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THE WHISTLE

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Tech completes academic misconduct investigation

Changes to CS courses, review process initiated

Bob Harty
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The investigations are complete on 186 Georgia Tech students suspected of academic honor code violations for plagiarism on computer science homework assignments in the fall semester. Of those referred to the dean of Students for investigation, 154 (83 percent) were charged with a violation of the Honor Code and 32 (17 percent) were exonerated. Of those charged, 136 (88 percent) acknowledged misconduct and accepted sanctions from the Office of the Dean of Students. The other 18 students (12 percent) requested a hearing before the Student Honor Committee. Punishment for those found guilty ranged from a zero on the homework assignment to suspension. The most common sanction was a drop of one letter grade for a final grade in the class.

Overall, less than 1 percent of the total homework assignments were involved. Still, in the wake of the unusually high volume of charges for one semester, the Institute formed two task forces, one to review the relatively new Honor Code system, and another to review the two introductory courses in which the students were enrolled. The task forces' work was recently completed and their recommendations are now being considered.

The most notable recommendations are that collaboration with attribution be allowed on homework assignments in the two introductory computer science courses, and that the Office of the Dean of Students should receive additional resources to investigate and process allegations of academic misconduct. Both recommendations will be implemented immediately.

"This incident has caused the Georgia Tech community to look closely at the way we teach and the way we hold each other accountable for our actions," said Bob McMath, vice provost for Undergraduate Studies. "Because of the serious and thoughtful efforts of many people, I believe that we are coming out of this experience a stronger and better university."

The investigations revealed that the plagiarism discovered was not done in an organized fashion. Rather, it was the result of a large number of students making independent decisions to use the work of others to meet homework deadlines. There was no evidence of a group effort to defraud the system.

The most significant policy change from the task force is shifting the assessment focus from homework to quizzes and exams. These two courses will now allow collaboration with attribution on homework assignments, a subtle but important change from previous years. The new policy, which went into effect for the summer semester, allows students to work collaboratively on homework assignments, as long as they credit the external sources used to complete the work. Those external sources may include, but are not limited to, other students, teaching assistants, textbooks or web sites.

"This change generated a great deal of discussion," said James Foley, associate dean of the College of Computing and chair of one of the task forces. "There are logical arguments for both approaches and both are in use around the country. But we ultimately felt that learning would improve by using the homework to teach and quizzes and exams for the bulk of our assessment. Such an approach is consistent with Tech's overall approach to collaborative learning."

With the advent of the collaborative approach, in-class exams and quizzes will become the primary means of assessing student performance. Homework assignments will be far more teaching oriented than a means of assessment.

The Institute will also add resources and make slight changes to its Academic Honor Code administration, a Code re-introduced by Tech students in 1996. Among the refinements are additional resources to investigate and adjudicate cases, an expansion of the Academic Honor Code Committee, a mandatory educational course for first-time offenders and a mediation process for those who wish to avail themselves of a more informal resolution.

The work of the two task forces went well beyond the academic misconduct issues, however. Some of the other notable recommendations designed to enhance the undergraduate curriculum will be:

- Offer multiple introductory computer science classes, including an accelerated course, to better match academic experience and interest. Currently, CS 1321 is required for virtually all undergraduates at Georgia Tech, regardless of major.
- Allow collaboration in the two classes, but only on homework. All non-original work must be attributed. Student assessment will shift from what used to be a series of take home assignments to quizzes and exams.
- Increase the number of computer lab spaces available.
- Increase the number of tenure-track faculty teaching the introductory computer science courses.
- Establish benchmarks for processing academic honor code violations to ensure swift adjudication.

There were also a number of suggestions for enhancing the Academic Honor Code process. Some of the other notable recommendations are:

- Create a new assistant dean for Academic Integrity and increase support staff within the Office of the Dean of Students to handle cases more efficiently.
- Increase the size of the Student Honor Committee in order to ensure a consistently available quorum for proceedings. Currently, the absence of more than one faculty or student representative prohibits conducting a meeting.
- Create an advisory/information subcommittee of the Faculty Senate on Academic Integrity to ensure broader awareness of and attention to these

Investigation continued, page 3

Spaceman talks about his travels

photo by Sue Cliftes

Last March, a group of astronauts completed 10-day servicing mission on the Hubble Space Telescope. One of the astronauts who installed the new Hubble camera — former Georgia Tech professor Mike Massimino — returned to campus last month to give a presentation to local elementary schoolchildren about what it was like to live in space and "walk" among the stars.

Massimino, a former associate professor in the School of Industrial and Systems Engineering (ISyE), also gave current ISyE Chair Bill Rouse a Georgia Tech pennant that traveled aboard the shuttle during the mission.

Massimino and his fellow crewmembers successfully upgraded the orbiting telescope with the new camera, increasing its efficiency tenfold.

"QUOTE— UNQUOTE"

"Investors are looking for some measure of truth to hang their hat on. There's a feeling that if they can deposit it in the bank and you can see it and spend it, then it's real — and unlike earnings, not subject to the whims of the accountants or the vagaries of the (generally accepted accounting principles)."
—Charles Mulford, professor of accounting in the DuPree College of Management, on investor confidence in the wake of several accounting scandals among top public corporations.
(Fortune)

"The importance of this process is that it will allow us to grow many aligned wires rather than tangles of wires. These silica nanowires could have applications ranging from optics to surface coatings."
—Zhong Wang, a professor in the School of Materials Science and Engineering, on his research improving the vapor-liquid-solid (VLS) process currently being used to make these structures.
(Popular Mechanics)

55 years later, co-op alumni group can still muster

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To the casual observer, they look just like anyone else in the lunch crowd at a popular Buckhead tavern. In the darkness it's hard to tell, a bit older, a bit slower maybe, and a bit more boisterous than the rest of the crowd. If you never looked up, you'd swear by the sound of it they were 16-year-olds. And if you never listened, you'd never know they were heroes.

They meet on the second Monday of every other month. Their number varies, but it's usually between four and eight. Today there are six: Al Hainlin, Rem DuBose, Jim Tucker, Ed Smith, Bill Camp and Jim Ivey. They meet for only two reasons — they all graduated from the co-op program at Georgia Tech, and they're all veterans of World War II.

After the war they didn't see each other except for the occasional business dealing that brought them together by chance. But in 1995, they had a muster.

"One of our members thought it would be a good idea for those of us who were in the war to get together," said DuBose.

They tried to have a class reunion, but although they entered Tech around the same time (1939-40), the war split them apart and they graduated in different years. Tech said they didn't have a "class" so there could be no class reunion. So they borrowed a term from their military days and called it a muster. More than 90 showed up; they've been getting together ever since.

"After you've talked to the grocery clerk and waved at the mailman, you need stimulating conversation. So it's nice to get together," said Hainlin.

Quantum mechanics, growing orchids, medical ailments and the war are just a few of the topics that float across their table. Often they have a guest join them, and more often than not, the guest is from Tech. They've met with everyone from the provost to alumni to professors. Given the broad range of guests, it's not a stretch to say they may be the best-informed group of graduates ever.

"We get a different perspective from each guest," said Ivey.

They came to Tech when the country was in the midst of the Depression. Even though they say tuition was only $22.50 in-state and $50 out-of-state per quarter, they needed the alternating quarters of work and school that the co-op program provided.

photo by Andrew Nielsen

Six alumni who went through the Georgia Tech co-op program and then served in the military during WWII muster every two months for news and nostalgia. From left: Jim Ivey, Rem Dubose and Al Hainlin. Back row (l-r) Bill Camp, Jim Tucker and Ed Smith.

Tech was a different universe back then. Every able-bodied student had to be in the ROTC for their first two years. There were no female students and a hazing system, known as rat court, was part of the routine. Freshmen, known as rats, had to wear rat caps so they could be easily identified. In one stunt the upperclassmen would blindfold the rats, drive them out of town and leave them there.

"We literally didn't know where we were, so you had to look for the glow of Atlanta and head down the road that way," explained DuBose.

Soon after, DuBose said, there was danger of a more serious kind.

"All I can remember is that on December 7 I was in the physics department in the afternoon taking a refresher course. When we came back to the dormitory, the bombs had already been dropped and the radios were going full blast. We didn't realize how bad it was, even with the description. We all wanted to enlist the next morning, due to a wonderful speech by Mr. Roosevelt."

But they were 18 and they also wanted to stay in school. Fred Ajax, an English instructor at the time, told them if they wanted to stay in school a little longer, they should join the enlisted reserve. "A week later we were on the bus," said DuBose.

After being sent to basic training and then non-commissioned officers' school, they wound up at The Citadel in South Carolina. They were tested and told they were too good at engineering to be sent off to war just yet, and they went back to Tech to live in the World War I army barracks that had popped up all over campus. As a result of the war, Tech had become, in essence, a military campus. Out of the roughly 2,900 students at Tech during each of the war years, approximately 2,000 of them were in the military.

"We had an incentive to study, because we knew that if we didn't, we wouldn't get to stay," said Tucker

The "vacation" didn't last long. After a few months, they were sent to Officer Candidate School and then off to war.

DuBose was lucky, he said, because he was stationed in Aberdeen, Maryland as a utilities officer for the duration of the war. Hainlin was sent to the Philippines to serve in a maintenance company keeping the trucks and artillery running. Tucker and Ivey were shipped to the Pacific to dispose of unexploded bombs.

After the war they went back to Tech where rat caps and rat court didn't seem so threatening anymore and tuition was paid by the government's new GI Bill.

When they finally graduated in 1947 and '48, they went their separate ways, seeing each other only occasionally. Hainlin taught at the University of Miami and then started his own aerospace business. Tucker became chief engineer at Simons-Eastern, Ivey was a production manager and division manager at Florida Steel and DuBose served as president of the Georgia Tech Alumni Association from 1984-85 and is about to retire as chairman from White Electrical.

Georgia Tech

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

Engineering students explore ways to reduce auto emissions

Larry Bowie
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A team of Georgia Tech engineering students is among 15 teams from top engineering schools competing to re-engineer a sport-utility vehicle to improve gas mileage and reduce emissions.

The "FutureTruck" competition, organized by Ford Motor Company and the U.S. Department of Energy (DOE), will be held June 11-21 in Arizona and California.

The students, with guidance from faculty and technical help from DOE and Ford, will attempt to re-engineer a 2002 Ford Explorer into a low-emissions vehicle with at least 25 percent higher fuel economy — without sacrificing performance, utility, safety or affordability.

The Tech team's entry is a split-parallel hybrid vehicle that's powered by both an electric motor and a standard engine. The front wheels drive electrically, powered by a

Hybrid continued, page 3

William Fash, Tech's first dean of architecture, dies at 71

Sean Selman
Institute Communications and Public Affairs

William L. Fash, the first dean of Georgia Tech's College of Architecture, died on May 27 at his Atlanta home. He was 71.

Fash died of complications from lung disease. He joined the faculty in 1976 after the enrollment of almost 1,000 students resulted in the formation of Georgia Tech's College of Architecture the year before. Fash was appointed the College's first dean, and the program grew quickly during his tenure.

Major accomplishments during his tenure included an addition to the Institute's original Architecture Building, and the approval of a doctoral degree program in architecture.

A major research program also emerged in the College of Architecture, at first among projects developed by individual faculty and then with the creation of major research centers such as the Center for Rehabilitation Technology in 1980 and the Construction Research Center in 1987.

photo courtesy Georgia Tech Archives

Due to health problems, Fash stepped down as dean in June 1992 and remained on the faculty until his retirement in 1994.

"We have succeeded in getting instruction programs on very solid footing and very competitive with the other schools," he said in 1992. "I'm very proud of the faculty and the staff that we've assembled. And, of course, Georgia Tech students are just incredible, and the students in this college are certainly no exception."

Prior to his arrival at Tech, Fash was a professor of architecture at the University of Illinois. He has also held teaching positions at the University of Oregon and at Oklahoma State University, where he earned his bachelor's and master's degrees in architecture. He also was a Fulbright Scholar.

Investigation, cont'd from page 1

issues among the faculty.
• Create a mandatory, non-credit course on academic integrity for all first-time offenders in addition to any other sanctions. Faculty should teach the course with the idea that first-time offenders should not only be punished, but should learn from the experience.

"It has been difficult for all involved," said McMath, "and I thank all of the faculty, staff, students, and others who have invested their time and energy into this process."

Computer Science 1321 & 1322
Academic Misconduct Cases, Fall Semester 2001

		Number	Percent
Students Referred		187	n/a
Investigations Completed		186	99
Withdrew from Tech		1	1
	Total	**187**	**100**
Violations Found		154	83
No Violation		32	17
	Total	**186**	**100**
Accepted Dean's Decision and Sanctions		136	88
Requested Student Honor Committee Hearing		18	12
	Total	**154**	**100**
Academic Sanction			
	Zero on Assignment	32	24
	Drop Final Grade One Letter	62	46
	Drop Final Grade Two Letters	15	11
	F in the Course	26	19
	Suspension	1	0
	Total	**136**	**100**

Hybrid, cont'd from page 2

200-horsepower electric motor, while the rear wheels are powered by a 210-horsepower V6 engine. A complex hybrid controller system allows both engines to respond to driver inputs, such as steering, accelerating and braking.

Comprised mostly of undergraduate students in mechanical and electrical engineering, the team is advised by Jerry Meisel of the School of Electrical and Computer Engineering, and Caryn Riley and Boyd Pettitt of the Hybrid and Electric Vehicle Research Center at Georgia Tech's National Electric Energy Testing Research and Applications Center (NEETRAC).

"FutureTruck provides real-world engineering experience, first-hand exposure to new technologies and the opportunity to help develop more energy-efficient, 'greener' automotive technologies." Riley said.

Last year, the team placed fourth overall at the General Motors Proving Ground in Michigan, receiving awards for Best Dynamic Handling, Best Acceleration and Best Consumer Acceptability.

FutureTruck is a joint government-industry project created by the Department of Energy to explore alternative propulsion systems and fuels through student competition, with the goal of raising the environmental performance of the SUV while keeping the features that have made it so popular.

For more information...

FutureTruck
www.futuretruck.org

National Electric Energy Testing Research and Applications Center
www.neetrac.gatech.edu

IN BRIEF:

ATDC graduates nine

At its 12th annual Open House on May 15, the Advanced Technology Development Center (ATDC) recognized nine companies for their accomplishments in a formal "graduation" from the center.

The companies represent a mix of technologies from medical devices and waste conversion to software and Internet applications. Three of the firms have been acquired by larger companies.

Three of the nine have direct ties with Georgia Tech:

• Chutney Technologies, Inc. is defining a new category of software solutions called Application Optimization, which attacks performance and scalability bottlenecks that persist throughout multi-tier web application architectures. Co-founded by DuPree College of Management Professor Anindya Datta, Chutney was recently included in ComputerWorld Magazine's list of "top 100 emerging companies for 2002."

• SaluMedica, an Atlanta biotech company, is designing and developing medical devices based on its proprietary biomaterial. SaluMedica holds the exclusive, worldwide license to use this patent-protected biomaterial. Regents' Professor David Ku, who holds a faculty appointment in the College of Engineering and the DuPree College of Management, serves as both its president and CEO.

• TogetherWeb, Inc. enables electronic customer relationship management (eCRM) companies to provide collaborative support solutions through secure collaborative browsing between customer service representatives and customers. TogetherWeb was begun in 2000 by three Tech alumni; in January 2002, it was acquired by Proficient Systems, Inc., an Atlanta-based enterprise software vendor and TogetherWeb customer.

The remaining six companies are EnerTech Environmental, Fortel DTV, Information Distribution and Marketing, MediaOcean, Officemed.com and STAR Software Systems. For more information on the graduate companies, refer to www.atdc.org/recentgraduates.html.

ECE students take Intel honors

Jay Silver took second place honors in the Intel Research Award Contest for Undergraduate Students last month at the company's international headquarters in Santa Clara, Calif.

Silver graduated with his bachelor's degree in electrical engineering on May 4.

Sponsored by Intel's Microprocessor Research Labs (MRL), the program awarded grants for undergraduate student research conducted during the previous year that explores the frontiers of future computing.

Silver's project, "Real-time Nematode Egg Detection with Computer Vision," was advised by Ronald Schafer, a Regents' Professor in the School of Electrical and Computer Engineering. Silver will attend the University of Cambridge this fall on the Gates Cambridge Scholarship to pursue a master's degree focused on computer speech.

He was not the only Tech participant in the Intel competition. Chung-Tse Mar, who received his bachelor's degree in electrical engineering, and James Hays, a senior in computer science, were also named among the contest's 14 finalists. Schafer also advised Mar on his project, "An Energy-Efficient, High-Quality, Audio Device Driver for the SmartBadge IV." Hays' project "Art Styling for Video" was advised by Irfan Essa, an assistant professor in the College of Computing.