Candidates also complete a secondary education professional program. Endorsement courses require a cumulative GPA of 2.5 or better and a grade of C (2.0) or better for individual courses. Course substitutions must be clearly noted below.

Chemistry and Physics (94-114 Credits)

- **ASTR 315** - The Solar System (3)

- **Choose either:**
  - **CHEM 161** - General Chemistry I (5)
  - **CHEM 162** - General Chemistry II (5)
  - **CHEM 163** - General Chemistry III (4)
  - **CHEM 333** - Analytical Chemistry (5)
  or
  - **CHEM 125** - General Chemistry I, Honors (5)
  - **CHEM 126** - General Chemistry II, Honors (5)
  - **CHEM 225** - General Chemistry III, Honors (5)

- **CHEM 461** - Physical Chemistry (4)

- **CHEM 462** - Physical Chemistry (4)

- **Choose either option A or B:**
  **Option A:**
  - **CHEM 251** - Elementary Organic Chemistry (5)
  - **CHEM 375** - Elements of Biochemistry (4)

  **Option B:**
  - **CHEM 351** - Organic Chemistry (4)
  - **CHEM 352** - Organic Chemistry (4)
  - **CHEM 353** - Organic Chemistry (3)
  - **CHEM 354** - Organic Chemistry Laboratory I (3)
  - **CHEM 375** - Elements of Biochemistry (4) (or the following):
    - **CHEM 471** - Biochemistry I (4)
    - **CHEM 472** - Biochemistry II (4)
    - **CHEM 473** - Molecular Biology (3)

- **Choose either:**
  - **MATH 124** - Calculus and Analytic Geometry I (5) and
  - **MATH 125** - Calculus and Analytic Geometry II (5)
  or
  - **MATH 134** - Calculus I Honors (5) and
  - **MATH 135** - Calculus II Honors (5)
  or
  - **MATH 138** - Accelerated Calculus (5)

- **MATH 224** - Multivariable Calculus and Geometry I (5)

- **PHYS 161** - Physics with Calculus I (5)

- **PHYS 162** - Physics with Calculus II (5)

- **PHYS 163** - Physics with Calculus III (5)

- **PHYS 220** - Physics with Calculus IV (4)

- **PHYS 224** - Modern Physics I (3)

- **PHYS 225** - Modern Physics II (3)

- **PHYS 326** - Tools and Data Analysis (3)

- **SCED 370** - Science and Society (3)

- **SCED 481** - Fundamentals of Teaching Science (2)

- **SCED 491** - Methods in Secondary Education for Science Teachers (5)

- **6 additional credits of upper-division physics or astronomy to include 2-3 credits of PHYS 491 - Independent Research**

- **NES Chemistry Test Code 306**

- **NES Physics Test Code 308**

Outstanding Courses: