

# Georgia Institute of Technology

## Recent Trends and Milestones

June 2007

### Overview



- Georgia Tech has consistently ranked among the nation's top ten public universities since 1999, ranking No. 7 in 2007. (*U.S. News & World Report*)
- Established by state law in 1885 with a technological mission, Georgia Tech remains the only public institution in Georgia to offer a comprehensive array of engineering degrees in one of the nation's largest and best programs:
  - The graduate engineering program consistently ranks among the nation's top five, and the undergraduate program has now moved into the top five.
  - All undergraduate engineering disciplines and most graduate programs rank in the top ten. Industrial and Systems Engineering has been ranked No. 1 for the past seventeen consecutive years. (*U.S. News & World Report*)
  - Engineering enrollment grew by almost 32 percent over the past decade.
- Georgia Tech also broadened and strengthened its other education and research programs during the past ten years:
  - The Ivan Allen College of Liberal Arts doubled in size, while the College of Architecture grew by 48 percent, the College of Sciences by 46 percent, and the College of Management by 34 percent. The College of Computing grew by 26 percent despite the dot-com bust.
  - Twenty-three of twenty-five new majors are in non-engineering disciplines or are interdisciplinary, including degrees in music and modern languages.
  - Although Georgia Tech has no medical school, a unique, well-developed partnership with Emory University has enabled the Institute to move more broadly into life sciences research.

### Students



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- Graduate programs have grown over the past decade:
    - 82 percent increase in PhD enrollment; 79 percent increase in degrees granted.
    - 46 percent increase in master's enrollment; 43 percent increase in degrees granted.
  - Undergraduate retention and graduation rates have improved over the past decade:
    - First-year retention increased from 86 percent in 1997 to 92 percent in 2006.
    - The six-year graduation rate increased from 66 percent in 1997 to 77 percent in 2006.

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## Students

- Undergraduate students have outstanding qualifications:
  - The average SAT score of incoming freshmen increased from 1305 in 1997 to 1343 in 2006, one of the highest scores among the nation's public universities.
  - In Fall 2006, Georgia Tech ranked first among public universities in the percentage of freshmen who were National Merit Scholars and third in the percentage of freshmen who were National Achievement Scholars.
  - The number of prestigious scholarships won by Tech students increased almost 500 percent in the past ten years. The list includes Rhodes, Marshall, Truman, Gates Cambridge, Fulbright, and Goldwater Scholars.
- Georgia Tech is a national leader in graduating minority and female engineers.
- The undergraduate education experience has been enhanced during the past decade:
  - The number of students studying abroad increased almost 90 percent; today, one of every three undergraduates studies abroad. Students who study abroad twice and take courses in modern languages, global economics, and international affairs receive a special international designation on their transcript.
  - More than 40 percent of undergraduates participate in structured research for academic credit. Tech's goal is to exceed 50 percent. Undergraduates who complete at least nine units of research and write a thesis on their work can receive a special research designation on their transcript.
  - New honors and leadership programs are flourishing.
- In 1999, Georgia Tech won the TIAA-CREF Theodore Hesburgh Award for exceptional efforts to enhance undergraduate teaching and learning.

## Faculty



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- Awards recognize the high quality of Tech's academic faculty:
    - 119 faculty have won NSF CAREER Awards (second nationally) with awards branching beyond the sciences and engineering into disciplines such as public policy and business.
    - Georgia Tech is among the top ten universities in the nation in faculty receipt of Presidential Early Career Awards in Science and Engineering (PECASE).
    - The number of faculty elected to the National Academy of Engineering (NAE) more than doubled from 1997 to 2006 and now stands at twenty-five, which is among the top ten universities in the nation.
    - Faculty are increasingly winning awards associated with

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## Faculty

## Arts and Humanities



## International Initiatives



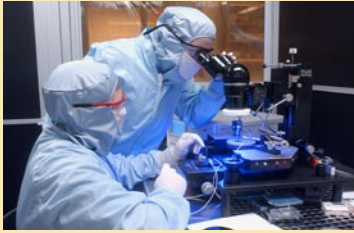
the arts and humanities, including Fulbright Fellowships, Newberry Library Fellowships, National Endowment for the Humanities Fellowships, and Sloan Research Fellowships.

- Tech has 142 endowed or honorary chairs and professorships, one per 6.7 academic faculty members.
- The corps of postdoctoral fellows is growing rapidly, doubling from 104 in 2002 to 209 in 2006.

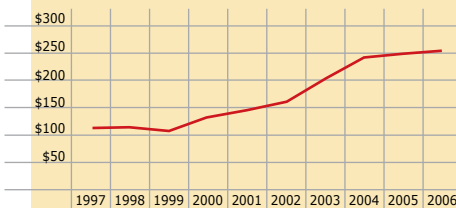
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- Nearly one in ten undergraduates is engaged in formal music studies or activities per semester. Tech has a new master's program in Music Technology.
  - Almost 40 percent of undergraduates study modern languages.
  - Georgia Tech has two endowed chairs in poetry, one of which is held by award-winning poet Thomas Lux, one of the nation's best-known poets.
  - The Digital Media Program is among the top ten in the Global Gaming League rankings.
  - Georgia Tech students won the Campus MovieFest Grande Finale in two of the past four years.

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- New international degrees include a Global MBA and undergraduate degrees in Economics/International Affairs, Global Economics/Modern Languages, and International Affairs/Modern Languages.
  - Dual degree programs have been established with the Monterrey Institute of Technology in Mexico, Shanghai Jiao Tong University in China, the Technical University of Munich in Germany, and Imperial College in Great Britain.
  - Tech has three international research and education platforms:
    - Georgia Tech Lorraine: Residential campus in Metz, France, includes undergraduate and graduate degree programs, research programs, and joint initiatives with other European universities and the Centre National de la Recherche Scientifique.
    - Georgia Tech Singapore: Research and graduate programs in conjunction with the National University of Singapore and Nanyang Technical University.
    - Georgia Tech Ireland: Inaugurated in 2006 in partnership with IDA Ireland and in collaboration with seven Irish research universities.

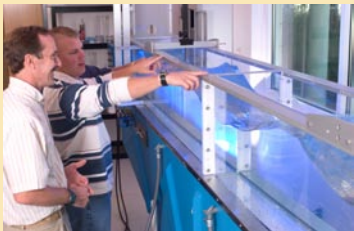
## Research



**Georgia Tech Federally Financed Research Expenditures**  
FY 1997-2006 (\$ in millions)



## Technology Transfer



- Over the past decade, overall research expenditures increased by 84 percent to \$441 million in 2006, while federal research expenditures increased 129 percent. Georgia Tech now ranks among the top five in research expenditures among universities without a medical school.
  - Georgia Tech is home to or partner in nineteen federal centers of excellence, up from six in 1997. They range from photonics to the engineering of living tissues.
  - Georgia Tech is second in the nation in engineering research expenditures, both overall and by federal funding.
  - Funding from the National Institutes of Health increased from \$2.9 million in 1997 to \$20.5 million in 2006. Tech has been awarded three NIH Nanomedicine Development Centers in the past two years. Overall, federal funding in health and human services increased by 53 percent from 2004 to 2006.
  - During the past decade, Georgia Tech ranked seventh in the nation and ninth in the world in citations related to engineering, according to the Web of Science.
  - Materials Science and Engineering Professor Z. L. Wang is one of the world's most published researchers in nanotechnology (Institute of Scientific Information), and among the world's five most cited researchers in nanotechnology (Science Watch).
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- The number of patents awarded increased 193 percent during the past ten years, and today Tech ranks among the top ten universities in the nation.
  - A total of 365 invention disclosures were filed in 2006, up more than 200 percent over the past decade.
  - Georgia Tech launched seventy-five new companies during the past decade. In 2006 alone, ten start-up companies were launched and another eighteen were in formation.
  - Global analysis of university biotechnology commercialization by the Milken Institute ranked Georgia Tech fourth in the number of biotechnology start-up companies and eighth in patents awarded.
  - Tech operates the nation's oldest university-based high-technology business incubator, the Advanced Technology Development Center, which had more than three dozen companies in incubation in 2006. ATDC companies have attracted more than \$1 billion in venture capital since 1999 and accounted for ten of the state's top twenty-five venture capital investments in 2006, including the two largest.

## Campus Facilities



## Other Measures



- Gross square footage increased by 76 percent over the past ten years and 34 percent in the past five years. It presently totals more than 13 million GSF.
- New facilities are built according to Silver or Gold LEED (Leadership in Energy and Environmental Design) standards, and the campus is being reshaped according to environmental principles.
- The interdisciplinary design of new academic facilities has been recognized by *Nature* magazine as a leading approach.
- New facilities such as Technology Square (a five-building complex) and the Campus Recreation Center have won numerous awards, both local and national. Technology Square was recognized by the Urban Land Institute in 2003 as one of the nation's top ten transformative projects.

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- Georgia Tech is cited as a Top 15 best value in public education.
  - A study by *The Scientist* recognized Tech as one of the nation's 15 Best Academic Places to Work.
  - Tech's combined endowment is valued at \$1.3 billion, similar in size to other major public research universities such as Pennsylvania State University, Michigan State University, and Purdue University.
  - Georgia Tech conducted a successful \$700 million campaign in 1995-2000; the \$1 billion campaign now under way will reach \$500 million in its first three years.