

## Content Area Guidelines for M.Ed Secondary Education: Teaching – Biology

This worksheet describes expectations for admission to the program and is an optional attachment to submit with your application. Applicants can use this form to understand the content area requirements for Biology and get a sense of where they stand. Faculty will evaluate applications to determine an admissions decision based on the criteria below. It is possible that some candidates will be admitted conditionally pending the completion of additional courses. Passing the Praxis II Biology (5236) exam is required to begin coursework.

### I. REQUIRED CREDITS AND GPA IN BIOLOGY

An undergraduate major in Biology or related major (Biochemistry, Environmental Science) is preferred although not required. Submitted transcripts must include at least 30 credits in Biology and sciences coursework, with a minimum content area GPA of 3.0 (courses outside content area can be excluded from GPA calculation). Use the table to list out the number of Biology and science courses taken and a total credit count:

| COURSE CODE AND TITLE  | UNIVERSITY/COLLEGE    | CREDIT AMOUNT: | GRADE EARNED: |
|--|-----------------------|----------------|---------------|
| <i>BIO 123—Biology Example</i>                                 | <i>XYZ University</i> | <i>3</i>       | <i>A</i>      |
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| <b>TOTAL NUMBER OF CREDITS IN BIOLOGY AND SCIENCE COURSES:</b> |                       |                |               |

### II. CONTENT COMPETENCIES

Biology courses also need to cover certain content areas in the field. Courses must cover the topics listed in the table below. It may be possible that some courses on an applicant’s transcript cover more than one topic.

| REQUIRED CONTENT COMPETENCY                 | CODE AND TITLE OF COURSE(S) SATISFYING COMPETENCY |
|---|---|
| <b>FOUNDATIONAL BIOLOGY (6 CREDITS)</b>     |   |
| <b>GENERAL CHEMISTRY</b>                    |   |
| <b>ORGANIC CHEMISTRY</b>                    |   |
| <b>PRECALCULUS, CALCULUS, OR STATISTICS</b> |   |
| <b>PHYSICS</b>                              |   |
| <b>MOLECULAR OR CELL BIOLOGY</b>            |   |
| <b>GENETICS</b>                             |   |
| <b>BIOCHEMISTRY</b>                         |   |

|   |  |
|---|--|
| <b>EVOLUTIONARY BIOLOGY</b>             |  |
| <b>ENVIRONMENTAL BIOLOGY OR ECOLOGY</b> |  |

If any competencies, total credits needed, or the GPA minimum are deficient, applicants are encouraged to take college level courses to start satisfying these requirements to help strengthen their application.

**III. PROFESSIONAL EXPERIENCE**

The PA Department of Education also allows KU to consider professional experience (such as work in industry or in schools) as an aspect of an applicant's content preparation to offset requirements listed above. If an applicant would like us to consider this in their application, they can submit a few paragraphs in the box below that describe 1) the nature of the professional experience and how it relates to Biology and 2) the total years worked in the profession.