

**2022-23 GENETICS**  
**College of Liberal Arts and 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	
<b>Gen 110 – Introduction to Genetics</b>	<b>1</b>	<b>Biology 211 &amp; L – Principles of Biology I &amp; L</b>	<b>4</b>		
<b>Biology 212 &amp; L – Principles of Biology II &amp; L</b>	<b>4</b>	<b>Chemistry 178 &amp; L – General Chemistry II &amp; L</b>	<b>4</b>		
<b>Chemistry 177 &amp; L – General Chemistry I &amp; L</b>	<b>5</b>	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		
	<b>17-18</b>				<b>15-16</b>

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

Summer: Consider Internship, Study Abroad

Semester 5 Fall		JUNIOR YEAR		Semester 6 Spring	
<b>Genetics 409 or 410</b>	<b>3</b>	<b>Genetics 409 or 410</b>	<b>3</b>		
<b>*Physics 131X &amp; L or 231X &amp; L – Physics I</b>	<b>5</b>	<b>*Physics 132X &amp; L or 232 &amp; L–Physics II</b>	<b>5</b>		
<b>*BBMB 404 – Biochemistry I</b>	<b>3</b>	<b>*BBMB 405 – Biochemistry II</b>	<b>3</b>		
<b>MICRO 302, BIOL 315, or Bioinformatics/Genomics Choice</b>	<b>3</b>	<b>MICRO 302, BIOL 315, or Bioinformatics/Genomics Choice</b>	<b>3</b>		
U.S. Diversity/Social Sciences Choice	3	Genetics 491 – Seminar (or semester 5)	1		
	<b>17</b>				<b>15</b>

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	
<b>Genetics 462 – Evolutionary Genetics</b>	<b>3</b>	Advanced Science Elective(s)	3-6		
Advanced Science Elective or Statistics 301	3-4	International Perspective/Humanities	3		
Humanities/Science Bridge	3	Elective or Statistics 301	3-4		
Advanced Writing (Engl 302-316)	3	Social Sciences Choice or Elective	3		
Electives	0-3				
	<b>15-16</b>				<b>12-16</b>