G. WAYNE CLOUGH
UNDERGRADUATE LEARNING COMMONS

The Academic Crossroads of Campus
2013 Annual Report

Two years after opening, the G. Wayne Clough Undergraduate Learning Commons (Clough Commons) continues to exemplify the Institute's commitment to transforming undergraduate education and enriching the student experience.

The Clough Commons is a centrally-located, secure, 24-hour space devoted to multimodal student learning, "just-in-time" academic and technology support, and innovation in teaching.

The Clough Commons is the academic crossroads of Georgia Tech's campus, and a vibrant place for interdisciplinary collaboration, thought-provoking discussions, and engaging multidisciplinary events.

The 2012-2013 academic year proved to be another period of growth and progress for the many units located in the Clough Commons. Individually and collectively, these units and services enrich the student experience by delivering outstanding support to every student who needs it.

This report describes the accomplishments and milestones for the 2012-13 academic year.

26,958
INSTRUCTIONAL HOURS

732 COURSES MET FOR 26,958 INSTRUCTIONAL HOURS

44,351
H O U R S
TUTORING

44,351 HOURS OF TUTORING

32,259
GROUP STUDY ROOMS
U T I L I Z A T I O N   H O U R S

56,862 HOURS AVAILABLE

2,505,839
GATE COUNT

ONE-STOP SHOP: GENERAL ADVISING, INFORMATION AND RESEARCH SUPPPORT
CORE ACADEMIC HELP DESK

Operated by the Library's Research, Instruction, and Outreach Services department, the Core Academic Help Desk offers a variety of services that address students' academic needs. Since opening, the Core Desk has helped over 1,000 students with general advising questions. Two full-time professionals supervise desk operations and have brought services and programs offered by other academic units to this central location.

"I had a tough decision to make between a summer internship and classes. The core desk advisors helped me to evaluate my options so that I was able to make the right choice. They were knowledgeable and patient."

Myles Everett
3rd Year, Chemical Engineering Major

198
SPECIAL
EVENTS

The Internship filming

GTRI Advisory Board Dinner
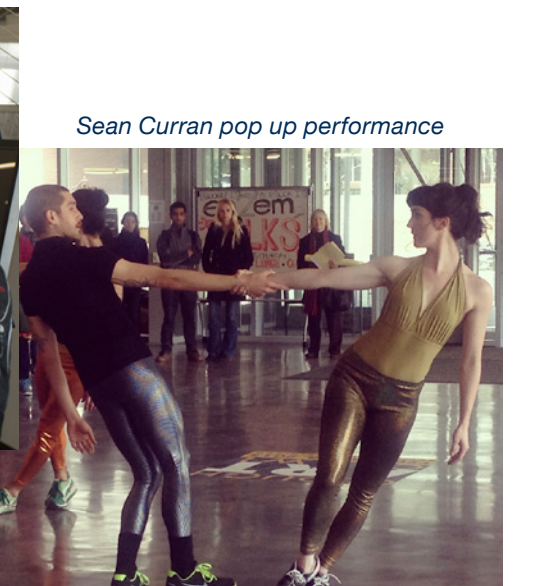
Lincoln Exhibit

Young Guru event

2013 Clough Art Crawl

Sean Curran pop up performance

AUG   SEP   OCT   NOV   DEC   JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG

TAKING LEARNING TO THE NEXT LEVEL
CENTER FOR ACADEMIC SUCCESS

Under the leadership of the Vice Provost for Undergraduate Education, Colin Potts, the Office of Undergraduate Education re-organized its two units in Clough Commons to align missions, programs, and operations with the initiatives in Georgia Tech's strategic plan.

The Center for Academic Success (CAS) was reorganized to include its current academic support programs (e.g., tutoring, supplemental instruction, academic coaching, and student success workshops) as well as academic advising coordination (including pre-health advising). New to CAS in the past year is the

responsibility for coordinating academic advisors on campus. The Center will work closely with the Georgia Tech Academic Advisors Network and the colleges to support academic advisors throughout campus. Additionally, the Center will also partner with the Clough Commons CORE desk to enhance the general advising that occurs there.

Center administrators are excited about partnering with advisors in academic departments to ensure students are receiving consistent messages about Institute policies and resources. CAS has already sponsored a nationally renowned keynote speaker at a best practices event, provided an advisors'

resource library in the Center, and hosted a series of webinars to inform and enhance advising throughout Georgia Tech.

Another focus of CAS is supporting Tech's "Complete College Georgia" plan to strengthen retention and graduation rates. In February 2013, Dr. Shannon Dobranski was appointed as the new Director of the Center for Academic Success. Dobranski formerly served as the Associate Director of Undergraduate Studies in Tech's School of Literature, Media, and Communication (LMC) for 11 years.

Tutoring

CAS continues to deliver tutoring services and programs for students who want to take their learning to the next level. In 2012-13, CAS provided guidance and resources to help Georgia Tech's undergraduates become successful, self-regulated learners.

Best known for 1-to-1 Tutoring, CAS delivered face-to-face instruction for more than 70 courses in the last year, serving 1,069 students in 4,028 sessions. Students who participate in these sessions encounter their coursework with greater confidence and typically earn higher grades than those who do not.

One student wrote at the end of spring semester to say, *"I just wanted to thank you so much for all the help this semester. . . . I managed to get very good grades and I couldn't have done without the help from you guys."*

Not only are students seeking support services, they are providing them every semester at CAS. In the spring alone, CAS employed almost 100 students as tutors, PLUS leaders, and student assistants. Peer educators are trained in CETL 2001 Fundamentals of Peer Tutoring, a course co-taught by CAS professionals, and student assistants are trained and supervised in a professional setting.

> **"I just wanted to thank you so much for all the help this semester. . . . I managed to get very good grades and I couldn't have done without the help from you guys."**

Peer-Led Undergraduate Study

Although students may picture 1-to-1 tutoring when they think of CAS, they should also remember the Center's Peer-Led Undergraduate Study (PLUS) options as well. Targeted at traditionally challenging courses, PLUS assigns groups of students to peer leaders who have made an A in the class already and are retaking the class to facilitate study sessions. This year, 2,427 students participated in PLUS in more than 13,000 visits.
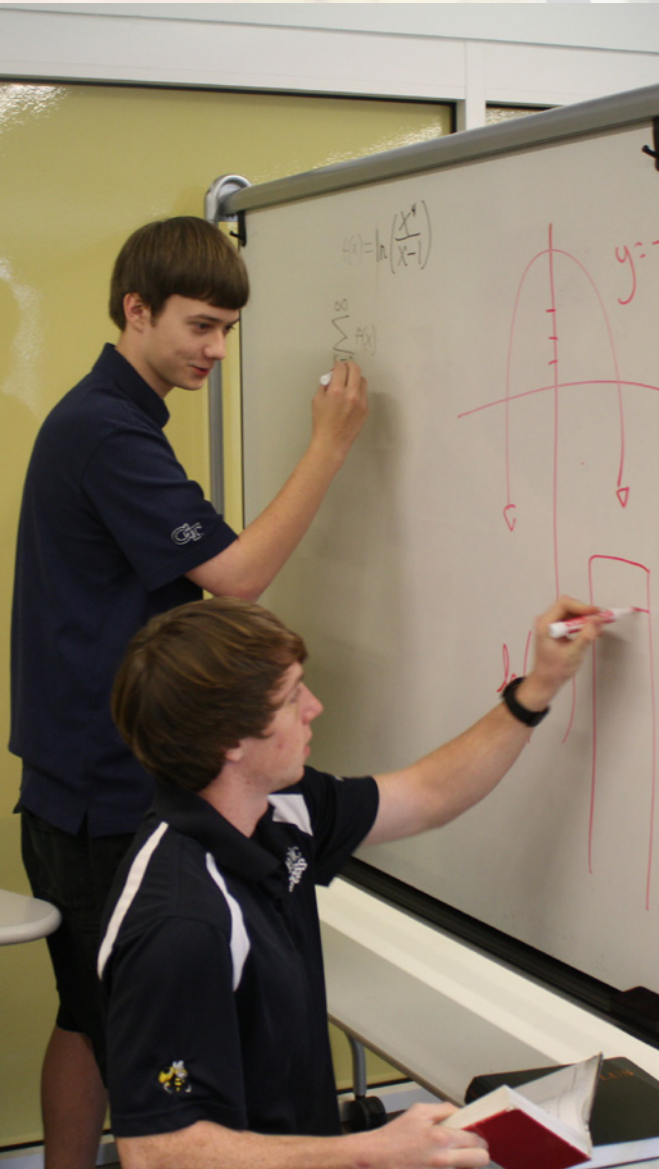
Academic Coaching

Students who sought assistance in our academic coaching program saw higher grades and a boost in confidence as well. CAS increased its coaching appointments this year with 127 students served. The Center continued to offer weekly interactive workshops designed to improve specific study skills such as time management, textbook mastery, or test preparation.
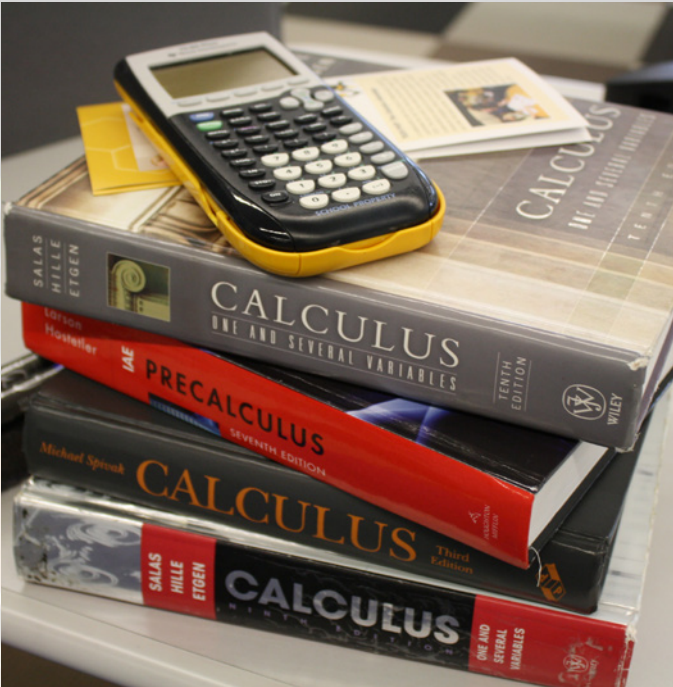
Reboot Program

The Reboot program saw unprecedented student enrollment this year, as students seized the opportunity to turn around an academic performance that had gone adrift. Students in Reboot learn goal setting and study strategies in weekly meetings and take full advantage of the Center's range of resources to improve their grades and restore their academic standing.

One student who benefited from Reboot said, *"I needed to change what I was doing to set myself up to succeed and wasn't sure how to do that, but Reboot taught me how to do exactly that."*

> **"I needed to change what I was doing to set myself up to succeed and wasn't sure how to do that, but Reboot taught me how to do exactly that."**

Pre-Calculus Enrichment Program

Even in the slightly slower summer months, success programs are hopping at CAS. The Georgia Tech Pre-calculus Enrichment Program (Tech PrEP) offers an intensive math encounter with professors and PLUS leaders in the final weeks of summer. Incoming students who participate in this residential program are introduced to calculus concepts and a range of study skills that will ease the transition to their freshman year, all while getting to know each other, the campus, and the city through encounters that include a Braves game and the ropes course.

NEW NAME, SAME MISSION
CENTER FOR ACADEMIC ENRICHMENT

Located in the suites of the former Office of Undergraduate Studies, the Center for Academic Enrichment (CAE) provides programs and services that foster rigorous academic activities, integrate and enhance more traditional curricular activities, and create meaningful opportunities for student-faculty engagement. Accordingly, several existing programs and activities were coalesced into CAE, including the Undergraduate Research Opportunities Program

(UROP) and student innovation programs, GT1000 First-Year Seminar course, the First-Year Common Reading program, and the This I Believe/Open Forum program.

In July 2013, Dr. Pete Ludovice was appointed as the Director. Ludovice is an Associate Professor in the School of Chemical and Biomolecular Engineering and will continue to teach courses and direct senior design projects.

Fellowships Office

The Fellowships Office remains co-located with CAE, and the office also manages and coordinates the Clough Lounge. During the 2012 - 2013 academic year, the Fellowships Office staff met with many students who were interested in applying for national fellowships. The Fellowships Office held information sessions for various awards each semester and supported students through each stage of the application process.

Dozens of students chose to complete the challenging application process, and each applicant was honored at the President's Reception for Fellowship Applicants at the end of spring semester.

Highlights include:
- Eight students received Fulbright Grants (the highest number of students to receive Fulbrights in the history of the GT Fellowships Office)
- One student received a Goldwater Scholarship
- One student received an Astronaut Scholarship
- One student received a Marshall Scholarship
- One student received a Rhodes Scholarship
- 37 students received the National Science Foundation Graduate Research Fellowship

Joy Buolamwini - Rhodes Scholar

Open Forum & This I Believe

During the 2012-13 academic year, there were 11 Open Forum events and 11 "This I Believe" speaker events held in the Clough Lounge (suite 205 in Clough Commons) throughout the fall and spring semesters. "This I Believe" speakers included President Bud Peterson and First Lady Val Peterson, Provost Rafael Bras, Tech student and entrepreneur Jasmine Lawrence, Tech's 2012 Marshall Scholar Jacob Tzegaegbe, and Coach Paul Johnson. Two "This I Believe" Essay Contests were also held, resulting in numerous outstanding submissions from students. Top selection essays were featured on the "This I Believe" website and read aloud by the authors during two "This I Believe" Essay Reading events.

First-Year Seminar

Of the 92 GT 1000 First-Year Seminar sections, 69 were held in the Clough Commons, supporting over 1,500 students. The GT1000 instructor training sessions were also held in the Clough Commons during the summer of 2012.

Clough Commons was the venue for several events in support of the 2012-13 First-Year Common Read, The Immortal Life of Henrietta Lacks: a plenary lecture with Dr. Roland Pattillo, faculty/student-led discussion panels, and reading groups. A broad cross-section of students, faculty, and campus representatives from all colleges attended these events.

Undergraduate Research Opportunities Program (UROP)

UROP experienced a banner year, seeing increases in student participation across almost all aspects of undergraduate research and student innovation and entrepreneurship.

The Research Option

This substantive research and thesis-based degree program had 128 students enroll from summer 2012 - spring 2013, a 25% increase from the previous year.

Mechanical Engineering senior Christopher Taylor won the 2013 competition for his invention of fully automated robotic dog toys called Chewbots, along with $20,000, a patent, and a spot in Flashpoint, Georgia Tech's accelerator program.

SX also developed the Startup Semester, a startup accelerator program, which received over 50 student applicants and accepted 13 for a 10-week entrepreneurship program. Of those accepted, Chris Taylor won the InVenture Prize, Hunter Clarke interviewed with Y Combinator (a premier national startup accelerator) and Shaan Arora and Erik DiCorrado presented at Startup Riot in Atlanta.

InVenture Prize

In 2013, this faculty-led innovation competition saw unprecedented growth. Inventure Prize had more students than ever (501) participate, drew the largest studio audience (~1000), and awarded the greatest amount of prize money ($35,000).

Undergraduate Research Spring Symposium

A total of 205 students presented their research to judges and the Tech community via oral or poster presentations, a 30% increase from the previous symposia.

Presidents Undergraduate Research Awards (PURA)

PURA provides competitive monetary awards to students to conduct research and receive travel grants to present their research at professional conferences. In 2012-13, 350 student applied for PURA awards, the most in the 10+ year history of the program. Of those 350 applicants, more than 260 students received award.

Startup Exchange (SX)

The UROP office collaborated with two undergraduate students, Aswin Natarajan and Jerome Choo, to lead an innovation and entrepreneurship program to assist other Tech undergraduates in making their ideas a reality. They formed the Startup Exchange, a student-run collaborative space in the Georgia Tech Library, which gives like-minded developers, designers, and "ideators" a place to build an entrepreneur community.

A total of four companies were formed:
- EDUcakeMe – a platform that advertises cakes to parents who want to send fresh cakes to college campuses for any occasion.
- GT Thrift Shop – a company with nearly 1000 GT student members selling used items.
- Keep Dreamin' – a non-profit organization that creates animated shows based on children's dreams.
- Vespyr – a platform to find players for nearby pick-up sports games.

TRANSFORMATIVE UNDERGRADUATE LEARNING EXPERIENCE
INTEGRATED SCIENCES EDUCATION AT GEORGIA TECH

In addition to teaching more than 11,000 students in introductory lab science courses over the past year, several new innovative science programs were developed and implemented in the building. The Physics Department piloted one of the first Massive Open Online Courses to include a lab component in summer 2013. A small section of the course met in Clough Commons while the other 20,000 students attended the course online.

During 2013, the Integrated Sciences Education Program initiated the Georgia Tech Urban Honey Bee Project, a unique interdisciplinary undergraduate research and education program focused on the impact of urban habitats on honeybees. Two bee hives were installed on the east side of the Clough Commons roof terrace. The hives are used for undergraduate research and inquiry-based introductory science lab courses.

Several students are already using the beehives for research. Sophomore biology major Youngmin Kim is conducting a GIS-enabled survey of the bees on campus to help shed light on what food sources are available to bees on an urban campus. Senior biology major Joseph Elsherbini is working with computer science major Cassidy Swain and electrical engineering major Jason Morelli-Harlan to create a "smart-hive" with a small integrated computer, a digital hive scale, temperature and humidity. Undergraduate science and math courses will utilize the data collected by the smart hive. In additional, over 70 students and staff volunteered with the program for research and bee maintenance.

"Working with the Urban Honey Bee Project in the Clough Commons has served as a new creative outlet for me to incorporate my passion for science into different design projects. Working here has also given me the opportunity to investigate first-hand how different studies within the realm of science function together." – Katelyn Sturdivant, 4th year biology major.

INFORMATION, ACCESS, AND SUPPORT
OIT TECHNOLOGY SUPPORT CENTER

When it comes to servicing the Georgia Tech community, the focus of the OIT-Technology Support Center's (TSC) daily operations center on information, access, and support. Fittingly, the TSC provides a wide variety of services in the Walk-In Support Center and through the Internet, email, and telephone. All services are designed to assist the faculty, staff, and students of Georgia Tech at the time and point of need.

Located within Suite 215, the TSC is comprised of a Walk-In Support Center, a Telephone Support Center, as well as the Georgia Tech Directory Services Team. Supplementary programs within the TSC include a Faculty/Staff Loaner Laptop Program, How-to Clinics, a Technology Demo area, interaction with the major campus vendors at bi-monthly Lunch and Learns, and weekly 1-on-1 meet and greet sessions.

"This was much easier than I expected - clear communication was available on what to do and the follow-up and implementation from OIT was extremely quick. Thanks very much!"

During 2012–2013, the TSC resolved nearly 5,000 customer incidents in the Walk-In Support Center and another 12,000 customers incidents through Internet, email, and telephone support.

GT Directory Services
34,000 + incoming calls

Faculty/Staff Laptop Loaner Program
51 customers served

How To Clinics
3 sessions: How To Back Up Your Data, Phishy Business, and Archiving your Georgia Tech Email

Lunch and Learns
5 events, serving over 100 of our peers in IT around the Georgia Tech campus

Throughout the academic year, the staff of the TSC seeks to interact with the Georgia Tech community in a variety of ways. On March 14, 2013, also known as "Pi Day" in the mathematical world, the TSC distributed pies to over 250 members of the Tech community. This customer appreciation event was sponsored by major hardware producers Dell, HP, and Apple, as well as B&N Bookstore, and CDWG, all of whom donated the pies and gave students, faculty, and staff another reason to celebrate Pi Day!

"Thank you very much for loaning the laptop computers to Institute Communications for our market research sessions with prospective students and parents. The sessions we conducted were extremely helpful in informing directions for the new Georgia Tech website. We greatly appreciate the support you provided to help make these exercises a success." – Institute Communications employee, Georgia Institute of Technology

NEW APPROACHES TO PEDAGOGY AND INSTRUCTION
CENTER FOR THE ENHANCEMENT OF TEACHING AND LEARNING

Georgia Tech is committed to promoting pedagogical best practices and supporting faculty, instructors, and teaching assistants as educators. The visible manifestation of this commitment is the Center for the Enhancement of Teaching and Learning (CETL), which offers professional development for graduate students, teaching enrichment activities for faculty, educational research on teaching and learning pedagogy, and other alumni and grant agency-funded initiatives.

In fall 2012 and spring 2013, CETL connected with 866 faculty through new faculty orientations, monthly workshops on topics such as "Using Student-Made Videos to Promote Learning" and "Building Ethics Education into the Curriculum through Problem-Based Learning," and a Celebrating Teaching Day event featuring projects undertaken during the year to improve student learning.

In addition, CETL connected with 926 graduate students through TA orientations and workshops on topics pertaining to the various instructional roles that they hold. Graduate students explored issues such as diversity and equity in the classroom and motivating learning.

CETL's location in the Clough Commons facilitates engagement with students and faculty in close proximity to where teaching and learning occurs. This year faculty taught 35 courses in the innovative SCALE-UP classrooms located throughout Clough Commons. Each SCALE-UP room is outfitted with moveable whiteboards that reveal digital screens that allow students to connect their laptops and furniture that facilitates group interaction and greater peer engagement.

SCALE-UP classroom highlights include:
* 18 Ivan Allen College of Liberal Arts courses
* 5 College of Sciences courses
* 4 College of Architecture courses
* 3 College of Engineering courses
* 4 sections of GT1000 and one CETL course

As a result, both faculty and students are finding new ways to teach and learn in a classroom environment that promotes experimentation with pedagogical approaches and best practices.

"Though teaching is a very important component of faculty responsibilities, in graduate schools, we rarely receive professional training to become successful teachers. Hence I was thrilled when I was selected for the Class of 1969 Teaching Fellows Program. The program provided an excellent opportunity for junior faculty like me to gain confidence in my classroom teaching. At the weekly meetings we discussed the effectiveness of different teaching techniques, shared our classroom experience and sometimes even laughed at inadvertent classroom mishaps. I looked forward to these meetings where I made some good friends on campus. The mentoring and advice we receive from the senior faculty and teaching professional is invaluable as it helps junior faculty become better teachers. I would strongly encourage all junior faculty to apply to the program."

Shatakshee Dhongde
Assistant Professor, Economics
2013 CETL/BP Junior Faculty Teaching Excellence Award

WOVEN (WRITTEN, ORAL, VERBAL, ELECTRONIC, NONVERBAL SUPPORT)
COMMUNICATION CENTER

After just two years, the Communication Center is an integral part of the Georgia Tech campus community by addressing a number of student needs and partnering with a diverse number of organizations.

The Center assisted a cross-section of students (especially first-year students) dealing with written, oral, and visual assignments; non-native speakers needing grammatical help; upper-level students applying for scholarships/grants/graduate programs/internships/jobs; advanced undergraduates and graduate students explaining their research to non-specialist audiences; and graduate students working on theses and dissertations.

By the numbers:
* Conducted 2,522 help sessions (more than double the number of sessions in the 2011-2012 academic year)
* Tutored 1,232 individual students (584 students more than in the 2011-2012 academic year)
* Assisted students from 59 majors from all six colleges (an increase of 14 majors from the previous year)
* Visited 43 classrooms
* Held 62 workshops and hosted 36 tours
* Engaged approximately 1,750 students (both graduate and undergraduate) through the variety of workshops, 863 students through class tours, and more than 1000 students through class visits

The Communication Center also collaborated with a number of organizations in the Georgia Tech community, including the Division of Professional Practice, Career Services, the Center for Academic Enrichment, the Office of International Education, the Women's Resource Center, the Faculty Women's Club, and the Writing and Communication Program's World Englishes Committee. Additionally, the Center partnered with Georgia Tech's Language Institute to provide non-native speakers with additional assistance from specialists trained in the needs of ELL students. The Center also became essential to the Graduate Communication Certificate Program and the Graduate Research Information Network.

CONCLUSION

The Clough Commons could not have been built without support from the state of Georgia. In addition, the Institute's leaders, generous donors and faithful alumni support Georgia Tech's tradition of providing students with every possible advantage to sustain their lifelong learning and success in a highly rigorous academic environment. The Clough Commons is a 21st century expression of that cherished tradition, and stands as a testament to a commitment to the undergraduate experience by the Institute and its tenth president, G. Wayne Clough.

SUSTAINABLY DESIGNED
LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN

This year, the Clough Commons achieved a platinum Leadership in Energy and Environment Design (LEED) designation, a longtime goal of the building's staff, architects, and project managers from design to the actual construction.

Sitting atop the Clough Commons is a green roof that includes native plants species, a solar thermal system, and 360 photovoltaic panels that provide renewable energy. A 1.4 million gallon cistern is installed under Tech Green, which provides water for toilet flushing and landscaping. Through dynamic monitoring of carbon dioxide and the delivery of outdoor air, the facility maintains a healthy indoor environment.

Low-emitting materials were used during construction to minimize harmful, volatile, organic, compound exposure from adhesives, sealants, carpets, paints and coatings. Many construction materials were transported from within a 500-mile radius to minimize fossil fuel consumption. Additionally materials were managed sustainably through on-site recycling, which diverted 75% of construction by-products from a landfill.

Georgia Tech Library