‘Updated’ Campus Master Plan stresses sustainability

Michael Hagearty
Institute Communications and Public Affairs

To Les Saunders’ way of thinking, part of campus planning is letting nature take its course. With a little help from some engineers, he’s proposing just that.

One of the more intriguing aspects of his update to the Campus Master Plan is an engineered waterway designed to recall the natural stream that existed on the north end of campus as late as the 1940s. Dubbed the “eco-commons,” it will stretch from the west campus residence halls to the tennis courts at Tenth and Fowler streets, and will allow Tech to more effectively manage its stormwater by substantially reducing inflows into city sewers and creating a system for reuse on campus landscapes.

Though it requires land space that could be used for instructional or lab facilities, Saunders, as director of Capital Planning and Space Management, says the project makes sense: “Based upon the goals Georgia Tech has as an institution and as a campus to provide adequate space for academics and research in an ecologically sound environment for work and play.”

The guiding hand for this kind of development is embodied in the Master Plan, a “living document” that serves to merge the Institute’s strategic vision with design guidelines that stress flexibility, maintainability and longevity.

It is an impressive document, one that sets overarching goals of improving the ecological, educational and economic environment at Tech by focusing on specific elements such as sustainability, accessibility and community collaboration. This past spring, Saunders took his show on the road. Many of the documents he used in his presentations are available online for viewing or download.

Every few years, the Board of Regents requires that each of its member institutions make a presentation on its planned growth and development. At Tech, that vision is crafted through Saunders’ office, which is currently putting the final touches on the latest iteration of the Campus Master Plan.

Saunders calls the plan an update to the plan developed in 1997 because the foundation of that document is still solid. The update is an effort to maintain a comprehensive plan and to respond to the changing needs of the institution and its community.

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“Updated” Campus Master Plan continued, page 2

Women to comprise a larger percentage of freshman class

David Terraso
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This fall, more women will enroll in Georgia Tech’s freshman class than ever before. Tech’s incoming freshman class will have almost 800 women, a 30 percent increase over last fall. Applications from prospective women students are also up, by 6.7 percent. The increases are a significant step in Tech’s efforts to maintain a diverse campus and attract more women to the traditionally male-dominated disciplines of science and engineering.

“We’ve been putting forth a tremendous effort to expose women to the diversity of the science and engineering fields, to show them how these fields impact the human condition in a personal way,” said Ingrid Hayes, director of undergraduate admission.

The College of Sciences is the main beneficiary of this influx. This fall the College will have 80 percent more women in the freshman class over last fall. In biology alone, 91 of 123 new freshmen are women.

According to the National Center for Education Statistics, women have outpaced men in receiving bachelor’s degrees since 1984. From 2001-2002, the last year for which figures are available, women earned 57.4 percent of all bachelor’s degrees. But at schools such as Georgia Tech and M.I.T., where engineering has historically been a dominant field, women typically account for only one-third of the student body.

Bringing more women students is essential if Tech is going to continue to provide students a top-ranked education, said Katie Fausmagne, assistant director of undergraduate admission. “We need to have diversity in the fields of science and engineering. It brings different personalities to the table and diverse ideas,” she said.

Attracting more women to campus appears in fields such as biology and biomedical engineering (BME), which students often take as a pre-med program. Since Tech began its undergraduate BME program in 2001, half the students have been women.

Making prospective students aware of Tech’s programs in liberal arts and architecture has also paid dividends. This fall, the College of Architecture is expecting a 62 percent increase in the number of new women freshmen, and Ivan Allen College will see a 20 percent increase.

Attracting more women to campus Freshmen continued, page 2
Tech partners with state to improve computer literacy

Elizabeth Campbell
Institute Communications and Public Affairs

Taking advantage of Georgia Tech’s computer expertise and instructional capabilities and the educational leadership of the Georgia Department of Education (DOE), the State is partnering with the College of Computing in an aggressive approach to strengthen the technology skills of its high school computer science teachers.

The goal is to better prepare Georgia’s students for an increasingly computer-dependent workplace. In return, the state gets a highly skilled information technology workforce, which makes Georgia more competitive on a global scale. State Superintendent of Schools Kathy Cox and Rich DeMillo, dean of the College of Computing, outlined details of the new partnership earlier this month.

“I would like to see at least two Advanced Placement (AP) classes offered in every Georgia high school,” Cox said. “This partnership will gradually open the window of opportunity for students across our state who currently don’t have access to these high-level courses.”

“The ultimate goal is for computer literacy to become a basic skill and, therefore, to increase Georgia high school students’ competitiveness in the marketplace,” DeMillo added. “We hope this new training program will become a national model for improving computer science education.”

Faculty in the College of Computing will teach two separate workshops — designed to update high school curriculums and to improve knowledge of computer technology and programming. One workshop is designed for current teachers of AP computer science courses, and the other is geared toward future AP instructors currently teaching non-AP computer science courses.

Introduction to Programming and Systems Management classes, which became part of the DOE’s Technology and Career Education program this year.

The classes are funded through the Georgia Vocational Staff Development Consortium (GVSDC), with additional costs being covered by Georgia Tech.

Since computing technology changes so rapidly, year-round follow-up is considered an essential element of this initiative and will be provided by the Institute for Computing Education in the College of Computing (ICE@GT). Teachers will have class visits, online support and regional workshops to support their work.

“We want to attract and educate students to contribute toward the growth of the industry, as well as the discipline itself,” DeMillo said. “To stay globally competitive, we must prepare a more competent IT-literate student population than what it is currently. Georgia Tech has the expertise and resources to do that.”

Along with the College of Computing, the new ICE@GT Workshops are sponsored by the Georgia Department of Education, the Georgia Vocational Staff Development Consortium, and Georgia Tech’s Center for Education Integrating Science, Mathematics and Computing (CEISMIC).

Rich DeMillo, dean of the College of Computing, and State Superintendent of Schools Kathy Cox announced a partnership last week, which gives high school computer science teachers the opportunity to advance their knowledge with the goal of increasing computer literacy among high school students.

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takes that vision further, adding greater detail and establishing priorities for future growth.

When is comes to estimating an implementation timeline, Saunders is more circumspect, noting “the Campus Master Plan provides a framework within which to do things as opportunities present themselves.”

President Wayne Clough is expected to present the updated plan to the Regents this fall.

For more information...

Campus Master Plan
www.space.gatech.edu/masterplan.htm

WWW.WHISTLE.GATECH.EDU
New research holds promise for preventing colon cancer

Professor cites chemical composition of soy

David Terraso
Institute Communications and Public Affairs

A substance found in soybeans may reduce the risk of colon cancer, the third most common form of cancer in the world, according to the World Health Organization. Georgia Tech researcher Al Merrill, along with colleagues from Emory and the Karmanos Cancer Institute in Detroit, found that soy glucosylceramide (soy GlcCer) was effective in reducing the formation and growth of tumor cells in the gastrointestinal (GI) tract in mice. The results were published in the May issue of the Journal of Nutrition.

"Soy is known to have a number of health benefits, including the suppression of cancer. Based on our results, some of this benefit may be due to a group of molecules known as sphingolipids," said Merrill.

Soy GlcCer is just one of the many types of sphingolipids found in plants and animals. Merrill and colleagues have already shown that milk sphingolipids can suppress tumor formation. But this is the first study, he said, that has established that the sphingolipids of plants — which are structurally different — can also inhibit colon cancer. Other foods rich in sphingolipids are eggs, cheese and wheat flour.

The study is the latest in a series of findings showing the medical benefits of the soybean. Earlier this year, researchers from Cincinnati Children’s Hospital, Colorado State University and Brigham Young University found that soy can help reduce the risk of prostate cancer.

In Merrill’s latest study, he found soy GlcCer was able to reduce the number of tumors in both mice with an inherited defect that leads to GI cancer and in mice exposed to a chemical that causes colon cancer.

One feature that makes Merrill’s results especially promising is that it didn’t take massive doses of soy GlcCer to show an anti-cancer effect. The amounts used in the study were similar to those naturally found in soybeans.

Another result was that unlike many substances that are digested, soy GlcCer survives the journey through the stomach and intestine with enough power to affect cancerous cells in the colon. Ensuring that cancer-fighting substances reach the cells is always a hurdle in any kind of cancer research.

It is not known exactly how sphingolipids suppress cancer. According to Merrill, there are probably many mechanisms involved, including beta-catenin, a protein involved in cell growth, seems to be one method. Too much of this protein, and cells grow unchecked. Soy GlcCer reduces the amount of beta-catenin in the cells, helping the body regain control. "In essence, sphingolipids are bypassing the genetic defect," he said.

With funding from the National Cancer Institute, Merrill and colleagues are developing new compounds based on sphingolipids that might be useful as anti-cancer drugs. "We are looking for even more potent forms of these molecules that might be effective for cancer treatment," he said.

He hopes to begin studies to see if sphingolipids have similar effects on humans as they have for mice.

For more information...

School of Biology
www.biology.gatech.edu

IN BRIEF:

Cherry Street closing

The Department of Facilities recently closed Cherry Street to vehicular traffic to repair a leaking steam pipe beneath the road that stretches from the Savannah Building to the Engineering, Science and Mechanics Building.

Preparation for the project, which included erecting a fence that allows pedestrian passage-way to bypass the excavation, began June 1. The old, leaking steam pipe will be abated, removed, replaced and insulated before backfilling the large ditch with dirt and gravel. The street should be opened again by July 8.

Trolley and Stinger routes will be slightly altered, but pedestrian traffic is not affected. Impacted shuttle routes include the Red Route and the Green Route. Temporary stops will be located on Tech Parkway. For the Savannah Building, the stop is being relocated behind Wright Aerospace Building. Passengers wanting to go to the Student Center will disembark at the MARTA bus stop on Tech Parkway. For more information, visit www.parking.gatech.edu.

Clough moderates G-8 panel

During the recent G-8 Summit at Sea Island, the Governor’s Office invited leaders from Georgia’s high-tech industry to the Summit’s International Media Center in Savannah for a panel discussion highlighting the state’s research and development institutions, organizations and infrastructure that have made Georgia a leader in technology innovation. President Wayne Clough served as the moderator of a panel that also featured Tech alumnus Tom Noonan, president and CEO of Internet Security Systems.

Clough emphasized the strengths and contributions of Georgia’s research universities to Georgia’s economy. Most notably, he pointed out that combined, Georgia’s research universities conduct more than $1 billion worth of research each year, a larger total than the universities in Research Triangle Park in North Carolina. In addition, Clough emphasized Georgia’s high rankings in industries such as logistics, telecommunications and software, according to a study by the U.S. Council on Competitiveness.

Audio of the technology briefing and other sessions about business, entertainment, international community, public health, and tourism sectors are available online at www.georgia.org/G8/news/multimedia.html.
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Appliances
Kenmore washer and dryer, approx. 4 years old, both work great, $150 for both or best offer. Call 894-3646 or e-mail william.robinson@grl.gatech.edu.

Maytag window air conditioner, excellent used condition, $60. Call 404-680-5856.

Automobiles
1985 Cadillac Eldorado. New tires. New radiator. Passes emissions. Power everything. $900. Call James, 404-245-8555 or e-mail mospurgo59@bellsouth.net.

1992 Honda Prelude. 120,500 miles, clean, very reliable, all records, 5-speed, silver, special wheels, spoiler, tachometer. AM/FM/CD. W has says sell it. $5,899. Call Glen, 770-972-1123.

1996 Honda Accord LX. Great condition. 4DR, automatic, A/C, cassette, CD player, sunroof, great condition. 73K miles. $5,200. Email kitley.hundt@edl.gatech.edu.

1997 Volvo 850. Red. 5-speed, CD player, sunroof, great condition. 73K miles. $7,500. Call 770-842-4455.


Furniture
Antique clawfoot tub, extra long (5.5 feet), $500 OBPO. Antique white, pedestal sink, $125 OBPO. Both in very good condition. Call 404-223-5615.

Natural wood baby furniture in excellent condition. Crib, 3-drawer dresser with flip-kit, 5-drawer dresser, gliding rocker with ottoman. Will sell separately or as a set. Contact Pamela at 770-509-5381 or e-mail rabbigj@bell-south.net.

Simmons BeautyRest Starwood Elite double-side pillowtop medium firm queen-size mattress/spring box set. Detachable legs, no extra frame needed. Cream color, good condition. $529. E-mail bx2e@emory.edu.

Oak living room furniture complete set w/lamps, $400; oak dining room table w/chairs, $100; glass beveled breakfast table w/chairs, $300; cherry bedroom suite queen size, perfect condition, $2,000. Will deliver. Call 678-232-3475 or e-mail david.gifford@grl.gatech.edu.

Real Estate/Roommates
Bedroom for rent in Kennesaw, 5 minutes from I-75 (Chastain Rd. exit). Private bath and use of the kitchen, available 8/1, $420/month. E-mail dc1166@emcs.net.

Location, luxury and lifestyle in Midtown. 1BR/1BA condo shows like a model. Fishbowl, designer colors, building with pool, parking, two storage units. All appliances. PFLS# 901288. E-mail paul.mcelie@grl.gatech.edu.


3BR/2BA Buckhead “treehouse” retreat, Morris Brandon School district, 2,200 sq. ft., on one-acre wooded lot with stream. Quiet family neighborhood. Bright, open floor plan. $849,500. Call 404-815-1812.

4BR/4BA beautiful East Cobb home, $264,000. Large front and screened porches, deck and patio. Fabulous schools, 25 minutes to GT. Realtor.com MLS#909592 or 1471154. E-mail Ginger.caney@biology.gatech.edu.


1BR garden apartment in Inman Park, new kitchen & bath, off-street parking, private deck. Rents for $775/month, free of charge in exchange for 20 hours childcare/wk. beginning in August. Call 404-658-1784 or e-mail ruthduso@mindspring.com.

For sale: Large, sun-filled house, surrounded by trees, 20 minutes to campus. Five minutes to all conveniences. Go to http://www.homescones.com and enter ID #912065.

1BR/1BA, furnished apt. with combined kitchen/living area in Morningside. Off-street parking. Use of landlord’s washer/dryer can be arranged. No pets, non-smoker. $730/month includes utilities except gas. Call Emily Wert at 404-873-2052.

3BR/2BA ranch home in Buckhead. Walking distance to Lenox Mall. Large, sunny yard fenced in, alarm system, 2-car covered carport, fireplace, Most pets OK. Pictures via e-mail. $1,650/month. Call 678-361-8859.

Sports/fitness/Recreation

Swimming pool, 24-foot diameter x 48-inch height. Includes structure, filter and pump, needs liner. Brand new in packaging, must pick up. Worth $800; sell for $675. Email lyn.nosenfield@arts.gatech.edu.

Prowform 585C treadmill, excellent condition. Paid $900, sell for $400. E-mail nicole.pamplin@facilities.gatech.edu or call 894-1711.

Miscellaneous
16-foot Hobie Cat sailboat. In good condition, new trampoline, comes with trailer; $950. E-mail kathy.check@ece.gatech.edu or call 770-975-3794.

Kolcraft Tender Vibes bassinet, $25. Evenflo Portabout car seat w/latch and pump, needs liner. Brand new in packaging, must pick up. Worth $800; sell for $75. Email lyn.nosenfield@arts.gatech.edu.

Proform 585C treadmill, excellent condition. Paid $900, sell for $400. E-mail nicole.pamplin@facilities.gatech.edu or call 894-1711.

Wanted, housekeeper to clean 1BR apartment in Lithia Springs area. Services needed every two weeks. Will pay $40 per cleaning. Transportation, references, criminal history required. Call, after 6 p.m., 770-944-2350.