The Master of Science in Molecular and Cell Biology begins with core courses in biochemistry, molecular biology, cell biology and quantitative biology. Students may have the opportunity to conduct experimental or computational research in a laboratory of their choosing and to write a research dissertation. Research in the department of Biological Sciences is organized into five areas of strength, which are:

- Biochemistry and Biophysics
- Genomics, Systems and Computational Biology
- Microbiology
- Molecular and Cell Biology
- Pathobiology (cancer, neurobiology, infectious disease)

Our faculty members are dedicated to teaching, and classroom experiences are balanced with a substantial research program that serves as the platform for our mentor-based teaching methods. For those who choose the thesis option, lab work will expose students to state-of-the-art research techniques used to understand the molecular mechanisms of biological processes such as gene expression, protein structure and function, carcinogenesis, neurodegeneration, bacterial pathogenicity and symbiosis, metabolism and signaling networks.

**Program Description**

The MS in Molecular and Cell Biology requires the completion of a minimum of 36 semester credit hours. For complete admission and degree requirements, view the Graduate Catalog at [catalog.utdallas.edu](http://catalog.utdallas.edu).

**Marketable Skills**

An advanced degree in molecular and cell biology allows the degree owners to pursue opportunities in human medical research, plant research, animal research, environmental system research at the molecular, cellular, organism, and ecosystem level. Upon successful completion of the MS in Molecular and Cell Biology degree program, UT Dallas graduates will expand their prior training and education with specialist knowledge and advance their understanding in relevant scientific areas including, but not limited to, biochemistry, molecular biology, cell biology and computational biology. Graduates’ skills include:

- Broad and expansive knowledge of biochemistry, genetics, molecular biology, cell biology and computational biology
- Methodological skills in experimental and computational techniques applied to research questions in biology and biomedicine
- Ability to work in teams in diverse settings
- Ability to communicate scientific ideas and concepts in oral and in written form
- Advanced ability to apply critical thinking and quantitative skills to solve complex problems