll be glad to help departments if they have questions," comments Knighton. "If they are dealing with someone who's having trouble registering, I recommend talking to the student before they do anything else. I'm surprised how often that's the best way to identify the problem."

Knighton says that transfer equivalency determination continued on back cover

Amanda Carper, Priscilla Melton, and Denise Knighton (standing) review transfer equivalencies in the Registrar's Office.





# For Yi Lin, 听,学习中文的金钥匙

(Listening, the golden key to learning Chinese)

W hen you see one of Yi Lin's students listening to an MP3 player, odds are it's for homework.

"My students have a LOT of Chinese on their iPods," laughs Lin, instructor and director of curriculum for the Croft Institute's Intensive Chinese language program, which is part of the federallyfunded National Flagship Language Initiative (NFLI).

"The goal for students in our program is to achieve advanced proficiency in Mandarin Chinese," Lin explains. "To reach that level requires a lot of training, and the most important thing is listening. If students don't understand what they hear, then the input is missing, and they won't be able

to speak the language. That's why we use sound files for a lot of our classes."

Lin's classes meet daily, but she e-mails all homework to her students, including listening assignments.

"I find this very effective because students check their e-mail often, and when they do, their homework is right there waiting for them," Lin says. "In several programs, including Webmail, they can type in Chinese and send the completed assignments back to me so I can check it wherever I am."

Lin and her colleagues record the sound files using her computer and an external microphone.

"I write the listening exercises using the vocabulary students know and adding something new, so it keeps them interested," Lin notes. "The students learn very fast, and after only six months they can write in Chinese. The listening, writing, and talking all come at the same time. The technology is very important in the process because it allows them extra time to practice and learn. Sometimes they even ask for extra assignments."

Susan Lawrence, a freshman majoring in international studies, says she loves using the sound files created by Yi Lin.

"I listen to them on my computer and download them onto my iPod, so I can squeeze in extra practice while I walk to class or shop on the Square," reports Lawrence. "It's funny because they frequently come on when I'm listening to music as I'm jogging! It really helps me to hear regular Chinese conversations and different speakers."

Ashley Collins, a junior with a double major in banking and finance and managerial finance, concurs.

"I find Chinese very interesting, but it's difficult for me to learn, and listening used to be the weakest part of my studies," Collins explains. "I could never get motivated to do assignments on audio tapes, because it was a hassle having to

fast forward and rewind looking for the right dialog. Now I can easily listen to the assignment as many times as I want, and the factual dialog helps me prepare for class quizzes."

Though the language she teaches may be ancient, Lin's approach is modern.

"As part of getting my M.S. degree at Indiana University, I took a lot of courses in computer science," Lin says. "I even got a job on campus as a computer consultant. Computers play a very important role in education, and in this program we continue to investigate the many ways we can utilize technology in teaching."

Lin points to the hiring of Jiehua Zhang, who joined the program as an instructor

last fall. In addition to bachelor's and master's degrees in Chinese, Zhang also has an M.S. in computer information systems from the Florida Institute of Technology.

According to Lin, it's not just a matter of keeping up with the technology.

"Most of our students are Croft students, business school students, and their focus is on Asian politics and commerce," notes Lin. "Some of them want to work for global corporations, and some want to work in the Foreign Service or for the National Security Agency. Their goals are lofty, and they are very demanding students. They want to learn the language, and they are attracted by the intensity and commitment of the program."

Visit www.olemiss.edu/depts/modern\_languages/NFLI for more information.

#### Got an Idea for Teaching with Technology?

The HP Corporation is soliciting proposals from accredited two- and four-year colleges and universities for funding through its Higher Education Technology for Teaching Grant Initiative. HP will distribute approximately 40 grants to institutions in the United States and Puerto Rico. Only proposals from full-time faculty will be considered, and the submission deadline is February 15, 2006. For more information, visit www.hp.com/go/hpteach.



Jiehua Zhang and Yi Lin

#### A Security Update From David Drewrey, Campus Security Coordinator Password Caching Doesn't Pay

The first time you enter your username and password at a website, your browser may ask if you want it to remember this information. ALWAYS say "no."

This feature may be a time saver, but it is also a potential security threat. Anyone using your computer would have the ability to bypass verification and access any website you use, including your e-mail account, financial institutions, and even the University's online services.

When your browser asks about saving your login information, there is often a box which says something like, "Don't offer to remember any more passwords." Checking this will stop such prompts in the future, but you should also turn off the browser's password caching utility and clear any information it has previously saved.

To do this in Internet Explorer, select the "Tools" button on the toolbar and then "Internet Options" on the drop down menu. Click the "Content" tab and then the "AutoComplete" button. Remove the appropriate checks under "Use AutoComplete for" and click the "Clear Forms" and "Clear Passwords" buttons. Click "OK" when prompted to save these options.

For instructions on how to disable password caching in other browsers, visit http://itsecurity.olemiss.edu/ and select "Configuring Browser Password Security" from the Security Basics menu.

#### **Mathematica Offers Unlimited Possibilities**

A cross campus, faculty and students are performing complex calculations, creating numerical models, and plotting analytical solutions, all with the help of Mathematica, the computational software from Wolfram Research for which a three-year university-wide site license was recently activated.

Sam Gordji in the Office of Information Technology and Leili Pirouzian in the School of Engineering have even written an article, "Obtaining the Roots of Non-Linear Equations and Integrating Some Special Functions," which has been posted on Wolfram's website at http://library.wolfram.com/infocenter/ MathSource/5961.

According to Mathematics chair Tristan Denley, Math 261, the first semester of freshman calculus, was introduced to Mathematica last fall. By Spring 2007, all four semesters of the calculus sequence will be using it.

"Students coming out of calculus will be familiar with this software," Denley explains. "This means that a faculty member who wants to use Mathematica in any course won't have to start from scratch but can teach students with it in a more sophisticated way."

Chuck Jenkins in the Department of Computer and Information Science also incorporated Mathematica into CSCI 251, Programming for Engineering and Sciences.

"This was a FORTRAN only class for the past 30 or 40 years," notes Jenkins. "After hearing what was going on with Mathematica on campus, we decided to utilize it in this part of the curriculum. I taught the first half of the fall semester using Mathematica and the second half with FORTRAN."

Jenkins says that, though the focus of the course is on problem solving with computing and not so much how to comprehensively use either software tool, the exposure to Mathematica is beneficial to students. "Mathematica is a fast, powerful, and impressive tool," asserts Jenkins. "It's so easy to set up data and then graph it in Mathematica, and that's a large part of what engineering students do for lab reports and such. It can do everything from the most sophisticated integrations and differentiations of functions to solving just ugly, hairy equations and inequalities, multiple dimensions, lots of different variables, and different orders of derivatives. It's just very slick."

Alex Cheng, chair of Civil Engineering, has used Mathematica for years and likes its broad capabilities. He employed the program in authoring the book, *Multilayered Aquifer Systems: Fundamentals and Applications* (Marcel Dekker, 2000), and is now utilizing it in a joint study with several mathematicians at the National Sun Yat-Sen University, Taiwan.

"We are doing numerical analysis to find out why and how a certain method performed so accurately, to find its error estimate," Cheng explains. "By using Mathematica we are able to eliminate the round-off error, because it allows you to use unlimited precision. We typically use 100 or 500 digits in the computation. Other similar programs are much more limited than that, to either single, double, or quadruple digits for rounding off."

For Denley, the fact that UM students have the chance to use Mathematica is even more important than what they do with it.

"When our graduates go into industry and academia, I want to make sure they are prepared to use mathematics the way professionals there use it," states Denley. "These days that is with various types of software, such as Mathematica, Maple, MATLAB, etc. If you use one of these, then you can learn the others pretty easily."

Visit www.mscr.olemiss.edu/mathematica for more on Mathematica at Ole Miss.

 $i^{2} erfc(\frac{Z}{2\sqrt{T}}) = (\frac{2T+Z^{2}}{2})erfc(\frac{Z}{2\sqrt{T}}) - \frac{Z\sqrt{T}}{\sqrt{\pi}}exp(\frac{-Z^{2}}{4T})$ 



#### Christmas in November

Tristan Denley, chair of the Department of Mathematics, with the new Macintosh laptop he received as part of the TACIT program in November 2005. Denley's was one of 100 new computers awarded to faculty through TACIT (Technology Acquisition for Curricular and Instructional Technologies) which is funded by the Provost's Office and facilitated by the Office of Information Technology. TACIT recipients must attend a general training session and two additional workshops offered on programs such as Blackboard, Adobe Photoshop, and Microsoft PowerPoint. For more information, visit www.olemiss.edu/tacit.

#### Prerequisite Checking continued from front cover

and prerequisite checking, along with the corequisite checking turned on last fall, are leading to yet another positive academic development for Ole Miss.

"I've been on campus for 22 years, and I've always heard about the need for a degree audit system," asserts Knighton. "Our degree audit system now is done manually in each dean's office. What we're doing, though it may be painful sometimes, is eventually going to take us to an automatic degree audit system, and I think that's a goal we all want to achieve."

## **Bursar Offers New Payment Option**

magine you're an Ole Miss student, it's Saturday night, and you're spending the evening at your computer. You're finally ready to register for classes, but when you attempt to do so, you discover there's a hold in the system because you have an outstanding balance with the Bursar's Office. What do you do?

The old answer used to be wait until Monday morning. But now, thanks to the implementation of a new service called Biller Direct, the answer is get out your credit card, pay your bill on the spot, and proceed with registering for classes.

"We're excited to offer Biller Direct to students," says Bursar Sam Thomas. "We feel they'll take advantage of this payment option frequently."

Biller Direct, an SAP product, has been up and running since early November, but students weren't officially notified about it until this month. According to Al Ling in the Office of Information Technology, students didn't wait for the announcement to begin using the service.

"Right off the bat we had steady activity, with several thousands of dollars in transactions on some days," reports Ling. "Students are very accustomed to doing things online now. It's intuitive for them to look for an immediate payment option when presented with an account statement."

Students access Biller Direct through the University's online services, which is a secure site. Credit card information is not stored but must be entered each time the student utilizes the service. Students can see their history of charges and payments since Biller Direct pulls from the same database as the regular account statement.

"Right now it only accepts credit cards," notes Ling. "But we're working on a solution that will allow students to pay online from a checking or savings account as well."



#### www.olemiss.edu/technews

The University of Mississippi



Oxford • Jackson • Tupelo • Southaven Information Technology P.O. Box 1848 University, MS 38677-1848