Genetics Transfer Plan, College of Agriculture and Life Sciences
Equivalency with Iowa Valley Community College District
(Ellsworth, Grinnell, and Marshalltown Community Colleges)

First Semester

Course Title (IVCCD)	IVCCD	ISU	Credits
English Composition I	ENG 105	ENGL 150	3
General Biology I	BIO 112	BIOL 211	3
General Biology II Lab		BIOL 211L	1
General Chemistry I	CHM 165	CHEM 177	3
General Chemistry I Lab		CHEM 177L	1
Statistics I	MAT 156	STAT 104	3
OR Calculus I	MAT 210	MATH 165	4
			14-15

Second Semester

Course Title (IVCCD)	IVCCD	ISU	Credits
English Composition II	ENG 106	ENGL 250	3
General Biology II	BIO 113	BIOL 212	3
General Biology II Lab		BIOL 212L	1
General Chemistry II	CHM 175	CHEM 178	3
General Chemistry II Lab		CHEM 178L	1
Humanities or Social Science	See details below		3
OR Calculus II	MAT 216	MATH 166	4
			14-15

Third Semester

Course Title (IVCCD)	IVCCD	ISU	Credits
Humanities or Social Science	See details below		3
College Physics I	PHY 162	PHYS 111	4
Organic Chemistry I	CHM 261	CHEM 331	3
Organic Chemistry I Lab		CHEM 331L	1
Principles of Speech	SPC 112	SP CM 212	3
			14

Fourth Semester

Course Title (IVCCD)	IVCCD	ISU	Credits
Ethics Course	See details below		3
College Physics II	PHY 172	PHYS 112	4
Organic Chemistry II	CHM 271	CHEM 332	3
Organic Chemistry II Lab		CHEM 332L	1
International Perspective	See details below		3
			14

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 IVCC 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 IVCCD HIS 112, 113, 151, 152
- Courses from Humanities such as IVCCD MUS 100
- Courses from Literature such as IVCCD EDU 235; LIT 101

Social Sciences (need 1 course, 3 cr)
- Courses from Political Science such as IVCCD POL 111
- Courses from Psychology such as IVCCD EDU 160; PSY 111, 251; SDV 111
- Courses from Sociology such as IVCCD SOC 110, 115, 120

Ethics (need 1 course, 3 cr)
- Philosophy IVCCD PHIL 105

ISU International Perspectives requirement (need 1 course, 3 cr)
- Religion IVCCD REL 101
- History IVCCD HIS 112, 113

ISU US Diversity requirement (need 1 course, 3 cr)
- Sociology IVCCD SOC 115; Education IVCCD EDU 235

For a full list of IVCCD 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.