Genetics Transfer Plan, College of Agriculture and Life Sciences
Equivalency with Des Moines Area Community College

First Semester

Course Title (DMACC)	DMACC	ISU	Credits
Composition I	ENGL 105	ENGL 150	3
Principles of Biology I **(see note below)**	BIOL 112	BIOL 211/212	3
Principles of Biology I Lab		lab	1
General/Inorganic Chemistry I	CHM 165	CHEM 177	4
General/Inorganic Chemistry I Lab		CHEM 177L	1
Elementary Statistics	MAT 157	STAT 101	4
OR Calculus I	MAT 211	MATH 165	4
			16

Second Semester

Course Title (DMACC)	DMACC	ISU	Credits
Composition II	ENGL 106	ENGL 250	3
Principles of Biology II **(see note below)**	BIOL 113	BIOL 211/212	3
Principles of Biology II Lab		lab	1
General/Inorganic Chemistry II	CHM 175	CHEM 178	3
General/Inorganic Chemistry II Lab		CHEM 178L	1
Humanities or Social Science	See details below		3
OR Calculus II	MAT 217	MATH 166	4
			13-14

Third Semester

Course Title (DMACC)	DMACC	ISU	Credits
Humanities or Social Science	See details below		3
College Physics I (lab included)	PHY 162	PHYS 111	4
Organic Chemistry I	CHM 263	CHEM 331	3
Organic Chemistry I Lab		CHEM 333L	2
Fundamentals of Speech	SPC 101		
OR Public Communication	SPC 111	SP CM 212	3
			15

Fourth Semester

Course Title (DMACC)	DMACC	ISU	Credits
Ethics Course	See details below		3
College Physics II (lab included)	PHY 172	PHYS 112	4
Organic Chemistry II	CHM 273	CHEM 332	3
Organic Chemistry II Lab		CHEM 334L	2
International Perspective	See details below		3
			15

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 DMACC should take both Biol 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 112/113 is equivalent to 211/L and 212/L.

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 DMACC HIS 112, 113, 150, 153, 201, 216, 257, 266, 280
- Courses from Humanities such as DMACC HUM 116, 120, 121, 249
- Courses from Literature such as DMACC LIT 101, 105, 110, 111, 130, 142, 150, 151, 166, 180, 185, 188, 190, 193

Social Sciences (need 1 course, 3 cr)
- Courses from Political Science such as DMACC POL 111, 112, 121
- Courses from Psychology such as DMACC PSY 111, 121, 241, 251, 261, 281
- Courses from Sociology such as DMACC SOC 110, 115, 120, 200

Ethics (need 1 course, 3 cr)
- Philosophy DMACC PHI 105

ISU International Perspectives requirement (need 1 course, 3 cr)
- History DMACC HIS 112, 113; Music DMACC MUS 100

ISU US Diversity requirement (need 1 course, 3 cr)
- Sociology DMACC SOC 115; Literature DMACC LIT 105; Psychology DMACC PSY 261

For a full list of DMACC courses that 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.