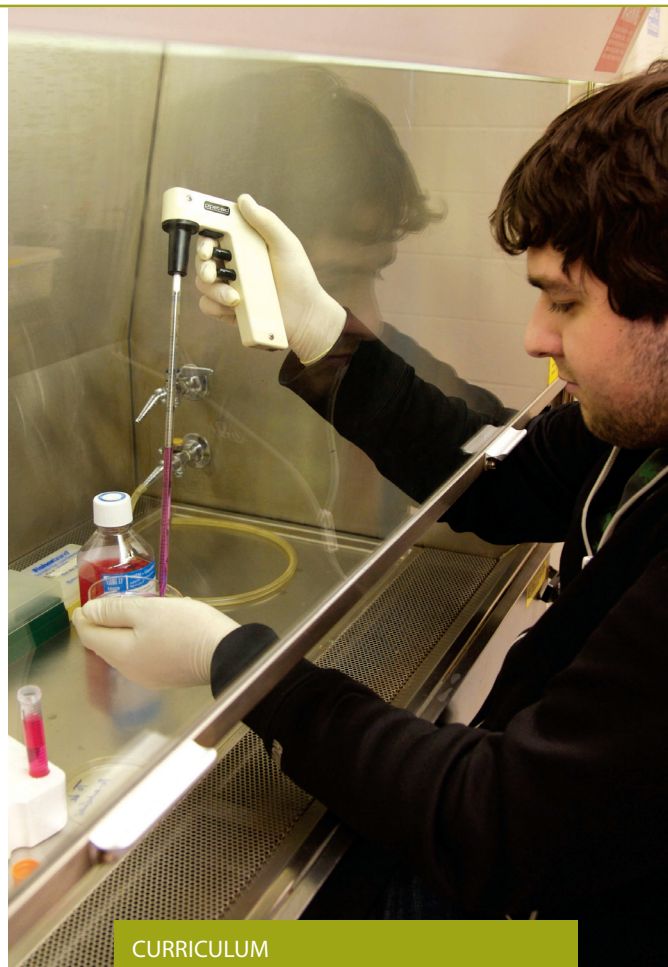


Molecular and Cell Biology

BACHELOR OF SCIENCE IN

The 21st century may well become known as the “Age of Biology.” The biotechnological revolution is well under way, and molecular and cell biologists are at the forefront of today’s modern advances in biology and medicine. Molecular and cell biologists study cells and molecules, but always with an understanding of how these crucial components are integrated into the biological whole.



In the last half of the 20th century a more complete understanding of the nature of proteins and nucleic acids revealed that individual cells function as “chemical factories” and that larger organisms are equivalent to complex economies. The very essence of any biological organism is encoded in its DNA, and its continuing existence and functional development depend on a delicate molecular ballet.

As the first of its kind in southeastern Michigan, Lawrence Technological University’s Bachelor of Science in Molecular and Cell Biology is a comprehensive degree with an emphasis on the role of individual cells and molecules in influencing the biology of organisms, populations, and communities. An integrative program encompassing the breadth of biological disciplines, the BS in Molecular and Cell Biology prepares you for any of the multiple paths you may follow in biology.

Whether you are a student interested in studying biology in general, preparing for medical or other professional schools, or planning to pursue graduate studies in a biological discipline, the BS in Molecular and Cell Biology may be the degree for you.

What Is Molecular and Cell Biology?

Molecular and cell biology is the area of biology focused on cells, the smallest living units within the biological continuum. Cells are inextricably linked to the larger biological systems of that they are part. In addition, cells are formed and shaped by atoms and molecules. It is this interaction of cells and molecules that gives cells their function and ultimately the properties of life. A rich understanding of both chemistry and biology are elemental to the study of molecular and cell biology.

Molecular and cell biologists, with their integrated training, are well-placed to perform as members of teams tackling some of the greatest biological problems that society faces in the 21st century: curtailing global warming, curing cancer and other diseases, remediating toxic waste, managing the aging process, developing environmentally friendly renewable energy sources, researching new treatments for disease and injuries, and creating sustainable consumer goods.

CURRICULUM

Your 121-credit-hour program consists of:

Required Biology	32
Humanities (with emphasis on leadership)	29
Required Chemistry	21
General Electives	14
Math/Computer Science	11
Physics	8
Chemistry/Biology Electives	6
Total	121

Biology Courses and Labs

Anatomy and Physiology
Biology
Cell Biology
Ecology
Evolution
Molecular Genetics
Neurobiology
Senior Project

Chemistry Courses and Labs

Biochemistry
Chemistry
Organic Chemistry

Your Future as a Molecular and Cell Biologist

Lawrence Tech has a strategic proximity to a hotbed of activity in the emerging biotechnology sector. With over \$2 billion invested in research and development each year and nearly 100 new companies since 2000, Michigan leads the nation as one of the fastest growing states with respect to economic development in the life science industries.

This translates into co-op and internship opportunities for students and career opportunities after graduation. Whether you remain in Michigan or your career takes you elsewhere, graduates of the molecular and cell biology program at Lawrence Tech will be ideal candidates prepared to meet the need for well-trained, knowledgeable biologists.

Why Lawrence Tech's Molecular and Cell Biology Program?

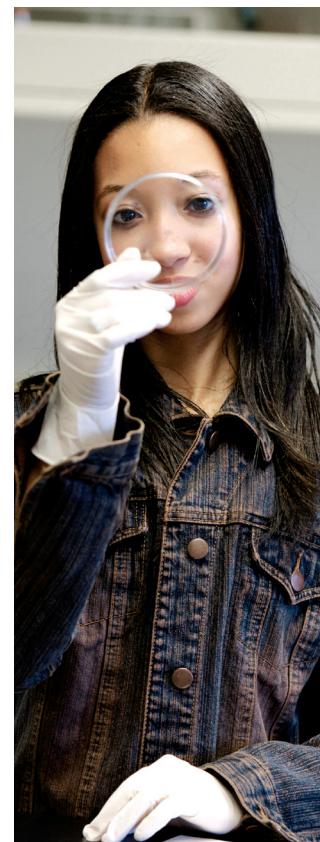
- This is the only undergraduate molecular and cell biology program in the metropolitan Detroit area.
- Extensive laboratory experience that allows hands-on, practical skill acquisition using state-of-the-art tools of biotechnology.
- Lawrence Tech's distinctive core curriculum requires courses in history, literature, philosophy, and mathematics, empowering graduates with real world reasoning, writing, and speaking skills.
- Courses are taught solely by faculty with current industry experience and are offered

both during the day and in the evening, making it convenient for working professionals.

- Lawrence Tech's life science programs provide opportunities for co-op positions and internships in laboratories, hospitals, health care institutions, and the medical research industry.

Getting Started

For more information, visit ltu.edu/arts_sciences/molecular_cell_biology/index.asp or contact Lawrence Tech's Office of Admissions at 800.CALL.LTU or admissions@ltu.edu. To contact the Department of Natural Sciences directly, call 248.204.3600 or email nschair@ltu.edu.



Graduates with a degree in Molecular and Cell Biology have many career options:

Biotechnology research
 Scientific publishing or journalism
 Higher learning
 Pharmaceutical research and development
 Hospital laboratories
 Non-medical laboratory testing and research
 Patent law
 Scientific equipment design and sales
 Medicine
 Pharmacy
 Dentistry
 Optometry
 Public health
 Veterinary medicine

GET MORE. DO MORE.

Lawrence Technological University produces leaders with an entrepreneurial spirit and a global view. That's why most Lawrence Tech students are employed within a month of graduating. Your benefits:

- Leadership Program that helps you develop the marketable skills that employers seek
- Leadership Portfolio that enhances your diploma – and your resume
- 12:1 student-faculty ratio
- Faculty with current industry experience
- Fully loaded high-powered laptop or tablet computer provided
- Schedules that work for you, with convenient day, evening, weekend, or online classes
- Hi-tech, wireless 102-acre campus that's commuter friendly, with recreation, housing, and meal service options
- Financial-aid, co-op, and internship opportunities
- Proactive career placement services

Explore over 80 undergraduate, master's, and doctoral programs in Colleges of Architecture and Design, Arts and Sciences, Engineering, and Management.