

# Degree Requirements for the MCB Major

## School of Molecular and Cellular Biology

mcb.illinois.edu/undergrad/

University of Illinois, Urbana-Champaign



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Revised 2015

**Degree Title:** Bachelor of Science in Liberal Arts and Sciences

**Minimum Required Courses:** 67-72 hours including 21 hours of 300- or 400-level courses (15 hours must be from approved list of advanced MCB courses & include one lab); 12 hours of advanced level courses in the major must be taken on the Urbana-Champaign campus.

**General Education Requirements:** MCB majors are required to complete all LAS degree requirements. See [www.las.illinois.edu/students/requirements](http://www.las.illinois.edu/students/requirements) for specifics.

**Minimum GPA Required for Graduation:** MCB majors are required to maintain a major GPA and cumulative GPA of 2.00 or better in order to graduate.

**Minimum Hours Required For Graduation:** 120 hours

**Distinction:** MCB students may earn graduation distinction for excellence in research by achieving a cumulative GPA of 3.25 or higher, conducting 3 semesters of undergraduate research in an approved lab and presenting their findings. Students may earn graduation distinction for excellence in academics by achieving a major GPA of 3.90 or higher. See <http://mcb.illinois.edu/undergrad/opportunities/research/#distinction> for complete details.

HOURS	REQUIREMENTS	SUBTOTAL
<b>Supporting Courses</b>		<b>31-36 HRS.</b>
4-5	Math 220 <b>or</b> 221: Calculus I	
3	Choose one of the following courses: MATH 231: Calc II <b>or</b> Stat 212: Biostatistics	
8-10	Choose one of the following course sequences: CHEM 102, 103, 104 & 105: General Chemistry I & II with Lab <b>or</b> CHEM 202, 203, 204 & 205: Accelerated Chemistry I & II with Lab	
6	Choose one of the following course sequences: CHEM 232 & 233: Elementary Organic Chemistry I with Lab <b>or</b> CHEM 236, 237 & 436: Fundamental Organic Chemistry I, Structure and Synthesis Lab & Fundamental Organic Chemistry II	
10-12	Complete one of the following course sequences in its entirety: PHYS 101 & 102: College Physics <b>or</b> PHYS 211, 212, 213 & 214: University Physics	
<b>Introductory Biological Science Courses (both are required)</b>		<b>8 HRS.</b>
4	IB 150: Organismal and Evolutionary Biology	
4	MCB 150: Molecular and Cellular Basis of Life	
<b>MCB Core Courses (should be taken sequentially)</b>		<b>13 HRS.</b>
3	MCB 250: Molecular Genetics (Lecture)	
2	MCB 251: Experimental Techniques in Molecular Biology (Lab)	
3	MCB 252: Cells, Tissues, and Development (Lecture)	
2	MCB 253: Experimental Techniques in Cell Biology (Lab)	
3	MCB 354: Biochemical and Physical Basis of Life (Lecture)	
<b>Advanced Courses (from the approved list)</b>		<b>15 HRS.</b>
15	At least four additional courses from the disciplines of Biochemistry, Microbiology, Cell & Developmental Biology, Molecular & Integrative Physiology, Biophysics and Neuroscience at the 300- or 400-level are required, including one lab course. MCB 354 does not count toward the 15 advanced hours, as it is part of the Core Curriculum. Consult the Approved List of Advanced Courses for the complete list of courses that fulfill this category: <a href="http://mcb.illinois.edu/courses/undergraduate?type=Adv">http://mcb.illinois.edu/courses/undergraduate?type=Adv</a>	
<b>Total Hours</b>		<b>67-72 HRS.</b>

# MCB

# Undergraduate Instructional Program

School of Molecular and Cellular Biology  
University of Illinois, Urbana-Champaign

Molecular and cellular biology (MCB) is the study of living organisms through the understanding of basic molecular and cellular structure and function as well as the metabolic, genetic, and physiological processes common to all organisms. The MCB program offers courses that explore unique aspects differentiating living organisms; how cells are organized; how cells and organisms respond to each other and their environment; how cells communicate signals and regulate gene expression; and how these processes go awry during injury, infection, or genetic diseases. Our curriculum imparts not only basic principles of modern biology but also the fundamental, critical, and analytical skills necessary for a successful career.

## DEPARTMENTS

- Biochemistry
- Cell & Developmental Biology
- Microbiology
- Molecular & Integrative Physiology

## AFFILIATED PROGRAMS

- Center for Biophysics & Computational Biology
- Medical Scholars Program
- Neuroscience Program

## UNDERGRADUATE DEGREE PROGRAMS

- Biochemistry, Specialized Curriculum
- Molecular & Cellular Biology
- Molecular & Cellular Biology, Honors Concentration
- Biology, Teacher Education

## CAREERS

MCB provides an excellent foundation for further career development in

- Medicine
- Dentistry
- Pharmacy
- Veterinary Medicine
- Biotechnology and Pharmaceutical Industries
- Bioinformatics
- Government Agencies (CDC, FDA, NIH, USDA, DOE, DOD, NASA, EPA)
- Armed Forces
- Academic Research
- Forensic Science
- Genetic Consulting
- Law
- Education
- Science Writing

