



## COLLEGE OF SCIENCE AND TECHNOLOGY

### OVERVIEW

The College of Science and Technology at Texas Southern University consists of eight Departments: the Department of Biology, the Department of Chemistry, the Department of Computer Science, Department of Physics, the Department of Engineering Technologies, the Department of Industrial Technologies, the Department of Mathematics, the Department of Physics, and the Department of Transportation Studies. In serving students, these units allow the College to fulfill its mission; and through them, nine undergraduate and six graduate degrees are offered. For detailed information on the five graduate degrees, students are referred to the **Graduate School Bulletin of Texas Southern University**. A summary of the degrees and departments, by name, appears in the chart below:

Department	Undergraduate Degrees	Graduate Degrees
Biology	Bachelor of Science in Biology	Master of Science in Biology
Chemistry	Bachelor of Science in Chemistry	Master of Science in Chemistry
Computer Science	Bachelor of Science in Computer Science	Master of Science in Computer Science
Engineering Technologies	Bachelor of Science in Engineering Technology	None
Industrial Technologies	Bachelor of Science in Industrial Technology	Master of Science in Industrial Technology
Mathematics	Bachelor of Science in Mathematics	Master of Science in Mathematics
Physics	Bachelor of Science in Physics	
Transportation Studies	Bachelor of Science in Airway Computer Science	Master of Science in Transportation Planning and Management
	Bachelor of Science in Airway Management Science	

Administratively, the College of Science and Technology is headed by a Dean who is assisted by an Assistant Dean. Each of the eight departments is headed by a Faculty Chair who reports to the Dean. All administrative offices, classrooms, and research facilities for the College are primarily located in three facilities designated as follows: Airway Science Center, Nabrit Science Center, and Leonard H. O. Spearman Technology Building on the Campus.

### MISSION STATEMENT

The primary mission of the College of Science and Technology at Texas Southern University is to prepare students to be proficient in the basic sciences, mathematics, and technologies in order for them to pursue careers in business, education, research, government, and industry. Thus, the mission of the College in teaching, research, and service is:

1. To educate a diverse population in the sciences, mathematics, and technologies for the professions.
2. To conduct research and scholarly pursuits for the advancement of knowledge.
3. To serve society and the communities consistent with the mission of the University.

As an instructional agent of the University, the College of Science and Technology has an additional service mission as stated below:

1. To provide students of varied scholastic levels access to higher education by providing the academic foundations necessary for accessing educational programs at the University.
2. To prepare competent professionals and leaders capable of providing effective service and developing solutions to the problems of the nation and the world, especially in urban environs.

In pursuing its missions, the College embraces the following goals:

1. To maintain a quality research infrastructure in science and technology departments by supporting multidisciplinary research foci and individual faculty research pursuits and training.
2. To maintain the highest of faculty productivity in teaching and service by ensuring that instructional classrooms and laboratories are well equipped and supported with adequate materials and supplies.
3. To ensure quality in the undergraduate and graduate academic programs in the sciences and technologies by providing adequate instructional support along with qualified, experienced faculty.
4. To ensure the quality of student life and services in the science and technology departments by promoting student organizations, providing internship and cooperative education opportunities, and other exposures to career opportunities.
5. To ensure student academic success in science and technology majors by providing scholarships and other financial assistance, academic assistance and mentoring, and establishing retention and graduation rate objectives for science and technology departments.
6. To maintain a high visibility for faculty, staff, and students in the College of Science and Technology within academe, the research establishment, governmental/industrial/corporate organizations, and the public at large.

### ADMISSION POLICIES

Students (either new or transfer) wishing to enroll in one of the programs of study leading to one of the nine undergraduate degrees offered through the College of Science and Technology must first gain admission to Texas Southern University through policies and procedures established by the University Director of Admissions. Once admitted, students are required to contact both the General University Academic Center (or GUAC) for advisement regarding the fulfillment of ASSET requirements and the department of choice in the College for additional advisement. Students may not officially declare majors until ASSET requirements have been fulfilled and identified deficiencies have been eradicated; however, they are eligible to enroll in some selected courses offered through the eight departments in the College once admitted. The eight Department Offices provide advisement upon request related to courses available to students who are not yet eligible to declare majors in the College.

**Once admitted or while applying for admission, students who need financial aid or assistance should contact the Office of Student Financial Assistance at the University. In addition, some competitive scholarships may be available to students through the College. Students earning GPA's of approximately 3.00 or higher (out of 4.00) may inquire about making application for these scholarships through one of the eight Department Offices or the Dean's Office.**

Former students in the College who were enrolled for credit within the year prior to registration are not required to apply for readmission. However, students who last attended one year or more, prior to registration, are required to file applications for readmission and submit transcripts from all colleges attended since their last enrollment at Texas Southern University.

### GENERAL COLLEGE POLICIES

1. All students enrolled in the College of Science and Technology are required to follow the sequence of courses outlined in their respective degree plans.
2. Students may not enroll in required advanced courses without satisfactorily completing the prerequisites for these courses whether they are offered through the College or through other colleges or schools at the University.
3. Students earning undergraduate degrees from the College may or may not be required to declare a minor; hence, the respective departmental information describing the various degrees should be consulted regarding this matter.
4. For all undergraduate programs offered through the College, a common core of courses (interdisciplinary in nature) is required for completion of the respective degree requirements.
5. **Students may be required to pass a comprehensive exit examination prior to graduation.**

6. All students enrolled in the College are encouraged to secure either cooperative education or internship positions prior to graduation. Further information on these positions may be obtained from either the Office of the Dean of the College of Science and Technology or the University Cooperative Education and Placement Services Center.

## ACCREDITATION

All programs in the College are accredited by the Commission on Colleges of the Southern Association of Colleges and Schools, but some programs have professional accreditation as well. The Chemistry program is accredited by the American Chemical Society. The Electronics Engineering Technology Program in the Department of Engineering Technologies is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: (410)-347-7700. The undergraduate programs in the Department of Industrial Technologies are accredited by the National Association of Industrial Technology. The undergraduate programs in the Department of Transportation Studies are recognized by the Federal Aviation Agency and accredited by the National Association of Industrial Technology.

## STUDENT ORGANIZATIONS

Student participation in a number of professional organizations and societies having student affiliated chapters on the Campus is encouraged. The principle organizations operating in the College are listed below:

- Alpha Eta Rho (AER)
- American Association of Airport Executives (AAAE)
- American Chemical Society Student Organization (ACS)
- American Design Drafting Association (ADDA)
- American Planning Association (APA)
- Associated General Contractors, Inc. (AGC)
- Beta Beta Beta Biological Honor Society
- Environmental Toxicology Graduate Students Association
- Flight Team
- Instrument Society of America (ISA)
- Institute of Electrical Electronics Engineers, Inc. (IEEE)
- Institute of Transportation Engineers (ITE)
- National Association of Industrial Technology (NAIT)
- National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE)
- National Society of Black Engineers (NSBE)
- National Technical Association (NTA)
- Society of Manufacturing Engineers (SME)
- Society of Sigma Xi

Students should seek additional information on these organizations through the Office of the Dean or through the Department Offices in the College.

## RIGHT TO MODIFY

**The information contained in this bulletin is considered to be descriptive in nature and not contractual. The University reserves the right to change any policy or requirement at any time during the time that students are enrolled. Courses are also subject to change.**

## DESCRIPTION OF DEPARTMENTS IN THE COLLEGE

The eight departments housed in the College of Science and Technology are described in detail on the pages that follow. They are described in the following order: Department of Biology, Department of Chemistry, Department of Computer Science, Department of Engineering Technologies, Department of Industrial Technologies, Department of Mathematics, Department of Physics, and Department of Transportation Studies.