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THE WHISTLE

FACULTY/STAFF NEWSPAPER

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THE GEORGIA INSTITUTE OF TECHNOLOGY

Tech athletes faring well in new NCAA academic reform effort

Faculty Senate meeting examines eligibility issues, textbook pricing

Dan Treadaway
Institute Communications
and Public Affairs

The Institute is doing well in its efforts to comply with a three-year academic reform initiative of the National Collegiate Athletic Association (NCAA), according to Industrial and Systems Engineering Professor George Nemhauser, who serves as the Academic Senate's faculty athletics representative.

Nemhauser updated the faculty on the Institute's progress in NCAA compliance at the group's April 19 meeting. He explained that historically low graduation rates for student athletes prompted the NCAA to consider an incentive program to motivate athletic administrators, coaches and student athletes to improve the situation.

The first component of the program, currently being implemented, consists of a measurement system that requires each scholarship student athlete to earn two points per semester. Student athletes earn points in two categories: retaining their academic eligibility by maintaining satisfactory progress toward graduation and remaining at Tech from year to year rather than transferring or leaving for other reasons. Each team must earn 92.5 percent of its possible points each semester within confidence limits that are a function of team size. Failure to do so can result in a loss of athletic scholarships.

In 2003-04, Tech's scholarship student athletes collectively earned 96.4 percent of their possible points, placing them in the 60th to 70th percentile among NCAA institutions. The Division I average was 94.8 percent.

"In fact, most of our women's teams received a perfect score of 100 percent of their points," Nemhauser said. "The only team scoring below 92.5 percent was the baseball team. Even though they had an eligibility score of 96 percent, their retention score suffers because many of the top players leave after three years. (Major League Baseball accepts

college students who have completed at least three years.) The good news is that there won't be any penalties for us because the team's score of 90.7 percent is within the NCAA confidence limits."

Nemhauser also said that a new director of academic services in Athletics is expected to begin work soon. "Athletics has hired a very talented professional for this position, and I think you will see a whole new situation with the academic advising of student athletes," he said. (See In Brief, page 3)

One Senate member asked about how the new director will handle student athlete requests to faculty for special treatment when they earn poor grades. Nemhauser said that while he believes students have the right to discuss with a faculty member whether a course grade is accurate or fair, he also believes that coaches and athletic administrators must stay out of such discussions entirely.

Textbook costs

In other business, the Senate heard a presentation from Associate Vice President for Auxiliary Services Rosalind Meyers and Georgia Tech Bookstore General Manager Jerry Maloney on efforts to rein in the rapidly increasing cost of textbooks, a subject that has been a recent priority of the University System Board of Regents.

"Textbook prices are escalating at a faster rate than other costs associated with a college education," Maloney said. "According to a recent Board of Regents study, student expenses for books and supplies were in the range of \$745-\$843 in 2003-2004, representing approximately 20 percent of the total college costs paid by students."

Maloney said most of the Bookstore's energies in this effort are focused on providing adequate numbers of used textbooks — which are on average 25 percent cheaper than new ones — and encouraging faculty to submit textbook adoption information within an established deadline, which allows the Bookstore adequate time to shop for the best prices for used texts.

Senate continued, page 2

'M' Building officially breaks ground



With members of the School of Chemistry and Biochemistry looking on, the final component of the Biotechnology Complex — the Molecular Science and Engineering Building — officially broke ground during an Apr. 15 ceremony. will provide an interdisciplinary environment for exploring materials at the atomic and molecular levels. The facility paves the way for the development of biomaterials for artificial organs and skin, advanced materials for faster computers and lightweight materials for more efficient air transport.

Regents approve tuition increase

Michael Hagearty
Institute Communications
and Public Affairs

A measured increase in tuition is being credited to state legislators who plan to restore funding to Georgia's higher education system.

With Governor Sonny Perdue and the Georgia General Assembly approving full formula funding of the University System of Georgia (USG) for the upcoming fiscal year, the Board of Regents approved tuition increases during its monthly meeting.

The 8 percent increase means one year of education at a USG research institution will cost \$3,638, an additional \$135 per semester. HOPE scholarships will rise to cover the tuition increases for in-state students.

Students at two-year colleges and four-year regional universities will experience a 5 percent increase. The

Median tuition and fees for public four-year universities in the southern region, 2004-05

(estimated based on state averages)

1	South Carolina	\$6,126
2	Maryland	\$6,009
3	Delaware	\$5,775
4	Virginia	\$5,355
5	Texas	\$4,397
12	North Carolina	\$3,138
14	Florida	\$3,126
15	Georgia	\$2,923
Median (16 states)		\$4,050

source: University System of Georgia

Tuition continued, page 3

QUOTE UNQUOTE

"They're two entirely different technologies. Combining them is going to be a technological challenge. But from a business end, it makes a lot of sense."

—Benny Bing, associate director of the Broadband Institute, on the telecom industry's efforts to develop the next generation of dual-mode phones that work in both cellular and WiFi networks.
(Atlanta Business Chronicle)

Faculty/Staff SPOTLIGHT

Hermann Fritz

A Georgia Tech faculty member is intimately involved in measuring the impact of one of the worst natural disasters in recorded history.

Hermann Fritz, a civil engineer based at the Georgia Tech-Savannah campus, studied landslide-generated tsunamis as a student in Switzerland. Over the past several months, he has worked with a survey team that has traveled to Indonesia, Sri Lanka, the Maldives and Somalia, measuring ocean depth (using the height of items lodged in trees, pictured at right) and velocity (calibrated with amateur video of the event).

According to Fritz, current computer simulations are very good at showing how seismic events progress over water, but lose precision once waves hit land. Among other things, the data gathered by

the research team may help governments and villages decide where it is safest to relocate hospitals, schools and industry. It may also help to refine computer-modeling programs.

In a lecture he gave earlier this month, Fritz showed pictures of the devastation, including several of a transport ship that had been flipped, dumping 2.2 million pounds of concrete into the port. Even in Somalia — 5,000 miles away from the epicenter — the research team measured flow depths of more than seven feet.

Fritz underscored how the swiftness of the tsunami's destruction was very different from a flood.

"It's a very dynamic, violent thing," he said. "Waves chopped the trees and there was erosion to the bedrock. It was like some of these islands got a crew cut."



photo courtesy Hermann Fritz



Full Name: Hermann Marc Fritz

Age: 32

Occupation: Assistant Professor in the School of Civil and Environmental Engineering

Years at Tech: 2

Job description: Currently working as a member of International Tsunami Survey Teams on post-tsunami field surveys of the December 26 earthquake and tsunami in the Indian Ocean. Further I work on large scale landslide tsunami experiments within the National Science Foundation's Network for Earthquake Engineering Simulation (NEES) project with (Civil Engineering) Professor Leonid Germanovich.

What I find most rewarding about my job: Working and learning with a broad spectrum of persons with diverse backgrounds on challenging projects under different conditions ranging from the western civilization to harsh survival in the face of anarchy in Somalia.

Education: Doctoral degree in civil engineering (2002) and master's degree in civil engineering (1997), both at the Swiss Federal Institute of Technology in Zurich.

Hobbies: sports (snow skiing, cycling, jogging, ice skating), traveling, arts (from classical to avant-garde)

The last book I read for pleasure: "Asi Gobierno Uribe," by Maria Jimena Duzan

The CD in my stereo right now: "Acustico," by Claudio Baglioni

Another occupation I'd like to try: Field advisor for the United Nations

My first paid job: Giving ice skating lessons to small kids while in high-school on Saturday afternoons for 20 Swiss francs (approximately 16 U.S. dollars) an hour.

One talent I would most like to have: To speak an infinite number of languages for communication anywhere in the world.

My day would not be complete without: A workout

What I most value in my friends: flexibility

My motto: "Carpe diem"

Georgia Tech

THE WHISTLE

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

Senate, cont'd from page 1

"Our receiving timely textbook adoption information from departments and faculty is the single most important factor in reducing students' overall textbook costs," said Maloney. "Early textbook adoption information allows us to compete successfully in the national used textbook wholesale market. The earlier we receive the information, the longer we can shop for used books and the greater the final used book availability will be at the start of the next semester."

Maloney said the percentage of

textbook adoption information provided to the Bookstore by its deadline has been on the rise in recent semesters, and sales of used textbooks are steadily increasing. He strongly encouraged faculty members and textbook coordinators to supply textbook adoption information by Web (www.bookstore.gatech.edu), e-mail (textbooks@bks.gatech.edu) or fax (894-2530).

The Senate also approved:

- a long-anticipated revision to the Faculty Handbook's organizational structure;
- motions from the Undergraduate Curriculum Committee establishing

the Undergraduate Research Option and a list of courses for the International Plan; and

- a revision to the Student Rules and Regulations establishing a Grade Substitution Policy that allows freshmen and sophomores to retake certain courses in which they received a D or an F in the first attempt.

For more information...

Faculty governance
www.facultysenate.gatech.edu

Goldwater Scholar studies quantum cryptography

David Terraso
Institute Communications
and Public Affairs

John Parish likes to stay as busy. When he's not in class or researching quantum cryptography, he's building a robotic sub or working for the Department of Defense as part of Georgia Tech's cooperative education program. As Tech's newest recipient of the national Barry Goldwater Scholarship, all his hard work seems to be paying off.

"John is the caliber of undergraduate student who comes along only once or twice in an advisor's career," said Steven McLaughlin, professor of electrical and computer engineering and director of Georgia Tech Lorraine. "He is certainly the best undergraduate student I have worked with in my twelve years of teaching and research."

Parish came to Tech from Houston in the fall of 2002. When he was in middle school and high school, several people told him he'd never make it in college, especially in any field that was math or science related.

Now, he's working with McLaughlin on developing a method for encrypting communications that will be able to withstand the growing power of computers to crack them.

"A lot of the cryptographic methods in use now are still based on computational complexity," Parish said. "The idea is that computers are going to keep getting faster and people are going to be able to break those easily. If someone develops a quantum computer, you'd be able to break virtually any cryptographic protocol that's based on computational complexity."

One of the benefits of quantum cryptography over traditional methods is due to a rule known as the uncertainty principle. That rule states that observing or measuring a quantum particle, such as a photon, disturbs that particle meaning an eavesdropper would be easily detected because the very act of listening causes changes in the encoded bits.

But serious challenges remain before quantum cryptography can be used reliably. Since quantum cryptography relies on the distribution of one quantum bit between parties, it's currently very difficult to establish wireless communication between two parties if the receiver's location is unknown. It is also difficult to communicate with more than one party at a time.

Parish's research could help solve those problems. In a paper he's submitting for publication in a scientific journal, Parish proposes a solution.

Suppose Agent Base wants to send a secret message to Agent Field, who's in an undisclosed secret location. Base sends out a reference signal — comprised of many photons — in all directions. Field receives the signal and uses a device to reduce it to just one photon, which he encodes with a secret quantum key the two will use to decode their messages. He sends that photon back to Base, who measures it in order to find out the secret key. Base and Field can now communicate using the key to code and decode their messages.

This method eliminates the need for Field to wear a tracking device, which could also be used by opposing agents. It also allows other agents that Base wants to talk with to receive the reference signal and beam back their own keys to Base.

"Using this you'll be able to have a multi-user free space system. The concept is totally new," said Parish.

Last fall, Parish began a new student organization, the Marine Robotics Group. The group is building a robotic submarine, which they plan to enter into a competition this summer.

As to his future plans, Parish said he would like to earn a doctorate and pursue a research career, most likely in electrical engineering.

Named in honor of the former Arizona senator, the Barry M. Goldwater Scholarship Program is designed to foster and encourage outstanding students to pursue careers in the fields of mathematics, the natural sciences and engineering. The award covers the cost of tuition, fees, books and room and board up to a maximum of \$7,500 per year for up to two years.



John Parish

Tuition, cont'd from page 1

Regents approved the new tuition rates last week.

President Wayne Clough said the increases would help to maintain Tech's reputation as a premier research university.

"Georgia Tech not only continues to be ranked as one of the best public universities in the nation, but also one of the best educational values to be found in higher education," he said. "Maintaining such quality is not without its costs. In keeping with the Tech ethos, we have managed to do more with less. These new resources will allow us to remain competitive with our public peers and ensure that the progress we've made will not erode."

After two years of significant budget cuts, full funding of the enrollment-driven formula that calculates the funds for operating expenses throughout the System was the top priority of the legislative session. The Legislature appropriated \$103 million in formula funds for Fiscal Year 2006, as well as \$17 million for a 2 percent average salary increase for faculty and staff that will take effect in January 2006.

That translated to an 8.5 percent increase in the USG's operating budget — the largest it has received in nine years — and helped to mitigate the increase in tuition.

"We pressed hard to keep tuition well below the double-digit mark, and our funding partners helped us achieve that

goal," Chancellor Thomas Meredith said. "The Governor and the General Assembly responded to our needs by fully funding the enrollment growth formula, and that allowed us to alleviate the impact of the tuition increase."

The Regents also approved increased tuition for out-of-state students. At the research universities — Tech, Georgia State University, the University of Georgia and the Medical College of Georgia — out-of-state tuition will increase \$1,332 a year, from \$16,648 to \$17,980.

For more information...

University System of
Georgia
www.usg.edu

IN BRIEF:

Instructor evaluation resource open for student input

The course instructor opinion survey is now available for students online at www.coursesurvey.gatech.edu. Surveys will be available through finals week, ending on May 8. There will be short periods that the survey system is not available due to system back-ups. If the system is unavailable, try again 10 minutes later — the system will not be shut down for long periods of time unless there is an anticipated problem.

- The first 10 multiple choice questions are reported to the instructor's school chair and college dean. All other responses only go to the professor.
- All responses are anonymous. The database that keeps track of GTID numbers to see if a student has completed a survey — regulating that only registered students complete surveys and that students submit only one survey — is completely separate from the database of actual responses.

- The multiple choice responses will be made available on the SGA course critique page (www.sga.gatech.edu/critique) for any class with at least five responses and at least a 30 percent response rate.

- Results will be available to faculty on May 14. Visit www.coursesurvey.gatech.edu/login.cfm, go to the report submenu and choose single course/instructor survey report. Administrative reports will be available May 23.

Individuals experiencing problems with the system should e-mail CETLhelp@gatech.edu with "CIOS Help" in the subject line.

Athletics names new associate director for academic services

Earlier this month, Director of Athletics Dave Braine announced Phyllis LaBaw had been named as Georgia Tech's associate director of athletics for academic services.

LaBaw joins the Georgia Tech Athletic Association staff from the University of South Florida, where she served as associate athletic director for Academic Support and Student Athlete Development.

A member of the athletics staff at South Florida since 1994, LaBaw oversaw academic support services for more than 400 student athletes in 18 NCAA-sponsored sports and was involved in other administrative duties.

In 2000, she received the Lan Hewlett Award from the National Association of Academic Advisors for Athletics, recognizing outstanding service in academic advising and athletics administration.

LaBaw earned a Bachelor of Science degree in finance from South Florida in 1978 as well as a Bachelor of Arts degree in psychology, also from South Florida, in 1990.

LaBaw replaces Jim Stevens, who retired as Director of Academic Services on Feb. 1.

CAMPUS EVENTS

Arts & Culture

Apr. 29 - May 1

The Ferst Center for the Arts hosts the Atlanta Lyric Theater's performance of "Man of La Mancha," at 8 p.m. (Apr. 29-30) and 2 p.m. (May 1). For tickets, call 894-9600 or visit www.ferstcenter.org.

May 6-7

The Ferst Center for the Arts welcomes the Atlanta Ballet for two 8 p.m. performances. For tickets, call 894-9600 or visit www.ferstcenter.org.

Brown Bags/Conferences/Lectures

Apr. 26

The Library and Information Center's Tuesday Talks Lecture series will feature College of Computing Assistant Professor Thad Starner, on "Face to Face with Wearable Computers," at 2 p.m. in the Library's Wilby Room. All Georgia Tech students, faculty and staff are welcome.

Apr. 28

The School of Economics Seminar Series features Vanderbilt University Professor Eric Bond, on "Is the Tariff the 'Mother of Trusts?' Reciprocal Trade Liberalization with Multimarket Collusion," at 10:45 a.m. in room G-17, Habersham Building.

May 5

The Office of Information Technology hosts a seminar on "Information Security Architecture Overview," at 9 a.m. in room 242 of the Rich Building. To register, visit www.trainsweb.gatech.edu.

May 5

The Office of Organizational Development hosts a brown bag seminar featuring American Museum of Papermaking Director Cindy Bowden, on "From 200 B.C. to Modern Times: The Art, Science and History of Papermaking," at 11:30 a.m. in room 308, Savant Building. To register, visit www.trainsweb.gatech.edu.

May 12

The Office of Information Technology hosts a free brown bag seminar on "Pretty Good Privacy (PGP) Software Usage," at 11 a.m. in room 321 of the Student Center. To register, visit www.trainsweb.gatech.edu.

May 12

The Office of Organizational Development hosts a brown bag seminar featuring Buck Cooke, assistant director of student involvement for Greek Affairs, on "From Alpha to Omega: Fraternity and Sorority Life at Georgia Tech," at 11:30 a.m. in room 308, Savant Building. To register, visit www.trainsweb.gatech.edu.

Faculty/Staff Development

May 5

The Office of Organizational Development hosts a course in "Flash MX — Level 1," which will introduce participants to the basics of creating objects and animating in Macromedia's Flash MX. To register, visit www.trainsweb.gatech.edu.

May 17

The Office of Organizational Development hosts a course in "Dreamweaver MX — Level 2," which will

introduce participants to advanced concepts of the Web development application. The one-day course includes advanced Web site creation features available in Dreamweaver, including libraries and behaviors. To register, visit www.trainsweb.gatech.edu.

Ongoing

Faculty, staff, alumni and graduate students are invited to join Georgia Tech's chapter of Toastmasters International, which meets every Thursday at 7:30 a.m. in room 102 of the Petit Microelectronics Research Center. For more information, visit www.techmasters.gatech.edu.

Miscellaneous

Apr. 29

Last day of classes for spring semester.

May 2-6

Final exams.

May 7

Spring commencement, featuring an address from U.S. Secretary of Energy Sam Bodman, will be at 9 a.m. in the Georgia Dome. For more information, visit www.gatech.edu/commencement.

Faculty and staff with events should e-mail them to editor@icpa.gatech.edu as soon as they are finalized. Submissions within two weeks of the scheduled date will be listed as space allows.

C L A S S I F I E D S

AUTOMOBILES

1982 Volkswagen Rabbit. Convertible, black, 102K miles, new convertible top, alternator, windshield & gasket, Michelin tires, runs great, great condition, second owner, \$1,500. E-mail dhoff86@att.net.

1987 Chevrolet G20 conversion van. Runs great, new transmission at 109K miles. New exhaust, all records, body rough, 134K miles, needs new windshield, \$950 OBO. E-mail dhoff86@att.net.

1992 Honda Accord EX sedan. Black, PS/PW/PL, cruise, sliding sun roof, Pioneer CD player with Fost Gate speakers, great gas mileage. \$2,500 OBO. Call 678-787-2904.

1999 Mercury Cougar. Automatic transmission, dual front air bags, 6 CD player, 2.5L V6, 75K miles, \$5,800. Call Robert at 678-641-2380.

FURNITURE

Queen-size mattress and box spring, \$150. Wooden desk with hutch, \$50. Both less than 2 years old and in good condition. E-mail jennifer.brown@cetl.gatech.edu.

5-piece bedroom set; dresser/mirror, nightstand, headboard & tall dresser.

\$500 OBO. Pictures available. E-mail katie.callahan@business.gatech.edu.

Dining room set: table, 6 newly re-upholstered chairs, and china cabinet. Blonde wood, great condition. \$400 OBO. 55-gallon aquarium and wood stand. \$250 OBO. E-mail gte530r@mail.gatech.edu.

REAL ESTATE/ROOMMATES

3BR/2BA, four-sided brick house in Lithonia suburbs. New roof and new appliances. Huge front and back yard. Close to Stone Mountain Park, shopping malls and schools. Asking \$135,000. Call 770-469-8220.

2BR/1BA 1950s house east of Decatur, just outside I-285. Includes new appliances, outdoor studio and carport, deck and fenced back yard. \$139,500. Call 404-299-6160 or e-mail ccosgrove@eas.gatech.edu.

Fully furnished downtown 1BR condo. Cable, DSL, gas, electric paid with association fee. Pre-paid parking. 24/7 concierge. 10-year tax abatement. \$115,000. Call 404-255-9249 or e-mail omaar_keiko@bellsouth.net.

1BR/1BA Chastain Park condo priced at \$135,000. Estimated monthly payment \$889.60. New HVAC, hardwood

floors, pool, clubhouse and exercise room. Move-in ready. Call 404-931-9922.

1BR/1BA 1930s condo across from Piedmont Park. Old-style charm with modern amenities. Association fee includes cable, gas, water, landscaping and sanitation. \$169,900. Call 894-9822 or e-mail shannon.sullivan@admission.gatech.edu.

1BR/1BA condo in Cross Creek. Convenient to GT. Golf, tennis, pool, gated community. W/D, a/c, ready to rent for \$750/month. Call 894-3476 or e-mail mercedes.saghini@arch.gatech.edu.

1BR/1BA condo in downtown Atlanta. Gated, assigned parking, pool and courtyard. For details and pictures call Ms. King at 385-2382.

SPORTS/FITNESS/RECREATION

Yakima Super Joe 3 trunk mount bike rack. Holds up to 3 bikes. Great condition. See "choose my rack" at www.yakima.com to see if it fits your car. \$35. E-mail jennifer.dubose@gtri.gatech.edu.

MISCELLANEOUS

Fisher Price infant-to-toddler rocker. Includes three developmental toys

designed to bring out baby's full potential that first year. \$15. Call 678-232-1095 for photos.

Graco open-top swing, French bear pattern, in excellent condition. Two-speed, along with a one-hand flip-up tray. Multi-position recline. \$35. Call 678-232-1095 for photos.

3-year-old male Rottweiler mix looking for good home with a yard. For pictures and more info., e-mail othelloellis@yahoo.com.

AKC Old English Sheepdog puppies available mid-May. Raised using New Skete methodology. Health guarantee; all shots. Males and females, \$600-\$800. Call 404-271-6900 or e-mail widi@mindspring.com.

Roland V-Drums, 11-piece set with rack, perfect condition, 3 years old, virtually never used. Paid \$3,000, sell for \$2,000 cash. E-mail greg.stenzoski@dlpe.gatech.edu or call 385-3543.

To submit an ad, e-mail the text to editor@icpa.gatech.edu.