I recently presented State of Institute Address, in which I celebrated the past year’s accomplishments and shared some ideas for seizing the opportunities of the future with the faculty and staff, alumni, and students. I also want to share them with you today, because we need the benefit of your insight to help us achieve our goals.

Someone coined the term “Harvard-ization” to describe the goal of many American colleges and universities. If this is your goal, you pick out the best university you know, and do your best to imitate it. Although GT made tremendous progress during the 20th century, our path was largely trod before us by the likes of MIT and Harvard.

However, in the past decade we have begun to develop an agenda of our own making that has others looking to us for future directions. Indeed over the course of the last six years, few, if any, universities have won three National Science Foundation Centers of Excellence, been awarded the nation’s top teaching recognition, the Hesburgh Award, and been designated a site for a European Union Center. These are impressive signs of progress, but if we are to truly establish our place as one of the world’s best, we have to help define the future, not emulate the past.

In my State of the Institute Address last year, I expressed my confidence that as the 20th century drew to a close, Georgia Tech was poised on the threshold of a new era. We are now entering the 21st century, and we want to make it our century – a time when our collective effort lifts Georgia Tech from the ranks of the good, solid schools, and establishes us as a center and source of innovation. This is a challenge worthy of us, and it will take effort, time, persistence, and careful investment to meet it.

Over the past year, the faculty, staff, students, and alumni of this great institution have moved us forward into position to strive for the goal of the new century. This year, as in the past, there are many accomplishments to celebrate at Georgia Tech, and I am not able to do justice to them in a brief presentation. To help appreciate what goes on at a dynamic place like this, we have collected some of the highlights in a brochure, which we invite you to take with you.

- Increase in applications of 25% over a brief two-year period.
- Twins in this year’s freshman class up to eight from six last year.

- Nearly 200 students on track to earn Tech engineering degrees.
- $10 million donation of land for Savannah campus.
- 9 Georgia Tech faculty based in southeast Georgia, plan to hire seven more this coming year.
(SLIDE: ATHLETICS)
• 38 percent on the dean’s list last spring.
• Ralph Friedgen, the architect of the nation’s top offense.
• Angelo Taylor - gold medals in the Olympics in Australia in the 400-meter hurdles and the 1600-meter relay (Derrick Akins and Derek Mills won in the Atlanta Olympics).

(SLIDE: HAL IRVIN)
• This year we are running significantly ahead of last year.

(SLIDE: FACULTY)
• Edward W. Price (aerospace emeritus) also elected to NAE.

(SLIDE: ENDANGERED)
• Research expenditures reached an all-time high of about $274 million, marking the sixth consecutive year of growth, and 175 invention disclosures were filed, another all-time high.

(SLIDE: NANO)
• GT positioning ourselves to be a leader in nanoscience and nanotechnology, which are receiving increasing attention and funding at the federal level.

(SLIDE: BUILDING LIST)
• Complex for bioengineering and biosciences, environmental technology and molecular sciences recently drew praise in the magazine Nature for its innovative approach to creating a place for leading-edge interdisciplinary research and learning.

(SLIDE: 5th ST)
• Campus Master Plan: partnership with our surrounding neighborhoods to create a complete urban community that offers all of the ingredients for quality of life.
• $150 million undertaking. 2/3 from revenue stream, 1/3 private donations -- $15 m in hand.
• Yamacraw Broadband Design Center; 22 faculty.

(SLIDE: STRATEGIC COMMUNICATIONS)
• You have already have helped us with examination of our communications strategy, and we are building on your advice:
  - First ever annual report to support the new relationships we are cultivating with foundations and high-level corporate officials.
  - Restructuring and strengthening our web presence.
  - Strategic communications team to create core messages for the Institute as a whole and increase coordination of our communications efforts.

(SLIDE: RANKINGS)
These are just a few of the accomplishments of the past year that give us cause to celebrate. But our goal is to be more than simply the result of the past. If we are to be the institution that defines the technological university of the 21st century we need to take the initiative to address the issues that lie between us and our goal. This advisory body plays important role in that task, and today we are going to seek your advice on one of our biggest challenges which must be met before we will be in a position to define the future, and that is to improve the educational experience we provide to our undergraduates.

Our undergraduate student population stands at 10,744 and represents 73 percent of our total enrollment. To a large extent the early development of Georgia Tech was based on undergraduate education, but in the past three decades, the Institute has seen its fortunes rise because of the growth of its research enterprise. During this time our graduate programs expanded at a headlong pace, improved in quality, and opened exciting new opportunities for advanced study. At the same time our undergraduate student body was also growing, both in quantity and quality, and today it is arguably one of the best qualified at any public institution in the nation. However, our undergraduates do not express the same high level of satisfaction with their educational experience that our graduate students do. Their dissatisfaction is tangibly reflected in the U.S. News & World Report rankings, where Georgia Tech is cited overall as among the nation’s best, but we are solidly in the second tier at 71st place for undergraduate student retention and graduation rates. Fully one-third of the undergraduates who matriculate at Georgia Tech do not graduate despite having entered with the qualifications to do so. This consequence sets us apart from those institutions with which we strive to compete in research and reputation. For example, MIT, Stanford, and the University of Virginia all graduate more than 90 percent of their undergraduate students.

To better understand our circumstances, we participated in the National Survey of Student Engagement last year. While some of the results were encouraging, our undergraduate students told us they had too little contact with our faculty outside the classroom. Importantly, our scores for undergraduate student engagement in research were well below the national average. The survey was official confirmation of what the typical undergraduate student at Georgia Tech will tell you if you ask – that research is perceived as one of the reasons faculty are not available to them. In other words, as we have developed our research prowess we have not made the necessary effort to bring our undergraduates into this critical part of our life as an institution.
(SLIDE: QUOTE)
An additional telling point for me came recently in a conversation with several undergraduate students about the effect of our capital campaign on them and Georgia Tech. When told that 40-plus chairs had been created for faculty, the students said fine, but they had no expectation of seeing any of these distinguished faculty in the undergraduate classroom or as an advisor for an undergraduate research experience. While many of our senior faculty do indeed participate in undergraduate education, the perception of our undergraduates indicates that a problem exists.

The data on retention and lack of engagement of our undergraduate students in research and with senior faculty suggest that as an institution we are not yet a research university in the best sense of the term.

(SLIDE: STUDENT ARCHWAY)
As we face the need to collectively address these issues, the common ground lies in our belief in the concept of the university and the framework underlying it. We begin with the need for all of us – students, faculty, and staff – to understand that a superlative undergraduate experience is a significant and integral part of a world-class research university. And we all share the responsibility for creating that environment at Georgia Tech. We should appreciate that research and undergraduate education are not mutually exclusive components that compete with each other, but can, and ought to be, integrated to enrich each other. Research is a learning process, and our goal is to be a community of scholars that joins together in discovering and sharing knowledge.

(SLIDE: KUDZU KID)
We already have the raw materials to create an exceptional undergraduate experience. Our undergraduates are coming to us today with research skills and interests, honed through sophisticated award-winning science fair projects. We need to make sure these outstanding young people get their fair share of the dynamic energy generated by our world-class research enterprise.

(SLIDE: SGA GROUP)
To this end, I have announced an initiative to enhance the undergraduate teaching and learning environment, which is designed to provide our colleges and schools and their faculty and staff with incentives and resources to do the job from their end. I am pleased to say that the ideas for this initiative reflect a consensus from deliberations in various forums like our Faculty Executive Board and Faculty Senate, with our Deans and Chairs, and most recently through the recommendations of the Joint Commission on Enhancing Undergraduate Learning – a group of 12 faculty, 12 staff and 12 students brought together by our Student Government who have issued a very thoughtful proposal that deserves our attention.

(SLIDE: LIST)
The new initiative will consist of four parts:

1. (*Key Stroke*) I will create a fund of $250,000 to support faculty in their efforts to engage more undergraduates in research projects. Faculty will be invited to
submit proposals for funding to create opportunities for undergraduates to participate in meaningful research activities.

2. (*Key Stroke*) One of my personal goals is that all academic faculty, including every endowed chair holder and every Regents professor, will be directly engaged in the undergraduate experience in some way. I will charge the Colleges and Schools to provide recognition for efforts undertaken in support of our undergraduate agenda. I also intend to create an oversight committee composed of faculty and administrators to evaluate our core curriculum for instruction and content. We ask faculty from different schools and colleges to teach subjects as specialists in a sequence whose sum is expected to add up to a whole. We need to look at our efforts from a broader view and make sure those pieces are fitting together.

3. (*Key Stroke*) The SGA’s Joint Commission on Enhancing Undergraduate Learning highlighted the need to better prepare our teaching assistants for their important role. We want graduate students and undergraduate leaders to become mentors and advisors who enrich the process of undergraduate learning. It is my goal to budget for an additional 10 graduate teaching assistants and 10 undergraduate teaching assistants each year for the next three years, adding a total of 30 in each category. At the same time we will also provide resources to expand our training programs for TAs.

4. (*Key Stroke*) Finally, we are going to document, reinforce, and share best practices in undergraduate advising, teaching, and research across our academic units. There is no need for each professor or each academic unit to reinvent the wheel in isolation when we all can learn from each other’s good ideas and experiences as to what works and what doesn’t.

Vice Provost for Undergraduate Studies Bob McMath has been working on these issues for more than a year, talking with students, faculty, and academic and administrative leaders, gathering information on who is trying what remedies, both here on our campus and at other universities. He is going to tell you what he learned in that process.