Bachelor of Science in Computer Science

A computer science degree not only prepares students to design and build software but also provides them with the skills to address broad issues such as developing innovative ways to send data over networks. Training in computer science also enables students to work as part of a team in a vast number of areas, including robotics, computer vision and digital forensics.

Careers in Computer Science

You’ll find computer science careers in virtually every industry, from finance to Web design to software development. Computer scientists work on: data security, data mining, computer graphics, artificial intelligence, modeling, game design, animation and biotechnology.

What all these computer science careers have in common is the foundation in mathematics. Our curriculum provides this foundation at the start, then we build upon it with an ample selection of courses in the core areas of the discipline.

High School Preparation

Computer science requires strong high school preparation. A minimum of elementary algebra and geometry should be completed, while trigonometry, calculus, physics and chemistry are highly recommended. Any Advanced Placement courses in computer science or advanced technology are highly beneficial. Solid communication skills are very important since most computer science professionals work as part of a team.

Computer Science at UT Dallas

One of the largest departments of its kind in the country, the Computer Science Department at UT Dallas features an internationally recognized faculty, nearly 1,500 students and a 150,000-square-foot building with modern classrooms and leading edge laboratories.

The core of the bachelor’s degree curriculum in computer science includes programming methodologies, the analysis of algorithms and data structures and the study of operating systems. The curriculum continues with courses in advanced data structures, programming languages and automata theory, culminating in a challenging project course in which students demonstrate the use of computer science techniques. We also offer a rich choice of application areas, including digital systems design, computer networks, embedded systems, computer imaging, artificial intelligence and cognitive modeling and human-computer interaction.

Internships and Fast-Track

The Erik Jonsson School operates one of the largest internship and cooperative education programs of its kind, averaging more than 1,100 undergraduate and graduate student placements a year at Dallas-area high-tech companies, including Texas Instruments, Intel, Raytheon, Alcatel-Lucent and IBM.

The Fast-Track Program enables exceptionally gifted undergraduate students to include master’s level courses in their undergraduate degree plans. When Fast-Track students graduate with a bachelor’s degree, they are automatically admitted to graduate school at UT Dallas. The hours required to complete the master’s degree are reduced by up to 15 hours by the number of Fast-Track graduate hours completed. So a Fast-Track undergraduate who passed 12 hours of graduate coursework would have only 21 hours of graduate coursework left in order to complete a master’s degree.

Erik Jonsson School of Engineering and Computer Science

Strategically located in the Telecom Corridor, home of the second-largest high-tech economy in the U.S., the Jonsson School recently completed a major public-private initiative that greatly expanded its capabilities and included construction of a new state-of-the-art 220,000-square-foot interdisciplinary research building.

With nearly 150 tenured/tenure-track faculty members, 5,800 students, and almost $47 million in research funding, the Jonsson School has six academic departments:

- Bioengineering
- Computer Science
- Electrical Engineering
- Materials Science & Engineering
- Mechanical Engineering
- Systems Engineering
In addition, the school offers a minor in nanoscience and technology.

**Degrees Offered**

**Bachelor of Science:** Biomedical engineering, computer engineering, computer science, electrical engineering, mechanical engineering, software engineering

**Master of Science:** Biomedical engineering, computer engineering, computer science, electrical engineering, materials science and engineering, mechanical engineering, software engineering, systems engineering and management, telecommunications engineering

**Doctor of Philosophy:** Biomedical engineering, computer engineering, computer science, electrical engineering, materials science and engineering, mechanical engineering, software engineering, telecommunications engineering

**Research**

Research efforts under way at the school involve such cutting-edge technology as:

- Carbon nanotubes
- Micro-electromechanical systems
- Semiconductor design and manufacturing
- Wireless networking
- Cochlear implant technology
- Medical imaging
- Speech recognition
- Cybersecurity
- Organic electronics
- Materials characterization
- Physical, chemical and biosensors

**Additional Facts**

- The Jonsson School has significantly increased the size of its faculty in recent years, hiring top recent graduates of Stanford University, Cornell University, Purdue University, Georgia Tech and UCLA as well as seasoned professionals from Rutgers University, USC, UC Davis, and from companies such as Freescale Semiconductor and Texas Instruments.

- The Jonsson School features a variety of student organizations that are actively involved in both academic and social activities. Completely student-run, these include the Association for Computing Machinery, the Game Development Group, the National Society of Black Engineers, a chapter of the scientific research society Sigma Xi, the Society of Hispanic Professional Engineers and the Society of Women Engineers.


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