Advising for the Biology and Biochemistry Pre-major (6/2013)

Policy: Pre-major students must have a C+ or better average in their **first two REQUIRED Biology lecture courses at SUNY Geneseo** to be admitted to the Biology or Biochemistry major. The required courses for the Biology major are BIOL117 (Cells, Genetics, Evolution, typical freshman course), BIOL119 (Diversity, Physiology, and Ecology, typical freshman course), BIOL203 (Principles of Ecology, typical sophomore course), BIOL222 (Principles of Genetics, typical sophomore course), and BIOL300 (Cell Biology, sophomore or junior course). The Biochemistry students do not need to take BIOL203 (it does count as an elective for this program) and the required courses are 117, 119, 222, 300.

Course selection for freshman pre-major student without AP credit for 117/119: These students should take BIOL117 in the fall and BIOL119 in the spring. If there is evidence that the student is not prepared to succeed, a student could take BIOL105/106 (Contemporary Biology and laboratory) their first fall. We are restructuring the course to serve as an introduction to biology and to studying science at the college level. This course does NOT count towards the major and its grade will NOT be used to determine if a student has attained a C+ average. BIOL 105/106 does serve as a Natural Science Core class. Students who do well (A, A-, B+) in the course will be allowed to take BIOL 119 in the spring, allowing them to only be one semester behind compared to a typical pre-biology major. Students who do less well should wait until their sophomore year and start with BIOL 117 OR choose to pursue a major other than biology. Students who start with BIOL 117/119 in their sophomore year and do attain a C+ average CAN complete the biology degree in four years.

Course selection for freshman pre-major student with AP credit for 117/119 (i.e. an AP score of 5) have several options. They could:

- re-take BIOL117 and BIOL119. They would lose their AP credit but achieving a C+ average in BIOL 117/119 may be easier than in the next two required courses, BIOL 203 (Principles of Ecology) and BIOL 222. (Genetics). Another advantage is they will be with their peers and get to meet Biology faculty right away.
- Accept the credit, thereby making their grades in BIOL 203/222 be the ones used to determine if they are going on in the biology major. They should take general biology laboratory (BIOL 116) in the fall and BIOL 203 (Principles of Ecology) in the spring. Since BIOL 222 requires Organic Chemistry as a pre/co-requisite they could not take it their freshman year; consequently they could not move out of pre-major status until after the fall of their sophomore year.
- re-take BIOL 117 in the fall and use their AP credit only to cover for BIOL119, allowing them to take BIOL 203 in the spring and having the grades in 117 and 203 count for achieving the C+ average.

Transfer pre-Biology students planning to become Biology majors generally should continue in the required course sequence of 117→119→203 or 222→203 or 222→300, with the first two courses taken here being considered towards the C+ or better requirement. For students with 117 and 119 credit BIOL 203 (Ecology) is probably an easier place to start than BIOL222 (Genetics), and it does not have a co/prerequisite of Organic Chemistry. If a student has not excelled in their introductory biology courses (lower than a B), especially if they were taken at a community college, a good course selection might be outside of the required course sequence, e.g. a 200-level, elective course [such as BIOL 215 (Plant Diversity), BIOL 235 (Disease and the Developing World), BIOL 241 (Biology of Invertebrates), or BIOL 242 (Biology of Vertebrates)] because these courses count towards the major but if their grade is below C+ their ability to go into the biology major is not hindered.

Transfer pre-Biology students planning to become Biochemistry majors? The required course sequence is 117→119→222→300. However, for many students who have taken introductory biology

(equivalents to 117 and 119) elsewhere, going into BIOL 222 (genetics) is a tough start, especially since they generally would be taking organic chemistry at the same time. A safe choice for these students might be to schedule BIOL 203 (Principles of Ecology), which is NOT a required course, and therefore its grade is NOT used in determining if a student can be admitted into the major, but it does count as a Biochemistry elective.