

## Liberal Arts and Sciences - Bachelor's Degrees

The **School of Arts and 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. 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. The School of Arts & Sciences and several departments also offer *Associates* and/or *Bachelor's degrees*. These include the Departments of Biological Sciences, Chemistry, Mathematics, Physics, as well as English. *See Liberal Arts and Sciences – Associates Degrees* for more information on Associates' degree programs.

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

### Department Degrees

#### Department of Biological Sciences

The *Bachelor's of Science in Biomedical Informatics* 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.

#### Department of Chemistry

The *Bachelor of Science (BS) in Applied Chemistry* 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.

### Department of English

The English Department offers a *Bachelor of Science (BS) in Professional and Technical Writing*. The Professional and Technical Writing 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.

### Department of Mathematics

Did you know that our Mathematics program has several disciplines, including:

- Applied Mathematics: The [Bachelor of Science degree in Applied Mathematics](#) is a practical degree for those seeking employment upon graduation or a graduate degree. Our program consists of a mathematics core, a general education core, free electives, and two semesters of internships. To be admitted our four-year Bachelor of Science degree program, you must be eligible to take Calculus I MAT 1475 (or higher).
- Math Education: The [mathematics education baccalaureate degree](#) program is designed to prepare middle school and high school mathematics teachers.
- Computer Science: The [Computer Science associate degree](#) program provides students with the first two years of study leading to a baccalaureate degree in computer science, computer information science, computer systems technology, computer engineering technology or applied mathematics.

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

### Department of Physics

The *Bachelor's of Science (BS) in Applied Computational Physics* degree 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.

The Center for Theoretical Physics (CTP) is a unified research and teaching center focused on fundamental physics. The primary mission of the CTP is to foster and promote excellence in theoretical physics research with significant focus on mathematical physics, computational physics, condensed matter physics, particle physics, nuclear physics, and astrophysics.

### **Students in Liberal Arts majors...**

Students in Liberal Arts majors at City Tech can join clubs such as the Chemistry Club, C-Step, Math Club, and Physics Club.

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, sponsored through BMI (Black Male Initiative)
- Humanities Department offers help in Chinese and Spanish languages
- For help with English Composition, consult the Atrium Learning Center
- Biology and Chemistry both provide internships (see websites)

### **Faculty in the Liberal Arts and Sciences...**

Faculty have interests in many varied research areas, such as:

- The Social Science's Human Research Protection Program (HRPP)
- Mathematics
- STEM—including Marine Biology, Chemistry, and Physics
- Documentary Film Making
- Museum Curation
- Theater
- Anthropology

### **Fun Fact**

- ✓ Coming soon to the School of Arts and Sciences:
  - Bachelor of Science in BS in Data Analytics/ Economics (Social Science Department)
  - BS in Health Communication (Humanities Department)
- ✓ Consider how you might use Liberal Arts courses in your career...what are your next steps?
- ✓ 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: <http://www.citytech.cuny.edu/liberalarts/>