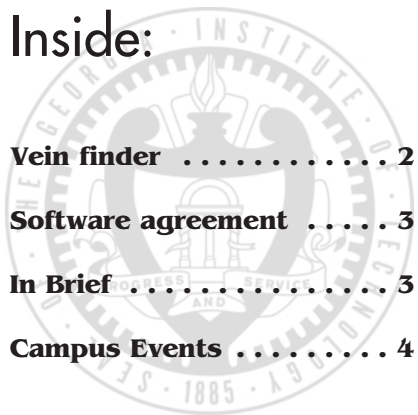


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THE WHISTLE

FACULTY/STAFF NEWSPAPER

Volume 31, Number 4 • January 30, 2006

THE GEORGIA INSTITUTE OF TECHNOLOGY

Police Department reports another big drop in crime

*Matt Nagel
 Institute Communications
 and Public Affairs*

Crime on Georgia Tech's campus has fallen more than 50 percent during the last two years, according to new statistics released by the Georgia Tech Police Department. The drop encourages officials who saw crime reduced more than 22 percent in 2005 (see chart, page 3).

GT Police credits an educated campus that is alert and ready to take action.

"Educating and alerting the campus has helped us in reducing crime,"

said Sergeant Carla Cook of the Georgia Tech Police Crime Prevention Unit. "Teaching people to hide their valuables and lock them up has helped. Also, alerting the campus community when a repeat offender has been seen on campus is an important tool for us when trying to prevent crime."

According to Cook, K-9 units have also helped with the reduction in crime. The specialized dog units have been used to deter criminal activity in areas where police have detected a pattern of crime.

"The K-9 unit is kind of like the

Crime continued, page 2

Commission on Colleges reaffirms Tech's accreditation

*Michael Hagearty
 Institute Communications
 and Public Affairs*

A three-year, Institute-wide effort to review and enhance the educational mission of Georgia Tech has been successfully completed.

Earlier this month, the Commission on Colleges of the Southern Association of Colleges and Schools (SACS) — the representative body responsible for accrediting institutions of higher learning — sent the Institute a letter reaffirming its accreditation for the next 10 years. The review committee requested no further action, but did remind administrators that a fifth-year interim report would be necessary to assess the impact of its educational goals.

President Wayne Clough expressed his appreciation for those who committed themselves to ensuring a successful review.

"This process is about making sure we are demonstrating both accountability and leadership in our primary mission — educating the next generation of students," he said. "It has been a monumental undertaking, and I personally want to thank everyone who helped to make the process go smoothly."

New review process

The 10-year accreditation cycle was substantially revamped several years ago, and approval now requires two reports to the association and a site visit by delegates of the organization.

The first report, submitted in September 2004, was a thorough self-assessment, demonstrating that the university is complying with SACS standards, and touching everything involved with student life and the learning environment.

The second report is new. Called the Quality Enhancement Plan (QEP), universities must submit to SACS officials a blueprint of future plans that improve the educational experiences of students. The exact nature of these plans is left up to the university officials, but in general a QEP must demonstrate broad institutional involvement; emphasize a project that has yet to be completed or is in

progress; be well conceived and justified; and have a thoughtful implementation plan.

Tech's QEP focuses on two areas: developing international competence among students and strengthening the undergraduate research experience. Administrators are striving to increase the percentage of students who participate in some form of international study. But the International Plan is for select students who wish to complete international coursework, demonstrate second language proficiency and participate in two academic terms of residential international experience. Tech's goal is to have 300 students enrolled in the International Plan by 2009.

Similarly, administrators want to increase the number of undergraduates participating in research from its current level of about 40 percent to 60 percent, and have at least 70 percent of those students involved for multiple semesters. New initiatives in the pursuit of this goal include the Undergraduate Research Opportunities Program and the Research Thesis Option.

"The Institutional Review committee provided a great service to the Institution in preparation for the SACS review and developing our Quality Enhancement Plan," Provost Jean-Lou Chameau said. "Enhancing the undergraduate curriculum through the research experiences and the International Plan advances Georgia Tech's commitment to our core mission — the education of future technological leaders — within the evolving framework of globalization and global competition."

The formal review is over, he added, but a successful implementation will require sustained effort.

I am appreciative of (Vice Provost for Institutional Development) Jack Lohmann's thoughtful leadership through the reaccreditation process. As pleased as we should be with the recent reaffirmation of our SACS accreditation, we also need to remember that accreditation is not an event but an ongoing process."

The follow-up report assessing the impact of Tech's QEP on student learning is expected in 2010.

Dean of Students leaving Tech for position at Clemson University

*David Terraso
 Institute Communications
 and Public Affairs*

This spring marks the end of an era as Gail DiSabatino leaves Tech after serving 11 years as dean of students and assistant vice president for Student Affairs.

During her tenure, "Dean Gail," as she is affectionately called by her staff and students, initiated several new programs and traditions at Tech — namely When the Whistle Blows, the Women's Leadership Conference, GT SMART and Ramblin' Nights. She also led the development of the Vision for Student Life, an initiative to coordinate the operations of units across the campus responsible for student life, and directed the enactment of the new Academic Honor Code.

"Probably the most important thing, and the thing that was clear to

me when I came here, was that I was hired to be an advocate for students. That's the tradition of the dean of students at Georgia Tech," said DiSabatino.

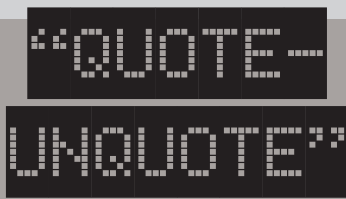
As an advocate, DiSabatino was known for helping students who were struggling and supporting those who sought to create new programs, such as the Women's Resource Center and the President's Council. She also worked closely with the Student Government Association (SGA).

"She has been a strong advocate for students, both in her role as Dean of Students and as SGA advisor," said David Andersen, president of the SGA. "Dean Gail has often put others before herself, and an example of this is the tireless leadership that she displayed during Tech's effort to help the evacuees of Hurricane Katrina."

DiSabatino continued, page 3



Gail DiSabatino during the 50 Years of Women at Tech celebration.



"One of the reasons is Atlanta is an epicenter, not just for technology-based companies, but people who want technology in their lives. It's a very young city. People are not only working in high-tech jobs but [also] computer-savvy. Atlanta should be proud it's on the edge."

—Beki Grinter, associate professor in the College of Computing, on the city's fifth-place national ranking for the most wireless Internet hubs. (Atlanta Journal-Constitution)

Portable medical device leads to faster, more accurate injections

T.J. Becker
Research News

When medics are treating trauma patients, every second counts. Yet bruises, burns, and other physical conditions often make it difficult to locate veins and administer lifesaving drugs or solutions.

In response, a team of Georgia Tech researchers is developing an inexpensive, handheld device that uses Doppler ultrasound technology to find veins quickly.

"Depth and angle are the critical issues for vessel detection," says project leader Michael Gray, a research engineer at the Electro-Optical Systems Laboratory within the Georgia Tech Research Institute (GTRI). "Even if you locate a vein at the skin's surface, it's still easy to miss when you try to insert a needle into the tissue below."

The Doppler effect is a phenomenon that occurs when electromagnetic and sound waves interact with a moving object, altering wavelengths and frequency. For example, a police radar gun sends microwave signals to a moving car, and when signals bounce back, the change in their frequency provides a measurement used to determine the vehicle's speed.

Doppler ultrasound is similar, except that acoustical waves are transmitted. Compared to static skin and tissue, blood is a moving substance, so ultrasonic waves reflected from blood vessels have different characteristics than transmitted ones, providing critical 3-D information about a vein's location.

Hospitals have sophisticated ultrasound systems to evaluate the heart, valves and vessels for general

blood-flow studies. But this kind of equipment is impractical and too costly for field use.

"Although the use of Doppler technology isn't new, the novel aspect of our vein finder is the system's design, which makes it both portable and economical," says Peter Rogers, a professor in the School of Mechanical Engineering.

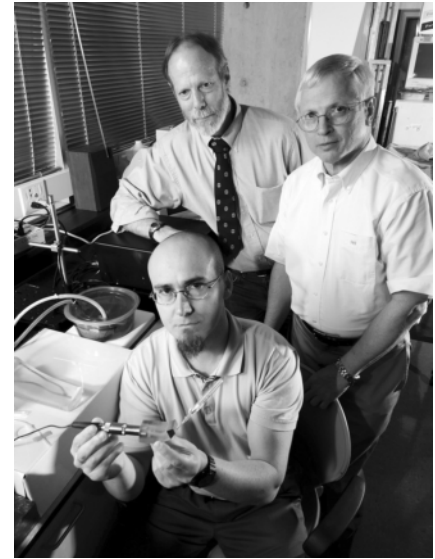
As medics move the device along a patient's arm or leg, the transducer emits a thin acoustical beam, about the size of pencil lead, into the reflector. Then the reflector directs the ultrasonic waves into the patient's skin at a slight angle. The device can determine the direction of blood flow to distinguish arteries from veins. Once the device detects a vein, an alarm is triggered and medics insert the needle.

The patent-pending vein finder has proved highly effective in initial tests on phantom tissue, a model that simulates human tissue and blood vessels.

Researchers have now begun adapting the device for human use. Once the system is successfully adapted, data processing and electronics will be miniaturized in a prototype for field-testing. The researchers envision the final product will be about the size of a fat fountain pen.

Compared to existing devices on the market that try to locate veins with lights or heat strips, the GTRI-developed system will be faster and more reliable, says Connell Reynolds, founder of Reynolds Medical Inc., a medical device manufacturer in Fairburn, Ga., that is sponsoring the project.

"For example, intravenous insertion is especially difficult in dehydrated patients because their blood



The research team developing a portable vein finder includes Francois Guillot (seated), James Larsen and Peter Rogers.

vessels lack normal volume," he explains. "Similarly, because cardiac patients' hearts aren't pumping properly, their veins are hard to locate. It's also difficult to find veins in obese people and young children because their vessels are covered by layers of fat."

In addition to speed, the vein finder's accuracy will make treatment easier for hospital patients who need ongoing IVs or blood work.

GTRI Research Scientist James Larsen recalls a hospital stay of his own that required numerous blood tests. This resulted in swelling and inflammation in his arms, making it increasingly more difficult for nurses to find his veins. "It often took seven or eight tries," he says. "It wasn't long before I felt like a pin cushion."



THE WHISTLE

Editor: Michael Hagearty

Published by Institute Communications and Public Affairs.

Publication is weekly throughout the academic year and biweekly throughout the summer.

Archived issues of The Whistle can be accessed electronically through the Georgia Tech Web page, or directly at www.whistle.gatech.edu.

Calendar submissions e-mailed to editor@icpa.gatech.edu, or faxed to 404-894-7214 must be sent at least 10 days prior to desired publication date. Classified submissions are on a first come, first serve basis. For more information, call 404-894-8324.

Institute Communications and Public Affairs
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177 North Avenue
Atlanta, Georgia 30332-0181

Georgia Tech is a unit of the University System of Georgia.

Crime, cont'd from page 1

crime suppression unit," said Cook. "If we are having a problem in a certain area, we'll ask the K-9 units to patrol that area."

Cook says loud barking can deter criminals as well as alerting the public when someone is around. In some cases, criminals may just be afraid of dogs as well.

Rape, motor vehicle theft, bicycle theft and theft from motor vehicles all saw a reduction of more than 40 percent. An increase in the number of officers and getting repeat offenders off the street have played a big role in reducing those numbers.

"We've made some key arrests of repeat offenders," said Cook. "Since those repeat offenders were in jail we saw a significant reduction in certain criminal stats like bicycle theft, motor vehicle theft and theft from motor vehicles."

According to the Atlanta Police Department Web site, the city has seen another year of crime reduction as well. In fact, the crime rate is the lowest it has been in 36 years.

The Georgia Tech Police Department is required to report its crime statistics by the Clery Act. Members of the campus community who would like to receive crime alert notifications should send an e-mail to crimealert@police.gatech.edu.

Note: GT Police is conducting a **community safety survey** as part of its accreditation process with the Commission on Accreditation for Law Enforcement Agencies (CALEA). To participate, visit www.police.gatech.edu/policesurvey.html.

Part 1 crimes	2004	2005	Change
Murder	0	0	0
Rape	2	0	-100%
Robbery	3	9	200%
Aggravated Assault	1	4	300%
Burglary	74	116	56.8%
Motor Vehicle Theft	43	24	-40%
Larceny-Theft	647	443	-31.5%
Total	770	596	-22.3%

source: GT Police Department

Report shows huge return on investment in University System

Public higher education adds \$23B to Georgia economy

Georgia's public colleges and universities have a combined economic impact of more than \$23 billion a year on the state's economy and are responsible for the creation of more than 130,000 jobs in Georgia, according to the final report of a task force appointed by Board of Regents Chair J. Timothy Shelnut to determine the University System of Georgia's total impact in Georgia. The report was presented to the Regents during its January meeting.

President Wayne Clough, who chaired the Total Impact Task Force, said the \$23.3 billion was 15 times more than the state's appropriation of \$1.6 billion for higher education that year.

But Clough also noted that the University System's total impact on the state must be

measured in more than numbers. He pointed out that Georgia's public colleges and universities are supplying qualified teachers for classrooms all over the state, healthcare professionals for Georgia hospitals, clinics, pharmacies and medical offices and law enforcement officers. Moreover, each college and university contributes to the quality of life by offering cultural and athletic events, facilities for public use, continuing-education courses, lifelong-learning opportunities and ongoing community service projects.

In addition, he noted that a wealth of valuable research is under way in Georgia's public colleges and universities, including work on treating sickle-cell anemia, understanding Alzheimer's Disease, preventing infectious diseases and engineering tools with which to diagnose and fight cancer.

"The University System of Georgia truly is Georgia's best investment," he said. "What other appropriation of state funding gives you this kind of a return?"

Tech adapts open-source software principles

Matt Nagel
Institute Communications
and Public Affairs

Georgia Tech is among seven American universities that have joined four information technology companies and the Ewing Marion Kauffman Foundation in adopting innovative guiding principles to accelerate collaborative research for open-source software.

Specifically, the companies and universities have agreed on two major items: that intellectual property arising from selected research collaborations will be made available free of charge for commercial and academic use, and an established set of guidelines that address the rights of the participants and the public.

These twelve institutions believe that the principles will accelerate innovation and contribute to open-source software research across a breadth of initiatives, thus enabling the development of related industry standards and greater interoperability, while managing intellectual property in a more balanced manner.

"Georgia Tech has always worked with industry," said Jilda Garton, associate vice provost for research. "What we're doing here is setting down a group of common principles that can be used for future collaborations. It provides us with an agreement to point to and say that both sides

agree to these standards."

According to Garton, this agreement will improve the industrial competitiveness of the U.S. information technology industry.

"The agreement helps keep the innovation engine going," said Garton. "The industry climate is changing, and we need to change with it to keep our competitive edge. These principles allow us to become more productive and produce better technology."

The guiding principles are broad based, and the participants have agreed to use them in all of their future collaborations. The principles will have a subtle impact on the industry right away, but Garton believes the long-term benefits will be clear.

"The public will get new products and services faster with the benefit of university research," said Garton. "The products will be broadly available in a shorter period of time. Hopefully, the principles will help get industry to adopt technology and use it."

In addition to Georgia Tech, the six other universities signing the agreement are Carnegie Mellon University, Rensselaer Polytechnic Institute, Stanford University, University of California at Berkeley, University of Illinois at Urbana-Champaign, and the University of Texas at Austin.

"It's a great opportunity," she said of her new position. "Clemson is striving to get into the top 20 of public institutions and so they have great aspirations. I like being in aspirational places."

In addition to the traditional duties of the job, DiSabatino will also oversee civil services such as the fire department, police department and the courts for the municipality of Clemson University.

"There's a very close relationship between the university and the town. I'm pretty excited about that," she said.

John Stein, director of Success Programs, will serve as the interim dean of students. The search committee will conduct a national search and aim to have a new dean in time for the fall semester, said Vice President of Student Affairs Bill Schafer.

"We'll have some really big shoes to fill," said Schafer. "She has given an amazing amount of personal attention to the students. I think she'll be greatly missed on campus."

DiSabatino, cont'd from page 1

DiSabatino also worked to make campus safer by creating the sexual assault task force, which established the Institute's sexual misconduct policy, as well as an informational phone line and educational programs. In addition, she oversaw the founding of GT SMART, a coalition made up of representatives from Tech and the surrounding communities to address high-risk drinking among students.

"Because of Gail's leadership and perseverance, we've made a measurable difference, on campus and off, in reducing the high-risk drinking and its second-hand effects that negatively affect the quality of life for everyone," said Marsha Brinkley, project director of GT SMART.

DiSabatino will leave Tech at the end of March. Toward the end of February, she will split her time transitioning between Tech and her new position as vice president for student affairs at Clemson University.

IN BRIEF:

Updated campus smoking policy

This month, the Institute updated its smoking policy to comply with State of Georgia law. This policy establishes Georgia Tech's smoke-free work environment in all campus buildings. The entire policy can be found by visiting www.admin-fin.gatech.edu/human/discipline/051500.html.

Volunteers needed!

Georgia Tech is the proud host of the 2006 NCAA Division I Men's Swimming and Diving Championship to be held March 23-25. Volunteers are needed to staff the deck during competition.

If you're available on March 23-25 from 5 - 10 p.m. and would like to see the competition up close (and get a free T-shirt), e-mail norismith@msn.com by Feb. 14.

CRC offers fly fishing classes

Beginning February 7, the Campus Recreation Center will offer lessons in fly casting for faculty and staff. The weekly class starts at 4 p.m. and lasts two hours. Participants will also have the opportunity to attend one of three fly fishing trips planned for the spring. Fly rod outfits are provided. To enroll, visit the CRC's Information Desk. For more information, visit www.crc.gatech.edu/gf/viewcourse.php?id=46 or call Peter Lami at 404-348-4975.

Irish to play at Bobby Dodd in '06

Georgia Tech's 2006 football schedule, announced last week by the Atlantic Coast Conference, opens on Sept. 2 as Notre Dame visits Bobby Dodd Stadium at Historic Grant Field.

Coming off a 7-5 season and a school-record ninth straight bowl appearance, Tech will face a challenging schedule that includes seven teams that played in bowl games last season, including three schools ranked in the final Associated Press Top 10.

Notre Dame comes to Atlanta for the first time since 1980, when Tech played to a 3-3 tie with the then No.-1-ranked Fighting Irish. The teams last met in the Gator Bowl on Jan. 1, 1999, which the Jackets won, 35-28.

The Notre Dame contest is the first of four straight home games in a 19-day span for the Yellow Jackets. Other home games include Samford (Sept. 9), Troy (Sept. 16), Virginia (Sept. 21), Maryland (Oct. 7), Miami (Oct. 28) and Duke (Nov. 18). For a complete schedule, visit www.ramblinwreck.collegesports.com.

Fun run

Run for Success, a 5K race that provides need-based scholarships for Atlanta students, will be held on Saturday, Feb. 4, at 9 a.m. Register at the Success Center, on race day under the west stands of the football field or on Active.com. For more information, call 894-1953 or e-mail robin.cubbage@ssc.gatech.edu.

C A M P U S E V E N T S

Art & Culture

Jan. 31

The Music Department welcomes Columbia University Professor Tristan Murail, at 2:30 p.m. in room 104, Couch Building. For more information, visit www.music.gatech.edu.

Feb. 2

The School of Literature, Communication and Culture's annual H. Bruce McEver Poetry Reading features Chard deNiord, Kurtis Lamkin and H. Bruce McEver, at 4:30 p.m. in the Clary Theater.

Feb. 11

The Ferst Center welcomes Julio Bocca and Ballet Argentino for an 8 p.m. performance of "Bocca Tango." For tickets, call 894-9600 or visit www.ferstcenter.org.

Feb. 12

The Ferst Center welcomes the Aquila Theater Company for a 5 p.m. performance of "Hamlet." For tickets, call 894-9600 or visit www.ferstcenter.org.

Brown Bags/Conferences/Lectures

Jan. 31

The Materials Council welcomes Lehigh University Professor Slade Cargill, on "Thermal and Electromigration-induced Strains in Polycrystalline Films and Conductor Lines," at 3 p.m. in room 185, Love Building.

Feb. 7

The Healthy Places Research Group welcomes Emory University Professor Karen Glanz, who will talk about measures to evaluate the nutrition environment in communities, at 7:30 a.m. in the Center for Quality Growth and Regional

Development. For more information, visit www.cqgrd.gatech.edu/hprg.

Feb. 8

The IMPACT Speaker Series continues with John Wells, president and CEO of Interface Americas, at 4:30 p.m. in the LeCraw Auditorium.

Feb. 15

Living Game Worlds, a symposium featuring leading digital designers and design theorists, will be held in the Technology Square Research Building. For more information, visit www.gameworlds.gatech.edu.

Faculty/Staff Development

Feb. 9

The Office of Organizational Development sponsors the brown bag discussion, "Introduction to the Engineering Disciplines for Campus Administrators," featuring College of Engineering Associate Dean Narl Davidson, at 11:30 a.m. in room 308, Savant Building. To register, visit www.trainsweb.gatech.edu.

Feb. 15

The Office of Organizational Development sponsors a class in, "Successful Meeting Management," at 8:30 a.m. in room 308, Savant Building. To register, visit www.trainsweb.gatech.edu.

Miscellaneous

Feb. 6-10

Jazzman's Café, located in the Library and Information Center, will have its grand opening week, offering discounted food and beverages, as well as other promotions. For complete details, visit www.gatechdining.com.

Feb. 7-8

Campus Recreation Center's G.I.T. FIT Program and HealthCheck Services will be providing health screenings from 7:30 - 10:30 a.m. in room 240 at the CRC. All tests are reviewed by a physician. Appointments must be made in advance by e-mailing brooke.nicholas@crc.gatech.edu. For more information, visit www.crc.gatech.edu.

Feb. 8

A series of pre-retirement meetings will be held by the Office of Human Resources for employees who are within ten years of retirement. This section, covering Social Security benefits and Georgia Tech benefits, will be held in room 117, Student Services Building from 1:30 to 4:30 p.m. To register, visit www.trainsweb.gatech.edu.

Feb. 15

The second of two pre-retirement meetings will be held for employees who are within ten years of retirement. This section, covering Teacher's Retirement benefits and optional and supplemental retirement benefits, will be held in room 117, Student Services Building from 1:30 to 4:30 p.m. To register, visit www.trainsweb.gatech.edu.

Upcoming events:

- Apr. 12** Faculty/staff Honors Luncheon
Student Center Ballroom, noon
- Apr. 19** Student Honors Luncheon
Student Center Ballroom, 11 a.m.
- May 6** Spring Commencement
Georgia Dome, 9 a.m.
- May 23** Retirement Dinner
Wardlaw Building, 6 p.m.

E-mail calendar events to editor@icpa.gatech.edu as soon as dates are confirmed.

C L A S S I F I E D S

AUTOMOBILES

1992 Honda Civic LX. Kelley Blue Book 'Good' condition except low compression in one cylinder. One owner, like-new Michelins, third timing belt at 186K miles. Any reasonable offer accepted. Call 404-314-7545 or e-mail dave.scott@gtri.gatech.edu.

1995 Ford Escort LX wagon. New tires, new brakes, new battery. Runs great. 169K miles. \$1,000. Call 770-973-7212.

1996 Lexus 400, Excellent condition rating from CarFax, beige leather interior, gold exterior, luxury vehicle features, 132K miles, \$8,700. All reasonable offers considered. Call 404-349-1329 or e-mail jcaka81@earthlink.net.

FURNITURE

Moving sale: Sofa, chair and ottoman set. All in great condition. E-mail vrood@gatech.edu for pictures.

Moving sale: Storehouse Java queen bed, night stands; Ethan Allen entertainment unit and coffee table; Crate & Barrel dining table and chairs; crib and bedding set; nursing rocking

chair; futon. All less than 5 years old. E-mail anping@bellsouth.net for pictures.

Coffee table with two matching end tables. Oak finish. Very good condition. \$75 for set. E-mail rita.brown@edi.gatech.edu for pictures or call 770-928-7344.

Broyhill sofa, wingback style, reclines both ends. Blue, cream, green and berry plaid, approximately 3 years old and in excellent condition. \$250. E-mail susan.longuepee@biology.gatech.edu or call 770-944-6240.

REAL ESTATE/ROOMMATES

R3/4-acre lot at Turtle Cove on Lake Jackson, common property access to water, \$14,500. Call 478-825-5504.

1BR/1BA condo in Vinings Run swim and tennis community. \$90,900. For more information, call 770-356-6162, e-mail scott.sergent@housing.gatech.edu, or visit www.forsalebuyowner.com, ad #20577381.

1BR/1BA, street-level garden condo at 3609 Essex Avenue, Vinings. Swim, tennis, stream and private woods view. No stairs, motivated seller. \$139,900. E-mail pnelson3609@comcast.net or call 770-541-6769.

2BR/2BA authentic loft in Castleberry Hills, two miles from campus. Amenities include high-speed internet, swimming pool, dog run, and roof top deck. Visit www.lofts-of-atlanta.com (GE Lofts #112), or call 404-688-8098.

3BR/2BA, two-story home in Underwood Hills near Atlantic Station. Move-in condition with new carpet, roof and HVAC. Landscaped back yard fully fenced for privacy and security. Renting for \$2,200/month. E-mail ngpinc5@aol.com.

4BR/3BA, furnished house for rent in Dunwoody Redfield area. Excellent schools, includes swim and tennis facilities and 1.5 miles to MARTA. Available Aug. 2006 for \$1,800 /month + utilities. Contact

yves.berthelot@me.gatech.edu.

2BR/2BA home in Home Park with 2-car garage. Walk to GT and the Midtown business district. Available March 1. Month-to-month or longer term available. \$1475/month. For more information, visit www.tech-tutors.com/calhoun.htm.

MISCELLANEOUS

Dog cage, 28"x42"x25". Excellent for crate training. \$40. Call 678-687-7884.

New home needed for a 5-year-old male Border Collie, named Chad. He is microchipped, house- and crate-trained with basic obedience covered. Chad comes from national herding champion family line. Price negotiable. E-mail Louz32@yahoo.com.

E-mail ads to editor@icpa.gatech.edu. Due to the volume of submissions, ads run for three consecutive issues and appear as space is available.