BACHELOR OF SCIENCE IN EDUCATION DEGREE IN SECONDARY EDUCATION - CHEMISTRY

Additional Graduation Requirements (https://catalog.una.edu/undergraduate/academic-procedures-requirements/graduation-requirements/)

Code	Title	Hours
General Education Component: Chemistry		
Area I (Written Composition)		6
EN 111	First-Year Composition I	
EN 112	First Year Composition II	
Area II (Humanities and Fine Arts)		12
Two literature courses in sequence (EN 211/EN 212, EN 221/EN 222, EN 231/EN 232) or one literature course and one additional humanities elective		
One Humanities or Fine Arts Elective		
COM 201	Fundamentals of Speech	
Area III (Natural Sciences and Mathematics)		11-12
CH 111	General Chemistry	
CH 111L	General Chemistry Laboratory	
CH 112	General Chemistry	
CH 112L	General Chemistry Laboratory	
MA 112	College Algebra	
or MA 125	Calculus I	
Area IV (History, Social and Behavioral Sciences)		12
ED 299	Human Growth and Development [1]	
Area V (https://www.una.edu/areav/)		17-19
PH 251	Technical Physics I	
PH 252	Technical Physics II	
One course chosen from the following:		
CIS 125	Business Applications of Microcomputer Software	
CS 135	Computer Skills for Problem-Solving	
CS 155	Computer Science I	
Math sequence chosen from the following:		
MA 126	Calculus II (or)	
MA 121 & MA 122	Calculus for Business and Life Sciences I and Calculus for Business and Life Sciences II	
Professional Education Secondary: Chemistry (Grades 6-12)		
Note: ASBI/FBI background clearance is a prerequisite for all Professional Education Courses.		
ED 292	Preprofessional Seminar and Laboratory Experience	1
ED 381	Instructional Technology for the High School	3
ED 375	Content Literacy	3
EEX 340	Introduction to Students with Exceptional Learning Needs	3
ED 333W	Learning Theories and Student Development	3
ED 382	Classroom Management for Diverse Learning Environments and Communities	3
ED 401	Evaluation of Teaching and Learning	3
ED 477	Curriculum and Teaching	4
ED 480	Teaching Science in the Secondary Schools	3
ED 482	High School Student Internship	12
Alabama State Board of Education Approved Teaching Field: Chemistry		
CH 311	Organic Chemistry	4
CH 311L	Organic Chemistry Laboratory	1
CH 312	Organic Chemistry	4
CH 312L	Organic Chemistry Laboratory	1
CH 321	Quantitative Analysis	3
CH 321LW	Quantitative Analysis Laboratory	2
CH 322	Instrumental Analysis	3
CH 322LW	Instrumental Analysis Laboratory	2
CH 381	Physical Chemistry	4
CH 381L	Physical Chemistry Laboratory	1
Total Hours		**121-123**

[1] The CLEP examination may be taken for this course

Notes:

- Candidates may take the following professional education courses prior to admission to TEP. Preprofessional Seminar and Laboratory Experience (ED 292), Content Literacy (ED 375), Instructional Technology for the High School (ED 381), Introduction to Students with Exceptional Learning Needs (EEX 340), and a content methods course.
- Courses that are taken to fulfill general education requirements which are also included in a teaching field may count in both areas.
- Candidates who plan to seek certification in another state should contact the State Department of Education in that state to find out whether or not a comparable certificate exists in that state.
- All requirements must be completed with a minimum of 120 credit hours.