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 NEICC 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/](https://transit.iastate.edu/) to check individual course equivalencies.

**Humanities (need 1 course, 3 cr)**
- Courses from History such as NEICC HIS 131, 132, 151, 152
- Courses from Literature such as NEICC EDU 235, LIT 101, 227, 228

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

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

**ISU International Perspectives requirement (need 1 course, 3 cr)**
- History NEICC HIS 131, 132

**ISU US Diversity requirement (need 1 course, 3 cr)**
- Courses from Sociology such as NEICC SOC 115, 261; Education NEICC EDU 235

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