

INTEGRATIVE BIOLOGY, MS

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum degree requirements (<https://guide.wisc.edu/graduate/#requirements>) and policies (<https://guide.wisc.edu/graduate/#policies>), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Accelerated: Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

Evening/Weekend: Courses meet on the UW-Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

Face-to-Face: Courses typically meet during weekdays on the UW-Madison Campus.

Hybrid: These programs combine face-to-face and online learning formats. Contact the program for more specific information.

Online: These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

CURRICULAR REQUIREMENTS

Requirement	Detail
Minimum Credit Requirement	30 credits
Minimum Residence Requirement	16 credits
Minimum Graduate Coursework Requirement	15 credits must be graduate-level coursework. Refer to the Graduate School: Minimum Graduate Coursework (50%) Requirement policy: https://policy.wisc.edu/library/UW-1244 (https://policy.wisc.edu/library/UW-1244/).
Overall Graduate GPA Requirement	3.00 GPA required. Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: https://policy.wisc.edu/library/UW-1203 (https://policy.wisc.edu/library/UW-1203/).

Other Grade Requirements An average record of B or better in all work taken as a graduate student is required by the Department of Integrative Biology (grades of P and S are for this purpose considered to be satisfactory at the B level; grades of Incomplete are considered for this purpose to be unsatisfactory if they are not removed during the following semester of residence).

Assessments and Examinations In the second semester of the first year, students must complete the Certification of Candidate for a Master's Degree.

Typically the defense of the master's degree occurs no later than the end of the student's sixth semester. A master's degree warrant must be requested from the department prior to the defense.

Language Requirements To be determined by the advisory committee.

REQUIRED COURSES

MS students in Integrative Biology must take courses and seminars to fulfill the minimum credit requirement for the degree. Specific courses (examples are listed below) are approved by the student's advisor or advisory committee and depend on the student's research area, interests, and goals.

Code	Title	Credits
Graduate Level Coursework		
At least 50% of credits must be with courses designated as graduate level coursework ("Grad 50%" attribute). Examples listed below.		15
Research Credits		
Complete research credits.		6-9
ZOOLOGY 799	Independent Study	
ZOOLOGY 990	Research	
Additional Electives		
Complete additional electives consulted by student's advisor		6
Total Credits		30

Common Graduate Level Courses

Code	Title	Credits
ANTHRO 458	Primate Behavioral Ecology	3
B M I/ COMP SCI 776	Advanced Bioinformatics	3
B M I/STAT 877	Statistical Methods for Molecular Biology	3
BOTANY/ENTOM/ PL PATH 505	Plant-Microbe Interactions: Molecular and Ecological Aspects	3
BOTANY/ PL PATH 563	Phylogenetic Analysis of Molecular Data	3
BOTANY 801	Advanced Plant Community Ecology	4
BOTANY 802	Physiological Plant Ecology	3
BOTANY 860	Plant Cell Biology	2
CRB 640	Fundamentals of Stem Cell and Regenerative Biology	3
CRB 650	Molecular and Cellular Organogenesis	3

ENTOM 321	Physiology of Insects	3	ZOOLOGY/ GEOSCI 542	Invertebrate Paleontology	3
ENTOM/ ZOOLOGY 371	Medical Entomology: Biology of Vector and Vector-borne Diseases	3-4	ZOOLOGY 603	Endocrinology	3-4
ENTOM/ F&W ECOL 711	Multivariate Analysis of Ecological and Community Data	2	ZOOLOGY 604	Computer-based Gene and Disease/Disorder Research Lab	2
ENTOM 901	Seminar in Organismal Entomology	1	ZOOLOGY 620	Neuroethology Seminar	2
F&W ECOL/STAT 571	Statistical Methods for Bioscience I	4	ZOOLOGY/ F&W ECOL 660	Climate Change Ecology	3
F&W ECOL/ STAT 572	Statistical Methods for Bioscience II	4	ZOOLOGY/ BOTANY/ F&W ECOL 672	Historical Ecology	2
GENETICS/ BIOCHEM/ MICROBIO 612	Prokaryotic Molecular Biology	3	ZOOLOGY/ NEURODPT/ PSYCH 674	Behavioral Neuroendocrinology Seminar	2
GENETICS/ BIOCHEM/ MD GENET 620	Eukaryotic Molecular Biology	3	ZOOLOGY/ BOTANY 725	Ecosystem Concepts	3
GENETICS/ENTOM/ ZOOLOGY 624	Molecular Ecology	3	ZOOLOGY/ ATM OCN/ ENVIR ST/ GEOSCI 750	Problems in Oceanography	3
GENETICS/ CHEM 626	Genomic Science	2	ZOOLOGY/ NEURODPT 765	Developmental Neuroscience	3
GENETICS/ BIOCHEM 631	Plant Genetics and Development	3	ZOOLOGY 799	Independent Study	1-6
GENETICS 633	Population Genetics	3	ZOOLOGY 800	Advanced Topics in the Biological Sciences	1-3
GENETICS/CRB 710	Developmental Genetics	3	ZOOLOGY/ BOTANY/ENTOM/ GENETICS 820	Foundations of Evolution	2
GENETICS 885	Advanced Genomic and Proteomic Analysis	3	ZOOLOGY/ BOTANY/ENTOM/ F&W ECOL 821	Foundations of Ecology	2
NEURODPT 629	Molecular and Cellular Mechanisms of Memory	3	ZOOLOGY/ BOTANY 879	Advanced Landscape Ecology	3
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience	4	ZOOLOGY/ AGROECOL/ ATM OCN/BOTANY/ ENTOM/ENVIR ST/ F&W ECOL/ GEOG 953	Introduction to Ecology Research at UW-Madison	1-2
NTP/NEURODPT/ PSYCH 611	Systems Neuroscience	4	ZOOLOGY/AN SCI/ OBS&GYN 954	Seminar in Endocrinology- Reproductive Physiology	0-1
NTP/ NEURODPT 640	Computational Neuroscience: From Single Cells to Whole Brain Models	3	ZOOLOGY 955	Seminar-Limnology	1
NTP 677	Basic Sleep Mechanisms and Sleep Disorders: from Neurobiology to Sleep Medicine	3	ZOOLOGY 956	Seminar-Ecology	1
NTP 701	Experimental Design and Statistical Methodology	1	ZOOLOGY 957	Seminar-Evolution	1
PATH 750	Cellular and Molecular Biology/ Pathology	2	ZOOLOGY 960	Seminar in Cellular Biology	1
PATH 752	Cellular and Molecular Biology/ Pathology Seminar	1	ZOOLOGY 962	Seminar-Ethology	1
PATH 755	Responsible Conduct in Research: Research Ethics, Rigor, Reproducibility and Transparency	2	ZOOLOGY/ ATM OCN/ BOTANY/ENVIR ST/ F&W ECOL/GEOG/ GEOSCI 980	Earth System Science Seminar	1
ZOOLOGY/ BOTANY/ ENTOM 473	Plant-Insect Interactions	3	ZOOLOGY 990	Research	1-9
ZOOLOGY/ BOTANY/ENVIR ST/ F&W ECOL 516	Conservation Biology	3			
ZOOLOGY/AN SCI/ F&W ECOL 520	Ornithology	3			
ZOOLOGY/AN SCI/ F&W ECOL 521	Birds of Southern Wisconsin	3			
ZOOLOGY/ ENTOM 540	Theoretical Ecology	3			