Molecular biology is an interdisciplinary science combining elements of biochemistry, biophysics, genetics and cell biology. Molecular biology, therefore requires a background in other disciplines such as chemistry, mathematics, physics and computer sciences. Principles from these disciplines underpin the new approaches made possible by biotechnology and genetic engineering. Intending molecular biology majors should have a broad interest in the sciences.

**Molecular Biology at UT Dallas**
Molecular biology students take core courses in genetics, molecular biology, cell biology, biochemistry and biophysical chemistry. These courses can be combined with upper-level electives to create a minor in biomolecular structure, microbiology, molecular and cell biology or neurobiology. The choice can be further expanded to dual majors in biology or molecular biology with business administration or crime and justice studies.

The Department of Biological Sciences promotes an active academic advising program to assist undergraduates in designing an appropriate course of study that will satisfy requirements for graduation, and can be completed in four years in most cases.

High school students need an interest in science and an aptitude for biology, chemistry and mathematics. A background in these classes will help ensure success at the undergraduate level.

**Career Opportunities**
Molecular biological graduates from UT Dallas arrive at graduate school or in the workforce prepared to work in the modern biomedical sciences. Computational biology and an array of other contemporary and emerging disciplines are covered throughout the educational process, which ensures that our graduates are ready to excel in research, healthcare and other professions.

The University's Career Center is an important resource for students pursuing their careers. Licensed counselors are available to provide strategies for mastering job interviews, writing professional cover letters and resumes and connecting with campus recruiters, among other services.

**Marketable Skills**
Upon successful completion of the BS in Molecular Biology degree program, UT Dallas graduates will be rigorously prepared for scientific careers in molecular and cell biology or careers in the health professions. The Molecular Biology degree program specifically includes biophysics in the multidisciplinary core curriculum to provide the concepts and tools used to study biomolecular structure, in addition to all the required education and training for the B.S. in Biology. Graduates’ skills include:

- Broad knowledge of molecular biology with highly proficient ability to describe and critically and quantitatively analyze the major concepts and empirical findings in modern molecular biology, biochemistry and structural biology
- Practical knowledge and experience in modern molecular biology research methods with high level ability to define, apply and communicate basic modern molecular biology research methods, including quantitative and qualitative data analysis and interpretation
- Ability to work in teams in diverse settings
- Advanced ability to apply critical thinking and quantitative skills to solve complex problems: critical and creative thinking, skeptical inquiry, and knowledge of molecular biological principles to analyze and solve problems
UT Dallas’ School of Natural Sciences and Mathematics offers degree programs for undergraduate and graduate students in biology, chemistry, geosciences, mathematics and physics. In addition to regular coursework, undergraduates are encouraged to participate in research alongside the faculty and graduate students. From the world-renowned Alan G. MacDiarmid NanoTech Institute, headed by Dr. Ray Baughman, to the William B. Hanson Center for Space Sciences—where Dr. John Hoffman helped discover water on Mars—the science education at UT Dallas is a hands-on, high quality experience for undergraduates and graduate students alike.

The UTeach Dallas program offers students the opportunity to complete the requirements for high school teacher certification along with their regular BS or BA degrees.

**Quick Facts about the School of Natural Sciences and Mathematics**

- Established in 1975.
- Six departments.
- More than 3,200 students.
- 29 degrees offered.
- Faculty include a Nobel Prize winner and a member of the National Academy of Engineering.

**Degrees Offered**

**Bachelor of Science:** Actuarial science, biochemistry, biology, chemistry, data science, geosciences, mathematics, molecular biology, physics

**Bachelor of Arts:** Biology, chemistry, mathematics, physics

**Master of Science:** Actuarial science, bioinformatics and computational biology, biotechnology, chemistry, geosciences, mathematics, molecular and cell biology, physics, statistics

**Master of Arts:** Teaching in mathematics education, teaching in science education

**Doctor of Philosophy:** Chemistry, geosciences, mathematics, molecular and cell biology, physics, statistics

**Certificates**

- Postbaccalaureate certificate in biomedical science
- Graduate certification in data science

**Fast Track to Graduate School**

The Fast Track program enables exceptionally gifted UT Dallas students to include master’s level courses in their undergraduate degree plans. Students who meet the requirements for admission to graduate school and the minimum GPA requirement for their major can take up to 15 hours of graduate level coursework that can apply toward their undergraduate and graduate level coursework. To take graduate courses in the Fast Track program upper-division undergraduates must have completed 90 semester credit hours and petition their associate dean for permission to take graduate courses.