

2019-20 GENETICS
College of Agriculture and Life Sciences
Iowa State University

Students must fulfill all area requirements and have **120** credits to graduate. This is a suggested plan of study. Students may need to deviate from this plan to satisfy unmet requirements or to add a minor/double major. We **strongly encourage** student involvement in internships, study abroad, or research opportunities at ISU. These will enhance the program of study but may add credits or time to the degree plan. **Courses in bold are standard choices for that semester.** Please visit the Undergraduate Genetics Major website for details. <http://undergrad.genetics.iastate.edu/information-current-genetics-majors>

Semester 1 Fall		FRESHMAN YEAR		Semester 2 Spring	
Gen 110 – Introduction to Genetics	1	Biology 211 & L – Principles of Biology I & L	4		
Biology 212 & L – Principles of Biology II & L	4	Chemistry 178 & L – General Chemistry II & L	4		
Chemistry 177 & L – General Chemistry I & L	5	Math/Stat choice or Humanities Choice	3-4		
Math/Stat choice or Humanities Choice	3-4	English 250 or Social Sciences Choice	3		
English 150 or 250- Composition I or II	3	Lib 160 – Library (or Semester 1 with 250)	1		
Lib 160 if taking English 250	1	Consider Research	0-2		
	17-18		15-16		

Semester 3 Fall		SOPHOMORE YEAR		Semester 4 Spring	
Biology 313 & L – Principles of Genetics	4	Biology 314 – Principles of Cell Biology	3		
Chemistry 331 & L – Organic Chemistry I & Lab	4	Chemistry 332 & L – Organic Chemistry II & Lab	4		
Speech Communications 212	3	MICRO 302 (recommended), BIOL 315, or Bioinformatics/Genomics Choice	3		
Math/Stat Choice or Social Sciences	3-4	Math/Stat Choice or Social Sciences	3 -4		
		Ethics Choice	3		
	14-15		16 -17		

Summer: Consider Internship, Study Abroad

Semester 5 Fall		JUNIOR YEAR		Semester 6 Spring	
Genetics 409 or 410	3	Genetics 409 or 410	3		
*Physics 111 or 221 – Physics I	5	*Physics 112 or 222– Physics II	5		
*BBMB 404 – Biochemistry I	3	*BBMB 405 – Biochemistry II	3		
MICRO 302, BIOL 315, or Bioinformatics/Genomics Choice	3-4	MICRO 302, BIOL 315, or Bioinformatics/Genomics Choice	3		
U.S. Diversity/Social Sciences Choice	3	Genetics 491 – Seminar (or semester 5)	1		
	17-18		15		

Summer: *Students taking the MCAT need to have completed Biochemistry and Physics by this time. Others can complete Senior year.

Semester 7 Fall		SENIOR YEAR		Semester 8 Spring	
Genetics 462 – Evolutionary Genetics	3	Advanced Science Electives	3-6		
Advanced Science Elective or Statistics 301	3-4	International Perspective/Humanities	3		
Advanced Writing (Engl 302-316)	3	Electives	3-6		
Environmental Awareness Course	3-4				
	12-14		12-15		