# Georgia Institute of Technology Technology

### INSTITUTIONAL MISSION AND STUDENT BODY PROFILE

The Georgia Institute of Technology (Georgia Tech) is a science and technology-focused research university with a deeply-held commitment to improving the human condition. Georgia Tech's motto of "Progress and Service" is achieved through effectiveness and innovation in teaching and learning, research advances, and entrepreneurship in all sectors of society.

A member of the Association of American Universities (AAU), Georgia Tech seeks to influence major technological and policy decisions. For more than 17 years, Georgia Tech has been ranked among the top ten public universities in the United States by *U.S. News and World Report*. The Institute is consistently rated among the top universities in the nation for the graduation of underrepresented minorities in engineering, computer science, and mathematics. Georgia Tech also awards more engineering degrees to women than any other U.S. institution. The typical Georgia Tech undergraduate is of traditional age ( $\leq$  24), enters as a first-year student, lives on campus, attends full-time, and is seeking a first undergraduate degree.

In fall 2017, Georgia Tech enrolled 15,572 undergraduates, 79% of whom were enrolled in STEM majors<sup>1</sup>. In addition to its undergraduate population, the Institute had a fall 2017 enrollment of 13,797 graduate students for a total enrollment of 29,369. Between 2011 and 2017, the Institute experienced a 12% increase in undergraduate enrollment. In 2017-18, 3,516 degrees were earned by Tech undergraduates, a 22% increase since 2011-12, when 2,873 degrees were conferred. Appendix B illustrates undergraduate enrollment and degree trends.

Georgia Tech values the diversity of its student population. In 2017, Tech achieved a historic high in its undergraduate female enrollment of 5,915 students. Current enrollment of women has increased by 32% since 2011, when female enrollment was 4,488. The proportion of women has risen from 32% of the undergraduate student body in 2011 to 38% in 2017. Underrepresented minorities comprise 17% of the undergraduate student body.

To improve access for low-income students, the Tech Promise program is offered to dependent Georgia residents whose families have an annual income of less than \$33,300 and who are seeking a first undergraduate degree. This program is designed to fill a gap in the financial aid support system, picking up where other financial aid options leave off. As a founding member of *American Talent Initiative*<sup>2</sup>, Georgia Tech will continue its partnership with nearly 100 public and private institutions nationally to increase the number of low-income, first-generation and Pell-eligible undergraduates.

Four years ago, Tech created the Atlanta Public Schools (APS) Scholars Program, which offers automatic acceptance and financial scholarships for APS valedictorians and salutatorians. As of spring 2018, there are 17 APS scholars in the program, and all are in good academic standing. In addition, Tech is entering a partnership with *Achieve Atlanta*. The collaboration will provide scholarship support to APS graduates and facilitate interventions aimed at improving student success at Georgia Tech.

As of the submission date of this report in September 2018, Georgia Tech had achieved a first-to-second-year retention rate of 97% for the first-time, full-time freshman 2016 cohort and a six-year graduation rate of 87% for the 2012 first-time, full-time cohort. The 97% retention rate has been maintained for four consecutive years, and our 87% graduation rate is a record high for the Institute. (See Appendix A for a historical illustration of institutional rates.)

Georgia Tech's retention and graduation rates, positive enrollment trends, and number of degrees conferred underscore the Institute's ability to help meet the workforce needs of the future.

### **INSTITUTIONAL COMPLETION GOALS, STRATEGIES & ACTIVITIES**

## GOAL: INCREASE THE NUMBER OF UNDERGRADUATE DEGREES AWARDED BY USG INSTITUTIONS.

- Strategy 1: Provide targeted K-12 outreach to pique interest in STEM and provide programming to retain currently enrolled STEM majors.
- Strategy 2: Implement programming to promote the academic success of underrepresented minorities.

1

<sup>&</sup>lt;sup>1</sup> STEM majors include students in the Colleges of Computing, Engineering, and Sciences.

<sup>&</sup>lt;sup>2</sup> https://americantalentinitiative.org GEORGIA INSTITUTE OF TECHNOLOGY

• Strategy 3: Provide high-impact curricular and co-curricular opportunities to enhance engagement and academic development.

#### GOAL: PROVIDE INTENTIONAL ADVISING TO KEEP STUDENTS ON TRACK TO GRADUATE.

• Strategy 4: Provide interventions to promote the success of students who are underperforming academically or who may be at risk for not continuing their education.

### GOAL: RESTRUCTURE INSTRUCTIONAL DELIVERY TO SUPPORT EDUCATIONAL EXCELLENCE AND STUDENT SUCCESS.

- Strategy 5: Implement peer-led instruction for students in traditionally challenging gateway courses.
- Strategy 6: Implement summer online undergraduate courses and on-campus summer session initiatives to help students stay on track to graduation.

## STRATEGY 1: PROVIDE TARGETED K-12 OUTREACH TO PIQUE INTEREST IN STEM AND PROVIDE PROGRAMMING TO RETAIN CURRENTLY ENROLLED STEM MAJORS.

**RELATED GOAL: INCREASE THE NUMBER OF UNDERGRADUATE DEGREES AWARDED BY USG INSTITUTIONS.** As a science and technology-focused institution, Georgia Tech's STEM activities are central to its mission. The sustained economic impact made possible through a better-prepared STEM workforce is significant, and graduating a larger number of STEM students to meet workforce needs is a high priority for Georgia Tech.

Georgia Tech is involved in an array of outreach activities specifically designed to attract K-12 students. The Center for Education Integrating Science, Mathematics, and Computing (CEISMC) conducts a comprehensive summer program to expose K-12 students to STEM topics and careers. Additional K-12 outreach programs are conducted by the Center for Engineering Education and Diversity (CEED), and Women in Engineering (WIE), both units within the College of Engineering. In 2017-18, more than 75 individual K-12 STEM programs were held at Georgia Tech.

Through the School of Mathematics and the department of Professional Education, Georgia Tech offers distance math courses to dual enrolled high school students. In 2017-18, *Distance Math* served students in 52 Georgia high schools with 489 enrolled in fall and 477 enrolled in spring.

In addition to providing K-12 outreach for students, CEISMC has designed and implemented professional learning initiatives for STEM teachers for over 20 years. For details on CEISMC's Teacher Education Partnerships, see <a href="https://www.ceismc.gatech.edu/outreach">https://www.ceismc.gatech.edu/outreach</a>. Although Tech does not offer an education degree, a pre-professional advisor located

https://www.ceismc.gatech.edu/outreach. Although Tech does not offer an education degree, a pre-professional advisor located within the Center for Career Discovery and Development (C2D2) advises students who may have an interest in K-12 teaching in the future. During 2017-18, 31 students participated in pre-teaching advisement.

Summer bridge programs ease the transition from high school to Georgia Tech. *Challenge* is a five-week summer residential program for underrepresented minority students coordinated by the Office of Minority Education (OMED). In a simulation of the Georgia Tech experience, *Challenge* students take computer science, chemistry, calculus, and various seminars as a "test run" before fall semester. *Tech Prep* is a 5-day residential summer program offered by the Center for Academic Success that focuses on pre-calculus and academic success workshops.

Support mechanisms for currently enrolled students span the campus. For example, Georgia Tech offers STEM-specific living learning communities, mentoring programs, scholarships, student organizations, first-year seminar classes, leadership development opportunities, 1:1 tutoring, and supplemental instruction for traditionally challenging STEM courses. Through Georgia Tech's co-op program, 1,106 undergraduates completed 1,328 individual semester-long, major-related work terms in 2017-18. Of this total, 95% of the positions were STEM related. Additionally, in 2017-18, 1,238 undergraduates completed 1,336 semester-long internships, 87% of which were STEM related. The co-op/internship program provides in-depth access to STEM opportunities, helps students to make better connections between theory and application, strengthens students' motivation to stay on course to graduation, and increases the number of job offers students receive prior to and upon graduation.

One measure of progress for our STEM recruitment strategy involves the number of students enrolled in STEM majors. Tech has achieved an increase in STEM enrollment from 10,389 students in fall 2010 to 12,249 students in fall 2017. As of fall 2017, 79% of Georgia Tech students were seeking a STEM degree.

Efforts to engage and retain larger numbers of female students are key, as women represent one of our best opportunities for overall increases in STEM. Since fall 2010, the number of women enrolled in STEM majors at Georgia Tech increased from 2,793 (27% of undergraduate STEM enrollment) to 4,376 (36% of undergraduate STEM enrollment). Once enrolled, women at Georgia Tech consistently graduate at a higher and faster rate than men. For the 2011 overall cohort, the six-year graduation rate for women

was 90% compared to an 83% rate for men, while women in STEM majors had an 88% six-year graduation rate compared to an 83% rate for men. See Appendix D for overall STEM graduation rates and STEM graduation rates by gender. Table 1 illustrates enrollment of women in STEM from 2010 through 2017.

	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Total	10,389	10,718	11,459	11,701	11,822	12,330	12,611	12,249
Women	2,793	2,990	3,301	3,475	3,638	3,975	4,226	4,376
%	27%	28%	29%	30%	31%	32%	34%	36%
Women								

#### TABLE 1: STEM ENROLLMENT FALL 2010-FALL 2017

The number of STEM degrees earned is a key measure of our success for this strategy. In 2017-18, 2,968 STEM degrees were earned, a 38% increase from the number of STEM degrees earned in 2011-12.

TABLE 2: NUMBER OF	STEM DEGREES	EARNED
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2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
2,157	2,389	2,578	2,577	2,799	3,038	2,968

Georgia Tech continues to be a U.S. leader in the number of STEM students enrolled and the number of degrees conferred each year.

#### STRATEGY 2: IMPLEMENT PROGRAMMING TO PROMOTE THE ACADEMIC SUCCESS OF **UNDERREPRESENTED MINORITIES.**

RELATED GOAL: INCREASE THE NUMBER OF UNDERGRADUATE DEGREES AWARDED BY USG INSTITUTIONS. Georgia Tech's strategic plan confirms our aspiration to be an Institute that pursues excellence and embraces diversity in all its forms. A high priority for our CCG plan involves outreach and programming for underrepresented minority (URM) students, who have frequently experienced lower retention and graduation rates compared to their Asian and White counterparts. As of fall 2017, 17% of all undergraduates were underrepresented minorities.<sup>3</sup>

To encourage academic excellence, the Office of Minority Education: Educational Services (OMED) provides programming specifically targeted to underrepresented minorities. OMED, a unit within the Center for Student Diversity and Inclusion (CSDI), provides a range of services designed to promote the success of underserved minorities.

- *Challenge* is a five-week, academic intensive summer residential program for incoming first-year students. During Challenge, students are immersed into the Georgia Tech environment; they live in on-campus housing, take classes provided by Georgia Tech professors, and participate in cultural, professional, and academic workshops and activities. Challenge is designed to help prepare incoming first-year students for a successful college career by equipping them to navigate the 7 C's (computer science, chemistry, calculus, communication, career development, cultural competency, and community service).
- Edge, a year-long peer mentoring program designed to support first-year and transfer students (both academically and socially) through their first academic school year at Georgia Tech. The Edge program mission is to help new Tech students develop and refine strategies for a successful college transition and experience. The Edge Program pairs highly engaged enrolled students with incoming students and transfer underrepresented minority students to assist them both academically and socially throughout their first year at Georgia Tech.
- AAMI (African American Male Initiative) is an eight-time award-winning grant program aimed to cultivate innovative talent through targeted cultural and gender-based initiatives for Black males. AAMI is the first-ever statewide initiative specifically focused on increasing post-secondary education attainment among African American males.
- ILARC (Interactive Learning and Resource Center) hosts drop-in and appointment tutoring services, guided study groups, • topic-specific review sessions (concept classes by graduate students), and GPA planning.

Metrics used to assess the success of this strategy include:

<sup>&</sup>lt;sup>3</sup> For CCG, underrepresented minorities include students who self-identified as Hispanic or Latino, African American, American Indian or Alaskan Native, Native Hawaiian or other Pacific Islander or two or more races where at least one race is URM; includes U.S. citizens and permanent residents. GEORGIA INSTITUTE OF TECHNOLOGY 3

- Average GPA of *Edge Program* participants compared to the average GPA of non-participating matched peers at the end of the first year.
- Average GPA of the *Challenge* summer program participants compared to the average GPA of non-participating matched peers at the end of the first semester.
- First-semester average GPA and first-to-second-year retention rate of AAMI participants compared to non-participating matched peers.

• Retention and graduation rates for underrepresented minorities at Georgia Tech compared with overall campus rates. A measure of progress is for program participants to academically outperform matched non-participating peers. Our ultimate goal is for our underrepresented students to attain or exceed the retention and graduation rates of the overall student population.

Progression metrics for 2017-18 demonstrate positive program-level outcomes:

- For the 303 URM students participating in the Edge Program (peer mentoring), the average cumulative GPA achieved at the end of the first year was 3.20 compared to 3.16 for URM non-participants.
- For *Challenge (76 fall enrolled participants)*, average GPA's were higher for African American/Black students and Hispanic students compared to GPA's of non-participating matched peers. Moreover, 14 *Challenge* participants completed their first semester with a 4.0 GPA and 47 of 76 participants had a 3.0 or higher GPA at the end of their first semester.
- AAMI students (130 undergraduate participants) had an average first-semester GPA of 3.25 compared to a 2.93 GPA for non-participating African American males. AAMI students were retained to the second year at a higher rate (96%) compared to a 93% first-to-second-year retention rate for non-participating matched peers. AAMI is demonstrating the importance of peer leadership towards raising expectations and cultivating a climate of excellence.

In fall 2017, the overall URM first-to-second-year retention was 97% (equal to the overall institutional rate), while the six-year URM graduation rate for the 2010 cohort was 79% (compared with an 85% overall rate). URM six-year graduation rates have improved over the past six years (from 72% for the 2006 cohort to 79% for the 2011 cohort). For the Institute's two largest URM groups, six-year graduation rates for the fall 2011 cohort were 73% for Black or African American students and 85% for Hispanic or Latino students (compared to 85% for the overall campus population). See Appendix F for URM graduation rates.

# STRATEGY 3: PROVIDE HIGH-IMPACT CURRICULAR AND CO-CURRICULAR OPPORTUNITIES TO ENHANCE ENGAGEMENT AND ACADEMIC DEVELOPMENT.

RELATED GOAL: INCREASE THE NUMBER OF UNDERGRADUATE DEGREES AWARDED BY USG INSTITUTIONS. Georgia Tech offers high-impact curricular and co-curricular opportunities to enhance engagement and academic development. According to the Association of American Colleges and Universities, these teaching and learning practices have been widely tested and found to have a positive impact on student retention and engagement.<sup>4</sup> Among these options are a first-year seminar (GT 1000), living learning communities, an undergraduate research program, a study abroad program, and experiential learning (internships, co-op, and service learning). Participation levels in these optional programs are significant, and the graduation rates for program participants are among the highest at Georgia Tech. For example, in summer 2017 the six-year graduation rate for students who enrolled at Tech in 2011 and who completed an internship at some point during their enrollment was 98%. See Appendix C for graduation rates of participants in high-impact academic enrichment programs.

Innovation is inspired through options such as Create-X, InVenture, and VIP (the Vertically Integrated Projects Program). Georgia Tech is also promoting student engagement through Student Life via a wide range of services, programs, and more than 500 student organizations. Georgia Tech Health & Well-Being promotes, nurtures, and enriches a culture of health well-being, and caring for Georgia Tech students.

During 2017-18, the Institute devoted additional resources toward growing its living learning communities (LLCs),

serving 595 first-year students and more than 500 upper-level students in six communities. In 2018, a new summer LLC, iGniTe, drew an additional 250 first-year participants. In 2018-19, Tech will serve 820 first-year students and more than 650 upper-level students through seven LLCs. Two additional communities, which will accommodate an additional 250 students, will open in Fall 2019. By 2021, 60% of the incoming first-year class will live in an LLC. For the first-year LLCs participants in 2017, retention rates of LLC participants equaled or exceeded the retention rate of the overall 2017 cohort.

#### TABLE 3: RETENTION RATES FOR 2017 PARTICIPANTS IN FIRST-YEAR LLCS

Living Learning Community	n of participants	% retained to Fall 2018
Grand Challenges	109	98%

<sup>&</sup>lt;sup>4</sup> George D. Kuh, *High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter* (Association of American Colleges and Universities, 2008).

Honors Program	204	97%
SHaRP	142	98%
SMaRT	140	97%

In 2017-18, 76% of incoming first-time students participated in the first-year seminar, GT 1000, and 98% of these students were retained to fall 2018. A stated learning outcome for GT 1000 students beginning summer and fall 2018 is for participants to "Be able to describe their path to graduation and to identify opportunities for academic and professional enrichment with the assistance of a faculty member or advisor." GT 1000 is partnering with the Registrar's Office to offer the DegreeWorks planning tool to all first-year students. Instructors are encouraged to use this tool as the basis of the course's degree map component, which will allow students to gain a clearer, more defined sense of the requirements for their degree program and encourage them to better understand their path to timely graduation.

#### STRATEGY 4: PROVIDE INTERVENTIONS TO PROMOTE THE SUCCESS OF STUDENTS WHO ARE **UNDERPERFORMING ACADEMICALLY OR WHO MAY BE AT RISK FOR NOT CONTINUING** THEIR EDUCATION.

#### RELATED GOAL: PROVIDE INTENTIONAL ADVISING TO KEEP STUDENTS ON TRACK TO GRADUATE.

Although the majority of students enter the Institute well prepared academically, after enrollment certain populations of students do not perform as anticipated and may be at a higher risk for not completing their degrees. These populations include (1) students with midterm unsatisfactory grades, (2) students who are permitted to return to the Institute after academic dismissal, (3) students on probation or warning, (4) students who end their first year in academic distress, (5) returning students who do not register for fall semester by the end of Phase I, and (6) students who "stop out." Outreach is provided for each of these populations. While the outreach comes from multiple points on campus with departments and units reaching out to their own constituents, key allies in the support of "at risk" students include academic advising, the Center for Academic Success, and the Retention and Graduation Manager.

Academic advising at Tech, while decentralized, benefits from the leadership of the Director of Undergraduate Advising. The Retention and Graduation Manager, a position that reports jointly to the Associate Vice Provost for Undergraduate Education and to the Registrar, helps to operationalize Tech's retention-progression-graduation (RPG) initiatives. The Center for Academic Success (CAS) was established, in part, to assist Georgia Tech with its retention and completion goals. CAS provides a range of resources for students who need additional academic support (see www.success.gatech.edu). In 2017-18, CAS served 6,967 Georgia Tech students in 19,343 visits.

#### **Midterm Progress Reports**

Georgia Tech's early alert system provides useful feedback for students adjusting to its academically rigorous environment. We identify students who are off track in a given semester with Midterm Progress Reports (MPR's) for 1000- and 2000-level courses. Submitted 40 percent into the term, MPR's allow faculty in these courses to assess student performance with an "S" (Satisfactory) or "U" (Unsatisfactory). All students with U's are contacted by the Center for Academic Success (CAS), offered tutoring and success resources, and encouraged to meet with faculty and with their academic advisor. Additionally, we require that all first-year students with two or more midterm U's meet with their academic advisor or a CAS staff member, and registration holds are typically used to enforce the mandatory advisement. During advisement, students receive advice, encouragement, and referrals to campus resources where necessary.

Our MPR strategy impacts a large number of students. During fall 2017, 37,135 midterm grades were provided for 1000- and 2000level courses, and 3,500 U's were assigned to 2,635 students. During spring 2018, 31,299 midterm grades were entered for 1000and 2000-level courses, and 2,657 U's were assigned to 2,037 students. With support from the Registrar's Office, we achieved a 97% faculty response rate in fall 2017 and a 99% faculty response rate in spring 2018.

For 2017-18, CAS reported a record high response rate from students who began to use their services or Clough Commons tutoring after receiving a midterm U and after being encouraged to use success programming. In fall 2017, 961 students (36% of students with U's) began using success services at midterm; in spring 2018, 719 students (35% with midterm U's) began accessing services.

In fall 2017, 56% of U grades converted to A/B/C/S grades by the end of the semester; in spring 2018, 50% of U grades converted to A/B/C/S.

#### **Students Returning from Academic Dismissal**

GT 2100, Seminar on Academic Success, was approved in 2013 specifically in relation to Georgia Tech's CCG goal to provide increasing support for students who are permitted to return on contract after academic dismissal. The seminar, taught by CAS staff, offers opportunities for reflection, skill development, and one-on-one academic coaching. The inaugural class, taught in spring 2014, was optional, and the course became mandatory in fall 2014. From the course's beginning in 2014 through spring 2018, 211 of 405 GT 2100 students (52%) have either graduated or remained enrolled. (An additional 23 students who took GT 2100 remain eligible GEORGIA INSTITUTE OF TECHNOLOGY 5

but did not take classes during spring 2018.) Intervention outcomes represent a significant improvement over our pre-initiative baseline graduation rate of 14%.

#### Students on Academic Probation or Academic Warning

In fall 2017, 4% of our 15,572 undergraduates were on academic probation or warning with 372 students on probation and 297 on warning at the beginning of the term.<sup>5</sup> Based on the promising results for GT 2100 for students returning from academic dismissal, in fall 2015 we piloted a section of GT 2100 B for students on academic probation (participation is voluntary), and the course has been offered most semesters since its inception. Of the probation students who have taken GT 2100 B, 73% have remained enrolled or have graduated.

Even with the positive outcomes associated with GT 2100, we are not reaching the majority of students who are on academic probation and academic warning. Among non-GT 2100 participants, only a minority of these "at-risk" students participated in CAS programming or Clough Commons tutoring during 2017-18.

### TABLE 4: PERCENTAGE OF STUDENTS ON PROBATION OR WARNING USING CAS SERVICES OR CLOUGH COMMONS TUTORING\*

	Fall 2017	Spring 2018
<b>Academic Probation</b>	18%	22%
Academic Warning	18%	18%

\*Excludes GT 2100 students

With no required institutional intervention for these students (other than for those returning from academic dismissal), we have learned that students most in need of support are often the least likely to ask for help. However, certain colleges/schools at Georgia Tech require academic advising for their own students on academic warning or probation. In the coming year, the Advising Council will be promoting proactive advising for all students on academic warning or probation.

#### Students Ending Their First Year in Academic Distress

In summer 2017 a sub-committee from the CCG-GT Steering Committee met to discuss possibilities for a more robust intervention for students who ended their first year in academic distress (as defined by ending the year on academic probation or warning or in good academic standing with a GPA of 2.00 or below). Although required interventions were considered, it was ultimately decided that the intervention for 2017 would involve a greater intensity of communication with these students. The plan included a letter from the Vice Provost for Undergraduate Education sent to students' mailing address on file with the Institute, an email from the Center for Academic Success, outreach from OMED to underrepresented minorities, and outreach from academic advisors. The letter from the Vice Provost encouraged students to take proactive steps to improve their academic progress, to meet with their advisor, and to take advantage of campus resources—several of which were delineated in the letter. The goal was to inform students that the Institute is monitoring their progress and to connect them with resources early—while they still have time to change their trajectory. A majority of participants from the 2017 intervention achieved good academic standing and improved their GPA's during their second year. The Institute's first-year intervention is being repeated in 2018.

#### Students Not Registered for Fall Semester by the End of Phase I

An annual survey of students who did not register for fall semester during Phase I was institutionalized in 2014. Historically, it has been observed that not registering for classes during Phase I may be a red flag for students who may not be returning or who may be experiencing a barrier to returning. Students who need assistance to register are referred as needed by the Retention and Graduation Manager to academic advisors, the Center for Academic Success, the Center for Career Discovery and Development, the Dean of Students, the Office of Scholarships and Financial Aid, the Counseling Center, and the Registrar's Office. A summary report is prepared to capture demographics, trends, and issues related to non-registration. See Appendix G for population description, the numbers of students surveyed and response rates.

#### **Non-Continuing Student Survey**

An annual survey of "non-continuing" students (defined by students who are in good academic standing but have not been enrolled for three consecutive semesters) has also been institutionalized. The non-continuing survey, conducted by the Retention and Graduation Manager, helps to identify primary reasons students in good academic standing leave the Institute and to identify those who may need assistance to return to Georgia Tech. Students who would like to be readmitted to the Institute are assisted individually. A report is prepared to analyze demographics and issues related to non-continuing students; however, the survey's primary value is that it offers the Institute an opportunity to communicate with students who have left the Institute but who are eligible to return. See Appendix H for numbers of students surveyed and response rates.

<sup>&</sup>lt;sup>5</sup> See <u>http://www.catalog.gatech.edu/rules/6</u> for academic standing rules at Georgia Tech. GEORGIA INSTITUTE OF TECHNOLOGY

## STRATEGY 5: IMPLEMENT PEER-LED INSTRUCTION FOR STUDENTS IN TRADITIONALLY CHALLENGING GATEWAY COURSES.

### RELATED GOAL: RESTRUCTURE INSTRUCTIONAL DELIVERY TO SUPPORT EDUCATIONAL EXCELLENCE AND STUDENT SUCCESS.

Innovation in teaching and learning is a key component of Georgia Tech's mission. In alignment with this mission, Georgia Tech provides supplemental instruction (called Peer-Led Undergraduate Study or PLUS) to students in traditionally challenging courses primarily math and physics. Departmental support also allows PLUS to support chemistry, organic chemistry, and biomechanics. The program is provided by the Center for Academic Success.

Enrollment and the number of contact hours represent markers of success for PLUS. During fall 2017, 2,142 students participated in PLUS for total of 7,824 visits. During spring 2018, 1,832 students participated for a total of 7,121 visits. Also useful for gauging the impact of this strategy is the percentage of participation for courses in which PLUS was offered. In fall 2017, 39% of students in the courses for which PLUS was offered participated in the program; in spring 2018, 38% of registered students participated.

To determine if PLUS is successful, we are comparing students' final grades in courses for PLUS regulars vs. non-PLUS participants. Our goal is for regular participants in PLUS (6 or more visits) to consistently outperform their peers who do not participate. In both fall 2017 and spring 2018, this goal was achieved.

- In fall 2017, 93% of PLUS regular participants (6 or more visits) earned a grade of A/B/C/S compared to 85% of their peers in the same classes who did not participate in PLUS.
- In spring 2018, 94% of PLUS regular participants earned a grade of A/B/C/S compared to 85% of their peers who did not participate in PLUS.

See Appendix I for outcomes by course.

# STRATEGY 6: IMPLEMENT SUMMER ONLINE COURSES AND ON-CAMPUS SUMMER SESSION INITIATIVES TO HELP STUDENTS STAY ON TRACK TO GRADUATION.

### RELATED GOAL: RESTRUCTURE INSTRUCTIONAL DELIVERY TO SUPPORT EDUCATIONAL EXCELLENCE AND STUDENT SUCCESS.

The Summer Online Undergraduate Program (SOUP) is a high-priority strategy that offers opportunities for students to take online classes during summer semester. SOUP allows us to engage with students who may not otherwise study during summers. From a baseline of 12 courses offered in summer 2013 (SOUP's initial year), we expanded to 60 online undergraduate courses by summer 2018. The number of total course registrations increased from 112 in 2013 to 1,268 in 2018. Early indications are that SOUP participants are graduating at a faster rate than non-participants with a 2% higher six-year graduation rate compared to non-participants.

Summer Session Initiatives (SSI) increased student, non-duplicative headcount by 10% from 3,522 in 2017 to 3,873 in 2018. This growth can be attributed to several new programs and initiatives introduced in summer 2018 to make summer sessions more attractive and accessible for students. The Summer Minor and Certificate Program enabled students to start or complete a minor or certificate by offering a set of general education and high-demand courses that count toward minor or certificate requirements. In summer 2018, program offerings supported student progress toward minors and certificates in computing & intelligence, economics, history, industrial design, and Spanish. Additionally, the new summer tuition model can also account for the recent growth in the summer. With the approval of the USG Board of Regents, Tech adopted a per credit hour tuition model for summer to eliminate the financial barrier to summer enrollment created by the flat rate tuition. Consequently, this change introduced greater flexibility in the number and combinations of credits taken by summer students while reducing the costs of individual courses. Furthermore, to allow students greater flexibility in academic planning and encourage timely progress toward degree completion, SSI collaborated with SOUP and several campus partners to pilot a concurrent enrollment initiative. Approximately 360 students were able to pursue a blended on-campus and online schedule.

### **OBSERVATIONS**

Georgia Tech is implementing best practices shown to increase student engagement, retention, and completion and has adopted CCG strategies deemed appropriate for the Institute. The creation of the CCG-GT Steering Committee in 2011 (see Appendix J for current membership) continues to provide leadership for our RPG initiatives and to engender greater awareness about retention and completion issues across campus. Since the inception of CCG, Georgia Tech has attained an historic high retention rate of 97% (maintained for the past four years) and has improved its six-year graduation rate from 79% (for the 2006 cohort) to a record high 87% (for the 2012 cohort).

Identifying opportunities for increased focus has been a key outcome of our CCG work. Our data provides evidence that firstgeneration students at Georgia Tech may benefit from more assistance than is currently available. The Director of Research and Assessment for Student Life, through a survey and focus groups conducted with first-generation students, identified several key needs for this population. Tech's Admission Office has designated a staff member to provide leadership in the recruitment of firstgeneration students and has produced a range of videos that share stories and provide advice for this population—one of which features Tech's own President G. P. "Bud" Peterson, himself a first-generation student. View at

https://admission.gatech.edu/firstgeneration. Additional outreach for first-generation students is being considered for 2018-19.

The Advising Task Force convened in fall 2017 and presented its *Report and Recommendations* to the Provost in April 2018. If implemented, the recommendations will result in more equitable and accessible advising for all students; a closer alignment between academic and career advising; key centralized services and support; advisor training and professional development; the establishment of common advising practices and standards; enhanced advising technology, data, and analytics; and the foundation for advising assessment and evaluation across campus. A new coordinator to support advising was hired in April 2018, and a new Exploratory Advisor—Tech's first—will be hired fall 2018. This new position will support Tech's Momentum Year initiatives by providing advising for students to explore majors.

In the coming year, we will continue emphasizing existing CCG strategies and build on our current momentum with living learning communities, summer session initiatives, academic advising initiatives, and first-generation student outreach. Aligning Tech's RPG strategies with those of CCG has encouraged, and will continue to encourage, self-study and the sharing of outcomes.