



## **STRATEGIC PLAN: City Tech 2014-2019**

### **Seizing new opportunities in Brooklyn and beyond to design solutions, spark innovation, and nurture creativity**

At New York City College of Technology institutional transformation is well under way, from CUNY's well-kept secret to a college of technology widely recognized for the quality of its programs, faculty, and graduates. Since the 2009 Strategic Plan, the faculty has become larger, stronger, and more deeply engaged in institutional renewal. Critical improvements to the physical space and infrastructure are visible and felt. Attractive new baccalaureate programs are sought by a growing percentage of students. The next five years will be critical to securing the College's recent cultural change and new directions and to determining precisely how City Tech will continue to evolve and grow into its new identity.

The College community eagerly awaits the spring 2017 completion of its new 350,000 sq.ft. academic complex, not only for its state-of-the-art instructional and research facilities and expanded academic program possibilities, but also for the enhanced presence it will give the College in Downtown Brooklyn – an area central to the evolving “Brooklyn Tech Triangle,” a burgeoning hub of technology/ media/ advanced manufacturing/ and tourism. The move of science and health-related departments to the new quarters will open space in existing facilities, thereby creating a cascade of opportunity for faculty and student activities, services and partnerships.

Place-based but not place-bound, City Tech's students, faculty, and programs will take full advantage of expanded opportunities for internships, fellowships, partnerships, and exchanges in the region, nationally, and internationally.

## **VISION AND MISSION**

### **VISION**

City Tech will secure its place as an innovative, technologically agile partner in key sectors of New York City's economy, preparing graduates who excel in their fields, embrace change, and engage in interdisciplinary and inter-professional inquiry and problem solving.

### **MISSION**

New York City College of Technology is a teaching institution that embraces innovation by fostering the knowledge, skills, and habits of mind that prepare its students to respond to an ever-changing world of ideas, technologies, and environments. City Tech finds the innovator within, bridges theory and practice, supports creativity, and builds partnerships within and across disciplines and fields of practice. Drawing on the strengths of the diversity among its varied community and programs, the College provides a setting for the open, respectful, and professional exchange of ideas. The City Tech community strives to exemplify social responsibility, civic engagement, and ethical behavior.

The College is an active partner in the rich cultural life and expanding economic base of Brooklyn and New York City. Through its baccalaureate, associate and non-degree programs, City Tech provides higher education in a wide range of technical and professional fields to the diverse population of New York City. City Tech's faculty are skilled, innovative teachers and active researchers who create knowledge, improve professional practice in their fields, and collaborate across disciplines to promote academic achievement, intellectual development, and professional growth. The College's programs, integrating liberal arts and sciences and study in a major area, prepare students for personal and

professional success, for the challenges of becoming leaders, innovators, and stewards of their fields, and for lifelong learning.

## **STRATEGIC GOALS**

### **I. PURSUE CHANGING OPPORTUNITIES IN CITY TECH'S AREAS OF EXPERTISE**

### **II. INCREASE STUDENT SUCCESS AND ENHANCE STUDENTS' ACADEMIC AND CO-CURRICULAR EXPERIENCE**

### **III. STRENGTHEN COORDINATION AND COLLABORATION ACROSS THE COLLEGE TO ADVANCE BOTH PERSONNEL AND PROGRAMS**

### **IV. DEVELOP A STRONG, SHARED INSTITUTIONAL IDENTITY THAT WILL GUIDE DECISION MAKING INTERNALLY AND PRESENT A DISTINCTIVE, READILY IDENTIFIABLE FACE TO THE WORLD OUTSIDE THE COLLEGE**

#### **I. PURSUE CHANGING OPPORTUNITIES IN CITY TECH'S AREAS OF EXPERTISE.**

To keep pace with the many rapidly changing fields for which City Tech currently educates students, especially STEM-related fields, and to identify new areas for program development, each of the College's three Schools and the Division of Continuing Education will implement strategic initiatives. Baccalaureate programs will incorporate emerging technologies, expand internships, and support essential economic development. These programs will be grounded on the fundamental elements of a robust general education, a strong research-active faculty, informed assessment, and a greatly enhanced infrastructure.

General Education provides the foundation for all the College's programs. Securing the integration of City Tech's recently adopted signature general education goals across all programs is a critical objective.

A substantial addition of highly qualified, research-active professors will continue the revitalization of departments and curricula and will support institutional transformation efforts by obtaining and leading grant-funded projects.

Assessment of student learning has been a major effort at City Tech since 2008, with nearly half of the full-time faculty having some direct involvement. This high level of awareness creates an opportunity to make assessment a permanent tool for thinking about teaching and making improvements, both in the integration of general education outcomes across curricula and in each department's critical courses and program outcomes.

An array of enhancements to facilities and infrastructure, including not only the new building and the resulting possibilities in the Pearl Building, but also continuing improvements to the Voorhees Technology facility, re-designed space for the Media Design programs, and other upgrades, will create unprecedented opportunities for program growth and development, including a special focus on STEM-focused programs and STEM education.

**A. Expand and continuously update program offerings of each of City Tech's three Schools and Division of Continuing Education, while exploring and promoting collaboration across disciplinary boundaries and enhancing interdisciplinary work.**

**The School of Arts & Sciences** will deepen instruction in General Education for all students, while also creating distinctive baccalaureate degree programs that leverage the College's strengths in applications, technology, and hands-on learning.

- Develop inquiry-based learning in all first-year biology and chemistry labs to provide students direct experience in observation and measurement of the natural world and introduction to scientific methods and understanding.
- Expand the College's newly organized program in Environmental Science, with emphasis on the subject's multi-disciplinary and on Brooklyn's post-industrial, development-intensive, storm-sensitive, densely populated waterfront location.
- Implement new degree programs in Professional and Technical Writing, Biomedical Informatics, and Mathematics Education, while continuing to expand Applied Math.
- Design and introduce new baccalaureate programs leveraging Chemical and Biological Technologies and Computational Physics, and explore collaborations with the School of Technology & Design.
- Complement the increased offerings in the arts, humanities, foreign languages, and social sciences with a rich array of interdisciplinary courses.

**The School of Professional Studies** will respond to the continuously increasing integration of technology into health and professional fields and to the expectation that these professions will be practiced in cross-disciplinary settings and teams.

- Make all programs communications-intensive, developing students' oral and written communications skills in English and also in other languages.
- Maintain cutting-edge practice by establishing cycles for evaluating/ replacing technology and by nurturing strong relationships with industry and professional partners.
- Expand the context for professional practice by integrating the humanities and social sciences more deeply into the curriculum, creating opportunities for inter-professional study and practice, and establishing cross-disciplinary research opportunities for both faculty and students.
- Design and implement new baccalaureate programs in Fashion Management and Dental Hygiene and continue to explore potential collaborations with the other two Schools.
- Build on the well-established Service Learning initiatives to foster students' civic engagement and increase opportunities for real-world practice.

**The School of Technology & Design** will situate itself at the intersection of academic theory and hands-on applications, while implementing processes that ensure a nimble response to the challenges of delivering programs based on rapidly evolving technologies and demand.

- Formalize the institutionalized, rigorous scheduled review of technical course curricula to guarantee its relevance and timeliness.
- Increase success in technology programs by implementing appropriate prerequisites, strengthening pedagogy, and providing integrated academic support.
- Explore the utilization of online instruction to reach larger student populations who currently do not have access to a technological education.

- Develop courses and programs of study utilizing the curricula of multiple departments, thereby responding to new areas of commerce and research and development.
- Improve the awareness of global opportunities for students and faculty alike by encouraging cooperation in articulation agreements with international programs, fostering meaningful learning and internship programs overseas, and developing articulation agreements and joint research projects with similar overseas institutions.
- Build an infrastructure that will support technological innovation and research at a pace commensurate with industry; Improve the ease of implementation of new technologies at all levels
- Revisit the five-year facilities master plan that will address changing departmental needs and increased and shifting enrollment
- Explore incubator opportunities for technology departments and faculty

**The Division of Continuing Education**, entrepreneurial and flexible, will supplement, enrich and leverage resources to support the College's degree programs by serving diverse populations outside of traditional degree-seeking groups, by addressing workforce needs for trained entry level workers and for upgrading incumbent workers' skills, and by providing an incubator for potential certificate and degree programs.

- Systematically monitor the local environment to identify current and future opportunities/needs for shorter term training that can be met by certificate courses in technology, manufacturing, fabrication, information technology and its applications, architecture, healthcare, and engineering as the workplace evolves and population grows.
- Build and continuously refresh relationships with such entities as the Brooklyn Navy Yard, Industry City, MTA, SEIU 1199, NYC HHC and other mayoral agencies.
- Extend and develop outreach to community-based groups to support broad-based access to education and training.
- Follow new legislation, advances in sustainability practice and new local laws in construction safety in order to launch new programs in a timely manner. Follow the cyclical events in construction, sustainability and safety.
- Develop strong, customized training programs with business and industry, as well as customized degrees paid for by companies, unions and the non-profit sector.
- Ensure continued and consistent excellence in program delivery through nurturing a culture of assessment, implementing continuing quality improvement, and instituting strategic succession planning.

## **B. Strengthen the foundations of academic achievement and success**

**General Education and Assessment. Firmly establish the College's signature general education as the foundation and context for all programs**

- Integrate into all degree programs City Tech's new general education common core, which richly and explicitly connects the liberal arts and sciences to technical and professional majors.
- Drawing on tools and practices gained from the Title V Living Lab and NSF I-Cubed grants, Inform, engage, and support not only current faculty, but also new faculty and part-time faculty in the work of infusing general education and implementing high-impact practices in instruction.
- Through College-wide themes and activities, as well as department-focused projects and improved materials, foster students' understanding of the College's General Education Common Core as the grounding of their education

- Make assessment an integral part of how the faculty think about teaching and make improvements, both in the integration of general education outcomes across curricula and in each department's critical courses and program outcomes.

**Faculty. Continue to expand City Tech's diverse and accomplished faculty and support its advancement as teachers and researchers**

- Expand the full-time faculty and respond to a teaching load reduction that achieves parity with other CUNY senior colleges by hiring up to forty additional full-time faculty for 2014-15 with continuing modest increases thereafter.
- Draw on the faculty's diversity and its unique mix of accomplished academics, creative designers, and seasoned professionals to multiply opportunities for interdisciplinary collaboration.
- Ensure a supportive, nurturing workplace for faculty.
- Offer new faculty informed mentoring and resources to support their teaching and research.
- As professors advance to mid-career, ensure their sustained engagement and vitality by continuing to support their research and new opportunities for professional growth.
- Expand the Library's role in support of faculty research and scholarship, including both discipline-specific study and the scholarship of teaching and learning.
- Intensify the pursuit and coordinated management of grant funding that furthers faculty research goals as well as institutional objectives.
- Support full-time and part-time faculty and ensure consistent instruction by strengthening the role of departmental course coordinators/course leaders, as well as continuing to develop orientations, online support, and professional development.
- As new instructional modalities and tools become available at an ever more rapid rate, expand technical support and training opportunities for faculty and staff.

**Infrastructure. Use the new academic building and space made available in the older college buildings to expand and improve the college's infrastructure for scientific and technical instruction, for expansion of Library facilities and to facilitate the growth of activities in support of baccalaureate level instruction.**

**C. Program development and updating**

**Collaboration:** Through reconfigured advisory committees, partnerships, and professional organizations, keep pace with the many industries and professions for which City Tech currently trains students.

- Identify new fields where program development would be advantageous.
- Ensure that baccalaureate programs address emerging technologies, apply advanced tools to the solution of problems, and support essential economic development.
- Academic Affairs and college governance will collaborate to implement a revised program development and review process that is well informed but supple and efficient.
- Revise degree requirements where possible to encourage greater flexibility for cross-disciplinary and inter-professional study.
- Enhance curriculum to establish connections and collaborative work across disciplines

**D. Continue to evolve as a center of excellence in teaching STEM to a diverse, urban population.**

**Coordinate:** Identify existing and potential resources, including grant funding, that will bring together efforts focused on improved instruction, an enriched experience for students, and the creation of a body of scholarship:

- Plan and develop a Center that will strengthen our Architecture, Construction, and Environmental Programs by promoting new technology, sustainability, unified instruction across related disciplines, and collaborative research.
- At such time when space permits explore the creation of a STEM Center to serve as a locus of student and faculty support for undergraduate research, providing spaces for group study, and collaborative work in STEM.

**Practice:** Implement demonstrated high impact practices in STEM education throughout the curriculum

- Support the integration of high-impact practices introduced through the I<sup>3</sup> and Title V grants into all STEM areas
- Continue to expand undergraduate research opportunities into a sequence of increasingly challenging experiences that address interests of students at all levels including those going on to graduate/ professional study.
- Continue to develop a mathematics rich context for STEM degree programs
- Work with City Tech's two early college high schools, as well as through College Now, and other high school partners to help guide these students to excel in college-level STEM programs

**Research:** Become known for scholarship and success in broadening participation in STEM.

- Support faculty interested in conducting scholarship on teaching and learning in STEM to find funding, collaborators, and mentors.

## **II. INCREASE STUDENT SUCCESS AND ENHANCE STUDENTS' ACADEMIC AND CO-CURRICULAR EXPERIENCE**

To continue improvements in student retention and graduation, through coordinated efforts by Academic Affairs and Student Affairs, City Tech will expand initiatives to target key transitional points, including first year, second year, transfer at any level, movement from associate to baccalaureate levels, degree completion, and post-graduate opportunities. Essential strategies to increase student success will include offering an immersive introduction to college life and to the major, strengthening an integrated advisement process, expanding and coordinating academic support, and engaging students more actively in college life, through expanded activities, the digital commons enabled by the OpenLab, and new spaces and structures made possible as a result of the new facilities. These efforts conform to our mission of supporting access and success in high quality workforce oriented programs for a diverse student population.

A long-anticipated demographic shift will result in the majority of City Tech students enrolling in baccalaureate rather than associate degree programs. As the College becomes a more identifiably baccalaureate-granting institution, new structures and services are required, including expanded access to and preparation for internships, guidance for application to graduate and professional schools, more advanced undergraduate research opportunities, and additional career placement assistance.

### **A. Orientation and First Year Experience. Tailor an engaging orientation/ first year experience that provides new students with the skills, information, and relationships needed for success.**

- Redesign orientation to make it more immersive and address specific needs of different groups of students, including providing a more comprehensive orientation to college life for first-year students, piggy-backing on the First Year Summer Program for students with developmental needs, expanding introduction to the majors, conducting a separate orientation for transfer students, and welcoming those coming from City Tech's early college high schools.
- Scale up learning communities and expand options to tailor them to individual majors.
- Expand the use of peer mentors, peer-led team learning, and other strategies that engage students in supporting the orientation and learning of first-year students.
- Support departments to design activities for first-year and transfer students that engage new students from entrance to the college to full integration in the major.
- Develop a comprehensive strategy for effective communication with students, utilizing a full range of media including CUNYfirst and Hobson's/Retain.

### **B. Advisement. Create an integrated, systematic process for the effective delivery of academic advising from the New Student Center to department advisement for majors addressing key transition points and ensuring consistent, accurate, and supportive guidance.**

- Form a student advisement committee including faculty, representatives from Academic Affairs, Student Affairs, and Financial Aid, to coordinate, and enhance student advisement.
- Use technology to make the advisement process more consistent, and accessible; ensure the accuracy of existing resources such as DegreeWorks.
- Provide professional development and resources for academic advising to orient new faculty and staff, and systematically update the information and processes for experienced advisors
- Establish a Center for Professional and Career Development as a central resource for access to internship, career, and graduate/ professional school opportunities.
- Develop a web-based map on the Open Lab to guide students to resources.



- C. **Academic support.** Expand collaboration among academic support services such as the Library, Learning Centers, Instructional Technology/Technology Enhancement Centers, and the departments to enhance student academic progress.
- Use the Library to foster individual and group work by students, and enhance academic and instructional support appropriate for a baccalaureate-granting college serving a large student population.
  - Make academic support more available and more tailored to program needs, by strategically de-centering face-to-face tutorial services, engaging departments to plan and implement academic support, increasing e-tutoring, and making other services available electronically.
  - Ensure students' ability to access and make full use of technology-enhanced instruction, software required for their programs, and online learning.

- D. **Student experience. Support student persistence and success through the effective delivery of administrative services, readily available guidance, and engagement in the rich array of co-curricular and extra-curricular activities.**

**Make administrative services more efficient and more student-friendly**

- Create a student experiences steering committee
- Continue to assess and monitor student satisfaction with college services
- Maintain standard operating procedures for department services and processes
- Enhance welcoming, user-friendly guideposts, maps, and signage

**Increase the range, appeal, and awareness of College activities**

- Build on the features of the Open Lab to maximize its potential for student-student, faculty-student, and college-student communication.
- Design activity calendars that encourage posting well in advance, that are searchable by topic and area of interest, and that can be adapted to support faculty planning, student engagement.
- Expand activities that meaningfully support and address the needs of the College's diverse student population and highlight and celebrate the college's many cultures.
- Continue to build students' sense of belonging to professional communities and increase readiness for workforce and post-baccalaureate experiences by inviting industry and professional speakers, such as the "Meet the Pros" series sponsored by Advertising Design and Graphic Arts.
- Reinstate the Emerge Lecture series, bringing innovative thinkers to the Voorhees campus.
- Hold regular Graduate/ Professional School fairs and develop a calendar of events geared toward next steps.
- Plan an expansion of offerings in the visual and performing arts.

- E. **Space for students. Create new physical and virtual spaces to connect the students to the College and one another.**

- As new construction provides additional space, ensure that appealing social spaces, informed by student input, is developed to support informal gatherings and encourage increased student engagement.

### **III. STRENGTHEN COORDINATION AND COLLABORATION TO ADVANCE BOTH PERSONNEL AND PROGRAMS**

City Tech is a growing, diverse institution serving students and the community in complex ways. As the College continues to expand, continued success will depend on the smooth and coordinated functioning of essential processes. In particular, initiatives that cut across College units and departments offer significant opportunity, but they require operational systems and procedures that minimize administrative hurdles. Further development of the University's CUNYfirst management system and related business processes are essential to achieving this objective.

Improving communication across institutional structures and among constituencies must also be intensified and coordinated as the institution continues to grow. One essential tool devised for achieving this is the OpenLab - the digital learning platform initially conceived as part of the Title V Living Lab grant as a way to make general education visible and actively integrated across the curriculum. The Open Lab has grown to over 9000 users and continues to expand rapidly as users take advantage of its communicative possibilities. Institutionalizing the OpenLab will support expanded communication.

The College must also continue to plan carefully for the acquisition and management of resources. Technology, both institutional and instructional, encompasses a growing complexity of available tools and resources that sustain both institutional needs and those of various end-users, and represents a huge challenge. Reaping maximum benefit from the gain in facilities and space as a result of the new building presents another appealing challenge although a challenge nonetheless because although the potential gain is large, the needs are also large. A sustainable funding plan, supplemented by fundraising and grants sought with an eye to potential impact and integration with existing efforts, will allow the College to continue moving forward.

#### **A. Nurture a culture characterized by a sense of shared responsibility, courtesy, recognition of exemplary performance and efficient use of time and resources**

- Continue efforts to achieve a mutually supportive, engaged and caring environment to make the college a friendly and less challenging place to study and work.
- Ensure easy access to useful information and decision flow.
- Use technology effectively to enhance communication and collaboration.
- Enhance service in all academic and service areas.

#### **B. Standardize and establish effective practices through improved business processes**

- Evaluate business practices to eliminate barriers and modify practices that are inefficient.
- Assess ways to enhance the faculty and staff professional experience by minimizing obstacles and focusing on achieving helpful administrative services in all areas.
- Identify and refine multi-departmental processes within and across the academic, student affairs, and administrative areas to ensure maximum efficiency, minimize duplication and streamline the hand-offs from one department to the next (CUNYfirst enhancements).
- Develop exemplary models for training on institutional processes.

#### **C. Implement a strong and valued college-wide governance system**

- Promote involvement, awareness and transparency of governance activities with all constituents.
- Develop a cycle of assessment of college-wide governance efficiency, structures, and procedures.



