FOCUS

Maroon 5 rocks the Roxy
Backstage last week, Maroon 5 and Gavin DeGraw reflected on their roots; onstage, they gave a soulful performance to a sold-out Roxy. **Page 25**

Ramblin' with Hal Higgins
The *'Nique's* Katie Neal has an irreverent Q&A session with senior punter—and cancer survivor—Hal Higgins. **Page 32**

Tech explores grade forgiveness options

By Joshua Cuneo
Senior Staff Writer

If Don Kang and David Andersen of SGA's Academic Affairs Committee have their way, students in the near future may be able to completely replace a failing grade from their transcript if they retake the failed course and earn a better score.

Kang, a second-year Industrial Engineering major and chair of the Academic Affairs Committee, and Andersen, a third-year student and SGA representative, are heading an investigative committee to research such a grade substitution policy for Tech.

They presented their tentative findings at a recent SGA issue meeting about grade substitution—or grade forgiveness, as it is more commonly known.

This effort is the product of an administration eager to improve Tech's national rankings to a level comparable to that of its peer institutions, such as Stanford and UC Berkeley. A grade substitution policy offers the potential of better rankings by helping students maintain higher GPAs.

"Our ratings will go up if we have more students getting into grad school," Andersen said. "Often all

> "A concern is that a Georgia Tech transcript has always been a completely accurate statement of what students have done here."
>
> **Dr. Bob McMath**
> Vice Provost for Undergrad. Studies and Academic Affairs

[grad schools] care about is GPA."

A grade substitution policy would also offer other distinct advantages. According to Kang, Tech's 90 percent freshmen retention rate is another problem area hurting Tech's rankings, and the policy would encourage students to stay.

"We've just lost 10 percent right after two semesters of Tech," he said. "They are all very well qualified. If they were not, they wouldn't have gotten accepted to Tech. Some students just need more time to adjust."

"Good students that study hard and that are committed to their academics will make mistakes," Andersen added. "Grade substitution will kind of help those students [where it] may just have been a bad semester for them."

In addition, a substitution policy may also help emphasize learning over GPA. Students may retake a class "to improve their grade," Andersen said, "but in the process, they'll actually learn the material."

The committee has several versions of the policy under consideration. One possible approach would be to average a student's new grade with his original and present the average as a single grade on his transcript, instead of as separate grades and credit hours.

Another option would be to expunge the original grade completely and replace it with the new one. This is the least probable

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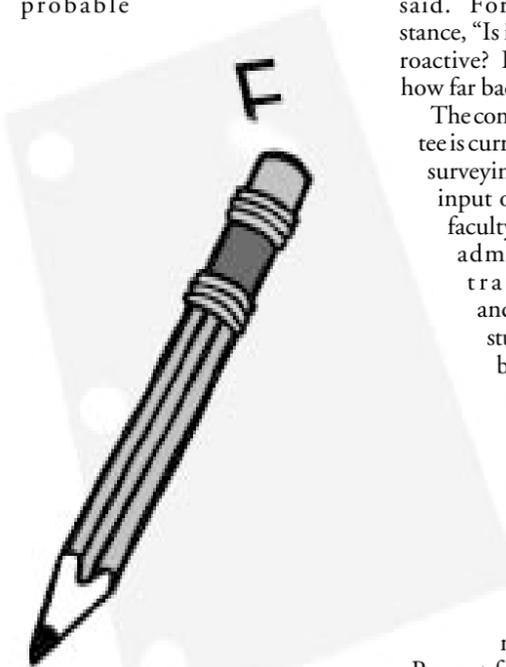
implementation, Andersen said, because it would likely prove unpopular with the faculty.

A compromise would involve replacing the failed grade with an R (for "repeat"), which would not be factored into the student's GPA, but would indicate to future universities and employers that the student failed the course in his first attempt.

The committee must juggle other issues as well as they piece together their proposal to the administration.

"There are a lot of other variables," Andersen said. For instance, "Is it retroactive? If so, how far back?"

The committee is currently surveying the input of the faculty, the administration and the student body and using it as the primary criteria for evaluating the best approach.

The administration has demonstrated support for the policy, and Kang and Andersen have the backing of prominent administrators such as Vice Provost for Undergraduate Studies and Academic Affairs Bob McMath, Dean Gail DiSabatino and Special Assistant to the President Gary May. They all agree that a more restricted version would be in the best interest of the students.

"In my opinion, a limited grade substitution policy…would be positive for Georgia Tech," May said, citing the version of the policy that substitutes failed grades with an R.

> "Faculty members are very concerned about academic freedom and their right to choose what to do and what not to do."
>
> **Don Kang**
> Chair, Academic Affairs Cmte.

"I think Tech can develop a policy that is useful for students who have isolated situations that result in failing grades while being fair to all other students," DiSabatino said. "The key will be to develop reasonable parameters around this policy, such as limiting the number of times a student can make a substitution."

McMath emphasized that a more constrained policy would preserve the integrity of a Tech transcript.

"For the sake of people who are going to be…getting a job, and for the sake of employers looking at our students, you need to be able to work with a transcript and see everything that a student's attempted," McMath said. "One of the things that makes me supportive of the plan that's on the table now is that we have a complete record of every attempted class."

Word of the proposed policy is still spreading among the faculty, though there have been questions with regard to the policy's impact on their academic freedom.

"The faculty really does not want…to have their word not count," Andersen said. "They feel they have the right to give people grades.

Developers work with students to produce real-life results

As part of Architecture professor Charles Rudolph's studio class, developers from the Chattahoochee Hill Country Alliance are working with students' designs to help build a south Atlanta community.

By Clayton Holmes
Contributing Writer

Ever wondered what Architecture majors *do* all night in studio while the rest of the world sleeps? The students of ARCH3011 are redesigning suburban Atlanta as we know it.

This junior-level design studio in the College of Architecture is collaborating with developers in Atlanta to help preserve the natural environment of a 40,000-acre plot of almost completely undeveloped land located in south Fulton County, between the city of Palmetto and the Chattahoochee River.

The group of landowners and environmentalists involved in the project call themselves the Chattahoochee Hill Country Alliance.

The president of the Alliance,

> "The students get a view into the process of development and the role of design, [while] the developer gets to see 50-plus visions...at no cost."
>
> **Charles Rudolph**
> Architecture professor

Steve Nygren, serves as a liaison to Georgia Tech.

Nygren, co-founder of the well-known Pleasant Peasant restaurant chain in Atlanta and principal landowner in the Palmetto development, first identified the need for the formation of the alliance three years ago in response to the problems of wastefulness and sprawl in most suburban neighborhoods—problems that have caused Atlanta to grow so rapidly outward over the last few decades.

The master plan proposed by the alliance will develop several small "villages" for living and a "hamlet" for shops, a restaurant and a spa.

The design of the site will leave

Architecture student Matt Garner explains his design project as Professor Charles Rudolph looks on critically. Rudolph's design studio is working with developers to create ideas for a unique suburban Atlanta community

Design

nearly 80 percent of the land untouched, and provide its residents with a dense, yet rural living environment 45 minutes from downtown Atlanta.

Specifically, the students in the studio are designing Nygren's 1,000-acre Serenbe property, dubbed Horseshoe Village.

Currently, they are working on the hamlet containing the restaurant and spa, both in the same upscale design frame as Nygren's Peasant restaurants.

This collaboration benefits both students and developer: "The students get a view into the process of development and the role of design, [while] the developer gets to see 50-plus visions of a portion of the development, at no cost," said Charles Rudolph, one of the four professors teaching the course.

"I am confident that our students will focus their talents to improve our environment and our quality of life," Rudolph said.

Student Maria Tiliakos also believed that the partnership between education and developers was a positive thing.

> "The students receive guidance from their professors to some degree, but for the most part they are working independently."
>
> **Charles Rudolph**
> Architecture professor

"[Nygren] is bringing a tremendous amount of enthusiasm and vision for this project," she said.

However, as with any design course, the course and the project have presented the architecture students with many challenges. Horseshoe Village is the first real-world project with which they have become involved.

More importantly, they must take into consideration that what their design may very well affect the growth of Atlanta and the region.

The freedom of the class may be daunting to some. "At times I feel like some of the tools needed to accomplish these tasks are still missing," said Glen Grimwood, who is in the class.

"The students receive guidance from their professors to some degree, but for the most part they are working independently," Rudolph added.

Students are learning that good design applies to not just the building, but must be applied "at all levels and scales, from 'house to city to region,'" Rudolph said.

The program has proven to be a strong learning experience. "It's definitely a transitional year," Grimwood said.

"I feel like I know much better what is expected."

Nygren will be one among a panel of judges to evaluate the students' projects periodically, to give criticism and gather ideas.

> "[Nygren] is bringing a tremendous amount of enthusiasm and vision for this project."
>
> **Maria Tiliakos**
> Architecture junior

Rudolph, however, expresses the confidence of the College of Architecture in Nygren and the Chattahoochee Hill Country Alliance.

"We took the project on because it does represent current efforts to create alternative 'smart growth' development projects," he said.

"Atlanta is a great laboratory for urban design, period," Rudolph added.

However, there are aspects of the project that must be taken into consideration.

"[There are] several issues regarding the proposed plan that will need to be addressed when the project does get designed," Tiliakos said. These issues center on the concern for a community well-integrated into the fabric of suburban Atlanta.

While the final design selection will unlikely be taken from any single student, it will undoubtedly draw elements from many of the projects.

So when you see an Architecture major lugging around a huge portfolio late on a Saturday night, remember, there might be a piece of Atlanta in that bag.

For more information about quality growth and the Chattahoochee Hill Country Alliance, visit ***www.coa.gatech.edu/cqgrd*** *or* ***www.chatthillcountry.org.***

Campus Research Review

Environmental engineers find new way to clean old water

Associate professor Kurt Pennell and a team of collaborators from the Universities of Michigan and Oklahoma have developed a two-step process to purify contaminated groundwater that is both quick and cost-efficient.

By Haining Yu
Contributing Writer

Dr. Kurt Pennell, associate professor for the School of Civil and Environmental Engineering, along with environmental microbiologist Dr. Frank Loeffler, also an assistant professor for the school, collaborated with researchers from the University of Michigan and the University of Oklahoma to develop a two-step technique that efficiently removes highly toxic wastes from groundwater sources.

The results of this research may greatly increase the efficiency of environmental cleanup, help maintain the safety of drinking water and, most importantly, help preserve the environment.

Research towards the development of this process has been sponsored by the U.S. Environmental Protection Agency and the Great Lakes Mid-Atlantic Center for Hazardous Substance Research. The end result is the fruit of upwards towards 10 years of ongoing research.

Most of the contaminants that Pennell's research deals with are organic solvents used in cleaning. For example, two of the main pollutants studied are tetrachloroethane, which is used in dry cleaning, and trichloroethene, which is used to wash off airplanes.

These contaminates enter the groundwater supply as a result of spills or improper disposal. One site that the team worked at was a "mom-and-pop dry cleaner," said Pennell, that "sometimes…just threw [chemicals] in the backyard."

According to Pennell, before the 70s and 80s—when increased environmental awareness brought about legislation that regulated the disposal of hazardous products—there were many cases like the drycleaner's.
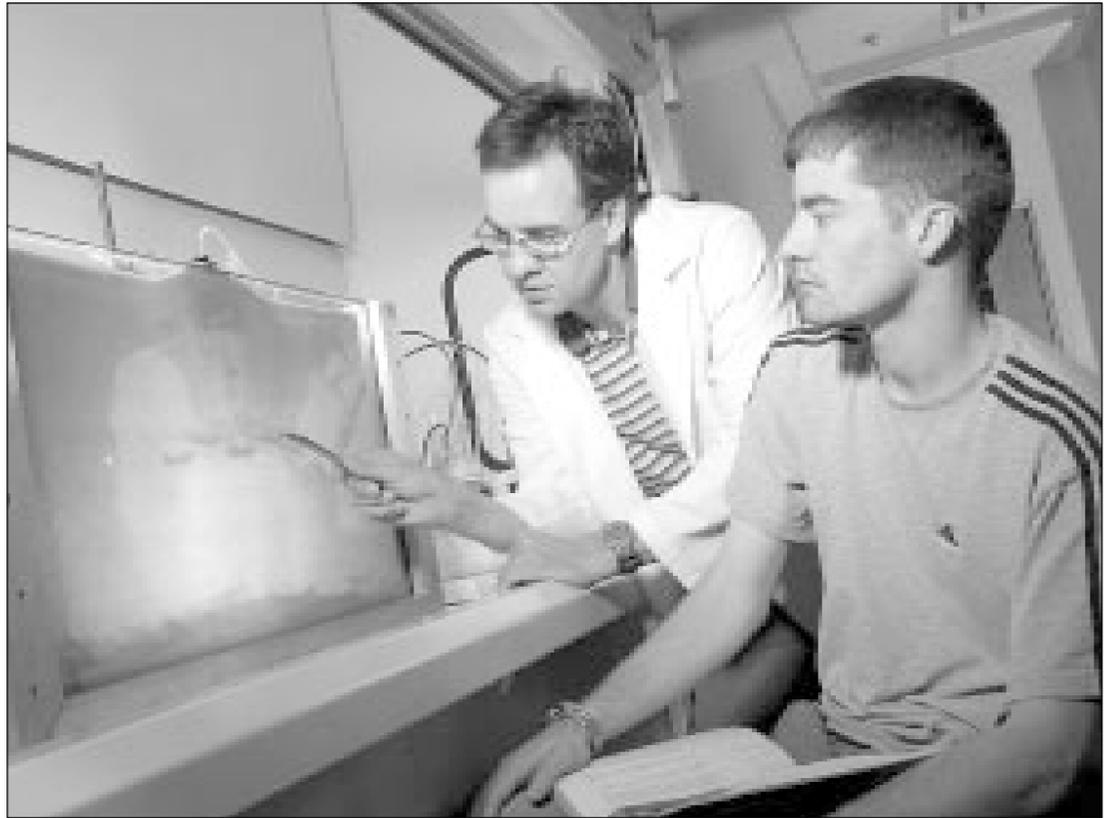
Now, however, there is a "cradle-to-grave" policy that ensures the return of the same amount of toxic substance that was originally procured by a business.

These contaminants are not an immediate hazard to public health, especially in city areas like Atlanta, where all water is treated. However, they are a potential threat to rural areas, where well water is the main water source for both drinking water and irrigation.

"You would not want to ingest any of these chemicals, and you do not want it to be watered onto your food," Pennell said.

Since current environmental regulations put the safe drinking limit of such contaminants at five parts

> "You would not want to ingest any of these chemicals, and you do not want it to be watered onto your food."
>
> **Kurt Pennell**
> Associate Professor, Civil and Environmental Engineering

Civil and Environmental Engineering associate professor Kurt Pennell, along with graduate student Eric Suchomel, simulate a tricholoroethene spill. Their new technique removes almost 90 percent of the contaminant.

per billion, the potential of these contaminates is very large. According to Pennell, "one gallon of these contaminants can pollute hundreds of gallons of water." For example, a single 55-gallon drum of one of the compounds can contaminate thousands of gallons of groundwater.

The two-step procedure involves injecting surfactants, which are soaps like shampoo that are often also used in food, and pharmaceuticals, to push out the contaminated water in order for the water to be treated. At the same time, these surfactants also reduce the density of the toxin, preventing it from sinking further into the groundwater.

This new procedure is called density modified displacement, and it greatly increases the efficiency of environmental cleanup by reducing the time required for the process. It also decreases the volume of contaminated water needed to be cleaned, since, as time goes on, the contaminates spread.

Current existing techniques lie in the category of "pump and treat," in which large amounts of contaminated water need to be pumped

Tech Up Close

Winner receives a free *Technique* T-shirt

Last week's Tech Up Close:

Time capsule plaque in front of
the Student Center

Last week's winner:

Juan Camilo Archila

email: focus@technique.gatech.edu

By Jamie Howell / STUDENT PUBLICATIONS

Grades

They don't want to give somebody an F and have the administration say, 'Well, that doesn't matter. I'm going to overrule that person's ruling and have the F taken off the record.'"

"Faculty members are very concerned about academic freedom and their right to choose what to do and what not to do," Kang said.

However, many students have echoed the sentiment that students deserve a second chance.

"There is always a possibility of having a bad semester…and, in addition, the school is still getting its money's worth" in terms of students paying for classes, said Jeremy Duvall, a third-year Computer Science major.

Brittany Meriwether, a third-year Nuclear and Radiological Engineering major, agreed. "There are…any number of things that can affect how well a student performs in the classroom, and these things are rarely deserving of a hardship withdrawal," she said.

"I don't think a person should be penalized for the rest of their career here because something like this may have happened," she said.

Many of the students who support grade substitution have either experienced, or have friends who have experienced, academic situations where a grade substitution policy would have been a blessing.

"I made a D in linear algebra here at Tech," Meriwether said. "However, I really have no incentive to retake it, seeing as how it won't get rid of that D, so I'm just going along…not knowing linear algebra, whereas if it did replace the D, I would've taken it over a long time ago and actually learned it by now."

Meriwether added that her boyfriend, who attends another university where a grade substitution policy is in place, will be able to keep his HOPE scholarship by retaking a failed history course.

On the other hand, there is also opposition from some students. At the SGA issue meeting, some representatives expressed concern that the policy would lead to a level of grade inflation damaging to Tech's rigorous academic reputation. They insisted that Tech should take pride in not offering such a policy.

Other opponents feel the policy may offer failing students an unfair advantage.

Some people are opposed...because they feel that people who failed [a class] the first time should be penalized for failing," Kang said. "A lot of students are mad because some-

> "If everyone is able to just simply retake the classes that they failed, then that would reduce the prestige of the jolly old Shaft."
>
> **Jeremy Duvall**
> Third-year CS major

one can take the class and get a B and someone who failed the class the first time can retake the class and get a B and get [the failing grade] replaced."

Andersen pointed out that the new system might be too restrictive for that kind of abuse to become common, saying current GPAs may be influencing some student opposition.

"I think the opposition we've had so far has been primarily from people with solid 4.0s," he said.

Still others resent that the policy will benefit future students more than themselves. "Why shouldn't the new students suffer through what we had to suffer?" asked Charles

Wang, a third-year Computer Engineering major.

Though Wang acknowledged that the system might work "as long as no favoritism is applied," he pointed out that "corruption does happen, and there are no check and balances."

Citing two classes where the professor was willing to improve his final grade based on demonstration of his effort, he said that "since mercy was shown to me, I think it should be shown to others without inflating the grade market."

Furthermore, some students—including those who favor grade substitution—have voiced concerns that the policy may be abused.

For example, there is the question of whether a student should be required to retake the class with the same professor or be able to take the class with a different, and possibly easier, teacher.

"I'm for it, [but] I'm just worried about the policy getting abused," said Krystian Alberciak, a second-year Computer Science major.

Another potential abuse would involve overuse of the policy to make up for too many failed courses, especially if the courses were failed due to laziness.

"If everyone is able to just simply retake the classes that they failed, then that would reduce the prestige of the jolly old Shaft," Duvall said.

Kang and Andersen promise that these factors have been taken under consideration.

Andersen added that some institutions have a very liberal policy, allowing students to "retake up to 16 hours. Other options are to only offer grade substitution to freshmen or sophomores, or only offer it to 1000- or 2000-level classes."

"There probably will be a lot of constraints put on it," he said.

What do you think about grade substitution? Voice your opinion in this week's online poll at http://www.nique.net.

By Stephen Marek / STUDENT PUBLICATIONS

Associate professor Kurt Pennell conducts research in the laboratory. His team's technique of cleaning contaminated water, called density modified displacement, took 10 years to develop and is now patent-pending.

Clean

out of the ground. The water is then treated to be rid of pollutants, and eventually pumped back into water source.

The cost of these existing procedures is very high, since the treatment of contaminated water is very expensive, and these techniques require that a large amount of water be treated. Another drawback is that current techniques only contain the contamination; rather than get rid of the contaminants.

However, the approach developed by Pennell and his team gives engineers the ability to directly address the problem of contamination achieving over 90 percent pollutant removal.

"Our approach is to aggressively treat the source zone where the actual spill occurred and remove the compound, then separate and treat or recycle it above ground," Pennell said. "We are trying to remove the long-term source of groundwater contamination in a manner that will produce the most results for the least cost. It's generally not economically feasible to treat an entire aquifer."

"Most [environmental problems] that are easy and cheap to cleanup have already been done in the 70s and 80s," explained Pennell, what's left now is both difficult and expensive to remove." Because the cleanup of contaminated groundwater "is now largely driven by economics," he said, "we are trying to making the process more efficient."

The technique looks like a promising choice to fulfill this criteria. Because the surfactants used in cleaning the water are produced in large volumes for other purposes, these materials can cost as little as $1.50 per pound. The technique is currently patent-pending.

Global Learning Center connects Tech to rest of world

Unbeknownst to most students, the Global Learning Center is home to 32,000 square feet of meeting space, a 12-panel video wall, the Distance Learning Program—and technology that broadcasts it all internationally.

By Kristen Kerns
Contributing Writer

With Tech Square's grand opening this weekend, all eyes are on this new area of campus that will serve to bridge the gap between Georgia Tech and Midtown.

For alumni, it marks a new era of Tech expansion as the campus slowly creeps over the interstate.

For students, Tech Square holds many restaurants that are accessible to campus and new buildings to house the DuPree College of Management.

However, there is yet another new building in Tech Square that deserves the same amount of attention as these other buildings. It is the brand-new Global Learning Center that was just recently completed on July 15.

Although the programs that call the Global Learning Center home are not new to Tech, few students are aware of the influence that the Center and its programs carry.

The Center is so important, in fact, that President Clough delivered his State of the Institute Address there last Tuesday.

The Global Learning Center, which is located next door to the Georgia Tech Hotel and Conference Center, houses the Distance Learning and Education Program.

It also houses more than 32,000 square feet of meeting space, five amphitheaters, four computer labs and a 12-panel video wall.

The Global Learning Center puts on about 20 conferences a year and hosts companies and groups from all over the world.

The new Tech Trolley system makes it even easier for visitors without access to a car to reach the Center as well.

Michael Coleman, the Marketing Manager for the Continuing Education Program, said, "It is important for Georgia Tech to have a physical presence in Midtown."

"There are millions of meeting spaces in Atlanta," Coleman added. "What really sets us apart is the technology. A meeting can take place in one of our conference rooms and be broadcast all over the world."

Besides renting out conference rooms and meeting space, the Global Learning Center also provides many educational services.

"About 15,000 people a year take our short courses," continued Coleman. "They are usually between one to five days in length and do not count towards a degree."

For professionals who wish to work toward an advanced degree,

> "What really sets us apart is the technology. A meeting can take place in one of our conference rooms and be broadcast all over the world."
>
> **Michael Coleman**
> Marketing Manager,
> Continuing Education Program

By Derrick Ma / STUDENT PUBLICATIONS

The Global Learning Center, located by the Georgia Tech Hotel, promises to become a center for international technology and networking. President Clough delivered his State of the Institute address there last Tuesday.

GLC

the Global Learning Center's Distance Learning Program provides a technology-oriented way to do so.

This program, which is in its 25th year here on campus, allows the student to take classes at home or work without even having to set foot on campus.

"Our distance learning program, per se, is usually for master's degrees in engineering," said Coleman.

"Those students are all over the world," he added.

Currently, degrees are available in Electrical and Computer Engineering, Environmental Engineering, Industrial and Systems Engineering and Mechanical Engineering.

Chris Lindsey, a media production manager in Distance Learning, is in charge of recording classes in one of the nine classrooms across campus that are specially equipped to handle video classes.

"We deliver classes through video conferencing, on DVD, not necessarily in live format. Most students would rather watch the class at their convenience than rearrange their schedule to accommodate a course,"

> "We do a lot of live classes by live video conference to GTREP, the Georgia Tech Regional Engineering Program...We have strong connections to Savannah and Armstrong Atlantic."
>
> **Chris Lindsey**
> Media production manager

said Lindsey.

"We do a lot of live classes by live video conference to GTREP, the Georgia Tech Regional Engineering Program."

This program connects Tech to other campuses around the southeast. "We have strong connections to Savannah and Armstrong Atlantic," Lindsey said.

GTREP's new campus just recently opened in Savannah, and many of the classes offered there are taught through Distance Learning. Most students would attend the Savannah classes until the beginning of their junior year, when they would transfer to Tech.

Spencer Burch, a pre-engineering freshman at Armstrong Atlantic State University, said he is looking forward to utilizing the Georgia Tech-Savannah facilities. Burch is glad that he can earn a Georgia Tech diploma without having to deal with the hassles of living in a metropolitan area, like Atlanta.

In addition to providing classes for students all over the world, Distance Learning broadcasts some classes on the Georgia Tech Cable Network. They also make some tapes available in the library. Eventually,

however they want to make all classes available digitally, on the internet.

Recently, Distance Learning has been trying to broadcast programs to Singapore and Georgia Tech Lorraine. Computer networking bandwidths overseas are making this a difficult task. In the near future, however, live classes in Lorraine may

very well become a reality.

Besides the Continuing Education and Distance Learning programs, the Global Learning Center is starting a new program called Tech2Nite that will host a series of classes at night.

These classes will be on less demanding subjects, such as real estate and wine tasting. The classes

will take place from 6:30-8:30 and will be available for a small fee.

*For more information about the Global Learning Center, visit **http://www.glc.gatech.edu**. Or you can get a look at Global Learning Center for yourself—they will be offering tours this Friday, Oct. 24, at the Tech Square Grand Opening.*

No sex for you!

Aristophanes' *Lysistrata*, presented by DramaTech and intended for mature audiences, opens this weekend and continues until Nov. 8. The play is a satirical comedy about a Greek woman who, fed up by the ongoing war, convinces all other women to go on a "sex strike" until peace is declared.