2022-23 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

FRESHMAN YEAR

Semester 1 Fall			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**

SOPHOMORE YEAR

Semester 3 Fall			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

JUNIOR YEAR

Semester 5 Fall			Semester 6 Spring	
Genetics 409 (Fall Only)	**3**		**Genetics 410 (Spring Only)**	**3**
***Physics 131X & L or 231X & L – Physics I**	**5**		***Physics 132X & L or 232 & L–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.*

SENIOR YEAR

Semester 7 Fall			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**