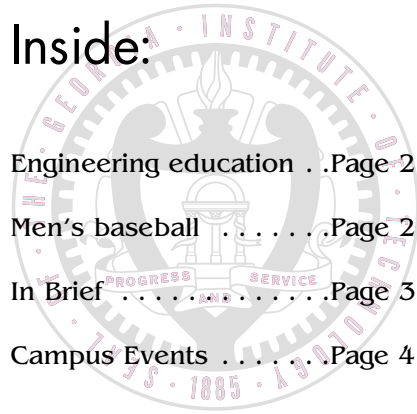


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THE WHISTLE

FACULTY/STAFF NEWSPAPER

VOLUME 27, NUMBER 22 • JULY 1, 2002

THE GEORGIA INSTITUTE OF TECHNOLOGY

Tech one of seven schools tapped for NASA research program

Aerospace engineering professors hope to improve propulsion systems

Larry Bowie
Institute Communications and Public Affairs

In a move to forge stronger relationships with academia, NASA announced last week it had chosen Georgia Tech as one of seven new "NASA Institutes" at colleges or universities across the country.

"This is a tremendous success and opportunity for Georgia Tech," said Jean-Lou Chameau, provost and vice president for Academic Affairs, who will serve as the NASA Institute's

senior research officer. "It attests to the amazing quality and work of our aerospace engineering faculty and students, as well as to the continuous support we receive from the state and our industrial and federal partners in this critical area."

The seven designees are called "University Research, Engineering and Technology Institutes" (URETI), with each assigned its own research thrust area.

The primary role of each of the university-based Institutes will be to perform research and development that not only develops leading-edge technologies and increases understanding of phenomena, but also moves advances from scientific discovery to basic technology that could be used in future engines.

The Institutes will provide support for undergraduate and graduate students, curriculum development, personnel exchange, learning opportunities and training in advanced scientific and engineering concepts for the aerospace workforce in government and industry.

Ben T. Zinn, a Regents' Professor in aerospace and mechanical engineering who will serve as director of the new NASA Institute, said Tech's job will be to develop new propulsion and power technologies.

These technologies, Zinn said, will enable NASA and private industry to produce engines that meet environmental regulations, burn less fuel, reduce global warming, improve

NASA continued, page 3



One aspect of the researchers' work will be to improve fuel consumption, now at 500,000 gallons per shuttle launch.

Rankings show Tech still strong granting advanced degrees to minorities

David Terraso
Institute Communications and Public Affairs

As much as institutions like to toot their own horn, it means much more when someone else does the tooting, especially when it's on a national platform.

For the second year in a row, Black Issues in Higher Education magazine named Georgia Tech's graduate engineering program the No. 1 producer of African-American engineers in the country. Tech's undergraduate engineering program, which held the top spot last year, fell to number two in this year's rankings, squeezed out by North Carolina A&T State University. During the 2000-2001 academic year, Tech awarded 107 bachelor's degrees in engineering to African-American students, compared to North Carolina A&T State's 120.

Tech's master's level engineering program is also making inroads among Hispanic students, ranking seventh out of 50 for the 2000-2001 school year.

The rankings are part of Black Issues in Higher Education's Top 100, which for the past 11 years has measured the number of degrees awarded to minority students by postsecondary schools across the country (see chart, below).

The rankings are important because they allow Tech to objectively measure the success of the school's diversity efforts. The magazine gets its numbers from the U.S. Department of Education's National Center for Education Statistics.

The drop to the No. 2 spot wasn't surprising, said Robert Haley, who runs the College of Engineering's

Degrees continued, page 3

	Degree	Ranking	Number of Degrees	Change from 1999-2000
African-American	Computer Science, Master's	16 out of 42	7	75%
	Engineering, Bachelor's	2 out of 60	107	-27.20%
	Engineering, Master's	1 out of 60	47	30.60%
	Engineering, Doctorate	1 out of 10	10	-9.10%
	Physical Sciences, Master's	5 out of 15	5	400%
	Physical Science, Doctorate	4 out of 6	3	50%
Asian-American	Engineering, Doctorate	4 out of 46	16	33.30%
Hispanic	Engineering, Bachelor's	24 out of 60	35	6.10%
	Engineering, Master's	7 out of 50	16	33.30%

Graduate business degree renamed

Hope Wilson
College of Management

It's official: Georgia Tech has an M.B.A. program. At its June 12 meeting, the Board of Regents approved a name change for the Master of Science in Management (M.S.M.) offered by the DuPree College of Management to an M.B.A., or Master of Business Administration.

At the same meeting, the regents also approved changing the name of the M.S. programs in management and administration at Southern Polytechnic State University and Georgia Southwestern State University to M.B.A.

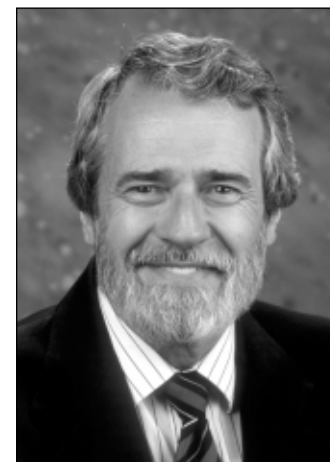
Keith Melanson, M.B.A. class of 2003 thinks the change is good for students and good for the college. "The M.B.A. is a more recognized degree. Georgia Tech's M.S.M. is the same degree as an M.B.A., but we constantly had to explain it." According to Melanson, using M.S.M. on resumes create problems for students when resumes are entered into a database because a keyword search for M.B.A. can miss M.S.M. students.

The program was established at Tech in 1945 as a Master of Science in Industrial Management (M.S.I.M.) degree and was changed to M.S.M. in

M.B.A. continued, page 2

Giddens takes helm as COE dean

Don P. Giddens officially assumes his new position as dean of the College of Engineering this week. Giddens, who has been a student, faculty member and administrator at Georgia Tech, most recently served as chair of the Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University. His predecessor, Jean-Lou Chameau, now serves as the Institute's provost.



“QUOTE—
UNQUOTE”

“You just want to wrap enough dynamite or something like that around it to create a cloud of radiation.”

—William Hoehn, a visiting professor in the School of International Affairs, on the viability of building a so-called “dirty bomb,” a lower-impact radiological device suspected to be one of the continuing terrorist threats.
(Atlanta Journal-Constitution)

“We just have to begin to sort of put (together) a laundry list of ideas, in the public as well as private sector, where we can begin to involve entrepreneurs.”

—Thomas Boston, a professor in the School of Economics, on increasing business ownership among black Americans.
(Black Enterprise)

Rosser gives prominent lecture on state of engineering education

Elizabeth Campell
Institute Communications
and Public Affairs

In a year celebrating 50 years of women on the campus of Georgia Tech, Ivan Allen College Dean Sue Rosser joined the ranks of other prestigious scholars and educators such as B.F. Skinner, Benjamin Bloom, Ernest Boyer and Sheila Tobias in giving the Educational Research & Methods Distinguished Lecture at the American Society for Engineering Education (ASEE) National Conference last month in Montreal.

Rosser’s speech, entitled “Will Engineering Criteria 2000 Make Engineering More Female Friendly?,” examined the most recent engineering accreditation standards adopted by the national accrediting board for engineering education, ABET, or Accreditation Board for Engineering and Technology.

Called Engineering Criteria 2000 (EC 2000), these new guidelines were adopted after an extensive period of evaluation and discussion to ensure that engineers of the 21st century are prepared to address the technical needs and social expectations of technology.

A major consideration in revising these national standards was the finding that engineers from accredited programs typically excel during the first 10 years of their careers



when the nuts and bolts science and math skills dominate, but do not do as well later in their careers when broader, analytical and strategic skills are needed.

EC 2000 addresses these concerns by instituting dramatic changes in the engineering curricula, emphasizing skills associated with a liberal arts education. In particular, the new criteria require graduates of accredited programs to be able to communicate effectively and function on multidisciplinary teams, understand their professional and ethical responsibilities as well as the impact of engineering solutions in a global and societal context, develop the capacity and appetite for lifelong learning and acquire a knowledge of contemporary issues.

Despite a strong demand for engineers, the field is finding it increasingly difficult to recruit students. Currently, the U.S. engineering work force is 80 percent white, non-Hispanic, 91 percent male and overwhelmingly middle-aged. Even though women earn more bachelor’s degrees than men overall, they received only 18 percent of the engineering bachelor’s degrees awarded, according to the National Science Foundation.

Rosser, a prominent scholar and educator on women’s issues related to science, medicine and technology, assessed the potential impact of the new ABET accreditation standards on gender diversity by comparing the requirements of EC 2000 with 20 pedagogical criteria she laid out in her definitive book, “Female Friendly Science.” In her lecture, she cited specific recommendations on how to attract and retain more women to the field.

Drawing parallels between her criteria and the new standards, she noted “a close comparison ... reveals considerable overlap and substantive correspondence,” and pointed out “none runs directly counter to female-friendly suggestions, which bodes well for ABET Goal 5, to ‘expand the diversity of participation in ABET.’”

Baseball season ends with top-five national ranking

The Georgia Tech baseball team, which won a school-record 52 games and advanced to the College World Series for the second time in school history, was ranked fifth nationally in the final college baseball polls by both Baseball Weekly and Collegiate Baseball magazines.

The fifth place ranking represents the highest final ranking since the Yellow Jackets were ranked second in the final 1994 polls after finishing as the national runner-up.

It is the ninth time in 11 years that the Jackets (52-16) have ranked in the final Top 25, and the fifth

place final ranking is the second-highest in school history.

Both publications agreed on the top five teams: the University of Texas finished first, followed by the University of South Carolina, Clemson University and Stanford University.

Georgia
Tech



THE
WHISTLE

Editor: Michael Hagearty

Published by Institute
Communications and Public Affairs.

Publication is weekly throughout
the academic year and biweekly
throughout the summer.

The Whistle can be accessed
electronically through the Georgia
Tech web page, or directly at
www.whistle.gatech.edu.

E-mail Whistle submissions to
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or fax to Michael at 404-894-7214
at least 10 days prior to desired
publication date. For more
information, call 404-894-8324.

Cost/\$675

Copies/5,200

Institute Communications
and Public Affairs
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177 North Avenue
Atlanta, Georgia 30332-0181

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

M.B.A., cont’d from page 1

1985 to better reflect the content of the degree. Other major research universities to have recently changed the name of their graduate business programs to an M.B.A. are Northwestern University, Carnegie Mellon University, Purdue University and the Massachusetts Institute of Technology.

The name of the program has been a topic of debate within the College for several years. At one point in time, the M.S.M. designation was considered important in differentiating between the content and the nature of the Tech curriculum and that offered by other schools. Today, the M.B.A. degree is considered the industry standard and has become internationally recognized as the understood standard designation for the master-level graduate business program. With an M.B.A. degree, College administrators believe they can better position students and alumni for professional

success, as well as enhance their ability to promote the excellence of the College and the Institute by complying with this standard.

Like many in the M.S.M. program, international student Jin-song Yang was used to interpreting the name of the program to others. “At the management career fair last year, I had to explain what the M.S.M. was to recruiters. Several thought that the M.S.M. was a specialized degree and asked if Georgia Tech also had an M.B.A.,” he said.

Tech petitioned for a name change at the request of DuPree College Dean Terry C. Blum, who had strong support from students, alumni, College faculty and corporate friends.

“The widely recognized and highly respected M.B.A. designation will be beneficial to both DuPree students and alumni,” she said.

“Most importantly, it will increase their value in the marketplace. In past years, it has been an educational process for hiring corporations to understand the significance of the

M.S.M. program and its equivalence to an M.B.A. Now, instead of justifying the M.S.M. degree, students are able to focus on selling themselves and their area of expertise.”

The name change to M.B.A. simply aligns the name of the degree with what is has always been — a nationally recognized and accredited program of graduate business education, according to DuPree Associate Dean Nate Bennett. “What will not change is our technical focus and our commitment to a rigorous and relevant business education devoted to preparing business leaders for changing technological environments,” he said.

The College will begin to award the M.B.A. degree to graduates at summer commencement next month.

For more information...

DuPree College of Management
www.dupree.gatech.edu

University System Board of Regents
www.usg.edu

IN BRIEF:

Another piece of the Campus Master Plan completed

Another capital project was retired in May as the State Street corridor was finally reopened to traffic. Landscaping crews will continue to work for the next couple of weeks to finish planting new trees, grass and shrubs.

According to John DuConge, the project manager in Facilities who oversaw development, work was briefly delayed due in part to decaying utilities — sewer lines as well as steam and condensate lines — which were ultimately repaired as a preventive measure. With that done, crews could continue to work on widening State Street from a throughway to a tree-lined boulevard, complete with turning lanes, bike lanes and a landscaped median. It will also provide visitors with a prominent entryway into campus with convenient access to the newest parking deck, also on State Street.



photo by Michael Hagearty

Degrees, cont'd from page 1

diversity program, FOCUS. Enrollments of African-American students are beginning to go down and that's showing up in the graduation rates. One of the ways Tech hopes to combat the slippage, said Haley, is through the new FOCUS Friends program, which brings African-American high school students to campus during the Martin Luther King Jr. weekend.

Tech's engineering program is also making inroads among Hispanic students, with its

master's level degree placing seven out of 50 and its undergraduate program ranking 24 out of 60. Tech has recently increased recruiting efforts towards Hispanic students, hiring a new admissions officer last fall and establishing scholarships aimed at Hispanics with funds from the Goizueta Foundation. With 39 percent more Hispanics enrolling in the fall, the group is now the fastest growing demographic at Tech.

In an interesting development, Kaplan, famous for helping students boost their SAT score, listed Tech in its new

book, "The Official, Unbiased, Insiders Guide to the 320 Most Interesting Colleges." The guide book, designed to help students pick the right college, placed Tech on its list of schools with the "Highest Academic Standards," "Best Academic Facilities" and "Best Career Services." Unlike some other college guides, Kaplan says, it doesn't accept paid ads from schools chronicled in its publications. The listings are based on surveys with students, alumni and high school guidance counselors.

NASA, cont'd from page 1

safety and possess lower acquisition and operating costs.

"Winning this Institute positions Georgia Tech as the premier educational and research university in the country in air breathing propulsion," he said. "Furthermore, the presence of this Institute on our campus will create exciting opportunities for our faculty and students for collaboration with NASA, the Department of Defense and industry on the development of promising engine concepts and technologies."

Dimitri Mavris, an associate professor in the School of Aerospace Engineering, will serve with Chameau and Zinn as co-director of the Institute. His focus includes overseeing one of the Institute's research thrusts: integration and design tools.

In addition, three professors in the School of Aerospace Engineering — Professor Suresh

Menon and Associate Professors John Olds and Jerry Seitzman — will work as a team to support the NASA Institute led by the University of Florida focusing on reusable launch vehicles similar to the current space shuttle design.

Each cooperative agreement has an initial five-year period of performance and a maximum possible duration of 10 years at approximately \$3 million per year. The award of each cooperative agreement is expected in August 2002.

NASA's URETI partners

- **Georgia Tech:** aeropropulsion and power
- **University of Florida and the University of Maryland:** third-generation reusable launch vehicles
- **University of California at Los Angeles:** bio-nano-information technology fusion
- **Princeton University and Texas A&M University:** bio-nanotechnology materials and structures for aerospace vehicles
- **Purdue University:** nanoelectronics and computing

For more information...

National Aeronautics and Space Administration
www.nasa.gov
School of Aerospace Engineering
www.ae.gatech.edu

Ellingwood steps down as CEE chair

Saying he planned to devote more time to his research, graduate advising and teaching responsibilities, **Bruce Ellingwood has decided to step aside as chair of the School of Civil and Environmental Engineering.** Ellingwood has chaired the School since September 2000. An interim chair and a search committee to find a new chair will be selected by the College of Engineering's Office of the Dean.

Yellow alert from OHR

The Office of Human Resources is reporting that **a number of Georgia Tech employees have been contacted by a representative of First Investors** — a company not on the current authorized list of 403(b) plan companies — **to set up an appointment to discuss their 403(b) account.** OHR's agreements with the approved vendors state that "...company representatives are expected to respect the rights of Georgia Tech and its employees in making appointments during work hours. Solicitation initiated by the company representative will be limited to written inquiries addressed to the eligible employee. Personal campus contacts may be initiated only by the employee." OHR further says that if you receive a cold call from an agent, you should immediately be on guard.

The current list of authorized 403(b) and 457(b) carriers include: American Express Financial Advisors, American Funds Service, Fidelity Group Retirement Plan, Lincoln National Life Insurance, Nationwide/Best of America, First Security Investments, Oppenheimer Funds, TIAA-CREF and AIG VALIC. The only authorized 457(b) plan companies are TIAA-CREF and VALIC.

Club sport report

Georgia Tech was well represented last month at the Coronado 15 (C-15) Sailing North American Championships, held at the Fort Walton Beach Yacht Club in Florida. Faculty, staff, students and alumni were among those competing for the championship title and the **Georgia Tech Sailing Club** had six of the two-person sailboats make the trip to the Choctawhatchee Bay. Staff members Doug Britton (GTRI) and John McCullough (Mechanical Engineering) finished in third place overall in the Championship A-fleet and electrical and computer engineering student Amanda Preyer grabbed third place in the B-fleet. Next year's event is scheduled for Half Moon Bay, California. For more information on the Sailing Club, refer to www.gtsailing.org.

The truck stops here

It was a disappointing 10 days for the students and advisors on the Georgia Tech **FutureTruck** team, during the Ford Motor Company's competition held last month. The goal was to re-engineer a sport-utility vehicle to improve gas mileage and reduce emissions, without sacrificing performance, utility, safety or affordability. Last year, the team placed fourth.

Unofficially, the Tech team finished in **10th place** overall, after it experienced a failure of the hybrid drive system in the early portion of the competition that was not repairable in the time permitted. However, the team achieved encouraging results in both the Emissions and On-road fuel economy events, finishing third in both categories without the electric drive assist.