

**Genetics Transfer Plan, College of Liberal Arts and Sciences  
Equivalency with Iowa Valley Community College District  
(Ellsworth 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
<b>OR</b> 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
<b>OR</b> Calculus II	MAT 216	MATH 166	4
			14-15

**Third Semester**

Course Title (IVCCD)	IVCCD	ISU	Credits
Humanities	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
Social Science	See details below		3
			14

**Fourth Semester**

Course Title (IVCCD)	IVCCD	ISU	Credits
Introduction to Ethics	PHI 105	PHIL 230	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". The Genetics major also requires completion of **either two semesters of Calculus and one semester of Statistics or two semesters of Statistics (one at the 300 level) 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. **Students taking Biology at IVCC must 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 Liberal Arts and Sciences requirements for Humanities and Social Sciences 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 4 courses, 12 cr, including one Science/Humanities Bridge course)

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

Science/Humanities Bridge course PHI 105

Social Sciences (need 3 courses, 9 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

ISU International Perspectives requirement (need 1 course, 3 cr)

IVCCD Religion REL 100 Survey of World Religions

IVCCD History 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 Liberal Arts and Sciences. The equivalency table is based on the ISU 2019-20 Catalog and course equivalencies provided by the ISU Admissions office. Students should contact Dr. Lois Girton, Genetics advising coordinator ([lgirton@iastate.edu](mailto: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.***