

Fall 2013 Biology Major Courses

1. Mathematics

	Number	Course Title	Credits
MATH	171	Calc with Algebra & Trig I	5
MATH	221	Calculus&Analytic Geometry	5
MATH	222	Calculus&Analytic Geometry	4
STATISTICS	301	Intro-Statistical Methods	3
STATISTICS	371	Intro Applied Stats-Life Sci	3

2. Chemistry

CHEMISTRY	103	General Chemistry	4
CHEMISTRY	104	General Chemistry	5
CHEMISTRY	109	Advanced General Chemistry	5
CHEMISTRY	343	Intro Organic Chemistry	3
CHEMISTRY	344	Intro Organic Chemistry Lab	2
CHEMISTRY	345	Intmed Organic Chemistry	3

3. Physics

PHYSICS	103	General Physics	4
PHYSICS	104	General Physics	4
PHYSICS	201	General Physics	5
PHYSICS	202	General Physics	5
PHYSICS	207	General Physics	5
PHYSICS	208	General Physics	5

4. Introductory Biology

BIOLOGY/Zoology	101	Animal Biology	3
BIOLOGY/Zoology	102	Animal Biology Laboratory	2
BIOLOGY/Botany	130	General Botany	5
BIO/BOT/ZOO	151	Introductory Biology	5
BIO/BOT/ZOO	152	Introductory Biology	5
BIOCORE	301	Evolution, Ecology, & Genetics	3
BIOCORE	302	Evolution, Ecology, & Genetics Lab	2
BIOCORE	323	Organismal Biology	2
BIOCORE	324	Organismal Biology Lab	3

Foundational Courses (Not required if completing Biocore)

Biochem	501	Introduction-Biochem	3
Botany/Genetics/Zoology	466	General Genetics	3
Microbiology	470	Micro Genetics & Mol Machines	3

5A. Cellular and Subcellular Biology **

			Credits	Lab hrs/Week
Agron/Botany/Hort	339	Plant Biotech: Prin&Technique I	4	3
Anatomy/Neuro/Physiol	625	Brain Cell Cultres&Imagng:Lab	4	6
Biochem	501	Introduction-Biochem	3	
Biochem	507	General Biochem I	3-4	
Biochem/Nutri Sci	510	Biochm Prin-Human&Anml Nutr	3	
Biochem	601	Protein&Enzyme Struct&Funct	2	
Biochem/Genetics/Microbiol	612	Prokaryotic Molecular Biol	3	
Biochem/Pharma/Zoology	630	Cellulr Signal Transductn Mech	3	
Biochem	651	Biochemical Methods	3	4
Biomolecular Chem	314	Intro to Human Biochem	3	

Botany/Genetics/Zoology	466	General Genetics	3	
Genetics/Microbio	607	Advanced Microbial Genetics	3	
Med Micro	341	Immunology	3	
Med Micro/Microbio/Patho-Bio	528	Immunology	3	
Microbiology	470	Micro Genetics & Mol Machines	3	
Microbio/Oncol/Plant Path	640	Gen Virology-Multiplication	3	
Neuro/Psych/Zoology	523	Neurobiology	3	
Neuro/Zoology	555	Lab-Developmental Biology	3	6
Neuro/Pharma/Physiol	610	Cellular&Molecular Neurosci	4	
Nutri Sci	631	Clinical Nutrition	4	
Pharm Sci	558	Lab Techniques-Pharmacol&Toxico	2	3
Zoology	570	Cell Biology	3	

5B. Organismal Biology**

			Credits	Lab hrs/Week
Anatomy	329	Human Anatomy-Kines	2	4
Animal Sci/Dairy Sci	434	Reproductive Physiology	3	2
Anthro/Neuro/Psych/Zool	619	Biology of Mind	3	
BIOLOGY CORE CURRICULUM	324	Organismal Biology Lab	2	3
Botany	300	Plant Anatomy	4	4
Botany	330	Algae	3	4
Botany/F&W Ecol	402	Dendrology	2	3
Comm Disorders (CS&D)	503	Neurl Mech Speech,Hear&Lang	3	
Dairy Sci	305	Lactation	2	2
Entom	331	Taxonomy of Mature Insects	4	6
Entom/Zoology	302	Introduction to Entomology	4	3
F & WL Ecol	401	Physiologicl Animal Ecology	3	
Genetics	545	Genetics Laboratory	2	4
Genetics/MED Genetics	565	Human Genetics	3	
Kines	314	Physiology of Exercise	4	2
Kines	721	Neural Basis for Movement	3	
MM&I	301	Pathogenic Bacteriology	2	
MM&I	302	Medical Microbiology Lab	3	4
MM&I	504	Infect Disease-Human Beings	3	
Microbiology	303	Biology of Microorganisms	3	
Microbiology	304	Biology of Microorganisms Lab	2	4
Microbiology	526	Physiol of Microorganisms	3	
Microbiology	527	Physiol-Microorganisms Lab	2	4
NTP	675	Functional Brain Imaging	1-3	
NTP	675	Basic Sleep Mechanisms and Sle	1-3	
Nutri Sci	631	Clinical Nutrition	4	
Oncol	401	Intro-Experimental Oncol	2	
Physiology	335	Physiology	5	2
Psych	556	Hormones and Behavior	3	
Therapeutic Sci	713	Neural Basis-Norm&Path Mov	3	
Zoology	430	Compar Anatomy-Vertebrates	5	6

**Neuro Students need different Category A and B courses: <http://www.biology.wisc.edu/976.htm>

5C. Ecology

			Credits	Lab hrs/Week
Afron/Entom/F&W Ecol/M&EnvTox	632	Ecotox: The Chemical Players	1	
Afron/Entom/F&W Ecol/M&EnvTox	633	Ecotox: Impacts on Individuals	1	
Afron/Entom/F&W Ecol/M&EnvTox	634	Ecotox: Populatn, Comm, Ecosys	1	
Botany/F&W Ecol	455	The Vegetation of Wisconsin	4	5
Botany/F&W Ecol/Zoology	460	General Ecology	4	3

Envir St/Zoology	315	Limnology-Aquatic Resources	2	
F & WL Ecol	550	Forest Ecology	3 TO 4	optional 2
Plant Path	300	Intro to Plant Path	4	3
Zoology	316	Lab:Conservatn-Aquatic Rsrc	3	4

5D. Evolution and Systematic Biology

			Credits	Lab hrs/Week
Anthro/Botany/Zoology	410	Evolutionary Biology	3	
Anthropology	458	Primate Behavioral Ecology	3	
Botany	400	Plant Systematics	4	3
Botany/Genetics/Med Gen	629	Evolutionary Genetics	3	
Envir St/F&W Ecol/Zoology	360	Extinction of Species	3	
Psychology	449	Animal Behavior	3	

5E. Applied Biology, Agricultural and Natural Resources

			Credits	Lab hrs/Week
Agron	302	Forage Mgmt & Utilization	3	
Am Ind St/Anthro/Botany	474	EthnoBotany	3	
Botany	403	Field Collectns&Identifictn	1-4	TBD
Entom/F&W Ecol	500	Insects in Forest Ecol & Mgmt	2	
Envir St/Pop Health	502	Air Pollution&Human Health	3	
F&W Ecol/Hort/Land Arc/Pl Path	309	Disease-Landscp Trees&Shrub	3	2
Forest & Wildlife Ecology	318	Principles-Wildlife Ecology	3	
F&W Ecol/SURG SCI	548	Diseases of Wildlife	3	
Food Science/MICROBIOL	324	Food Microbiology Laboratory	2	3
Food Science/MICROBIOL	325	Food Microbiology	3	
Food Science	532	Integrated Food Manufacturing	4	4
Forest & Wildlife Ecology	415	Tree Physiology	3	
Forest & Wildlife Ecology	561	Wildlife Management Tech	3	3
Genetics/Horticulture	550	Molec Approach-Crop Improvt	3	2
Horticulture/Land Arc	263	Landscape Plants I	3	4
Horticulture	370	World Vegetable Crops	3	2
Horticulture	374	Tropical Horticulture	2	
Med/M&E Tox/Oncol/Path?Pharm/Pop	625	Toxicology I	3	
MM&I	554	Infect Diseases & Bioterrorism	2	
Medical Physics/Physics	463	Radioisotopes-Med & Biology	2 TO 3	3 (optional)
Nutri Sci	332	Human Nutritional Needs	3	
Plant Path/Soil Sci	323	Soil Biology	3	
Soil Science	321	Soils and Environmental Chem	3	

CALS Capstone Courses

			Credits	Lab/Week
Biology Core Curriculum (under review)	324	Organismal Biology Lab	2	3
Botany/F&W Ecol	455	The Vegetation of Wisconsin	4	5
Zoology	316	Lab:Conservatn-Aquatic Rsrc	3	4
Neuro/Zoology	555	Lab-Developmental Biology	3	6