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 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 Ronald Meyers and Georgia Tech Bookstore General Manager Jerry Maloney on efforts to rein in the rapid increase in textbook costs 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.

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. The facility will provide an interdisciplinary environment for exploring materials at the atomic and molecular levels. The facility will provide 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 Hagerty
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
"QUOTE-
UNCQUOTE"

“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)

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.”

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.

Senate, cont’d from page 1

“ar 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 texts is 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 (984-9230).

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

WWW.WHISTLE.GATECH.EDU

"Acustico," by 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.
Goldwater Scholar studies quantum cryptography

David Terraso
Institute Communications and Public Affairs

John Parish likes to stay as busy as he can. 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 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 N. 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."

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 final week, ending on May 11. 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 unanticipated problem.

The first 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 CETL.help@gatech.edu with “CIGS 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.

For more information...

University System of Georgia
www.usg.edu

WWW.WHISTLE.GATECH.EDU

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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 Umpire Ltd 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 9
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 508, 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.

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.

AUTOMOBILES

1982 Volkswagen Rabbit. Convertible, black, 10,228 miles, new convertible top, alternator, windshield & gasket. Michelin tires, runs great, great condition, second owner, $1,900. E-mail dhoff86@hotmail.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@hotmail.net.

1992 Honda Accord EX sedan. Black, PS/PW/PL, cruise, sliding sun roof, 1992 Honda Accord EX sedan. Black, PS/PW/PL, cruise, sliding sun roof, 134K miles, needs new windshield, $950 OBO. E-mail dhoff86@hotmail.net.


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

Furniture

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

SPORTS/FITNESS/RECREATION

Yakima Super Joe 5 trunk mount bike rack. Holds up to 3 bikes. Excellent condition. See "choose my rack" at www.ferstcenter.org.

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.

Ongoing

For tickets, call 894-9600 or visit www.ferstcenter.org.

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