

# \*\*\*PREVIOUS REQUIREMENTS\*\*\*

For students who declared the major Summer 2019 or earlier -ask Ginny if you have any questions (vjackson4@wisc.edu)

## Molecular and Cell Biology Spring 2021 Courses

Level: E=Elementary, I=Intermediate, A=Advanced (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 the MolBio Advisor

Course Number	Credits	Level	Course Title
<b>Math/Statistics</b>			
Math 221	5	I	Calculus & Analytic Geometry I (Lec/Disc)
Math 213	3	I	Calculus & Intro to Differential Equations (Lec/Disc)
Math 222	4	I	Calculus & Analytic Geometry II (Lec/Disc)
Statistics 301	3	I	Introduction to Statistical Methods (Lec/Disc)
Statistics 371	3	I	Introductory Applied Statistics for Life Sciences (Lec/Disc)

Please note: Math 211 is being removed from math course options -it no longer fulfills the pre-req for Physics

<b>Introductory Chemistry</b>			
Chemistry 103	4	E	General Chemistry I (Lec/Lab/Disc)
Chemistry 104	5	E	General Chemistry II (Lec/Lab/Disc)
Chemistry 116	5	I	Chemical Principles II

<b>Organic/Analytical Chemistry</b>			
Chemistry 343	3	I	Introductory Organic Chemistry (Lec/Disc)
Chemistry 344	2	I	Introductory Organic Chemistry Lab (Lab/Disc)
Chemistry 345	3	I	Intermediate Organic Chemistry (Lec/Disc)
Chemistry 327	4	I	Fundamentals of Analytical Science (Lec/Lab/Disc)
Chemistry 329	4	I	Fundamentals of Analytical Science (Lec/Lab/Disc)

<b>Physics</b>			
Physics 201	5	I	General Physics (Lec/Lab/Disc)
Physics 202	5	I	General Physics (Lec/Lab/Disc)
Physics 207	5	I	General Physics (Lec/Lab/Disc)
Physics 208	5	I	General Physics (Lec/Lab/Disc)

<b>Introductory Biology &amp; Genetics</b>			
Biology/Botany/Zoology 151	5	E	Introductory Biology I (Lec/Lab/Disc)
Biology/Botany/Zoology 152	5	E	Introductory Biology II (Lec/Lab/Disc)
Genetics 466	3	I	Principles of Genetics (Lec/Disc)

<b>Biochemistry</b>			
Biochemistry 501	3	A	Introduction to Biochemistry (Lec)
Biochemistry 508	3-4	A	General Biochemistry II (Lec)

<b>Molecular Biology</b>			
Biochemistry/Genetics 620	3	I	Eukaryotic Molecular Biology (Lec)
Genetics 545*	2	A	Genetics Laboratory (Lab)
Horticulture/Genetics 550	3	A	Molecular Approaches for Crop Improvement (Lec/Lab)
Zoology 400	3	I	General Molecular Biology (Lec)

\*3 credits needed to fulfill the Molecular Biology Requirement

<b>Advanced Courses</b>			
<b>Development</b>			
Botany 500	3-4	I	Plant Physiology (Lec/Lab)
Zoology 470	3	I	Introduction to Animal Development (Lec)
<b>Microbiology</b>			
Botany/Plant Pathology/Entom 505	3	I/A	Plant-Microbe Interactions: Molecular and Ecological Aspects (Lec)
Microbiology 303	3	I	Biology of Microorganisms
Microbiology 304	2	I	Biology of Microorganisms Lab (Lab)
Microbiology/Soil Science 425	3	I	Environmental Microbiology (Lec)
MM&I/Biochem 575	2	A	Biology of Viruses (Lec)
<b>Genetics</b>			
Agronomy/Horticulture 338	3	I	Plant Breeding and Biotechnology (Lec)
Genetics 566	3	I	Advanced Genetics (Lec)
Microbiology 470	3	I	Microbial Genetics & Molecular Machines
<b>Cell Biology</b>			
Biocore 587	3	A	Biological Interactions (Lec/Disc)
MM&I 341	3	I	Immunology (Lec/Disc)
Zoology 400	3	I	Music and the Brain (Lec)
<b>Biochemistry and Physical Chemistry</b>			
Biochemistry 508	3	A	General Biochemistry II
Biochemistry 510	3	A	Biochemical Principles of Human and Animal Nutrition
Biochemistry 550	2	A	Topics in Medical Biochemistry (Lec)
Biochemistry 551*	4	A	Biochemical Methods (Lec/Lab)
Chemistry 561	3	A	Physical Chemistry (Lec/Disc)
Chemistry 565	4	A	Biophysical Chemistry (Lec/Disc)
*Priority given to Biochemistry majors. Contact Dr. Lynne Prost if interested.			
<b>Quantitative and Computation Sciences</b>			
Biochem 570	3	A	Computational Modeling of Biological Systems (Lec)
Botany 563	3	A	Phylogenetic Analysis of Molecular Data (Lec)
F&W Ecol/Hort/Stat 572	4	I	Statistical Methods for Bioscience II (Lec/Disc)
Statistics 333	3	A	Applied Regression Analysis (Lec/Disc)
<b>Lab Courses/Independent Research</b>			
Biochemistry 551*	4	A	Biochemical Methods* (Lec/Lab)
Biomolecular Chemistry 504	2	A	Human Biochemistry Laboratory
Genetics 545	2	A	Genetics Laboratory (Lab)
Microbiology 304	2	I	Biology of Microorganisms 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)
Molecular Biology 699	1-4	A	Directed Studies (Ind)
*Priority given to Biochemistry majors. Contact Dr. Lynne Prost if interested.			