The good news is that Tech students in particular are especially concerned with learning about sexuality

The squirrel population on campus, and I agree the critters live a fulfilling life at NU. Cormick and Music freshman, Gottshall decided to post his findings on a Web site, which he said has gotten as many as 2,000 hits in one week. A phenomenon was born. NU is not one of the campuses ranked on the site, primarily because Gottshall has never heard of it. Because there are too many colleges across the country for him to visit, Gottshall relies on strangers to email him with descriptions and accounts of squirrel populations on which he bases his evaluations. Although NU is not ranked on Gottshall’s site, students often notice the large squirrel population on campus.

Squirrel enthusiasts Laurel Crawford, a Weinberg freshman, and Kathleen Buszycki, a McCormick and Music freshman, agree the critters live a fulfilling life at NU. “They’re a lot more active here than they are at home,” said Buszycki, a South Dakota native. “In South Dakota, they usually stayed in the trees, but here they’re always running around, darting in front of you. They let you get a lot closer here without running away.” Crawford and Buszycki know

Squirrels, page 16

Last November’s GTI sponsored Military Week saw the appearance of this Blackhawk helicopter, several Humvees and an F 18 flight simulator.

Photo by Marques McMillan of NASA

“Chlamydia is one of the most common STDs according to Buhi, is the inconsistency of symptoms,” said Buhi. “Most of the time people don’t know they have a particular STD, which raises the risk of transmission and the further development of the disease in the patient.”

Leaving a sexually transmitted disease untreated has other serious consequences for women. Some sexually transmitted diseases permanently impair a woman’s reproductive system, as well as cause cervical cancer, tubal pregnancy, stillbirths, and other birth complications. Chlamydia, if left untreated, has the potential of developing into pelvic inflammatory disease, which can cause anything from chronic pain to birth complications and sterility.

“Diseases like chlamydia and HPV are particularly dangerous because they are largely asymptomatic,” said Buhi. “Most of the time people don’t know they have a particular STD, which raises the risk of transmission and the further development of the disease in the patient.”

STDs, AIDS rates high for students in Georgia

The good news is that Tech students in particular are especially concerned with learning about sexuality issues and frequently use the resources provided by Health Promotion courses and the Wellness Center.

Tech’s golden boys

There’s a lot of buzz about Tech’s athletes who have extended their careers beyond Tech campus. The Nique’s Derick Stanger reviews their legacies in Sports, Page 40

By Kimberly Roeck Contributing Writer

Tuition rates continue to rise. As matriculation increases, students find creative ways to finance their education. Some students are fortunate enough to have their parents pay their tuition fees, or have merit or need based scholarships that require no repayment. Others are forced to take out loans. But all of the aforementioned options have one thing in common — no requirements other than good academic performance or repayment. At the end of that four-year loan, students graduate with a hard-earned diploma.

However, there is an often overlooked alternative that offers college students a valuable career opportunity in addition to money for tuition, a monthly allowance, a high-ranking status and free medical and dental care. That option is the Reserve Officers’ Training Corps, better known as ROTC.

Although long regarded as an alternative for underperforming students, ROTC has become a tremendous top notch students interested in careers in nuclear and aeronautical engineering.

Each branch of the military offers a ROTC scholarship program. Established in 1916 by the National Defense Act, ROTC educates and trains talented individuals interested in careers in the military. Georgia Tech’s program has a long history of excellence, being one of the first six schools to receive the Naval Reserve Officer Training Corps.

All of the branches contain impressive opportunities for college students and recent graduates. The Corps recruits mainly engineering and science majors but also management and business related majors. However, the benefits differs across fields, including variable scholar ship monies, time commitments, possible duty assignments and course requirements.

Air Force ROTC has one, two, three, and four-year scholarships available for eligible candidates. Navy ROTC offers two, three, and four-year scholarships. Also there is a college program where those students who did not qualify for a scholarship receive free uniforms and take the ROTC classes for the first two years, and then during the last two years, receive a stipend of $150 a month. Army ROTC offers two, three, and four-year scholarships as well.

All of the services offer monthly stipends that range from $150-$300 a month, depending on year, to their four year scholarship students. If a student decides, during the first year, that the military is not for them, they can leave the program without paying any of the money back. However, after the first year, students must repay the tuition if they choose not to join the service.

No longer limited to only war time efforts, the military offers qualified engineers careers that rival some of the best positions in industry. Air Force Reserve Officer Training Corps offers particularly competitive jobs for engineering majors in civil, aero-

See ROTC, page 20

For more information, visit the Georgia Tech Wellness Center. Human papillomavirus (HPV) is actually the most prevalent STD, with an estimated 5.5 mil lion new cases every year. In a recent national study among female college students, an average of 14 percent of the students became infected with HPV every year. "Diseases like chlamydia and HPV are particularly dangerous because they are largely asymptomatic," said Buhi. "Most of the time people don’t know they have a particular STD, which raises the risk of transmission and the further development of the disease in the patient."
Good things come in small packages

By Benjamin Small

Nanotube, nanobelt—the buzz prefixes “nano-” is being applied to everything. But there also is some legitimate use of the term, which refers to stuff measurable on the scale of nanometers (1 nm = 10^-9 m = 10Å). There are about 300,000 of these units in the width of a human hair.

Here on campus, in our new Material Science building, Professor Z.L. Wang and his research staff are engaged in some ground-breaking research. They have invented a new kind of nanometer-scale structure called “nanobelts” or “nanoribbons,” and are receiving much public attention. Heck, even the mainstream media interviewed Dr. Wang back in March.

There has been a great deal of research done concerning nanowires—the first popular nanostructures—over the last decade. These structures, less than 20 nm in diameter, are generally composed of metals or semimetals.

Nanowires have some phenomenal characteristics: they’re hundreds of times stronger than steel (based on Young’s modulus, G0), and they can also be manufactured with extremely high levels of purity.

The materials used are slightly different, however; being metal and semiconductor oxides like zinc oxide (ZnO), tin oxide (SnO2) and indium oxide (In2O3), but may demonstrate more possible technological uses. A powdered form of the material is evaporated at fairly high temperatures (sometimes in excess of 1000°C or 1800º F). The vapor is then carried through a low-pressure furnace tube filled with some inert gas like nitrogen or argon. At the other end of the furnace, the material condenses on cooler substrates, aligned into nanobelts.

Professor Wang is confident that “nano-belts” may lead to many technological advancements in nano-size sensors and functional devices with low power consumption and high sensitivity. Possible applications also include extremely lightweight displays for computers and PDAs, extremely sensitive gas sensors, and “smart windows” that would have controllable transparency.

At the Center for Nanoscience and Nanotechnology (no, not like Drexel), Professor Wang, Dr. Pan and Dr. Du were the first researchers in the world to successfully make these extremely thin monocrystalline structures. Currently, they are undertaking studies to determine the growth mechanisms as well as the empirical values for various mechanical, electrical, and optical parameters.

One of the newer techniques for analyzing nanobelts or other materials in general is transmission electron microscopy (TEM). High energy electrons are accelerated through a series of magnetic and electric lenses (sort of like optical lenses) and directed through a single crystalline sample. Because of the periodicity of the crystal (the atoms within it are aligned into patterns with translational symmetry), the electrons travel through the material in particular directions only. A phosphorescent screen “catches” the transmitted electrons and displays the images generated called “diffraction patterns.” Scientists (normally their graduate assistant slaves, actually) catch a bunch of crazy geometric to determine the three-dimensional structure of the crystal based upon the two-dimensional projection.

It allows us to study crystal configurations and helps us understand nanobelts and other nanostructures. “It allows time to dispense with other one-dimensional systems that may have important applications for nanoscale functional and smart materials. These nanobelts are the next step in developing structures that may be useful in wider applications,” said Wang. “After all, one must have foundations, right?”

If you’re interested in studying nanostructures or would like to become involved with the Center for Nanoscience and Nanotechnology, contact zhong.wang@mse.gatech.edu.
New modes of communication fascinate Techies

By Gray Gunter and Amanda Gard
Contributing Writers

One day we'll all tell our children with a twinkle in our eyes about the forgotten days when strangers in bars and everyday business people exchanged telephone numbers to open themselves up to the outside world. Then came the age of instant messaging, an age of smiley faces, bad message poetry and cute fonts—lots and lots of cute fonts.

Now, instead of struggling to keep area codes straight, you have to remember if your lab partner's screen name is simply MoonDawg with two o's or some combination of zeroes.

Now, instead of just avoiding jerks in public you have to duck them online too, that's why God created the block feature. And the most sinister side effect of life with an instant message service: being late because you have to sit around until you can think of an away message that doesn't make you sound as stupid as everyone else's message makes them seem.

A variety of Internet messaging services are competing to do for busy, disorganized college students of this generation what CB radio did for rural Americans in the 1970s. There are other forms of communication over the Internet. However bulletin boards, the mainstay of modern communication in the early 1980s, require long delays in responses and frequently decay into disorganized college students of this generation what CB radio did for rural Americans in the 1970s.

There are other forms of communication over the Internet. However bulletin boards, the mainstay of modern communication in the early 1980s, require long delays in responses and frequently decay into disorganization. Tech students spend a lot of time chatting online when they could be communicating in person.

Lack of Internet access can have a chilling effect on student use of Internet messaging programs. "If people get into a fight online)," said Catherine Normoyle, commuting student and dial-up user. But for those with the right software, high-speed access and the desperate need to avoid doing anything constructive with their time, Internet messaging remains a beloved passtime.

But are AOL and ICQ just encouraging the nerdisms at Georgia Tech? Has computer communication replaced the telephone? "If it is really important I'll use IM," said Meredith Murphy, Junior, Biology major. "If it is really important, I want to talk to someone, I'll pick up the phone and call them. If it's something little, I'll use IM."

Meredith Murphy
Junior, Biology major

"If it is really important or I want to talk to someone, I'll pick up the phone and call them. If it's something little, I'll use IM."

Chatty Chaps
A few people who use instant messaging that would like to offer their thoughts and suggestions.

Name: Mac Rodgers
Occupation: Radio Station Manager
AIM or ICQ: AIM
IM Name: GaTechCutsey–Wolf01
Favorite Messaging Feature: may recommend using “Find A Buddy” a new way to find friends via random IM names
Best Away Message: age/sex/location
Favorite Smiley Face: =)

Name: Adam Gardner
AIM or ICQ: AIM
IM Name: RafaelBelladonna
Favorite Messaging Feature: checking away messages of people I hate
Best Away Message: Countering some strikes
Favorite Smiley Face: :-(

Name: Chris Hammer
AIM or ICQ: ICQ
Favorite Feature: The character counter. I'm always worried I'm using too many letters to express my feelings.
Best Away Message: [explicative deleted] you. Send me a bag of drugs
Buddy Icon of Choice: De-stro. He is a black man doped in liquid metal to increase his villainous powers

Name: Catherine Normoyle
AIM or ICQ: AIM
Most Useless Messaging Feature: That stupid AOL phone service has never worked since its creation.
Favorite Smiley Face: =)
Best Away Message: I'm sleeping. Go to hell.

A trip through any student's buddy list reveals members who haven't disconnected for days. These users aren't necessarily going without sleep to chat, they're just not signing off from the service.

The communication services have for many students become answering services, the easiest way for others to get in touch with them at anytime.

"It's not just giving away instant Messenger for nothing, particularly college students of this generation what CB radio did for rural Americans in the 1970s."

There are other forms of communication over the Internet. However bulletin boards, the mainstay of modern communication in the early 1980s, require long delays in responses and frequently decay into disorganization. Tech students spend a lot of time chatting online when they could be communicating in person.

The most attractive feature of programs like Yahoo! Messenger, ICQ and America Online Instant Messenger is that unlike most of the useful conveniences of modern technology these services are free. ICQ (I Seek You) was the early leader and innovator in direct Internet messaging. The company pioneered most of the standards in the genre today including buddy lists and away messages. America Online followed in the mid-1990s, launching a version of its instant messenger service.

Other Internet portals and providers followed, such as Yahoo! and the Microsoft Network. AOL Instant Messenger and ICQ were competitors until AOL bought the much smaller, ICQ out, a business strategy that has served them well in the past five years.

Major companies are giving away the feature; realtime communication with anyone anywhere; to create a loyal customer base before charging for the service or seeking revenue from advertisement.

Everyone loves something for nothing, particularly college students who so often have nothing (that includes money and things to do). This has led directly to the explosion in users over the past decade. AOL Instant Messenger and its acquisition ICQ, claim over one hundred million total users on its messaging services.

"It's not just giving away instant Messenger for free is supposed to convince me to pay them twenty bucks a month for it, but as long as they feel like handing it out I'll take it," said Chemis-
toms. For example, some types of HPV cause genital warts in patients, but in most cases the disease does not manifest itself with obvious symptoms, meaning students could have an STD and not be aware of it.

Although the Georgia Tech Health Center does not track specific numbers of students on campus who have been diagnosed with STDs, Buhi said that many students still choose to get tested for diseases at off-campus locations which would make it extremely difficult to obtain accurate data on STD infection rates.

In spite of high rates in Atlanta it seems that students are concerned. “I would say that students are fairly well educated, but they have many questions and concerns about sexually transmitted diseases,” said Dr. Cindy Smith, Director of Georgia Tech Health Services. “Most of them get information from the Wellness Center or from their health classes. Students here on a whole are interested in keeping informed.”

The Georgia Tech Health Center has many resources for students who are concerned about sexually transmitted diseases, including pamphlets and literature. The Wellness Center gives out free condoms, which provide some protection against sexually transmitted diseases when used correctly. It also provides confidential HIV testing at a charge of $14 for two-week results and $45 for two-day results. The website for the Georgia Tech Wellness Center, www.wellness.gatech.edu, has a section called “Ask Dr. Buzzy” through which students can ask anonymous questions online, and Dr. Buzzy will post the answers to each question.

“The presence of sexually transmitted diseases is always an issue on campus, but I believe that if we didn’t have the education we did on such issues that it would be much more of a problem than it is. Many of our students are well-informed, and those who are not, want to be,” said Dr. Smith.

### HIV Testing Centers in Fulton County

<table>
<thead>
<tr>
<th>Center Name</th>
<th>Address</th>
<th>Deadline</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Piedmont Minor Emergency Clinic</td>
<td>2993 Piedmont Rd, Atlanta, GA 30305</td>
<td>Confidential Health Care</td>
<td>Sliding scale</td>
</tr>
<tr>
<td>Fulton County Health Department</td>
<td>99 Butler St., Room 234 STD/HIV Clinic Atlanta, GA 30335</td>
<td>Confidential Health Care</td>
<td>$34</td>
</tr>
<tr>
<td>Grady Memorial Hospital Walk-in Clinic</td>
<td>80 Burke Street Atlanta, GA 30335</td>
<td>Confidential Health Care</td>
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<td>Central Health Center</td>
<td>201 Washington St, Atlanta, GA 30303</td>
<td>Confidential Health Care</td>
<td>$15</td>
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<tr>
<td>Planned Parenthood</td>
<td>100 Edgewood Ave. Suite 1604 Atlanta, GA 30303</td>
<td>Confidential Health Care</td>
<td>Sliding scale</td>
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<td>Feminist Women’s Health Center</td>
<td>580 14th Street Atlanta, GA 30318</td>
<td>Confidential Health Care</td>
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<td>AID Atlanta</td>
<td>1438 West Peachtree Suite 100 Atlanta, GA 30309</td>
<td>Confidential Health Care</td>
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<tr>
<td>Atlanta Gay Center</td>
<td>67 12th Street Atlanta, GA 30309</td>
<td>Confidential Health Care</td>
<td>$20</td>
</tr>
</tbody>
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Parking, gas and traffic: MARTA never looked so good

By Narendhra Seshadri
Contributing Writer

Public transportation in Atlanta can be related to one word: MARTA (Metro Atlanta Rapid Transit Authority). While a vast majority of Tech students choose to stay in on-campus housing, there are a select group of students who commute to Georgia Tech. Many students choose to travel by MARTA than by car because they want to avoid the rush hour traffic that Atlanta has gained a reputation for.

Marta offers one-way tickets to anywhere in the Atlanta metro area for $1.75. Trains operate from 5 a.m. to 1 a.m. on weekdays and from 6 a.m. to 12:30 a.m. on Saturday, Sunday and holidays. The Georgia Tech Campus is centrally located between two MARTA stations—Midtown and North Avenue. The Georgia Tech Stinger Shuttle operates between both MARTA stations from 6:00 a.m. to 9:00 p.m. Sunday through Friday.

MARTA offers a very reasonable rate to college students who wish to commute using MARTA through their “U-Pass” program. MARTA states that “U-Pass allows the students of participating institutions to take advantage of a substantial discount with the purchase of $37 Monthly Transcards.” Students save almost 30 percent using the U-Pass program.

MARTA offers monthly passes that cost $52.50 but give college students a special discount, which adds a further incentive for commuting passengers. MARTA says, “Whether you’re heading across town to get to class, going out to dinner, heading for the library or home from the game, let MARTA do the driving.” The program is very useful for students who are “on the go”—especially those who have to travel to Tech everyday of the week. Although driving is a possibility for some students, it is not an option for freshman. Joshua Cuneo, a freshman at Tech, states that “although I have a car to get me to the station, riding MARTA is healthier for my personal safety and cleaner for the environment.” Many freshman choose to ride MARTA because it saves time, helps them to avoid the rush-hour traffic and is an economical alternative to maintaining a car on campus.

“I only have to pay $37 a month for a MARTA pass vs. an estimated $249 a month for auto maintenance and fuel”
Joshua Cuneo
Freshman, CS major

“...I’m a university student, I only have to pay $37 a month for a MARTA pass vs. an estimated $249 a month for auto maintenance and fuel, and also it’s probably faster, since I’m not fighting morning commuter traffic.” states Cuneo.

Over the years, MARTA has earned a reputation for its lackluster safety standards. However, not all students feel insecure or threatened when commuting by MARTA. Cuneo clarifies this thought by his own personal experiences: “Contrary to some stereotypes, MARTA generally does not harbor your gun-toting, half-insane parking, gas and traffic: MARTA never looked so good

See MARTA, page 20
MARTA

from page 19
criminals, although in case of such an incident, every train has at least one police officer posted, and the MARTA police are credited as being some of the best in the Atlanta area.”

“It’s also great for people watching, if you’re into that sort of thing. After only four months of riding the train, I’ve witnessed a greater variety of Atlanta than I have during the past eight years.”

Senior STAC major, Chris Baucom, said that MARTA is “convenient because it is accessible anywhere in Atlanta” but feels that there is “room for improvement on the bus schedules” because they are habitually delayed. Even though trains are delayed due to “mechanical glitches” or “maintenance issues”, they are very reliable on the whole. Baucom also said, “due to rush hour traffic and other constraints MARTA buses are often late and not as efficient as trains.”

Houman Khalili, a freshman at Georgia Tech, offers his insight on the ever present MARTA buses: “Buses aren’t always on schedule—you have to be there at least 10 minutes before the bus schedule, as many times they leave earlier than scheduled.”

ROTC

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space, mechanical, and computer engineering.

“The Air Force requires a lot of high-tech, well-educated people because of all of the sophisticated equipment that we operate, whether it be research and development, engineering, space systems, rockets, satellites or aircraft that we fly,” said Col James Stevens, Commander AFROTC Det 165, and Professor of Aerospace Studies.

Col. Stevens said that the majors from Georgia Tech that the Air Force is particularly interested in is Aerospace Engineering, Computer Engineering, Mechanical Engineering, and Civil Engineering. Col. Stevens also noted that the Air Force prefers Aerospace Engineers to fly their sophisticated aircraft and planes.

In addition, another career benefit of joining ROTC is that the Air Force requires commercial flight training before servicemen begin their own flight training in the Air Force—and that commercial flight training is paid for by the Air Force.

“A lot of the time, especially here at Tech, if you’re an engineer and you’re physically qualified, there’s a real good chance that you can get a pilot’s slot” said Col. Stevens.

Business degrees are also beneficial in the Air Force because of the various jobs available on the bases. The time commitments for the Air Force vary according to job choice. For pilots, there is a ten-year time commitment after graduation. For other positions, it is a four-year time commitment after graduation.

The career fields in the Navy for those that want to become officers are abundant. Nuclear engineers can easily find a position in the Navy working on one of the nuclear ships or submarines. Basically any major at Georgia Tech could find a job in the Navy, including Public Policy and International Affairs majors. The time commitment for the Navy after graduation is four years.

Army Reserve Officer Training Corps has similar positions available for college students. Like the other branches, Army needs engineers to design their facilities, business majors to plan their deals and manage their facilities, and also offers opportunities for students who want to fly. However, AROTC requires a longer commitment then the other two branches. The commitment for AROTC is eight years in the U.S. Army Reserve, and a mandatory six week ROTC advanced camp, usually between the junior and senior years of college.

All of the services offer a great benefits package. In the military, there are 30 days of paid vacation a year and unlimited sick leave.

For servicemen and their families, there is medical care at no cost, dental care, and life insurance of $200,000 in the $19 a month range. Also recreation activities on the bases include low-cost golfing, clubs, bowling alleys, and free gyms. Besides base pay, there is also a cost of living allowance that depends on station location, and servicemen live in base housing for free.

There is also low-cost shopping at the base commissaries and exchanges, which can save consumers money due to no taxation on goods. In terms of providing for the future, ROTC provides monies for higher education, and after 20 years in the military, members can retire at 50 percent of base pay, and that goes up 2.5 percent each year up to 75 percent for 30 years.

But of course like all jobs, the military route offers more than just a great benefits package and money. Jeremy Yarbrough, Battalion Commander for the NROTC unit at Georgia Tech, said, “It’s not about the money. It’s about not just having fun, it’s the whole package. I like meeting new people all the time. I was already in the Navy for four years in the submarines. You’re always meeting new people, you’re always have new things to do. You actually get on-the-job training while you’re doing your job. You get to travel the world.”

The military has bases in virtually every country in the world, including Italy, Japan and Germany. Also there are possibilities of touring the world on cruises if you’re in the Navy on a ship. All of the traveling expenses are paid for by the military.

For those students who enter industry after their service is up, ROTC teaches valuable leadership skills that companies prize in the workplace.

“If everyone has the same college degree then the people who actually know how to lead are going to have a leg up. They know that if we’ve taught our men and women to be good leaders, then we’ve also taught them to be good followers. So they can take orders and not just give orders. If someone says I need this to be done Tuesday at 9:00 a.m., it’s coming in on time, even before time, and the product they’re turning in is going to be reviewed beforehand and a good product” said Yarbrough.

Not only does ROTC teach valuable skills that will serve participants throughout a lifetime while simultaneously giving them the opportunity to give back to their country, it also offers competitive workforce positions that rival industry standards.
Tech Up Close

A watching eye
email: focus@technique.gatech.edu

Last week’s Tech Up Close:
steps on a Stinger bus

Last week’s winner: Chris Rockett