Molecular and Cell Biology Fall 2026 courses

Level: E=Elementary, I=Intermediate, A=Advanced (College of L&S Students need at least 60 credits of I/A)
Be sure to check your DARs and pre-requisites!
For questions, schedule an appointment with your MCB Advisor on Starfish

Course Number	Credits	Level	Course Title
Math/Statistics			
Math 213	3	I	Survey of Calculus 2
Math 221	5	I	Calculus & Analytic Geometry I (Lec/Dis)
Math 222	4	I	Calculus & Analytic Geometry II (Lec/Dis)
Math 234	4	I	Calculus -Functions of Several Variables (Lec/Dis)
Statistics 240*	4	I	Data Science Modeling I (Lec/Dis)
Statistics 301	3	I	Introduction to Statistical Methods (Lec/Disc)
Statistics 371	3	I	Introductory Applied Statistics for Life Sciences (Lec/Dis)

*If planning medical school or other pre-health focus, check in with Center for Pre-Health Advising or an MCB advisor for more info on this option. Stat 240 + 340 (unless you have Stat AP credit) may be recommended for these career directions

General Chemistry			
Chemistry 103	4	E	General Chemistry I (Lec/Lab/Dis)
Chemistry 104	5	E	General Chemistry II (Lec/Lab/Dis)
Chemistry 109	5	E	Advanced General Chemistry (Lec/Lab/Dis)
Chemistry 115	5	I	Chemical Principles I (Lec/Lab/Dis)

Organic Chemistry			
Chemistry 343	3	I	Introductory Organic Chemistry (Lec/Dis)
Chemistry 344	2	I	Introductory Organic Chemistry Lab (Lab/Dis)
Chemistry 345	3	I	Intermediate Organic Chemistry (Lec/Dis)

Physics			
Physics 103*	4	E	General Physics (Lec/Lab/Dis)
Physics 104*	4	E	General Physics (Lec/Lab/Dis)
Physics 201	5	I	General Physics (Lec/Lab/Dis)
Physics 202	5	I	General Physics (Lec/Lab/Dis)
Physics 207	5	I	General Physics (Lec/Lab/Dis)
Physics 208	5	I	General Physics (Lec/Lab/Dis)
Physics 247	5	I	A Modern Introduction to Physics (Lec/Lab/Dis)
Physics 248	5	I	A Modern Introduction to Physics (Lec/Lab/Dis)

*For students taking Physics 103 and 104, you will also have to take Math 234 to make up the quantitative requirements for these courses.

Introductory Biology			
Biology/Botany/Zoology 151	5	E	Introductory Biology I (Lec/Lab/Dis)
Biology/Botany/Zoology 152	5	E	Introductory Biology II (Lec/Lab/Dis)
Zoology/Biology 101	3	E	Animal Biology (Lec/Dis)
Zoology/Biology 102	2	E	Animal Biology Laboratory (Lab)
Botany/Biology 130	5	E	General Botany (Lec/Lab/Dis)
Biocore 381*	3	I	Evolution, Ecology, and Genetics (Lec/Lab/Dis)
Biocore 382*	3	I	Evolution, Ecology, and Genetics Lab (Lab/Dis)
Biocore 485*	3	I	Principles of Physiology (Lec/Dis)

*Biocore is an honors biology certificate, that has an application process -biocore.wisc.edu

Breadth Coursework

Biochemistry 501	3	A	Introduction to Biochemistry (Lec)
Biochemistry 507	3	A	General Biochemistry I (Lec)
Biochemistry 508	3	A	General Biochemistry II (Lec)
Zoology 570	3	I	Cell Biology (Lec/Dis)
Biocore 381	3	I	Evolution, Ecology and Genetics (Lec/Disc)
Genetics 466	3	I	Principles of Genetics (Lec)
Genetics 467	3	None	General Genetics I (Lec)
Microbio 470	3	I	Microbial Genetics & Molecular Machines (Lec)

Depth Courses			
Biochemistry and Biophysics			
Biochemistry 601	2	A	Protein and Enzyme Structure and Function (Lec)
Biochemistry 612	3	A	Prokaryotic Molecular Biology (Lec)
Biochemistry 645	3	A	Mol Control of Metabolism and Metabolic Disease

Cellular Systems			
Medical Physics 510	3	None	Fund of Cellular, Molecular, and Radiation Biology (Lec) Instructor Consent Required
Cell and Regenerative Bio 670	3	None	Biology of Heart Disease and Regeneration (Lec)
Zoology 523	3	I	Neurobiology (Lec/Dis)
Oncology 401	2	I	Introduction to Experimental Oncology (Lec)
MM&I/ Path Bio 528	3	I	Immunology (Lec)
NTP 610	4	I	Cellular and Molecular Neuroscience (Lec)

Genetics			
Genetics 520	3	I	Neurogenetics (Lec)
Genetics 522	2	A	Communicating Evolutionary Biology
Genetics 527	3	A	Dev Genetics for Conservation and Regeneration
Genetics 565	3	I	Human Genetics (Lec)
Genetics/ Biochem/ Micro 612	3	A	Prokaryotic Molecular Biology (Lec)
Genetics 631	2	A	Plant Genetics and Development (Lec)
Plant Science 340	3	I	Plant Genome Engineering and Editing (Lec)

Microbiology and Virology			
Microbiology 303	3	I	Biology of Microorganisms (Lec)
Microbiology 425	3	I	Environmental Microbiology
Microbiology 526	3	A	Physiology of Microorganisms (Lec)
Oncology 640	3	A	General Virology-Multiplication of Viruses (Lec)

Quantitative Biology			
Math/Computer Science 240	3	I	Introduction to Discrete Mathematics (Lec/Disc)
Math 340	3	A	Elementary Matrix and Linear Algebra (Lec/Disc)
Statistics 303	1	I	R For Statistics I (Lec)
Statistics 304	1	I	R For Statistics II (Lec)
Statistics 305	1	I	R For Statistics III (Lec)
Statistics 333	3	A	Applied Regression Analysis (Lec/Disc)
Statistics 421	3	A	Applied Categorical Data Analysis (Lec)
Computer Science 300	3	I	Programming II (Lec)

Computer Science 368	1	I	Python for Java Programmers
Computer Science 540	3	A	Introduction to Artificiel Intelligence (Lec)
Computer Science 567	3	A	Introduction to Bioinformatics

Laboratory Course			
Chemistry 327	4	I	Fundamentals of Analtyical Science (Lec/Disc/Lab)
Chemistry 329	4	I	Fundamentals of Analtyical Science (Lec/Disc/Lab)
Molecular Biology 681*	3	A	Senior Honors Thesis I (Ind)
Molecular Biology 682*	3	A	Senior Honors Thesis II (Ind)
Molecular Biology 691*	3	A	Senior Thesis I (Ind)
Molecular Biology 692*	3	A	Senior Thesis II (Ind)
Microbiology 304	2	I	Biology of Microorganisms Laboratory (Lab)
Zoology 555	3	A	Laboratory in Developmental Biology (Lab)

* 4 credits total of MCB related research or Mol Bio thesis credits can complete both Lab and Directed/Independent Study requirements with approval

Directed/Independent Study

Research and Thesis – Various 699 courses will fulfill this requirement. Please meet with your advisor for details