Adolescent Young Adult (7-12): Physical Sciences—Chemistry

Program Requirements

General Ed: Satisfactory completion of all general education requirements.
Major: Satisfactory completion of a B. A. in Chemistry (41 credits) plus coursework in additional areas for a total of 69 credits.
Education: Satisfactory completion of a minor in education (36 credits) as described below. Prior to being admitted to the Teacher Education Program, the student must demonstrate Math competency by earning a grade of C- or higher in a 4-credit course that fulfills the general education quantitative reasoning requirement. (Course designated with a “Q”)

Requirements for AYA Licensure
All courses must be passed with a grade of C- or above. See the Academic Catalog for additional requirements for admission and continuation in the program. Courses may not be offered every year. Check the department schedules for course offerings.

Students are required to complete a capstone assessment, the edTPA (Education Teacher Performance Assessment), during their Student Teaching Seminar (EDUC 496) and earn a C- or higher in the course.

Required in Education

Entry-Level Courses (Taken prior to application for teacher candidacy)

____ EDUC 103S Sociological Perspectives in Education (4)*
or EDUC 104R Philosophical Perspectives in Education (4)*
____ EDUC 105 Educational Psychology (2)
____ EDUC 120 Introduction to Students with Special Needs (2) (Taken concurrently with EDUC 105)
____ EDUC 213 Adolescent Development and Education (4)*

Advanced Courses (Taken following admission to teacher candidacy)

____ EDUC 312 Reading & Writing in the Content Areas (3) (Spring Only)*
____ EDUC 313 Practicum: Literacy (1)
____ EDUC 332 Assessment and Inclusion (4)
____ EDUC 348 Teaching Science in Secondary Schools (3) (Fall Odd Years)
____ EDUC 388 Science Practicum (1) (Fall Odd Years)

Student Teaching

Application for permission to student teach must be submitted early spring term of junior year. Other coursework, if taken, must be scheduled for late afternoon or evenings during the term.

____ EDUC 495 Student Teaching (10)
____ EDUC 496 Student Teaching Seminar (2)*

Additional Requirement for Adolescent Young Adult Licensure

____ Successful completion of the required licensure examinations.

*These courses are Writing Intensive.
**Required in Chemistry** 41 Credits

- Chem 121 Models of Chemical Systems I (5)
- Chem 162 Models of Chemical Systems II (5)
- Chem 201 Introduction to Organic Chemistry (5)
- Chem 271 Principles of Biochemistry (4)
- Chem 281 Analytical Chemistry (5)
- Chem 300 Junior Seminar (1)
- Chem 302 Intermediate Organic Chemistry (5)
- Chem 311 Thermodynamics and Kinetics (5)
- Chem 321 Inorganic Chemistry (5)
- Chem 400 Senior Seminar (1)

**Required in Math** (8)

- Math 201 Calculus I (4)
- Math 202 Calculus II (4)

**Required in Physics** (10)

- Phys 200 Mechanics and Waves (5)
- Phys 218 Introductory Electromagnetism (5)
  OR
- Phys 205 Topics in Classical and Modern Physics (5)

**Required in Biology** (5)

- Biol 170 Concepts of Biology: Biological Information, Reproduction and Evolution (5)
  OR
- Biol 180 Concepts of Biology: Energy and Resources in Biology (5)

**Required in Geology** (5)

- Geol 150 Physical Geology (5)

**Note:** Any change(s) in this program of study must be approved by the Chairperson of the major department and the Director of Assessment and Licensure, Wittenberg University.