

## SCHOOL OF ARTS & SCIENCES – BACHELOR'S DEGREES

The **School of Arts & Sciences** at New York City College of Technology, City University of New York, offers courses in disciplines that are classified as **Liberal Arts and Sciences**.

**Mission:** The study of the Liberal Arts and Sciences creates a touchstone providing balance and options for students for beginning college-level learning, furthering themselves within a chosen profession, or taking classes as preparation for transitioning into specialized programs.

### Bachelor's Degrees

The departments supporting the liberal arts disciplines include

African American Studies, English, Humanities, Social Science  
Biological Sciences, Chemistry, Mathematics, Physics

These eight departments provide courses in fulfillment toward graduation requirements for General Education themes and electives, as well as *Associates* and *Bachelor's degrees*.

The **Bachelor's degree programs** include Biomedical Informatics, Applied Chemistry, Professional & Technical Writing, Health Communication, Applied Math, Math Education, Applied Computational Physics, and Data Analytics/Economics.

#### **Biomedical Informatics**

Housed in the Biological Sciences Department, this is a program designed to provide well-rounded, interdisciplinary training for a new generation of biomedical and healthcare workers prepared to meet the challenges of today and of the future. A rigorous core of courses provides students with a strong foundation from which to develop competencies in two interrelated component areas of Biomedical Informatics:

- Molecular Bioinformatics, centered on the use of conformational and genomic data to elucidate biological phenomena; and
- Health Informatics, focused on the secure electronic storage, retrieval, and use of biomedical information in healthcare delivery and research.

For more information: <http://www.citytech.cuny.edu/biological/biomedical-informatics-bs.aspx>

## Applied Chemistry

Within the Chemistry Department, this program is unique within the City University of New York. The program adapts City Tech's Chemistry Department offerings to meet the education requirements of 21st century laboratory science careers in and around New York City. **The Bachelor's degree** complements the existing *Associate of Science (AS) in Chemical Technology*. It provides a seamless path for students in the *Associate of Science Chemical Technology* program to continue their studies. The degree has a 2+2 structure such that the AS in Chemical Technology is the first two years of the Bachelor's degree.

For more information: <http://www.citytech.cuny.edu/chemistry/applied-chemistry-bs.aspx>

## Professional and Technical Writing

Housed in the English Department, this program is designed to prepare students to communicate clearly and effectively using a variety of tools and media. Students gain competencies that include writing, editing, problem solving, document design, rhetoric, interpersonal communication, collaboration, specialized expertise, and fluency in modern communication technologies. Students learn how to translate complex, industry-specific information into lay terminology or another industry-specific discourse.

For more information: <http://www.citytech.cuny.edu/english/technical-writing-bs.aspx>

## Health Communication

Within the Humanities Department, this program provides a versatile communication studies degree that is unique among CUNY communication programs because of its focus on health. Designed to cover numerous professional competencies, graduates of the program are prepared for employment in healthcare settings, public health, government agencies, media, health education, communication technology and other occupational areas.

For more information: <http://www.citytech.cuny.edu/humanities/health-communication-bs.aspx>

## Applied Mathematics

Housed in the Mathematics Department, the [Bachelor of Science degree in Applied Mathematics](#) is a practical degree for those seeking employment upon graduation or a graduate degree. The program consists of a mathematics core, a general education core, free electives, and two semesters of internships. To be admitted to the four-year Bachelor of Science degree program, students must be eligible to take Calculus I MAT 1475 (or higher).

For more information: <http://www.citytech.cuny.edu/mathematics/degrees.aspx>

### **Math Education**

Within the Mathematics Department, the [Mathematics Education Baccalaureate degree](#) program is designed to prepare middle school and high school mathematics teachers.

For more information: <http://www.citytech.cuny.edu/mathematics/degrees.aspx>

### **Applied Computational Physics**

Housed in the Physics Department, this program provides a broader, more balanced and flexible education than a traditional physics major receives. Combining computational elements alongside basic physical principles creates a mindset for modeling realistic systems. The course of study combines applied physics and high-performance computing to show complex laws of nature, physics methods and computational techniques within the context and application of different fields.

Graduates are well equipped with a solid platform in physics, computing and mathematics, as well as valuable skills in complex problem-solving and teamwork. This positions them to fulfill the growing need for researchers, educators, and information professionals in a wide variety of fields, including engineering areas such as aerospace, applied mathematics and computer science, physical chemistry, finance, biomedicine and environmental science, as well as research in academic, industrial or national laboratories.

For more information: <http://www.citytech.cuny.edu/physics/applied-computational-physics-bs.aspx>

### **Data Analytics/Economics**

Housed in the Social Science Department, this program offers an excellent opportunity as a field of study. This can be seen from a strong labor market picture, together with a wide range of internship programs and opportunities. The skills attained through this program will prepare students for entry-level positions across a number of industries and occupations, including finance, public policy, real estate, digital media, research and development, marketing, outcomes research and banking. This program will also prepare students who choose to go on to graduate studies, e.g., MBA, MPH etc. Based on several recent studies and the Bureau of Labor Statistics *Occupational Outlook*, jobs in data analytics are in high demand and will continue to grow as the volume of data rapidly expands.

For more information: <http://www.citytech.cuny.edu/socialscience/data-analytics-bs.aspx>

## Students in Arts and Sciences majors...

Students in Liberal Arts majors at City Tech can join clubs such as the Chemistry Club, C-Step, Math Club, and Physics Club. More information is provided in each Department's profile.

Other available opportunities:

- ASAP [joinasap@citytech.cuny.edu](mailto:joinasap@citytech.cuny.edu)
- SEEK [seek@citytech.cuny.edu](mailto:seek@citytech.cuny.edu)
- Excelsior [financialaid@citytech.cuny.edu](mailto:financialaid@citytech.cuny.edu)
- BMI (Black Male Initiative) [BMI@citytech.cuny.edu](mailto:BMI@citytech.cuny.edu)

Available resources include:

- MATH tutoring is available for all course levels:  
<https://www.citytech.cuny.edu/alc/math.aspx>
- BIOLOGY, CHEMISTRY, and PHYSICS departments all offer tutoring
- Humanities Department offers help in Chinese and Spanish languages
- The City Tech Writing Center offers support with writing:  
[citytechwritingcenter@gmail.com](mailto:citytechwritingcenter@gmail.com)

## Faculty in Arts and Sciences...

A small sampling of the research interests of faculty members:

- Inequalities and racialization in the Caribbean
- Computational genomics and next-generation DNA sequencing
- Chemotherapeutic agents for Alzheimer's disease
- Gender studies
- Public health campaigns
- Avant-garde theatre
- Cryptography
- Mathematical biology and infectious disease modeling
- Machine learning and data mining for astronomical data sets
- Superconductivity
- Satellite remote sensing of the environment
- Particle physics and Large Hadron Collider phenomenology
- Understanding the intersection of culture, emotion and identity

## Fun Facts

- ✓ Each Bachelor's degree includes an internship course that provides an applications-based culminating experience for the degree, and can sometimes even lead to job opportunities
- ✓ CUNY Baccalaureate for Unique and Interdisciplinary Studies (CUNY BA, established in 1971) is a University-wide, individualized degree. It is an exciting, versatile, rewarding degree route for highly-motivated, self-directed students whose academic goals transcend traditional majors. CUNY BA attracts many of the best students from within and from outside the University. For more detailed description of this program and to learn how to apply, refer to the following website: <https://cunyba.cuny.edu/fastfacts/>
- ✓ Website: <https://www.citytech.cuny.edu/saas/>