

**Bachelor of Science in Education (BSE) 2023-24 AY****Chemistry (9-12)****Major Code ES04****CIP Code: 131205****Cr Hrs**

|   |   |           |
|---|---|-----------|
| <b>General Education CORE 42 Requirements 42*</b>   |   | <b>26</b> |
| Area 1A   | Social & Behavioral Sciences (PSY 100)          | 3         |
| Area 1B   | Civic Engagement                                | 3         |
| Area 2A   | Written Communication                           | 6         |
| Area 2B   | Oral Communication                              | 3         |
| Area 3A   | Natural Science Non-Lab (BIO 102 or CHEM 140)   | 0         |
| Area 3B   | Natural science With Lab (PHYS 270 or GEOL 120) | 0         |
| Area 4  | Mathematics (MATH 150)                          | 0         |
| Area 5A   | Humanities                                      | 6         |
| Area 5B   | Fine Arts                                       | 3         |
| Area 5C   | Global Competencies(EDUC 280)                   | 0         |
| Area 5D   | Health and Wellness                             | 2         |
| <b>UE 100</b>                                       | <b>University Experience**</b>                  | <b>1</b>  |
| <b>Supporting Requirements (C or better)</b>        |   | <b>20</b> |
| EDUC 100  | Introduction to Teacher Education I             | 3         |
| MATH 150  | Calculus and Analytical Geometry I*             | 5         |
| MATH 250  | Calculus with Analytical Geometry II            | 4         |
| PHYS 290  | General Physics II                              | 4         |
| PHYS 291  | General Physics II Lab                          | 1         |
| PSY 100   | General Psychology*                             | 3         |
| <b>Professional Education (3.0 GPA/C or better)</b> |   | <b>34</b> |
| EDUC 280  | Education in a Global Society*                  | 3         |
| EDUC 302  | Exceptional Child                               | 3         |
| EDUC 321  | Microteaching#                                  | 1         |
| EDUC 329  | Pedagogical Theory, Methods & Practices#        | 4         |
| EDUC 333  | Teaching Science in Secondary Schools           | 3         |
| EDUC 422  | Content Area Literacy I:Sec/Mid School          | 3         |
| EDUC 423  | Classroom Management#                           | 3         |
| EDUC 424  | Content Area Literacy II: Sec/Mid School        | 3         |
| EDUC 429  | Assessment of Student Learning                  | 3         |
| EDUC 432  | Critical Issues                                 | 2         |
| EDUC 435  | Equity, Diversity, and Inclusion ...            | 3         |
| PSY 310   | Educational Psychology                          | 3         |
| <b>Content Knowledge (3.0 GPA/C or better)</b>      |   | <b>49</b> |
| BIO 102   | General Biology*                                | 3         |
| CHEM 140  | General Chemistry I*                            | 3         |
| CHEM 141  | General Chemistry I Lab*                        | 1         |
| CHEM 142  | General Chemistry II                            | 5         |
| CHEM 201  | Analytical Chemistry                            | 5         |
| CHEM 301  | Organic Chemistry I                             | 5         |
| CHEM 302  | Organic Chemistry II                            | 5         |
| CHEM 350  | Biochemistry I                                  | 3         |
| CHEM 400  | Elementary Physical Chemistry                   | 4         |
| CHEM 431  | Chemistry Lab Asst. Practicum                   | 1         |
| GEOL 120  | Introduction to Geology*                        | 4         |
| GEOL 300  | Environmental Geology                           | 3         |
| PHIL 420  | Philosophy of Science                           | 3         |
| PHYS 270  | General Physics I*                              | 4         |

|  |   |            |
|--|---|------------|
| <b>Field &amp; Clinical Experience (3.0 GPA/C or better)</b> |   | <b>10</b>  |
| EDUC 462   | Student Teaching                                | 10         |
| <b>Testing</b>   | <b>Passing Score of 220</b>                     |            |
| MoCA   | Missouri Content Assessment                     |            |
| <b>Total Hours</b>   | Must include at 39 upper division (300-400) hrs | <b>140</b> |

\*Gen. Ed. Core 42 Requirements: Area 1A 3 hrs met by PSY 100, Area 3A&B met by BIO 102 or CHEM 140 and PHYS 270 or GEOL 120 (6 hrs), Area 4 met by MATH 150, Area 5C met by EDUC 280 or IB 310(3 hrs)

ENG 250 suggested for 3 hrs of Area 5A

# Junior Block courses