Genetics Transfer Plan, College of Agriculture and Life Sciences
Equivalency with Iowa Western Community College

First Semester

Course Title (IWCC)	IWCC	ISU	Credits
English Composition I	ENG 105	ENGL 150	3
General Biology I	BIO 112	BIOL 211	3
General Biology I Lab		BIOL 211L	1
General Chemistry I	CHM 166	CHEM 177	4
General Chemistry I Lab		CHEM 177L	1
Statistics	MAT 156	STAT 104	3
OR Calculus I	MAT 211	MATH 165	5
			15-17

Second Semester

Course Title (IWCC)	IWCC	ISU	Credits
English Composition II	ENG 106 or 205	ENGL 250	3
General Biology II	BIO 113	BIOL 212	3
General Biology II Lab		BIOL 212L	1
General Chemistry II	CHM 176	CHEM 178	4
General Chemistry II Lab		CHEM 178L	1
Humanities or Social Science	See details below		3
OR Calculus II	MAT 217	MATH 166	5
			15-17

Third Semester

Course Title (IWCC)	IWCC	ISU	Credits
Humanities or Social Science	See details below		3
General Physics I Lecture	PHY 156		
AND General Physics I Lab	PHY 157	PHYS 111	5
Organic Chemistry I	CHM 263	CHEM 331	3
Organic Chemistry I Lab		CHEM 333L	2
Public Speaking	SPC 113	SP CM 212	3
			16

Fourth Semester

Course Title (IWCC)	IWCC	ISU	Credits
Ethics Course	See details below		3
General Physics II Lecture	PHY 158		
AND General Physics II Lab	PHY 159	PHYS 112	5
Organic Chemistry II	CHM 273	CHEM 332	3
Organic Chemistry II Lab		CHEM 334L	2
International Perspective	See details below		3
			16

The Genetics major requires completion of two semesters **with labs** of each of the following sciences: **General Biology, General Chemistry, Organic Chemistry, and Physics**. At ISU, the labs are included in Phys 111/112 while the Biology and Chemistry labs are designated as "L". Two credit organic chemistry labs transfer as Chem 333L and 334L which will be substituted for the one credit 331L and 332L required by the major. The Genetics major also requires completion of **either two semesters of Calculus and one semester of Statistics or two semesters of Statistics and one semester of Calculus**. **Students should plan to take both semesters of any two-**

semester sequence of courses at the same institution because each institution distributes the course material differently between courses in a sequence. For example, students taking Biology at IWCC should take both BIO 112 and 113 to receive credits for Biology 211/L and 212/L. When taken singly, the courses are not equivalent, however when taken as a series the courses are deemed equivalent to 211/212.
This transfer plan differs from what ISU Genetics majors typically take primarily in the following: Genetics and Molecular Cell Biology courses are taken during the third and fourth semesters and Physics I and II during the fifth and sixth semesters.

General Education Requirements
Typical courses that fulfill the College of Agriculture and Life Sciences requirements for Humanities, Social Sciences, Ethics, and the University International Perspectives and US Diversity requirements are listed below. Other courses may apply; contact an advisor in Genetics at ISU or use the TRANSIT function on Iowa State's website: https://transit.iastate.edu/ to check individual course equivalencies.

Humanities (need 1 course, 3 cr)
- Courses from History such as IWCC HIS 110, 111, 151, 152
- Courses from Humanities such as IWCC MUS 100
- Courses from Literature such as IWCC LIT 110, 111, 225, 235

Social Sciences (need 1 course, 3 cr)
- Courses from Political Science such as IWCC POL 111, 121
- Courses from Psychology such as IWCC PSY 111, 151, 251
- Courses from Sociology such as IWCC SOC 110, 115, 120, 230

Ethics (need 1 course, 3 cr)
- Philosophy IWCC PHL 105

ISU International Perspectives requirement (need 1 course, 3 cr)
- Religion IWCC REL 101
- History IWCC HIS 110, 111

US Diversity (need 1 course, 3 cr)
- Sociology IWCC SOC 235; Education IWCC EDU235; Psychology IWCC PSY 261

For a full list of IWCC courses which transfer to ISU see the Iowa State University Admissions web page: http://www.admissions.iastate.edu/equiv/iowa.php?type=transfer

This guide was developed to assist students planning to attend Iowa State University to major in Genetics in the College of Agriculture and Life Sciences. The equivalency table is based on the ISU 2014-15 Catalog and course equivalencies provided by the ISU Admissions office. Students should contact Dr. Lois Girton, Genetics advising coordinator (lgirton@iastate.edu or 515-294-0616), for more assistance. Students should also plan to visit with an advisor in Genetics at ISU prior to beginning their second year of studies, or earlier.