Cognitive Science is the study of complex information processing in humans and machines and includes the multidisciplinary study of biological and artificial systems. Such systems can range from people and animals to web search engines, computers, and robots. The field requires diverse multidisciplinary approaches to understanding these systems which incorporates research from experimental psychology, neuroscience, machine learning, linguistics, computer science, mathematics, and bioengineering.

The multidisciplinary UT Dallas cognitive science program offers a variety courses intended to provide a strong foundation in multiple areas of knowledge. Students in the Cognitive Science Program at UTD may choose to specialize in two of the following three areas: Neuroscience, Psychology/Human Computer Interactions, and Computational Modeling/Artificial Intelligence.

**Careers in Cognitive Science**

The Cognitive Science degree plan provides excellent preparation for a number of areas of graduate study including cognitive science, experimental psychology, neuroscience, cognitive-neuroscience, computer science, medical school, and law school. Career opportunities in the areas of machine learning, usability engineering and user experience are also available to cognitive science majors.

The University’s Career Center is an important resource for students pursuing their careers. Professional career counselors are available to help clarify career goals, provide strategies for mastering job interviews and writing professional cover letters and resumes and help students connect with campus recruiters.

**Cognitive Science at UT Dallas**

The BS in cognitive science requires 120 credit hours to graduate: 42 hours from the University’s core curriculum, 12 hours of core cognitive science courses, and 24 hours of major related cognitive science courses.

- Major related cognitive science courses are chosen from 2 of 3 specialization areas:
  - Neuroscience
  - Psychology/Human Computer Interactions
  - Computational Modeling/Artificial Intelligence

- Junior and senior cognitive science majors with at least a 2.5 GPA are eligible to receive college credit for a volunteer internship in the community.

The cognitive science minor requires 18 credit hours.

** Marketable Skills**

Upon successful completion of the BS in Cognitive Science, UT Dallas students will have acquired basic knowledge of neuroscience, cognitive psychology, and computer science.

- Acquire written communication skills.
- Acquire thinking and analytical reasoning skills in two or more of the areas of: Psychology, Neuroscience, and/or Computer Science.
- Acquire a combination of data analysis and computer programming skills.
The School of Behavioral and Brain Sciences is focused on the intersection of mind, brain and behavior. Through the school's research-intensive culture, our professors and students work together to unravel mysteries that will improve human lives. A large number of BBS undergraduates participate in hands-on research in our many scientific laboratories. Our research teams translate the latest research into treatments and share this knowledge through community outreach. The School provides innovative training and research, offering an array of programs to develop creative thinkers. Undergraduate training in BBS prepares students to enter graduate schools or the workplace, leading to successful careers in health, science, education, child and social services, innovation, and/or the business world.

BBS undergraduates enter many career pathways. In health, they study medicine, dentistry, physical therapy, speech-language pathology, audiology, clinical psychology, optometry, and many others. In science, they develop careers as investigators, technicians, clinical trial coordinators, and educators. Besides clinical and scientific careers, many other BBS alumni are leaders in social services, child interventions, technology development, human factors, software design, and many other fields.

Academic Departments

Neuroscience: This program focuses primarily on cell and circuit plasticity in the nervous system and how this influences behavior. Major research strengths are in learning and memory; targeted plasticity for therapeutic intervention; and sensory neurobiology and pain.

Speech, Language, and Hearing Sciences: Based at the Callier Center for Communication Disorders, this program provides students with hands-on scientific training and emphasizes clinically applied research training in speech, language, and hearing and in all disorders that affect the ability of children and adults to communicate.

Psychology: This department focuses on all aspects of cognitive, developmental, and social psychology, and cognitive neuroscience. Areas of expertise include brain imaging and measurement; learning and memory; reasoning; perception; modeling; lifespan development (from early childhood through the oldest old); and brain disease (e.g., autism, schizophrenia, traumatic injury, neurodegeneration, addiction).

Fast Tracks

The Fast-Track program enables undergraduate students to take up to 15 hours of graduate courses that will count toward both a bachelor's degree and a master's degree in applied cognition and neuroscience, speech-language pathology, or human development and early childhood disorders. Students must have at least 90 credit hours and meet the graduate admission requirements to qualify.

Undergraduate Programs

Neuroscience: Multiple Tracks in the Undergraduate Major

Medical Neuroscience: This track meets the overwhelming demand for advanced training in this growing department for students who wish to go on to professional education in health fields, such as medicine. This track has an emphasis on opportunities for disease-oriented course work and clinical translational research.

Neuroscience Research: This track emphasizes research in neuroscience with enhanced laboratory experiences to prepare students for a future as neuroscience researchers, such as through PhD programs.

Industrial Track: This track is focused on students whose goal is to advance neuroscience through business, entrepreneurial and/or therapeutic discoveries.
Psychology. Undergraduate Psychology Majors

**Psychology:** Training in psychology provides students with invaluable knowledge about human behavior, research methods, and data analysis that has applicability not only to careers and further study in psychology per se, but also to a wide variety of other occupations, including law, management, and medicine. Further advanced study can lead to professional careers in clinical areas, such as clinical psychology, counseling, or social work; industrial psychology; human factors engineering; and myriad other fields.

**Child Learning and Development:** This major prepares students for a wide range of careers in education, psychology, social work, family medicine, public health, family law, and public policy, among other areas. The major is especially well suited for students seeking elementary teacher certification. Students will develop a strong foundation in child development and accumulate teaching skills by combining a degree in child learning and development with an elementary teacher certification.

Speech, Language, and Hearing Sciences: Undergraduate Major

**Audiology and Speech-Language Pathology:** Education in communication sciences and disorders prepares students for advanced training and/or employment in this exciting field. Professions in speech-language pathology (SLP) and audiology are consistently rated among the best careers for the changing job landscape. SLPs and audiologists are employed in a variety of school and healthcare settings, such as schools, clinics, and hospitals.

**Additional Facts about BBS**

- Our Audiology and Speech-Language Pathology programs are ranked #2 and #10 in the nation respectively, according to *U.S. News and World Report*.

- The School is home to leading experts in Psychology, Neuroscience, and Speech, Language, and Hearing Sciences.

- In fiscal year 2019, BBS faculty members were responsible for nearly $13 million in total research funding, including roughly $12 million from the National Institutes of Health, the National Science Foundation, and the Department of Defense.

- BBS has more than 2,300 undergraduate students and nearly 600 graduate students, including two of the top 10 undergraduate majors at UTD (Neuroscience, Psychology).