TEACHER CERTIFICATION IN BIOLOGY

Student Learning Outcomes
Students who complete a teacher certification in biology will be able to:

1. Identify fundamental concepts in the biological sciences, including
   a. the relationship between structure and function at all levels of biological organization,
   b. evolution and the role of natural selection in the process,
   c. ecological relationships between organisms and their environment.
2. Describe cellular structure and explain the major biochemical processes that occur in cells.
3. Describe and explain the mechanisms of heredity and the flow of genetic information.
4. Apply knowledge in basic mathematics, chemistry, and physics to solve biological problems.
5. Employ techniques and procedures commonly used in modern biology laboratories.
6. Analyze and critically evaluate scientific data.
7. Write clearly about topics in the biological sciences for a peer or professional audience.

Program Requirements
Certification as a middle school (grades 5-9) or secondary (grades 9-12) Biology teacher in either Kansas or Missouri requires that a student complete specific requirements in Biology, Chemistry, Environmental Science, Geology, Physics and the School of Education. A separate application for teacher education is required. For further information about the program, consult the School of Education section (http://catalog.umkc.edu/colleges-schools/education) of this catalog or contact the Education Student Services Office at (816) 235-2234.