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THE WHISTLE

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THE GEORGIA INSTITUTE OF TECHNOLOGY

Study shows decrease in binge drinking among Tech students

Nationally, percentages unchanged

David Terraso
Institute Communications and Public Affairs

The national rate hasn't budged in the past eight years, but binge drinking among Tech students is on the decline. This news comes from the Harvard School of Public Health College Alcohol Study, which announced recently that the binge-drinking rate among Tech students had dropped 9 percent since 1999.

The decline, said Dean of Students Gail DiSabatino, is due in part to Tech's philosophy that curbing binge drinking among students is the Institute's responsibility both on and off campus.

"If all we do is address binge drinking on campus, then we push the problem off campus and into the community. And that's not acting responsibly," explained DiSabatino.

According to the Harvard study, a binge drinker is defined as a male who had five or more drinks in a row at least once in the two weeks before the survey was conducted. For females, the number of drinks is four or more.

The Harvard study has been tracking binge-drinking rates at 119 four-year colleges since 1993,

although 1999 was the first year a statistically valid study was performed at Tech. In 1999, approximately 43 percent of Tech students surveyed said they engaged in binge drinking. In 2000, that number dropped to 39 percent and fell to 34 percent in 2001. The national rate has stayed at 44 percent since 1993.

The report also showed that more students are abstaining from alcohol, both at Tech and nationally.

The study samples more than 10,000 students across the country and 234 at Tech.

Through its membership in the 10-school "A Matter of Degree" program, sponsored by the Robert Wood Johnson Foundation and the American Medical Association, Tech is focusing on changing the environment that encourages students to binge rather than teaching them the dangers of overindulgence.

At the Institute level, Tech has implemented tougher enforcement of the student alcohol policy, mandated checking identification at fraternity parties and imposed stricter enforcement of DUI violations both on and around campus. DiSabatino is also getting parents involved, both by speaking to them at freshmen orientation and by notifying them when their student racks up repeated or serious violations of the alcohol policy.

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News magazine's graduate rankings continue positive trend

Bob Harty
Institute Communications and Public Affairs

The College of Engineering maintained its powerful national stature in the most popular college rankings released today, moving up one notch to fourth in graduate school rankings from U.S. News and World Report. Seven of the 11 programs within the College also ranked in the top 10, with Industrial and Systems Engineering ranked number one for the 12th year in a row.

Among computer science departments, the College of Computing moved up one, to 12th nationally. The computer systems programs ranked eighth in the country.

Tech's science programs showed dramatic improvement since their last rankings in 1996. The School of Chemistry moved from 40th to 32nd and Physics moved from 50th to 32nd. Other ranked programs with

Sciences include Mathematics (37th) and Applied Mathematics (18th). Given the number of science programs across the country, these results place those programs among the top 10 percent nationally.

Among the highly competitive schools of business, Tech's DuPre College of Management ranked 39th overall.

President Wayne Clough said, "While the rankings always move slightly from year to year, it's important to keep an eye on the trends. As such, I'm very pleased with the consistent quality shown by Engineering and am very proud of their sustained record of quality. Computing is showing the same sustained quality as well. I'm very pleased to see our investments in our math and science programs to finally start to receive national recognition as well. They have been quietly improving over the last few years, and the new rankings

Rankings continued, page 3

'When the Whistle Blows' ceremony remembers deceased

Each year, the Georgia Tech community honors the memory of the students, faculty and staff members who have passed away during the preceding 12 months. Tech's newest tradition — a remembrance ceremony for family and friends of the deceased — will be held on Wednesday, April 17.

Stephanie Ray, associate dean of Student Affairs, said the ceremony is as much for the relatives as for the deceased.

"It's a way for Georgia Tech to let the family and friends of the deceased know that their loved one was a valued member of the community," she said.

When the Whistle Blows is scheduled for 7 p.m. on the Tech Tower Lawn adjacent to North Avenue, and will be emceed by President Wayne Clough. The Student Success Center is the rain location.

- HONORED STUDENTS:**
Andrew Clayton
 Architecture Building Construction
Melissa Linnea Murray
 Mechanical Engineering
Mollie Eileen Newton
 Economics
Carl Allen Neurath
 Mechanical Engineering
Marianna Ray
 Management
Johnathan Uyesugi
 Chemical Engineering
- HONORED FACULTY/STAFF:**
Clinton Bailey
 Custodian, Housing
Ronnie Bell
 Custodian, O&M Building Services
Glenn Cass
 Chair, Earth & Atmospheric Sciences
Nelson Fuqua
 Maintenance Worker, Housing
Edwin Harrison
 Past President, Georgia Tech
George Mitchell
 Program Coordinator, CATEA



Students make waves at the all-night SAC One-Night Stand. GT SMART sponsors alcohol-free events like this one to give students an alternative to binge drinking.

“QUOTE— UNQUOTE”

“The Serengeti Complex will be very much like the Disney World concept, except it’s better and has big, charismatic animals.”

—Terry Maple, professor in the School of Psychology and director of Zoo Atlanta, on a proposed five-year plan, which would include an exhibit modeled after the Serengeti Plains in East Africa, to be built on the current Masai Mara exhibit. (Atlanta Business Chronicle)

“(The sensors) operate on a voltage much less than that of a watch battery and would be small enough to be taken into the field with a troop contingent or any other group concerned about the presence of harmful gases. (They) are so simple that they could ultimately be mass produced for pennies apiece.”

—James Gole, professor in the School of Physics, on a recent paper published with Mechanical Engineering Professor Peter Hesketh describing a new type of sensor based on porous silicon and a metallization process that offers enhanced sensitivity for detecting potentially harmful gaseous compounds. (Laser Focus World)

Professor’s research predicts a warmer, wetter world

Global warming effects will continue for 100 years

Jane Sanders
Research News

Though significant uncertainty remains regarding the amount of global warming that will occur over the next century or two, there are some scientists who believe that the trend will continue for the next hundred years even if fossil fuel consumption is dramatically reduced.

These scientists predict significant increases in global temperature and sea level this century. Related changes in weather patterns are expected to affect agricultural production, and are likely to have the greatest human impact in poor countries unable to adequately respond to the changes.

Professor Robert Dickinson of the School of Earth and Atmospheric Sciences presented the evidence behind this assessment at the annual meeting of the American Association for the Advancement of Science (AAAS) last month in Boston.

“Current climate models can indicate the general nature of climate change for the next 100 to 200 years,” Dickinson says. “But the effects of carbon dioxide (CO₂)

that have been released into the atmosphere from the burning of fossil fuels last for at least 100 years. That means that any reductions in CO₂ that are expected to be possible over this period will not result in a cleaner atmosphere and less global warming than we see today for at least a century.”

Current climate models indicate temperature increases of three to more than 10 degrees Fahrenheit this century and a sea level rise of six inches to nearly three feet.

“It will take a lot of time for humans to adjust their systems to these changes,” Dickinson says. “The biggest problem is the speed at which global warming is occurring. We’re talking about fairly large changes within the next generation. The U.S. is fairly resilient, and people can move. But in Bangladesh and other low-elevation areas with few resources, there will be severe difficulties.”

If the models are correct, the world can also expect large shifts in agricultural productivity, Dickinson says. Some regions will become more productive, and others will become less so because of changing patterns in temperature and rainfall.

Climate modelers are fairly certain of these consequences because their models have improved as their understanding of the underlying physical processes of climate

change has increased. However, Dickinson concedes that the models still have some limitations.

“There’s a question of how much the natural variability is related to the human-caused global warming,” Dickinson says. “The latter could be amplifying some of the patterns of natural variability. It’s not necessarily a question of either/or. Both are occurring.”

But climate models are also limited in giving reliable regional details on global warming. For example, models cannot distinguish changes between Atlanta and New York City. The models can only predict differences between high latitudes and the tropics.

Much research is still to be done regarding climate change, but Dickinson believes policymakers can still glean some guidance from the evidence he cited in his presentation at AAAS. That evidence has come from research at the National Center for Atmospheric Research, where Dickinson worked for 21 years, as well as his current research and the 2001 report of the Intergovernmental Panel on Climate Change.

For more information...

Atmospheric Dynamics
and Climate
climate.eas.gatech.edu

Annual awards honor women in engineering

Larry Bowie
Institute Communications
and Public Affairs

More than 400 undergraduate engineering students were honored last week during the annual Women in Engineering awards banquet. The event saluted the success and achievements of female engineering students who have a cumulative grade point average of 3.4 or above, and have demonstrated outstanding leadership qualities on and off campus.

The event, now in its fourth year, was an occasion for female engineering students to take a break from campus rigors, don formal wear and mingle with fellow female engineers. Industry representatives, faculty, staff, family and friends also gathered to watch and encourage the honorees’ continued pursuit of excellence.

Rosalind Brewer, on behalf of event sponsor Kimberly-Clark, welcomed the honorees and congratulated them on their distinguished accomplishments. Overall, 23 students were presented with

scholarships from companies totaling \$20,000.

The evening’s keynote speaker was Georgia Tech alumna Jenifer Cistola, vice president of North American Marketing for ScientificAtlanta, a leading supplier of broadband communications systems, satellite-based video and communications networks. Cistola earned a bachelor’s degree in industrial engineering at Tech in 1981.

She outlined the 10 most important things that she learned during her time at Georgia Tech, as well as her time spent in the corporate world. They included the ability to balance demands, maintain a positive attitude, continue to learn and inspire the people around her.

Cistola recounted the hard work and countless hours of studying that characterized her memories of undergraduate life at Tech. Her observations drew hearty applause from the audience, an indication that not much has changed in the 20 years since Cistola graduated.

Mimi Philobos, a professor in the School of Civil and Environmental Engineering, has organized the event

since its inception in 1999. That year, the event drew about 100 attendees and Philobos, who also directs the Women in Engineering Program at Tech, vowed she would make it an annual affair.

Philobos closed the evening with words of thanks and encouragement. “Your hard work has been recognized by all of your peers,” she said. “You are the leaders.”

During the banquet, two “excellence in teaching” awards (voted on by women students in engineering) were presented to faculty who made a difference in the students’ lives. The recipients, who each received \$1,500, are Minami Yoda, an associate professor in the School of Mechanical Engineering, and Erian Armonios, a professor in the School of Aerospace Engineering and director of the Georgia Space Grant Consortium.

For more information...

Women in Engineering
www.coe.gatech.edu/wie

Georgia
Tech



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

Editor’s note: In an April 1 article regarding President Bush’s visit to the Tech campus, Hazmat teams from both the city of Douglasville and Cobb County participated in the preparation and execution of the first response drill.

What is a knot? Apparently, it's more than you think

Sean Selman
Institute Communication
and Public Affairs

From the knots found in the shoelaces of countless school children to the legendary Gordian Knot of Phrygia that frustrated Alexander the Great, knots have confounded mankind for centuries. It even took mathematicians more than a century before they could tell whether a string is knotted — or not.

But they did, and John Conway, the John von Neumann Professor of Mathematics at Princeton University and world-renowned mathematician, will discuss how they did it and other topics at 5 p.m. April 9 in the Student Success Center.

Conway's speech, "Tangles, Knots and Numbers," tackles the complexities of knots. For example, how does someone understand the shape of a knot, or prove that it really is



John Conway untangled the mystery of the knot. He'll discuss that and other topics on April 9.

knotted? What makes one knot different from another? Conway will describe ways in which elementary arithmetic can help answer such questions. His talk is intended for a general audience, and a reception will follow.

Conway is most widely known as the inventor of the Game of Life, a popular computer screensaver developed in the 1970s that also opened a new field of mathematical research known as cellular automata.

In the game, a person starts

with a pattern of checkers on the grid, each representing "live" cells. Players remove each checker that has one or no neighboring checkers or four or more neighbors. These cells "die" from loneliness or overcrowding. Checkers with two or three neighbors remain on the board. In addition, new cells are "born" — a checker is added to each empty space that is adjacent to exactly three checkers. By applying these rules repeatedly, one can create an amazing variety of life forms, including "gliders" and "spaceships" that steadily move across the grid. Thirty years after the game's introduction, Conway still receives voluminous amounts of e-mail about Life.

For more information...

John Conway profile:
www.sciam.com/1999/0499issue/0499profile

Rankings, cont'd from page 1

confirm nationally what we've known locally for some time."

Engineering remained a member of the elite top five, behind only MIT, Stanford, and Cal-Berkeley. Tech moved ahead of the University of Michigan this year to place fourth. Individual schools within the College of Engineering ranked as follows: Aerospace Engineering stayed in third position, Biomedical Engineering remained at sixth, Civil Engineering moved up one to fifth, Electrical Engineering dropped one position to seventh, Environmental Engineering moved up to eighth, and Mechanical Engineering remained at sixth.

"I'm very proud of the work done by our faculty, graduate students and staff to achieve these rankings," said Clough.

"We're consistently competing well against some of the finest universities in the world. Rankings are not the be all/end all of higher education, but the gains we've made across the board show that Tech is maintaining our engineering excellence, while improving in areas for which we're less well known. I'm confident that those trend lines will continue and that our programs will gain prominence across the board."

This year, U.S. News and World Report ranked graduate programs in business, engineering, law and medicine; and Ph.D. programs in applied mathematics, biological sciences, chemistry, computer science, mathematics and physics.

For more information...

U.S. News and World Report:
www.usnews.com/usnews/edu/college/cohome.htm



Sciences, which was being ranked by the magazine's staff for the first time since 1996, showed the most dramatic improvement, with chemistry, physics and mathematics all gaining in national prominence.

Drinking, cont'd from page 1

"I tell the parents, 'Don't tell your kids drinking stories, don't buy them alcohol, don't be surprised if we call to tell you your kid is having alcohol problems and don't complain that our punishments are too harsh,'" said DiSabitino.

Tech's "A Matter of Degree" chapter, GT SMART, has been working to lower the campus binge rate by supporting the new state keg registration law and helping to develop the campus alcohol policy. The chapter also offers mini-grants

to student organizations that want to hold late-night alcohol-free events as well as working with the Home Park Community Improvement Association to reduce bingeing off campus.

Student bingeing doesn't just affect the ones who are drinking; it affects everyone around them, said Sam Becknel, project director of GT SMART. "When students have house parties off campus, the noise, vandalism and assaults that go along with them create problems in the neighborhood. Also, when you get too much alcohol involved it alters a person's ability to consent, and date

rape becomes a danger."

Despite the study's promising results, the Institute wants to see the numbers drop even further. "We expect to continue to find ways to reduce the amount of binge drinking by our students," said Lee Wilcox, vice president of Student Affairs and co-chair of GT SMART. "We're pleased, but we're not satisfied."

For more information...

GT SMART
www.gtsmart.gatech.edu
Student Affairs
www.studentaffairs.gatech.edu

IN BRIEF:

Keep it dead

How dead is dead week? According to Bob McMath, vice provost for Undergraduate Studies and Academic Affairs, a policy adopted by the Academic Senate and implemented in fall 2001 revised the rules for what instructors may require of students during the week before final exam, stating flatly that "quizzes and tests may not be given during the week before final exams." The policy does not cover projects, homework or other assignments.

Last December some instructors were understandably unclear about what was allowable and did give quizzes and tests during dead week. McMath said he hopes that this will prepare professors to operate under the official policy during dead week this semester.

Lighten the load

The Office of Organizational Development has set the deadline for submission of summer term **STRAP and BOR Tuition Remission** applications for Thursday, April 11. Applications can be obtained via the web at www.training.gatech.edu and may be submitted to Office of Organizational Development, mail code: 0206. For more information, contact Deborah Covin Wilson at 894-3850 or deborah.wilson@success.gatech.edu.

Dean Griffin Day

Dean George C. Griffin spent the majority of his career at Georgia Tech. He was an instructor, coach, trainer, coordinator, administrator and director, involved in Tech academics, athletics and alumni affairs. For these and many other reasons, he has come to be regarded as "Mr. Georgia Tech."

It is in the spirit of this great man that the Georgia Tech Ambassadors honor Tech faculty and staff. Dean Griffin Day, a **day of faculty and staff appreciation**, will be held on April 11. All faculty and staff are invited to a reception from 4 - 6 p.m. in the Student Center Ballroom. RSVP via an e-mail to deangriffinday@hotmail.com. Don Chapman, the first recipient of the Dean Griffin Community Service Award, will speak at 5 p.m. to tell stories about Griffin and his impact on Tech. Following the speech, the Ambassadors will present faculty and staff awards, as chosen by the student body.

Get updates on SAC II

If you just can't wait for SAC II to open and want all the latest news, get your fix at the SAC II web site, www.sac2.gatech.edu. In addition to all the latest construction news, the site features floor plans, construction photos and a timeline, plus a 3D animated tour of the future athletic super site. Check the site regularly to learn how the construction is affecting your workout. Hint: the Auxiliary Gym is now closed.



The **5th Annual Earth Day Celebration** will be held on the Tech campus on Friday, April 19, from 10 a.m. - 2 p.m. and will include music, prize giveaways, alternative fuel vehicle demonstrations, an interactive trivia maze and the Atlanta Zoo-Mobile.

The Georgia Tech Earth Day Committee needs students, staff, and faculty members to volunteer. To participate, contact Cheryl Smith at cheryl.smith@parking.gatech.edu. For more information, visit www.gatech.edu/earthday.