

Biological Sciences - ABM

Accelerated Bachelor's/Master's Curriculum for Biological Sciences - Organismal Biology

The Accelerated Bachelor's/Master's degree program is designed to provide an opportunity for highly motivated students to gain an in-depth understanding of Biological Sciences - Organismal Biology beyond that of typical bachelor's level graduates and make them more competitive for industrial positions or for graduate studies. Specifically, the program allows students to take three 6000 level courses (9 credit hours) that will count for both the bachelor's and master's degrees. The ABM program can be applied towards the thesis option of the BIOL M.S. degree. In addition, the ABM program provides an opportunity for students involved in undergraduate research to build on that research and develop it into an M.S. thesis. The availability of an ABM will be useful in recruiting and attracting highly motivated high school students. Finally, the ABM program allows students to obtain a M.S. degree in 12 - 15 months. Students who are interested in the ABM program are highly encouraged to discuss with the department head or the BIOL Graduate Program Officer

Below is a chart of all the approved courses that can be taken in the ABM program and what course that replaces at the undergraduate level.

Code	Title	Hours
IBIO Pathway:		
BIOL 7540	Professional Aspects of Biology (Replaces 5000 level BIOL elective)	3
BIOL 6XXX/7XXX Eco/Evo/Devo elec. (replaces 5000 level Eco/Evo/Devo elective)		3
BIOL 6XXX/7XXX Physiology elec. (replaces 5000 level Physiology elective)		3
MCMB Pathway:		
BIOL 7540	Professional Aspects of Biology (Replaces 5000 level BIOL elective)	3
BIOL 6210	Microbial Physiology (Replaces BIOL 5210)	3
BIOL 6260	Prokaryotic Molecular Genetics (Replaces BIOL 5260)	3
GENE Pathway:		
BIOL 7540	Professional Aspects of Biology (Replaces 5000 level BIOL elective)	3
BIOL 6330	Developmental Genetics (Replaces BIOL 5330 Developmental Genetics)	3
BIOL 6xxx GENE Supp Elective (replaces BIOL 5xxx GENE Supp Elective)		3

Courses can be substituted by graduate level courses by students enrolled in the ABM program to meet nine undergraduate hours during their senior year and nine graduate hours to be used toward their graduate degree.

Senior Year for Students in ABM Program - Organismal/Integrative Biology (IBIO)

Senior

Fall	Hours	Spring	Hours	Summer	Hours
Core Fine Arts	3	BIOL 4950 Senior Seminar	1	BIOL 7990 Research and Thesis	4
BIOL 6/7xx Eco/Evo/Div Elective	3	Cell/Mol/Microbiology Elective	3		
Cell/Mol/Microbiology Elective	4	BIOL 6/7xxx Physiology Elective	3		
Biology Elective	4	Biology Elective	3		
BIOL 7540 Professional Aspects of Biology	3	BIOL 4980 Undergraduate Research	4		
	17		14		4

Total Hours: 35

Accelerated Master of Science in Biological Sciences

Fifth Year

Fall	Hours	Spring	Hours
BIOL 6/7xxx Elective		4 BIOL 6/7xxx Elective	3
BIOL 6/7xxx Elective		3 BIOL 7960 Special Problems	2
BIOL 7960 Special Problems		2 BIOL 7950 Masters Thesis Seminar	1
BIOL 7990 Research and Thesis		2	
		11	6

Total Hours: 17**Senior Year for Students in ABM Program - Microbial, Cellular, and Molecular Biology (MCMB)****Senior**

Fall	Hours	Spring	Hours	Summer	Hours
BIOL 6260 Prokaryotic Molecular Genetics	3	BIOL 6210 Microbial Physiology	3	BIOL 7990 Research and Thesis	1
BIOL 6521 Gene Expression and Recombinant DNA Laboratory	2	MMCB Elective	3		
BIOL 7540 Professional Aspects of Biology	3	BIOL 4980 Undergraduate Research	2		
CORE SOC SCI or HUM	3	BIOL Elective	3		
CORE HUMANITES	3	CORE SOCIAL SCIENCES	3		
BIOL 4980 Undergraduate Research	2	BIOL 4950 Senior Seminar	1		
		16	15		1

Total Hours: 32**Accelerated Master of Science in Biological Sciences****Fifth Year**

Fall	Hours	Spring	Hours	Summer	Hours
MMCB elective	3	MMCB elective	3	BIOL 7990 Research and Thesis	1
BIOL 6xxx MMCB graduate journal club	2	BIOL 6xxx MMCB graduate journal club	2	BIOL 7950 Masters Thesis Seminar	1
BIOL 7960 Special Problems	2	BIOL 7960 Special Problems	2		
BIOL 7990 Research and Thesis	2	BIOL 7990 Research and Thesis	2		
		9	9		2

Total Hours: 20**Senior Year for Students in ABM Program - Genetics (GENE)**

Senior

Fall	Hours	Spring	Hours	Summer	Hours
GENE CORE Elective	5	BIOL 6330 Developmental Genetics	3	BIOL 7990 Research and Thesis	1
GENE SUPP Elective	5	GENE CORE Elective	3		
CORE HUMANITES	3	GENE SUPP Elective	5		
BIOL 7540 Professional Aspects of Biology	3	BIOL 4950 Senior Seminar	1		
BIOL 4AA0 Professional Development II	0	Free Elective	4		
		UNIV 4AA0 Creed to Succeed	0		
	16		16		1

Total Hours: 33**Accelerated Master of Science in Biological Sciences****Fifth Year**

Fall	Hours	Spring	Hours	Summer	Hours
GENE CCORE elective	3	GENE SUPP Elective	3	BIOL 7990 Research and Thesis	1
BIOL 6xxx graduate journal club	2	BIOL 6xxx graduate journal club	2	BIOL 7950 Masters Thesis Seminar	1
BIOL 7960 Special Problems	2	BIOL 7960 Special Problems	2		
BIOL 7990 Research and Thesis	2	BIOL 7990 Research and Thesis	2		
	9		9		2

Total Hours: 20